

J. F. ANDERSON.  
WRENCH.  
APPLICATION FILED DEC. 8, 1909.

978,827.

Patented Dec. 20, 1910.

FIG. 6

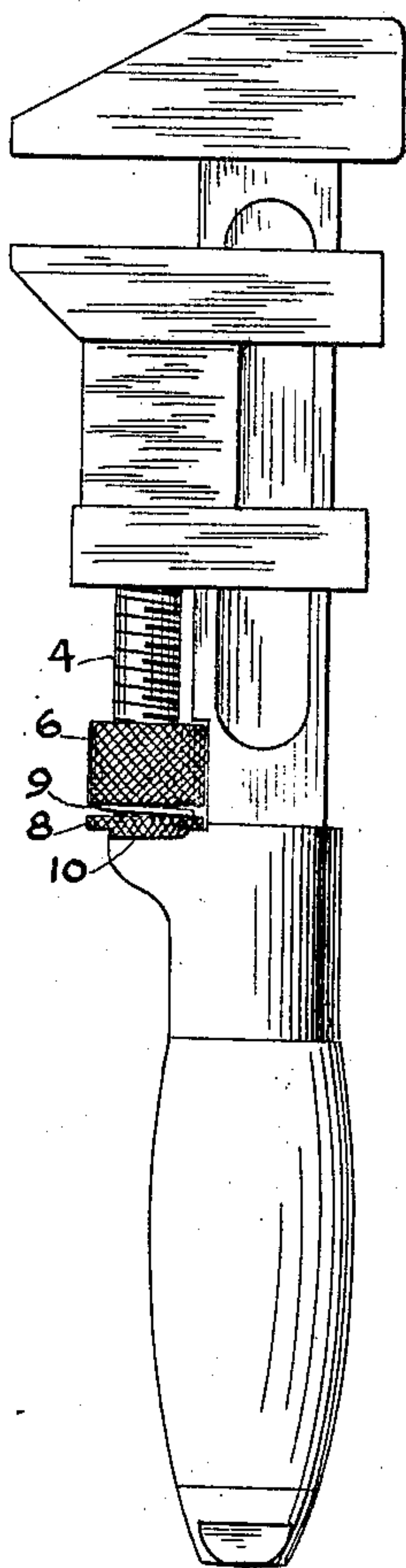


FIG. 1

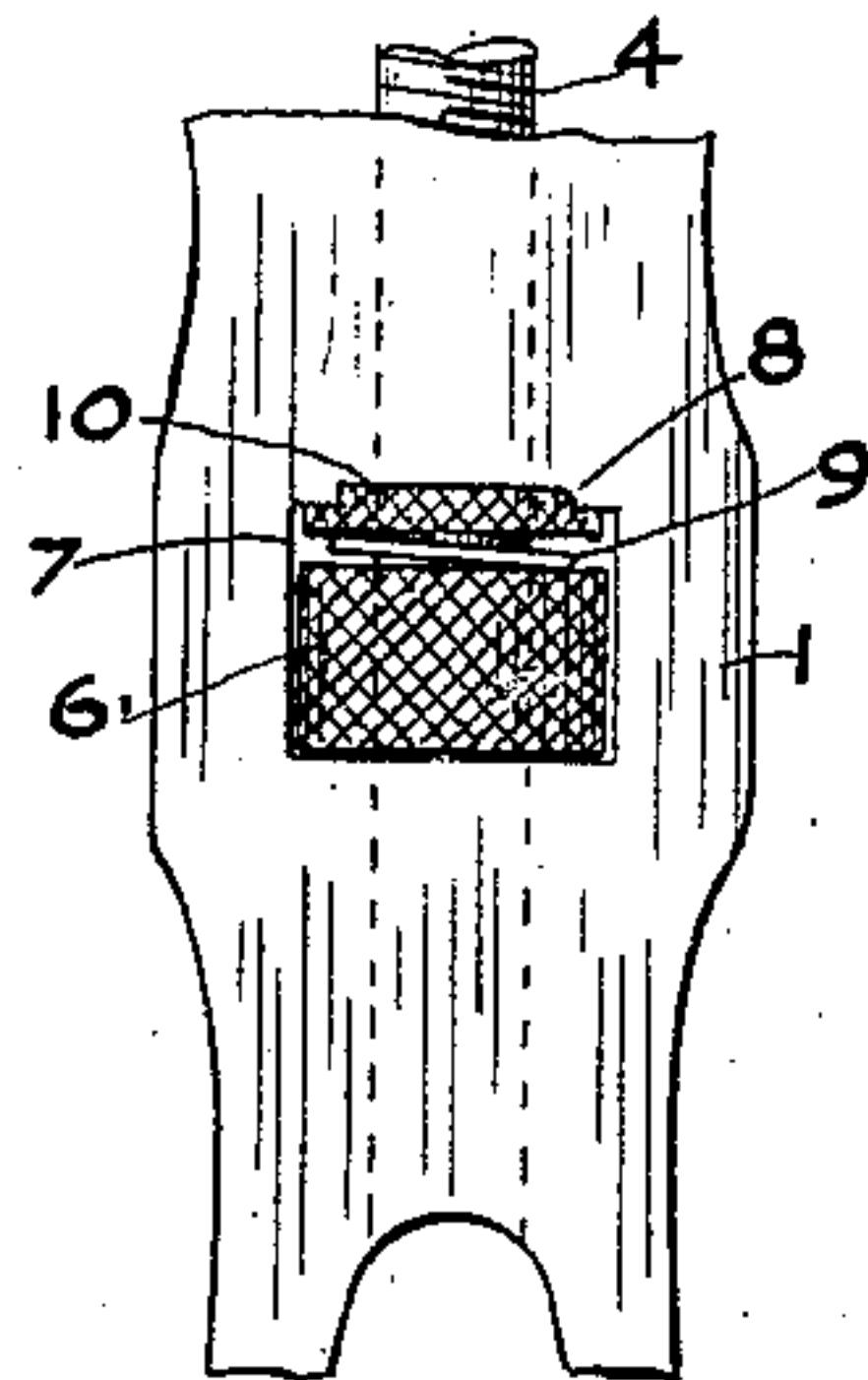
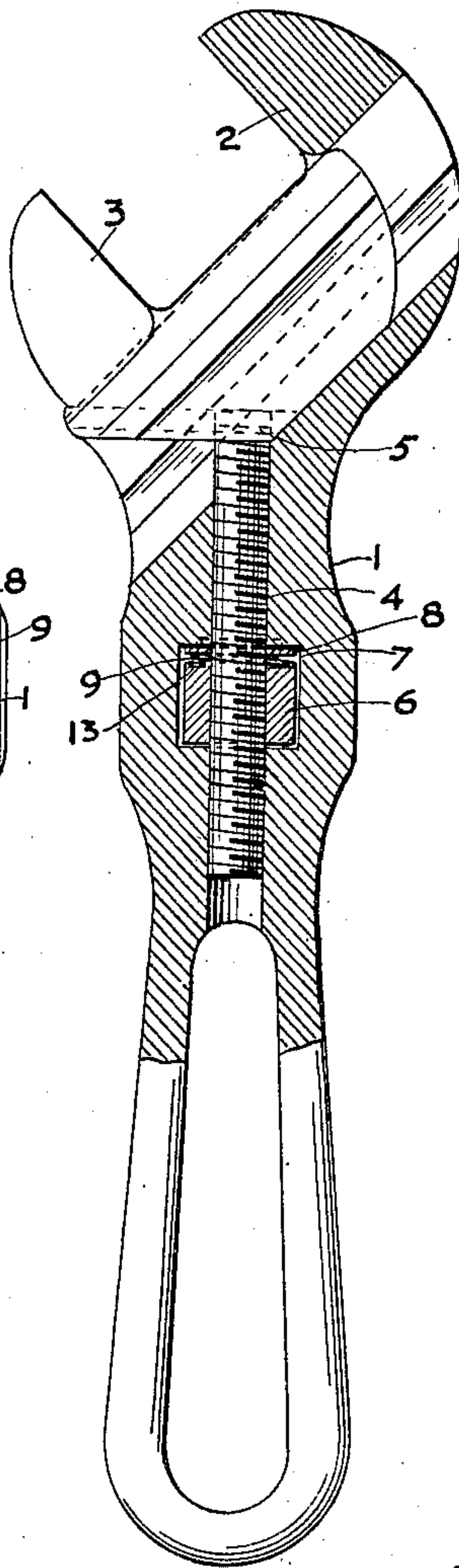


FIG. 2

FIG. 3

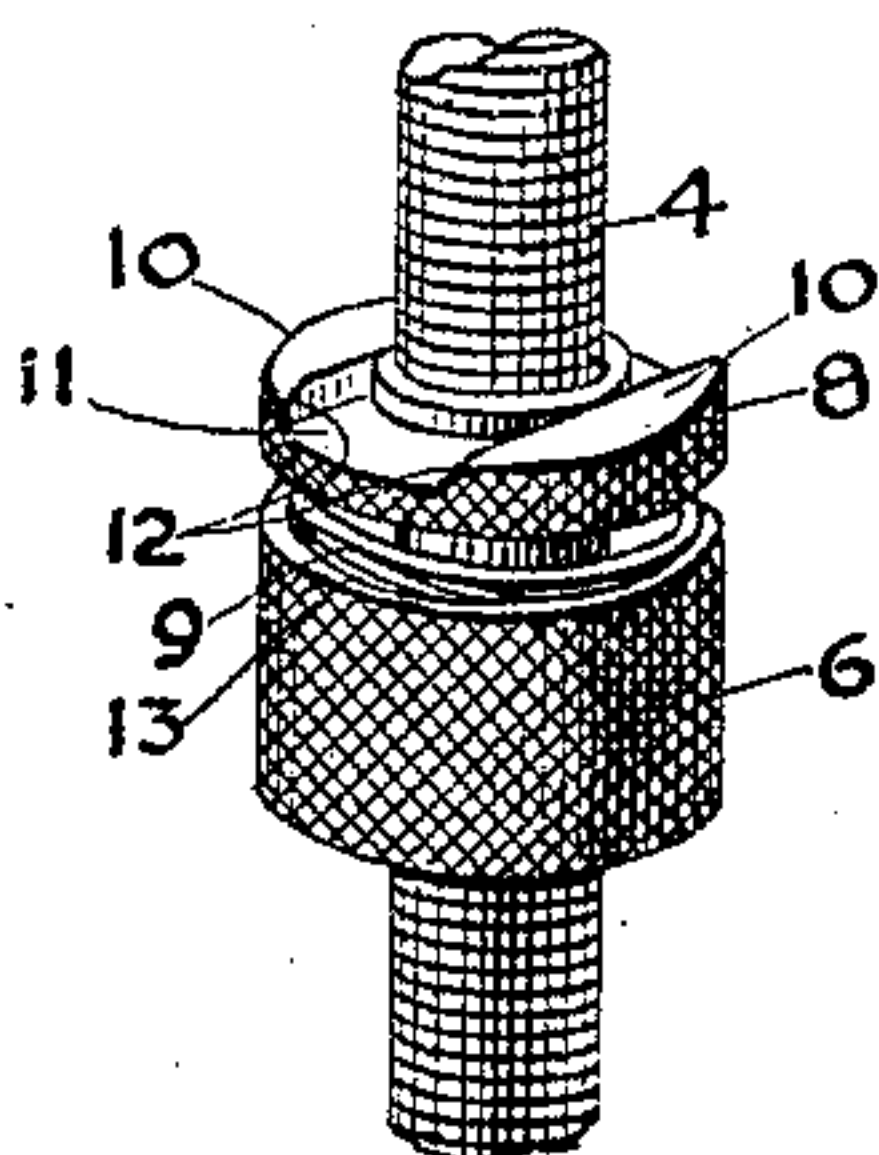


FIG. 4

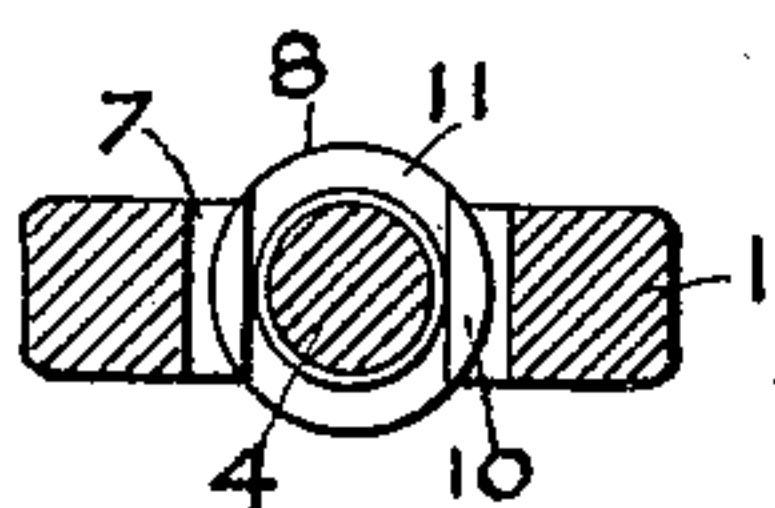
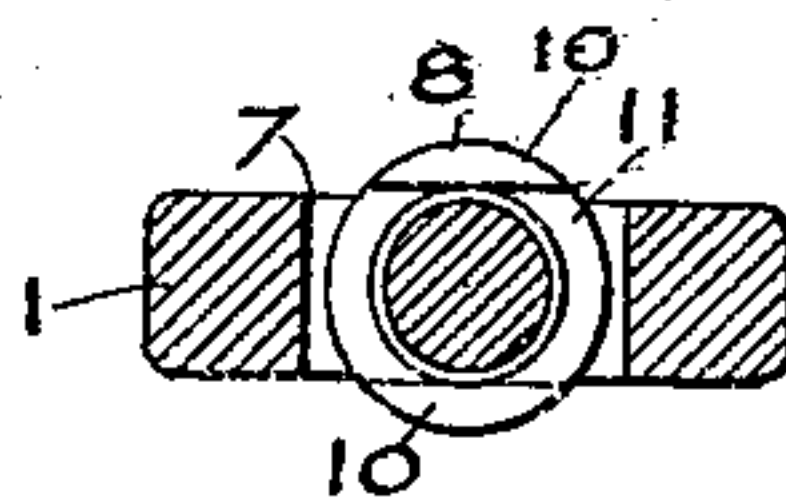


FIG. 5



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN F. ANDERSON, OF SAN FRANCISCO, CALIFORNIA.

## WRENCH.

978,827.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed December 8, 1909. Serial No. 531,928.

*To all whom it may concern:*

Be it known that I, JOHN F. ANDERSON, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Wrenches, of which the following is a specification.

The present invention relates to improvements in wrenches, and particularly to that class of wrenches in which the movable jaw is adjusted by the turning of a screw, or of a nut upon the screw, the object of the invention being to provide means for preventing the accidental turning of the nut, or of the screw as the case may be, when the movable jaw has been shifted to the desired position.

In the accompanying drawing, Figure 1 is a longitudinal section of one form of wrench to which my invention is applied; Fig. 2 is a broken side view thereof; Fig. 3 is a perspective view of the nut and of the locking device; Fig. 4 is a section through the wrench, taken above the locking device, said locking device being shown in its locking position; Fig. 5 is a similar view showing the locking device in its unlocking position; Fig. 6 is a side view of another form of wrench to which my invention is applied.

Referring to the drawing, 1 indicates the body of a wrench having a fixed jaw 2 and a movable jaw 3. Said movable jaw is caused to move in an oblique direction toward the fixed jaw by means of a screw 4 the end of which engages a groove, shown in dotted lines at 5, in said movable jaw. In order to move the screw 4 longitudinally, and thereby to move the movable jaw obliquely, there is provided a nut 6 which turns in a recess 7 in the wrench.

All of the above forms no part of my present invention, but is more fully described in an application filed by me Aug. 31, 1909, Serial No. 515,508.

It is desirable to prevent the accidental turning of the nut when the movable jaw has been moved to its proper position. To accomplish this purpose there is provided, at one end of said recess 7, a thin washer 8, interposed between the end of the nut 6 and the end of the recess, and between said washer and nut in a groove 13 in the end of the nut, is interposed a short helical spring 9. Said washer is formed at opposite sides,

and on the surface next to the end of the recess, with raised portions 10 forming between them a diametral groove 11. When said washer is turned so that the longitudinal direction of its groove 11 is parallel to the wide sides of the handle of the wrench, then said raised portions of the washer lie outside of the recess, leaving sufficient room in said recess for the nut to turn freely therein, the spring 9 then serving to hold said washer in the position in which said raised portions engage the sides of the wrench above said recess. In this position the movable jaw can be freely adjusted to and from the fixed jaw. When it has been so adjusted, and it is desired to secure it in its adjusted position, the washer is first depressed, compressing the helical spring until the raised portions 10 can pass into said recess, and the washer is then turned at right angles, so as to move said raised portions into and across said recess. To facilitate this movement, the ends of the raised portions are tapered, as shown at 12. The height of said raised portions is such that the washer, nut, and spring completely fill said recess, rendering it very difficult to turn the nut, and locking the movable jaw against further movement.

In Fig. 6 is shown a modification of the invention as applied to a common form of monkey wrench. The construction and operation of the parts are very similar to those of the form of the invention shown in the remaining figures, the only difference being that the part 6 turns with the screw.

I claim:—

1. A wrench having a handle, a fixed jaw and a movable jaw, a screw and nut for moving the movable jaw, the handle of the wrench having a recess to receive said nut, a washer in said recess around said screw having at a side a raised portion the height of said raised portion being sufficiently small to permit it to be received in said recess in addition to the remaining parts therein, but sufficiently large that, when received therein, said nut is jammed tight and prevented turning, said nut being loose in said recess when the raised portion is parallel to the wide side of the wrench handle, and the end of the nut remote from the washer being adapted to freely contact with the corresponding end of the recess, substantially as described.

2. A wrench having a handle, a fixed jaw



and a movable jaw, a screw and nut for moving the movable jaw, the handle of the wrench having a recess to receive said nut, a washer in said recess around said screw  
5 having at a side a raised portion the height of said raised portion being sufficiently small to permit it to be received in said recess in addition to the remaining parts therein, but sufficiently large that, when received there-  
10 in, said nut is jammed tight and prevented turning, said nut being loose in said recess when the raised portion is parallel to the wide side of the wrench handle, and the end of the nut remote from the washer being  
15 adapted to freely contact with the corresponding end of the recess, and a spring between the washer and nut, substantially as described.

3. A wrench having a handle, a fixed jaw  
20 and a movable jaw, a screw and nut for moving the movable jaw, the handle of the wrench having a recess to receive said nut, a washer in said recess around said screw

having at a side a raised portion the height of said raised portion being sufficiently small 25 to permit it to be received in said recess in addition to the remaining parts therein, but sufficiently large that, when received therein, said nut is jammed tight and prevented turning, said nut being loose in said recess 30 when the raised portion is parallel to the wide side of the wrench handle, and the end of the nut remote from the washer being adapted to freely contact with the corresponding end of the recess, the end of the 35 nut next to the washer being grooved, and a spring in said groove, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing 40 witnesses.

JOHN F. ANDERSON.

Witnesses:

FRANCIS M. WRIGHT,  
D. B. RICHARDS.