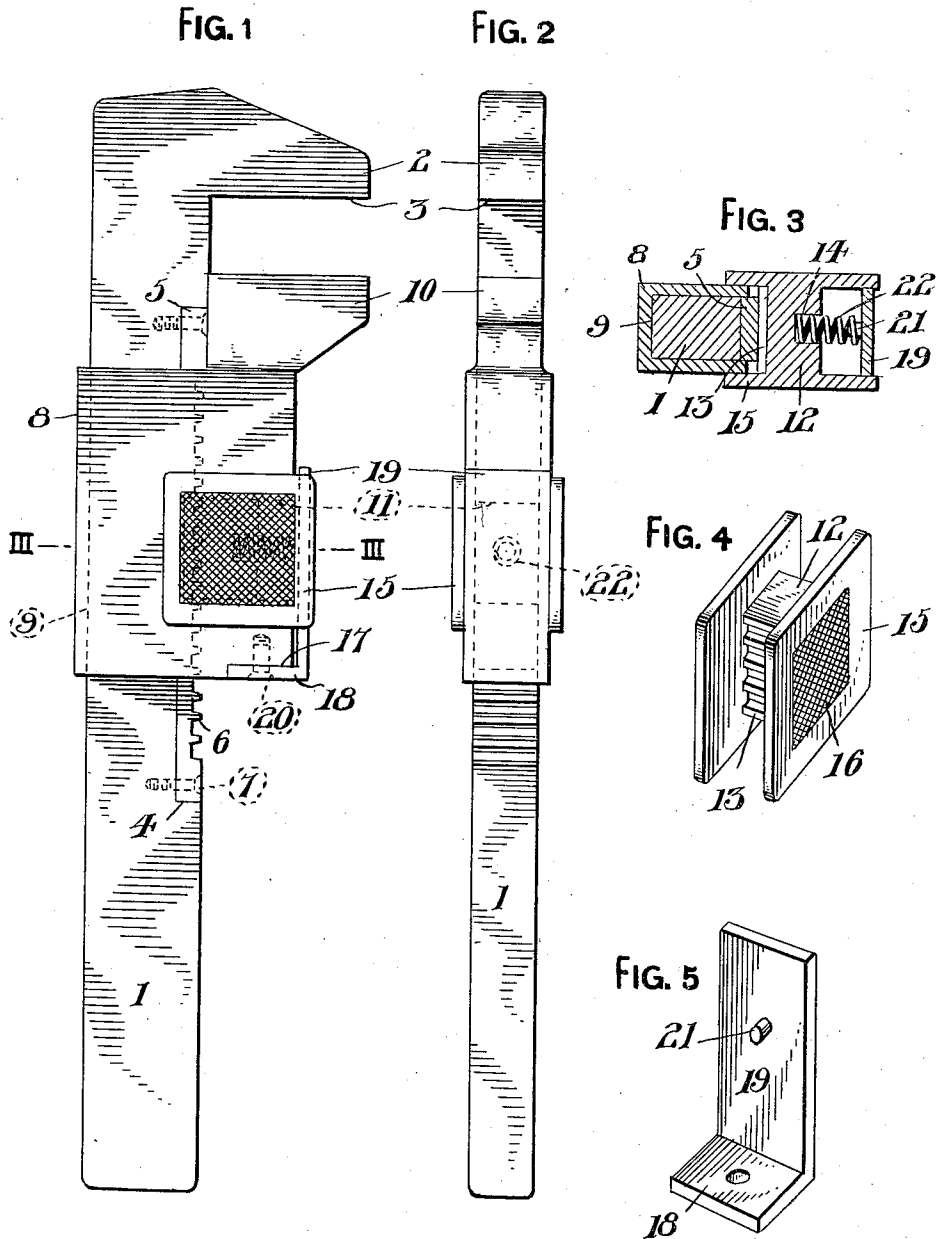


F. THAYER.
WRENCH.
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1,058,115.

Patented Apr. 8, 1913.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK THAYER, OF CALLERY, PENNSYLVANIA.

WRENCH.

1,058,115.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK THAYER, a citizen of the United States of America, residing at Callery, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to wrenches, and the objects of my invention are to provide a wrench that can be advantageously used in connection with an automobile or bicycle kit to facilitate the operation of the machine making repairs, and to provide a quick acting wrench that can be easily and quickly manipulated for gripping the facets of a nut or other object.

20 Other objects of my invention are to provide a wrench of the above type that consists of comparatively few parts inexpensive to manufacture, and of such construction as to permit of the adjustable jaw of the wrench being shifted and firmly held in an adjusted position.

25 Further objects of my invention are to furnish a wrench with wearing parts that can be renewed at a comparatively small cost, and to accomplish the above results by a mechanical construction that is highly efficient for the purposes for which it is intended.

30 With the above and other objects in view, the invention resides in the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein:—

40 Figure 1 is a side elevation of the wrench, Fig. 2 is a front elevation of the same, Fig. 3 is a horizontal sectional view taken on the line III—III of Fig. 1, Fig. 4 is a perspective view of a detached movable locking member of the wrench, and Fig. 5 is a perspective view of a detached permanent member of the wrench.

50 A wrench in accordance with this invention comprises a shank 1 that is rectangular in cross section, the inner end of the shank constituting a handle and the outer end of the shank having an integral jaw 2 that projects at right angles from the front side of the shank, said jaw presenting a gripping surface 3. The front side of the shank is cut away, as at 4, to accommodate a rack

bar 5 having teeth 6, said rack bar having the ends thereof secured to the shank 1 by counter sunk screws 7 or similar fastening means. Should one of the teeth 6 of the bar 5 be broken or the bar otherwise injured, it can be removed and renewed.

60 Slidably mounted upon the shank 1 is a jaw body 8 having a rectangular opening 9 to receive the shank 1, said jaw body having the outer end thereof, at the front side, provided with a jaw 10 confronting the jaw 2 and cooperating therewith in gripping the facets of a nut. The front side of the jaw body 8 has a transverse slot 11 and movably mounted in said slot is a block 12 having the rear face thereof provided with teeth 13 to engage the bar 5 and the outer face thereof with a central socket 14. Formed integral with the sides of the block 12 are side plates 15 of a larger area than the sides of the block 12, whereby the ends of the slot 11 will be closed, preventing dirt and other matter from entering the slot and impairing the usefulness of the wrench. The outer sides of the plates 15 are knurled or roughened, as at 16 to prevent the fingers from slipping upon said plates when using the wrench.

85 To retain the block 12 within the slot 11, the inner end of the jaw body 8 is cut away, at the front side thereof, as at 17 to accommodate the angle end 18 of an arm 19 that extends between the front edges of the plates 15 in parallelism with the front side of the jaw body. The angle end 18 of the arm 19 is retained in the cut away portion 17 of the jaw body 8 by a countersunk screw 20 or other fastening means. The arm 19 has a pin 21 confronting the socket 14 of the block 12 and encircling said pin is the end convolution of a coiled compression spring 22 that has the other end thereof seated in the socket 14. The tension of this spring is sufficient to retain the block 12 normally in engagement with the bar 5 and the adjustable jaw body locked relatively to the shank 1.

100 When it is desired to adjust the jaw 10 relatively to the jaw 2, the side plates 15 are gripped and shifted to move the block 12 out of engagement with the bar 5. When the jaw has been moved to a desired position, the side plates 15 are released and the spring 22 immediately places the block in engagement with the bar 5.

110 It is thought that the operation and utility

of the wrench will be apparent without further description, and while in the drawing there is illustrated a preferred embodiment of the invention, it is to be understood that
5 the structural elements thereof are susceptible to such variations as fall within the scope of the appended claim.

What I claim is:—

A wrench comprising a shank having its
10 front edge provided with teeth, a rectangular jaw body slidably mounted upon the shank and projecting forwardly from the front end thereof, said forwardly projecting
15 portion provided with a slot opening at the sides and forward edge of said portion, a toothed block arranged within said slot and capable of engaging said teeth to prevent
20 shifting of said jaw body, plates formed integral with the sides of said block and straddling the sides of the jaw body and providing means to prevent lateral movement of

the block, an arm positioned against the forward edge of the jaw body and extending across the open end of said recess and having the inwardly disposed inner end secured to and flush with the inner end edge
25 of the jaw body, said arm permanently straddled by said plates and in connection with these latter maintaining the block within the slot, a spring interposed between
30 the arm and the block for maintaining the latter in engagement with said teeth, a jaw fixed to the jaw body and of the same thickness as the thickness of the shank, and a
35 jaw integral with the shank and opposing the jaw of the jaw body.

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

FRANK THAYER.

Witnesses:

J. H. KENNEDY,
A. G. MACRURY.

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