

(No Model.)

C. CARLSON.
WRENCH.

No. 520,392.

Patented May 22, 1894.

Fig. 1.

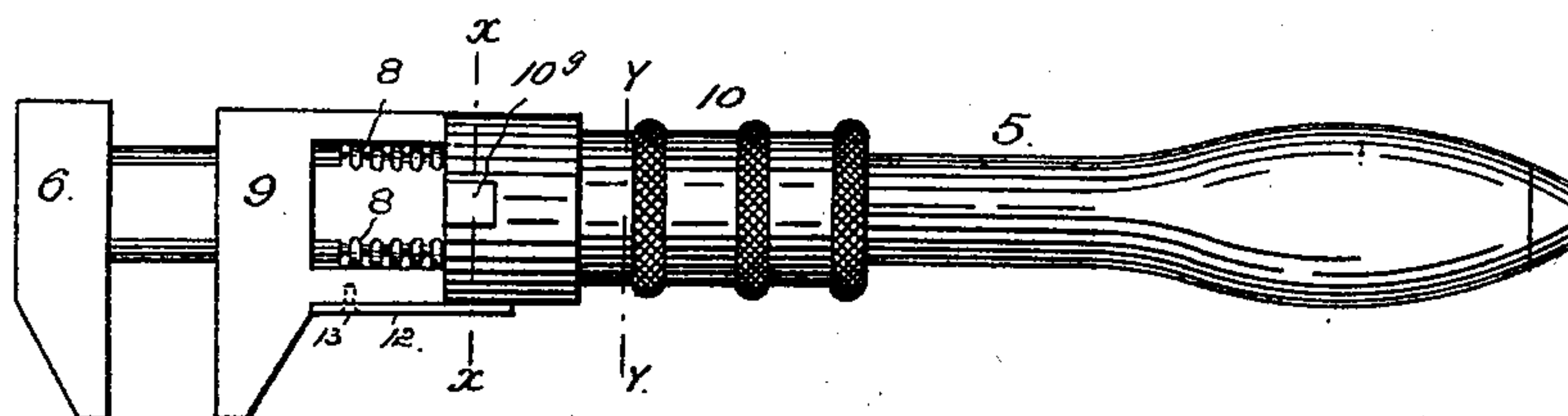


Fig. 2.

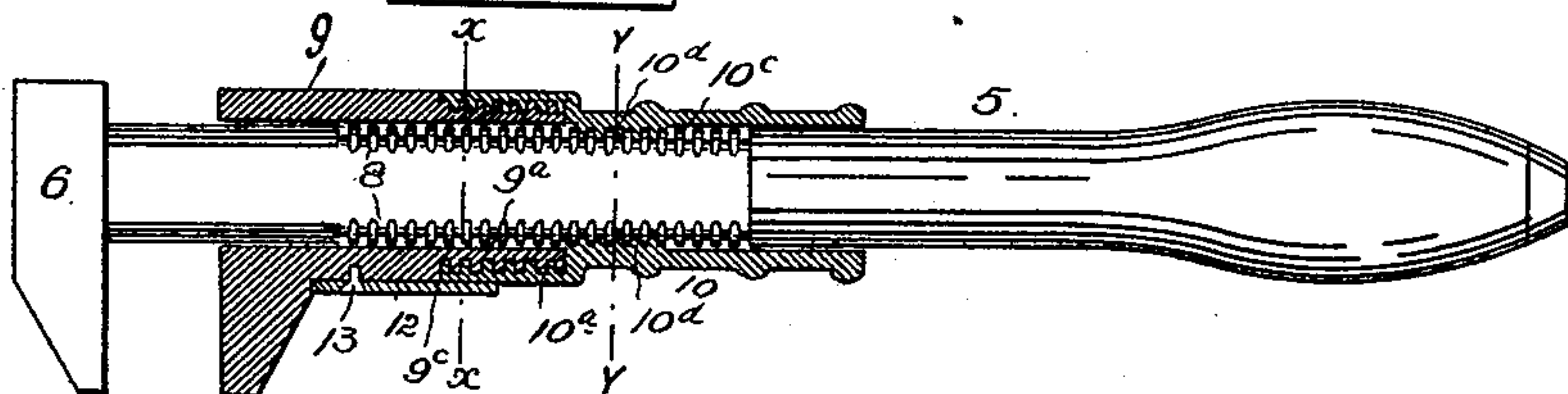


Fig. 3.

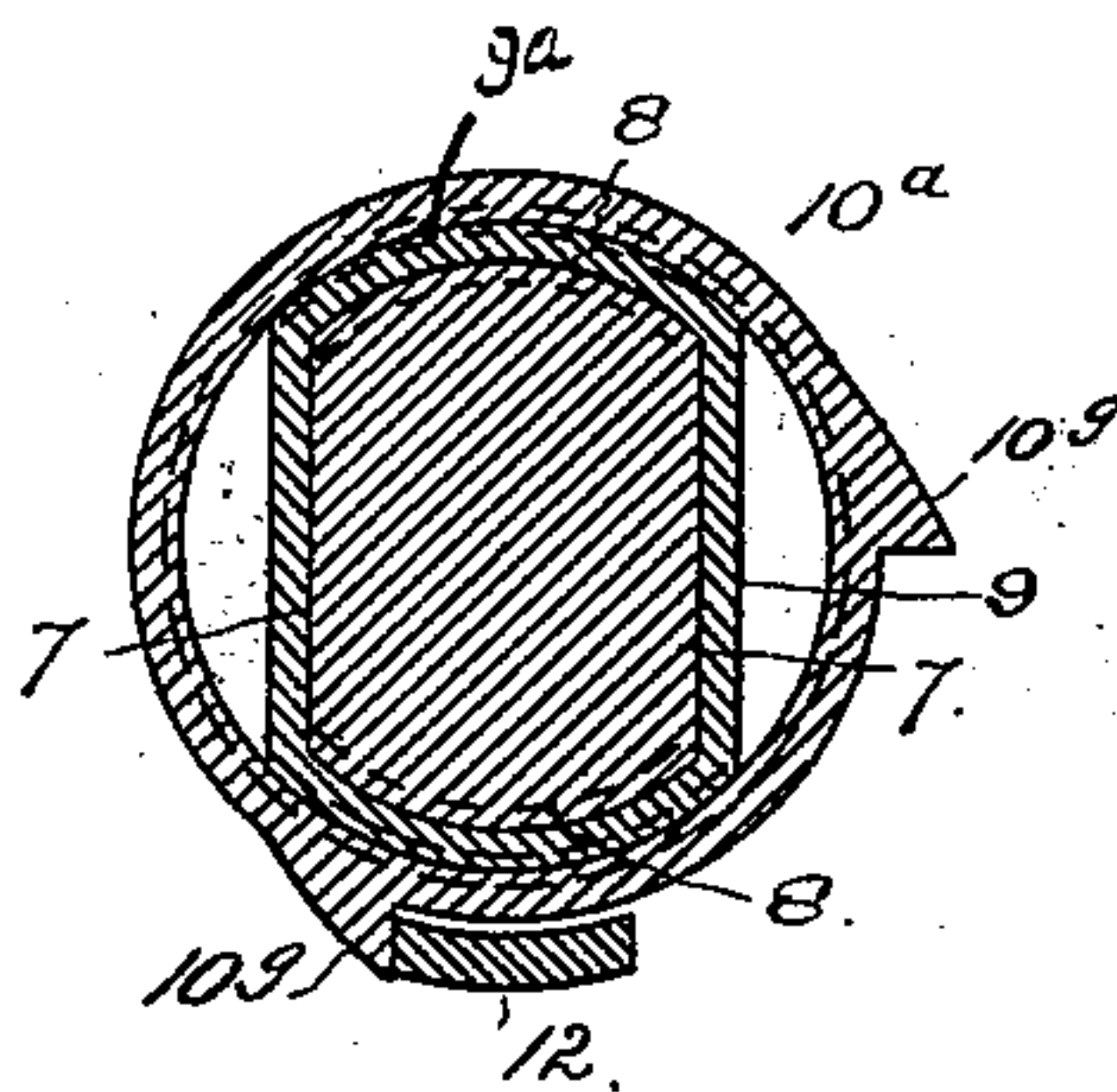


Fig. 4.

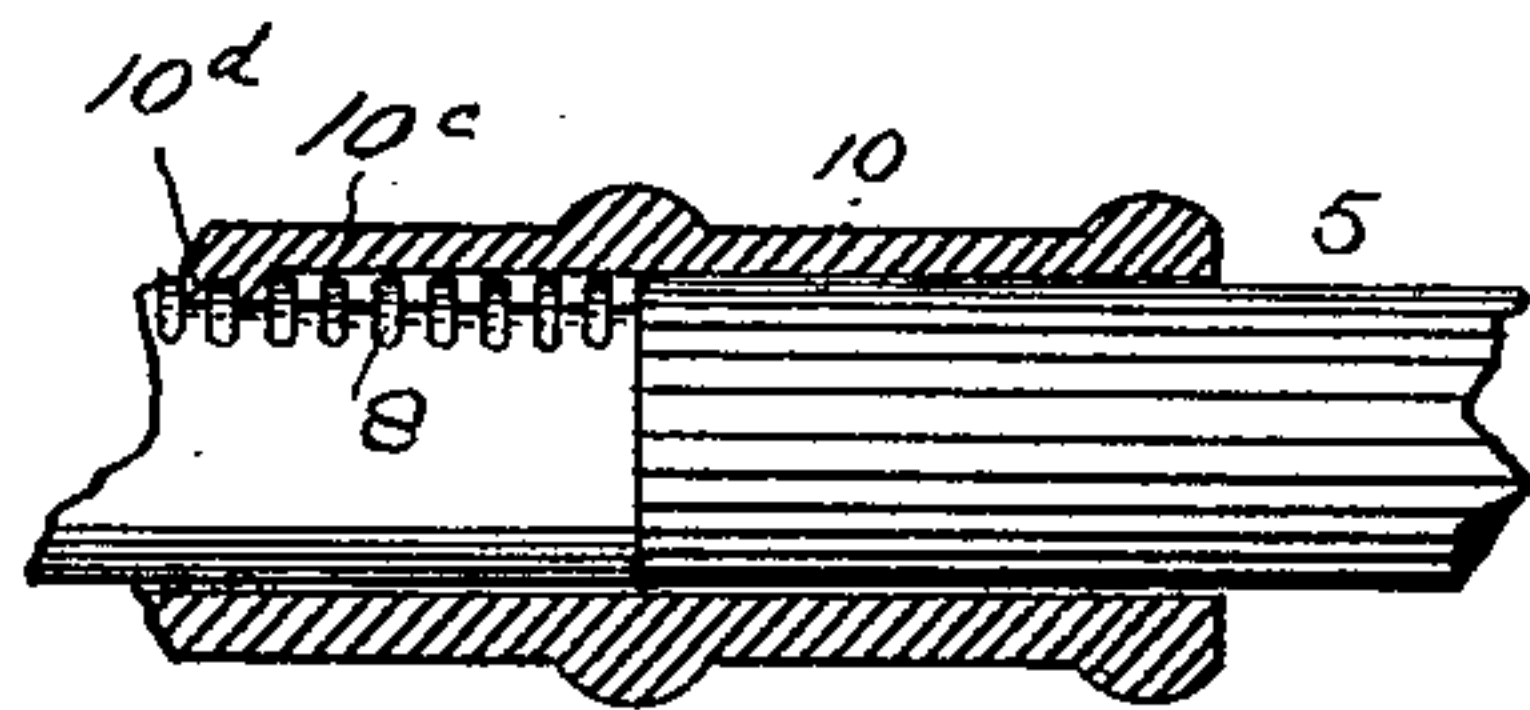
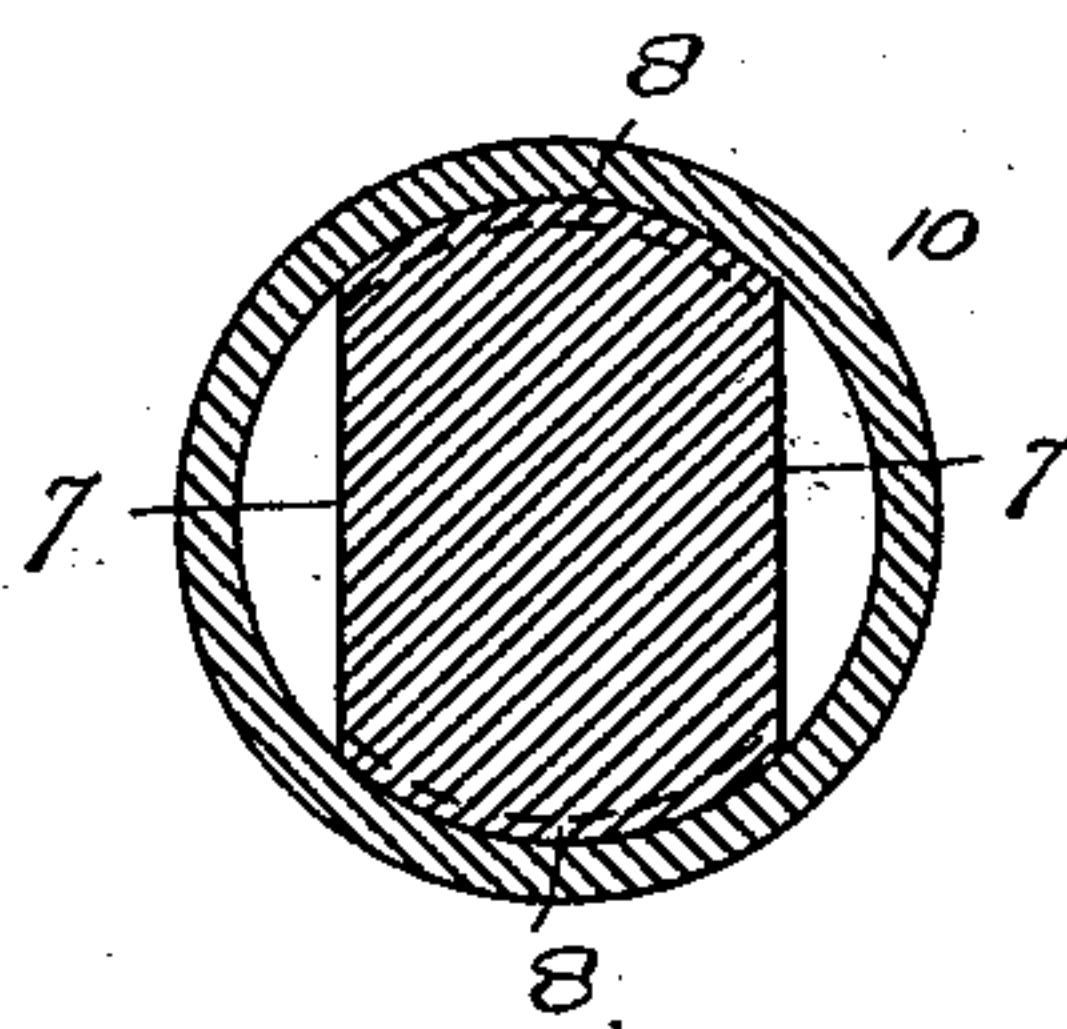


Fig. 5.

WITNESSES.

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WRENCH.

SPECIFICATION forming part of Letters Patent No. 520,392, dated May 22, 1894.

Application filed March 2, 1894. Serial No. 502,033. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CARLSON, a citizen of the United States of America, residing at Deer Trail, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Wrenches; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in monkey wrenches and consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a side elevation of my improved wrench. Fig. 2 is a similar view partly in section. Figs. 3 and 4 are sections taken on the lines $x-x$, and $y-y$, respectively, Figs. 1 and 2. Fig. 5 is a fragmentary longitudinal section taken through the nut, and illustrating a modified form of construction.

Similar reference characters indicating corresponding parts or elements of the mechanism in the several views, let the numeral 5 designate the shank carrying the stationary jaw 6. This shank is flat on two opposite sides as shown at 7, and threaded on the other sides as shown at 8. The movable jaw 9 is provided with an exteriorly threaded portion 9^a to engage the corresponding interiorly threaded part 10^a of the nut 10 whose diameter is increased where it connects with the jaw; and is adapted to engage a shoulder 9^c formed thereon. The other part 10^c of the nut, or that part having its diameter less than the part 10^a, is threaded on two opposite sides as shown at 10^d to engage the correspondingly threaded shank.

The object of my improved construction of wrench is to provide a device of this class which may be adjusted by sliding the movable jaw in either direction, as circumstances require, whereby much time is gained in manipulating the wrench as compared with the

slow screw movement of the jaw in wrenches of ordinary construction.

From the construction heretofore described, it will be observed that by giving the nut a quarter turn, its threads 10^a will be disengaged from the correspondingly threaded portions 8 of the shank, assuming that the threads of the shank and the nut are in engagement. Having disengaged these threaded parts, the jaw 9 may be slid in either direction, according as it is necessary to diminish or increase the space between it and the stationary jaw. The threads of the part 10^a of the nut are continuous, or extend entirely around the same, as indicated by dotted lines in Fig. 3; hence, the nut retains its hold upon the movable jaw at all times, whereby the nut and jaw move together during the operation of adjustment. The nut is provided with two lugs 10^s preferably formed integral therewith, and adapted to engage a stop 12 consisting of a small plate attached to the movable jaw by means of a screw 13, and projecting from the body of the jaw to the path of the lugs 10^s, whereby the movement of the nut is limited in both directions. By means of this feature, no care is required in properly adjusting the nut since the lugs are so positioned that they will only permit the necessary partial rotation of the nut in either direction.

The stop plate 12 is preferably secured by a screw, since it must be attached after the nut and sliding jaw are connected, the one being screwed to position upon the other.

The extremities of the engaging threads on the nut and the shank are preferably pointed to allow them the more readily to slip into engagement with each other.

From the foregoing description, the use of my improved wrench will be readily understood.

When it is desired to shift the movable jaw in either direction, assuming that the threads of the shank and the jaw are engaged, the nut is given a partial rotation, this movement being limited by the engagement of one of the lugs 10^s with the stop plate 12. The nut and jaw are then free to slide upon the shank to the desired position, after which the movement of the nut is reversed to bring its threaded part to re-engagement with the correspond-

ingly threaded portion of the shank, this position being indicated by the engagement of the other lug 10^s with the stop plate 12. The nut and the shank being thus locked together, 5 and the nut and movable jaw being connected, as heretofore explained, the wrench is ready for use.

It must be understood that it is not necessary that two sides or two portions of the 10 shank should be threaded, since one threaded part, as shown in Fig. 5, will answer every purpose. Hence, I do not limit my construction to a shank with two threaded sides, as I am aware that a shank threaded part way 15 around, (the other part being plain, and the nut correspondingly threaded,) will be thoroughly practicable, and, it is believed, equally effective.

Having thus described my invention, what 20 I claim is—

1. In a monkey wrench, the combination of the shank carrying the stationary jaw and threaded on two opposite sides, the other sides having no threads, the movable jaw, the nut 25 segmentally threaded to correspond with the shank, and having an enlarged portion with continuous threads to engage the movable

jaw which is correspondingly threaded, substantially as described.

2. In a monkey wrench, the combination of 30 a shank carrying the stationary jaw and threaded part way around, the other part being plain, a movable jaw having an exteriorly threaded portion, a nut threaded to correspond with the shank, and provided with an 35 enlarged interiorly threaded portion to engage the threaded part of the movable jaw, substantially as described.

3. In a monkey wrench, the combination of the shank threaded part way around, the 40 other part being plain, a movable jaw having an exteriorly threaded portion, a nut threaded to correspond with the shank and jaw, and carrying lugs suitably separated, and a stop 45 attached to the movable jaw and projecting into the path of the lugs on the nut, substantially as described.

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

CHARLES CARLSON.

Witnesses:

G. J. LACKEY,
J. C. RAYNESFORD.