

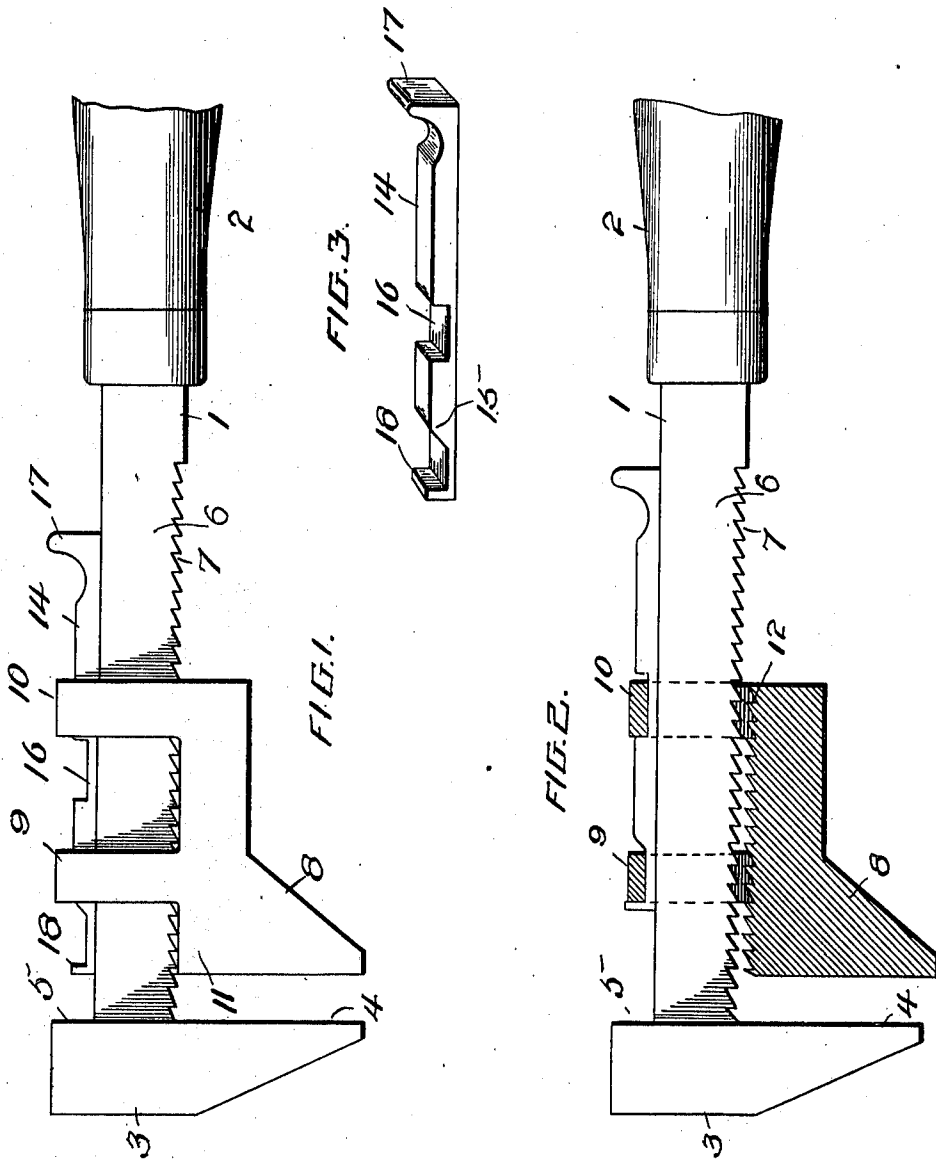
C. L. MANSFIELD & R. E. MATTHEWS.

WRENCH.

APPLICATION FILED MAY 2, 1910.

982,617.

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WITNESSES:

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CHARLES L. MANSFIELD AND ROBERT E. MATTHEWS, OF SAN ANGELO, TEXAS.

WRENCH.

982,617.

Specification of Letters Patent.

Patented Jan. 24, 1911.

Application filed May 2, 1910. Serial No. 558,904.

To all whom it may concern:

Be it known that we, CHARLES L. MANSFIELD and ROBERT E. MATTHEWS, citizens of the United States, residing at San Angelo, in the county of Tom Green and State of Texas, have invented new and useful Improvements in Wrenches, of which the following is a specification.

Our invention relates to improvements in wrenches, and pertains more particularly to nut wrenches having a longitudinally adjustable jaw.

The object of our invention is to produce a wrench of this character having a sliding jaw carried on the shank of the handle and held in its adjusted position by engaging teeth on the adjacent faces of the sliding jaw and shank.

A further object thereof is to provide a sliding thumb latch interposed between the rear face of the shank and the loops by which said jaw is carried on the shank whereby the adjacent teeth on the jaw and the shank may be held in or released from engagement with each other to effect the desired adjustment of the jaws.

A still further object of our invention is to provide a more simple, cheap and efficient wrench of the character described than has heretofore been produced.

To these ends our invention includes the combinations and arrangements of component parts to be hereinafter described and more particularly pointed out in the claim.

In the accompanying drawings illustrating our invention, in which like reference characters indicate similar parts, Figure 1 is a side elevation thereof in locked adjustment; Fig. 2 is a side sectional view of the same in unlocked adjustment, and Fig. 3 is a detail perspective view of the component parts of our wrench.

Our invention includes, generally, a shank having a rigid substantially right angular head comprising a fixed jaw, the inner face of said shank being notched to form engaging ratchet teeth, a longitudinally adjustable jaw carried on said shank by embracing loops through which said shank passes, the face of said jaw adjacent to the shank being notched to correspond with the teeth on said shank, and a substantially wedge-shaped sliding lock interposed between the back of the shank and the embracing loops, said lock having a cut-away portion or recess adapted to accommodate the lower loop

when the adjacent teeth on the shank and the adjustable jaw are disengaged.

Referring now to the drawings, 1 indicates the shank of our improved wrench which is provided at one end with the handle or grip 2, and at the opposite end with the head 3, which as shown project laterally to form the stationary jaw 4, and slightly rearwardly at 5 to form a stop for the locking slide 14 hereinafter described.

The elongated portion 6 of the shank intermediate of the handle of the stationary jaw 4, is provided on its inner face, on the same side with the jaws, with a series of ratchet teeth 7. Loosely mounted upon said shank is a sliding jaw 8 which is held thereon by two loops 9 and 10 which embrace the shank and through which the latter passes. Said sliding jaw is provided with a longitudinal extension 11 to afford a greater bearing surface against the side of the shank, and the face thereof adjacent to the shank is provided with a series of ratchet teeth 12 adapted to engage and coact with the teeth 7 on the shank to hold said jaw in its adjusted position.

Interposed between the rear face of the shank 1 and the embracing loops 9 and 10, we provide a sliding latch 14 adapted to secure or release the engagement of the adjacent ratchet teeth on the shank and sliding jaw by its longitudinal adjustment. Said sliding latch is tapered or is substantially wedge-shaped at 15 adjacent to its forward end by which at its forward movement the loop 9 is gradually raised and the sliding jaw 8 thereby impinged upon the toothed face of the shank. At the rear of said wedge-shaped head, a recess or cut-out portion 16 is provided, into which the loop 10 is adapted to drop when the latch is withdrawn to release the engagement of the sliding jaw and shank. The rear end of the sliding latch has a thumb piece 17 by which it may be conveniently shifted longitudinally by the thumb of the hand which holds the wrench.

For the purpose of securing the sliding latch 14 against displacement from its operating position against the rear face of the shank 1, as described, we provide a laterally upturned flange 18 at its forward end which is adapted to engage the forward loop 9 at the backward movement of the latch and prevent its displacement on the back of the shank.

In operation, the sliding latch may be

drawn toward the handle or grip, thus releasing the sliding jaw from engagement with the shank, when it may be adjusted toward or from the stationary jaw to fit upon
5 a nut. The latch may then be pushed forward by the thumb by which the sliding jaw is tilted on the forward loop 9 when it meets an obstruction to throw the rear loop 10 out of the recess 16, and the wedge-shaped head
10 draws the loops and sliding jaw rearwardly and brings the teeth on said jaw and those on the shank into engagement and locks the parts in such relation.

15 The construction and operation of our invention will be readily understood from the foregoing description and by reference to the accompanying drawings, and it will be appreciated that the parts and combinations thereof may be varied within a wide range
20 from the specific exemplification therein shown without departing from the spirit and scope of our invention.

25 Having thus described our invention, what we claim as new and desire to be secured by Letters Patent, is—

In a wrench, the combination with a toothed shank and a stationary head at one end

thereof, of a longitudinally adjustable jaw carried thereon having a loop adjacent to each end thereof embracing said shank, said 30 jaw being provided with teeth adjacent to the teeth on the shank, a sliding latch interposed between the rear face of said shank and loops, a wedge shaped head on said latch adapted to slide under the forward of said 35 loops to shift the toothed face of said sliding jaw into and out of engagement with the shank, a recess on the back of said latch adapted to receive the other of said loops when said sliding jaw is released from en- 40 gagement with the shank, an upturned lateral flange at the forward end of said latch to prevent its displacement and a thumb-piece on the opposite end, substantially as described. 45

In testimony whereof, we have hereunto signed our names to this specification in the presence of two subscribing witnesses.

CHARLES L. MANSFIELD.
ROBERT E. MATTHEWS.

Witnesses:

E. B. JOHNSON,
O. C. SIMMONS.