No. 704,659. Patented July 15, 1902.

W. NEILSON.

WRENCH.

(Application filed Mar. 20, 1902.)

(No Model.)

Fig. 1.

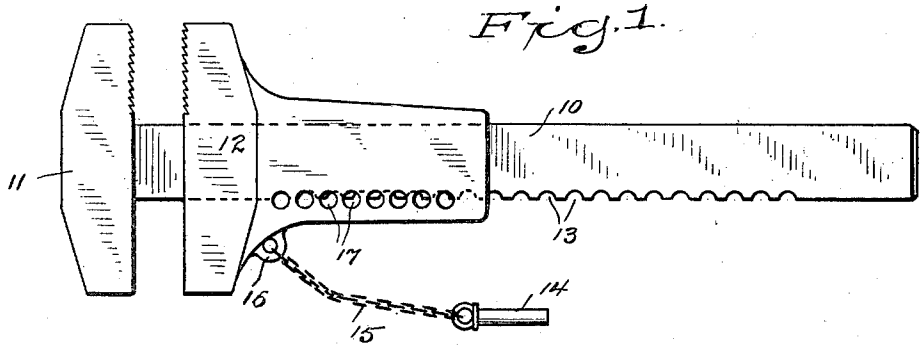


Fig. 2.

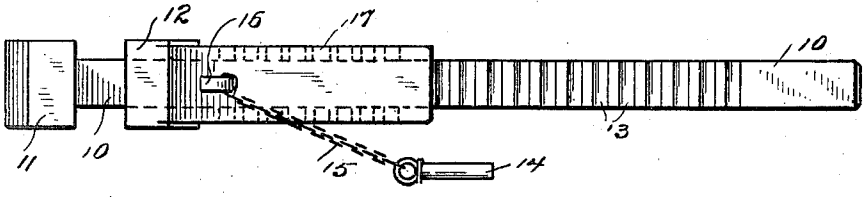
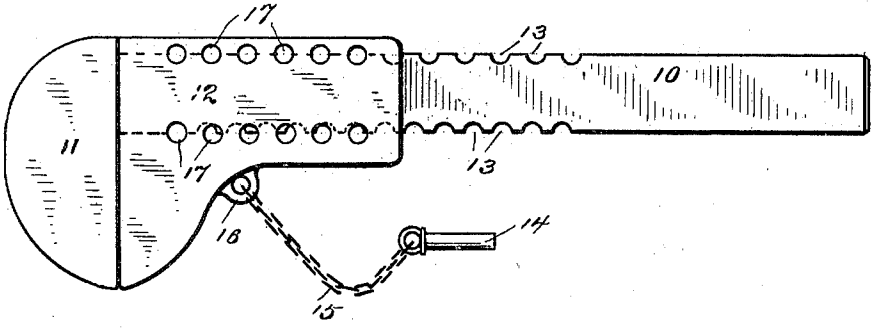


Fig. 3.



WITNESSES

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WALTER NEILSON, OF BRIDGEPORT, CONNECTICUT.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 704,659, dated July 15, 1902.

Application filed March 20, 1902. Serial No. 99,074. (No model.)

To all whom it may concern:

Be it known that I, WALTER NEILSON, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented a new and useful Wrench, of which the following is a specification.

My invention relates to wrenches generally and is equally adapted to strong heavy wrenches and to light bicycle-wrenches, and has for its object to provide a relatively light and inexpensive but very strong sliding-jaw wrench which shall be capable of a fine and perfectly rigid adjustment, so that the sliding jaw will be locked in any position in which it may be placed.

With these ends in view I have devised the simple and inexpensive wrench which I will now describe, referring to the accompanying drawings, forming part of this specification, and using reference characters to designate the several parts.

Figure 1 is an elevation of my novel wrench; Fig. 2, an edge view thereof, and Fig. 3 is an elevation of a different style of wrench.

My novel wrench comprises a shank 10, carrying a fixed jaw 11, a sliding jaw 12, and my novel means for locking the sliding jaw at any desired adjustment. One or both edges of the shank are provided with semicircular recesses 13 of uniform size and of any convenient distance from center to center—for example, eight thirty-seconds or one-fourth of an inch—and the sliding jaw is provided with a series of holes 17—for example, six or eight—of corresponding size with the recesses and adapted to register with the recesses, said holes differing from the recesses in distance from center to center—for example, seven thirty-seconds or nine thirty-seconds of an inch.

14 denotes a pin adapted to closely fit in and pass through a hole in the sliding jaw and a corresponding recess in the shank. The pin may be attached to a chain 15, which in turn may be attached to an eye 16 upon the sliding jaw.

The operation of my novel wrench is as follows: Suppose that the recesses in the shanks are eight thirty-seconds of an inch from center to center and the holes in the jaw nine thirty-seconds from center to center. In the first position the jaw would be locked by passing the pin through the first hole and the first recess. The smallest change—a thirty-second of an inch—would be to pass the pin through the second hole in the second recess; another thirty-second-of-an-inch movement of the sliding jaw and the third hole would register with the third recess, and so on. Each movement of the sliding jaw carrying the next hole toward the left, as shown in the drawings, into position to register with the next recess toward the left would place the jaws one thirty-second of an inch farther apart. Eight moves of this character—that is, a movement from the position in which the first hole toward the right, as shown in the drawings, registered with the first recess to a position in which the eighth hole registered with the eighth recess—would place the jaws eight thirty-seconds—that is, a quarter of an inch—farther apart, and placing the eighth hole in position to register with the second recess would separate the jaws another thirty-second of an inch—that is, would place them nine thirty-seconds of an inch farther apart. The principle of operation would be the same of course if the unit of movement was any other fraction of an inch—as, for example, a sixteenth or a sixty-fourth.

Having thus described my invention, I claim—

1. A wrench comprising a shank having a fixed jaw and a series of recesses and a sliding jaw having a series of holes differing from the recesses in distance from center to center, either of said holes being adapted to register with one of the recesses.

2. A wrench comprising a shank having a fixed jaw and a series of recesses, and a sliding jaw having a series of holes, either of which is adapted to register with a recess, said recesses differing from the holes in distance from center to center.

3. A wrench comprising a shank having a fixed jaw and a series of recesses, a sliding jaw having a corresponding series of holes differing from the recesses in distance from center to center, and a pin adapted to register with either hole and either of the recesses.

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

WALTER NEILSON.

Witnesses:
WM. CHALMERS,
HERBERT L. SMITH.