

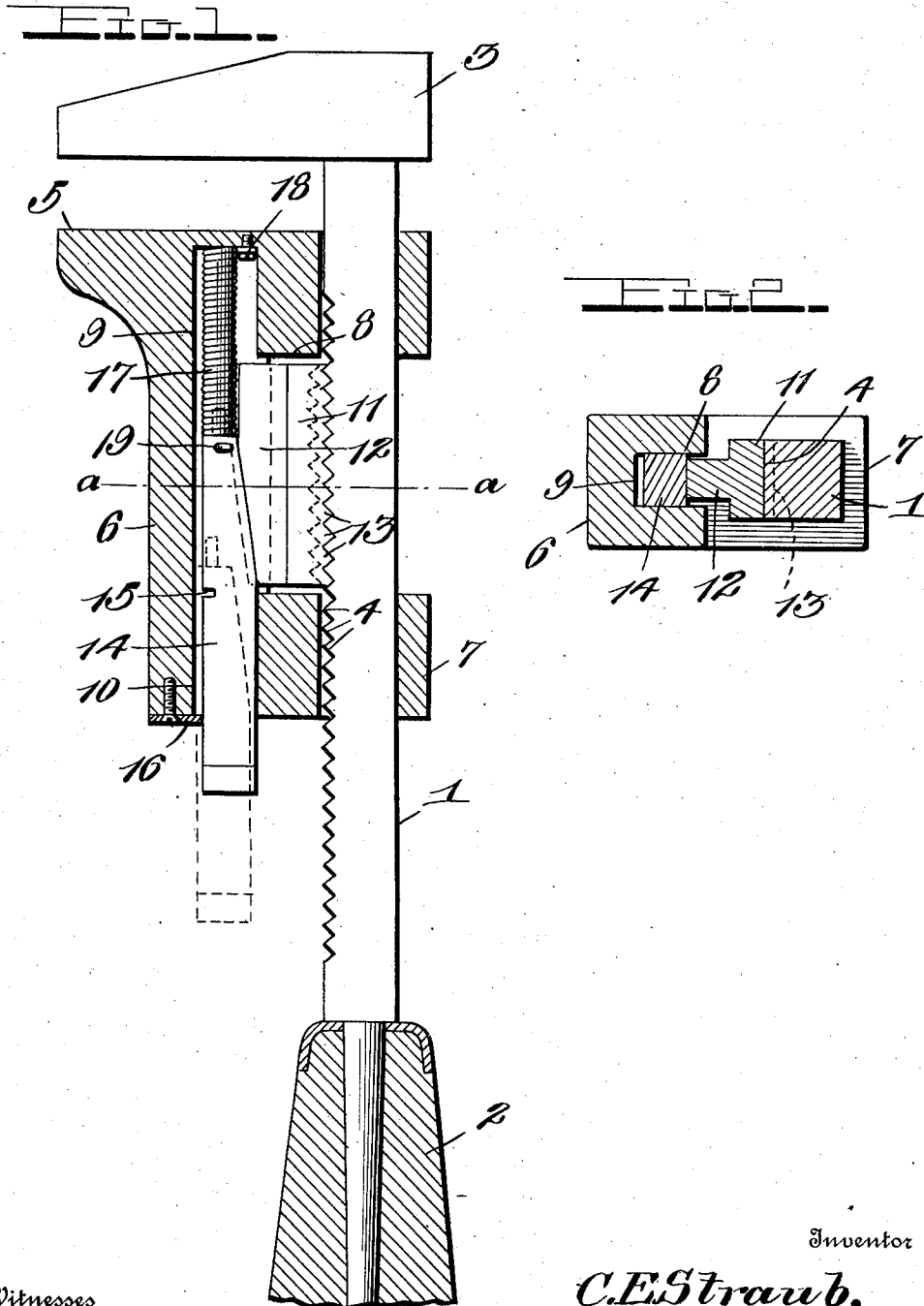
C. E. STRAUB.

WRENCH.

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1,026,005.

Patented May 14, 1912.



Witnesses

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WRENCH.

1,026,005.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CLARENCE E. STRAUB, a citizen of the United States, residing at Middleburg, in the county of Snyder and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had to the accompanying drawings.

This invention is an improved wrench, the object of the invention being to provide a wrench with improved means to enable the movable jaw to be instantly adjusted to any desired position and to be locked to or released from the stem of the wrench to which the fixed jaw is attached, the invention consisting in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings Figure 1 is a vertical longitudinal sectional view of a wrench constructed in accordance with my invention showing the locking block and bar in locking position in full lines and in released position in dotted lines; and Fig. 2 is a transverse sectional view of the same on the plane indicated by the line *a-a* of Fig. 1.

The stem 1 of my improved wrench is, in practice, formed or provided with a handle 2 at one end and with a fixed jaw 3 at the opposite end. On the inner side of the stem are locking teeth 4. The movable jaw 5 is formed with a longitudinal arm 6 which extends from one side thereof, the said arm being provided at one end with a lug 7. The head of the movable jaw and the lug 7 are provided with cross sectionally rectangular openings through which the stem 1 extends, so that the movable jaw is connected to and guided on the stem and is adapted to be moved toward and from the fixed jaw. The arm 6 of the movable jaw is provided on its inner side with a longitudinal groove 8. The jaw 5 has a bore 9 coincident with one end of the groove and in the outer end of the arm 6 and also in the lug 7 is a cross sectionally rectangular opening 10. A locking block 11, which is cross sectionally T-shaped, has its web 12 fitted in the groove 8, the length of the said block being such that the same is adapted to move in the space between the movable jaw 5 and the lug 7, toward and from the toothed side of the stem 1. The web 12 of the locking block

is wedge shaped longitudinally, and above, the head of the locking block, which projects from opposite sides of the groove 8, is provided the locking teeth 13 for engagement with the teeth 4 of the stem 1 to lock the block, and hence along the movable jaw, to the stem. A locking bar 14, which is wedge shaped longitudinally, operates in the slot 8 and extends through the opening 10. This locking bar passes under the wedge shaped web of the locking block and is provided at a suitable point, on its outer side, with a notch 15 which may be engaged by a locking plate 16 secured to the outer end of the arm 6, to hold the locking bar in extended position when the stem is withdrawn from under the locking block. A coil spring 17 is disposed in the groove 8 and bore 9, has one end secured as at 18 to the jaw 5 and has the other end secured as at 19 to the wedge shaped locking bar.

When the locking bar is withdrawn from under the locking block 11 the latter, by its own weight, drops from the stem 1 so that its teeth disengage those of the stem and thus the movable jaw is released and the jaw may be instantly adjusted to any desired position on the stem at any desired distance from the fixed jaw 3. When the locking bar is thus retracted or withdrawn the spring 17 co-acts with the notch 15 and the plate 16 to secure said locking bar in such position. When it is desired to lock the fixed jaw to the stem it is only necessary to move the locking bar 14 laterally, toward the stem 1 a sufficient distance to disengage the plate 16 from the notch 15, and thereupon the spring moves the locking bar forwardly, from the movable jaw and causes the said locking bar, which has a wedge, to act on the wedge shaped web 12 of the locking block and thereby force the locking block toward the stem 1 and engage the teeth thereof with those of the stem. To facilitate the engagement of the teeth of the locking block and the stem, the outer ends of the teeth are beveled on opposite sides as shown.

While I have herein shown and described what I now consider a preferred form of my invention I would have it understood that changes may be made in the form, proportions and construction of the several parts within the scope of my invention as defined by the appended claim.

Having thus described my invention I claim:

5 A wrench comprising a stem formed on one edge with teeth, a relatively stationary jaw secured to said stem, a movable jaw mounted to move on said stem and formed with a cavity, a handle carried by the stem, the cavity opening at one end of the movable jaw adjacent the handle and also communicating at its side with the toothed edge of the stem, a wedge block mounted in the side opening of the cavity and formed with teeth opposed to the teeth of the stem, a contractile spring secured in 15 the cavity, a locking bar movable through

the first named opening of the cavity into engagement with the wedge block and connected at its inner ends to the spring, and means for detachably holding the locking bar extended from the cavity of the movable jaw toward the handle with the said spring under tension, as and for the purpose set forth. 20

In testimony whereof I hereunto affix my signature in the presence of two witnesses. 25

CLARENCE E. STRAUB.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
