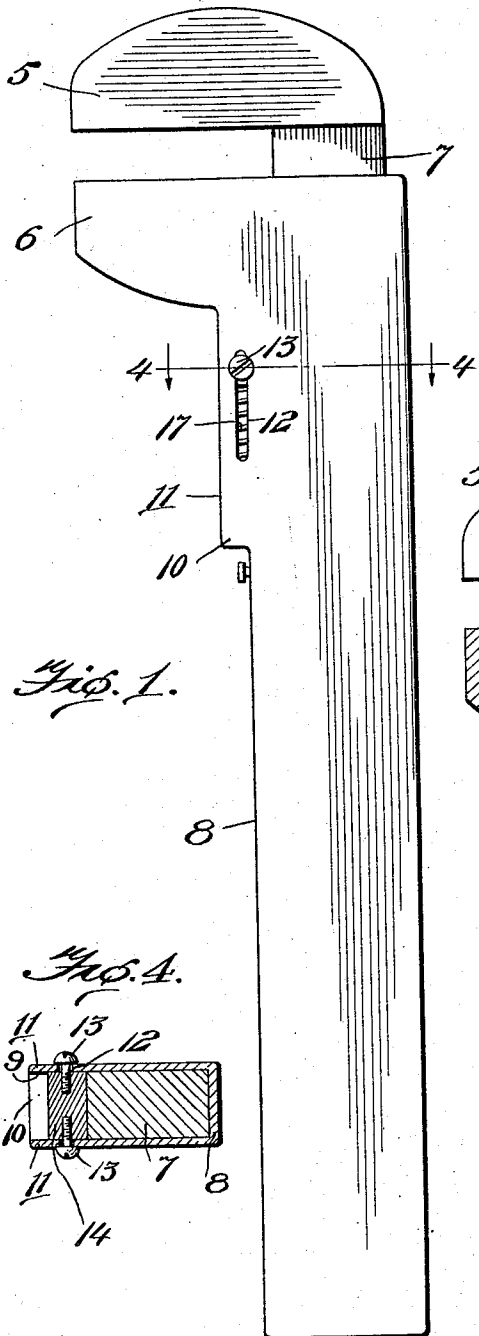
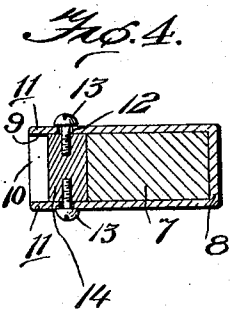
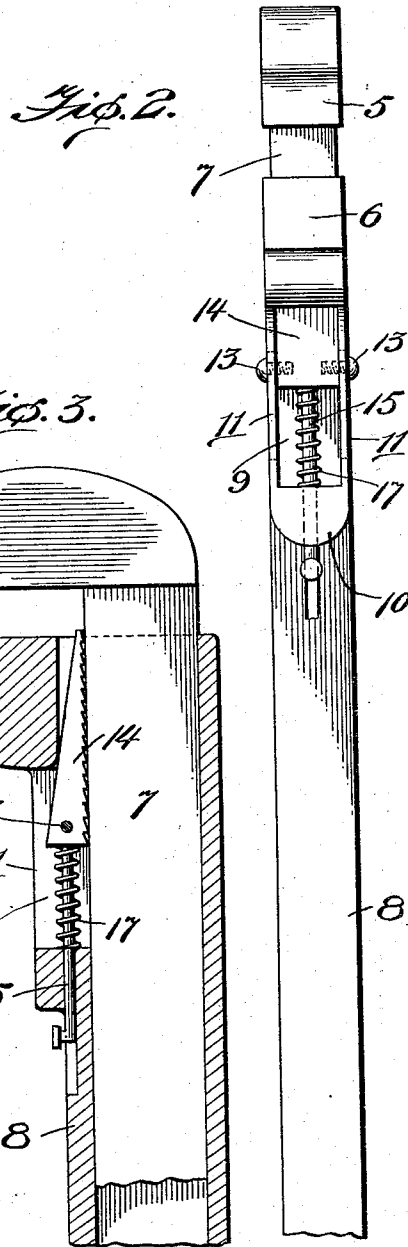


A. HULTHIN.
WRENCH.
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1,183,733.

Patented May 16, 1916.



Witnesses
McByrne.
E. J. Bennett.

By

Inventor
Anton Hulthin

David P. Moore.
Attorney

UNITED STATES PATENT OFFICE.

ANTON HULTHIN, OF BROOKLYN, NEW YORK.

WRENCH.

1,183,733.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANTON HULTHIN, a subject of the King of Norway, but who has taken out a declaration of intention to become a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

The invention relates to quick adjustable monkey wrenches.

The primary object of the invention is the provision of a wrench of this character, wherein both the jaws are formed with shanks, one being telescoped in the other, so that the jaws can be adjusted relative to each other, while carried by one of the shanks is a lock, in the form of a wedge which serves to fasten the other shank against sliding movement in one direction, yet permitting free movement thereof in the reverse direction, and in this manner the jaws can be accurately adjusted, and firmly held in such position for the positive gripping of the work engaged thereby.

Another object of the invention is the provision of a wrench of this character, wherein the locking means is mounted in one of the shanks in a novel manner to assure positive action for the holding of the jaws of the wrench in adjusted position and against slipping when grasping the work.

A further object of the invention is the provision of a wrench of this character, which is novel in construction, to render the same strong, positive in action, and accurate in its adjustment.

A still further object of the invention is the provision of a wrench of this character, which is extremely simple in construction, thoroughly reliable and efficient in operation, possessing maximum strength and durability, and also which is inexpensive in manufacture.

With these and other objects in view the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claim hereunto appended.

In the accompanying drawing:—Figure 1, is a side elevation of a wrench constructed in accordance with the invention. Fig. 2, is a front edge view thereof. Fig. 3, is a frag-

mentary longitudinal sectional elevation. Fig. 4, is a sectional view on the line 4—4 of Fig. 1.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, the wrench comprises a pair of jaws 5 and 6, which cooperate with each other for the clamping of work, the jaw 5, being provided with a solid shank 7, integral therewith, while the jaw 6, is formed with a hollow shank 8, which telescopically receives the solid shank 7, for the adjustment of the jaws relative to each other.

Formed on the hollow shank 8, next to the jaw 6, is a guide-way 9, which opens at one end between the jaw 6, and the front edge of the solid shank 7, while the opposite end of the guide-way 9, is closed with an enlargement 10, on the shank 8, the opposed side walls 11, of the guide-way being formed with slots 12, through which are passed headed finger engaging pins 13, the same being fixed in a wedge shaped locking block or slide 14, arranged for movement in the guide-way 9, to engage between the inner end of the jaw 6, and the front edge of the shank 7, telescoped in the hollow shank 8, carrying said jaw 6, for the locking of the shanks to hold the jaws in adjusted relation to each other.

Formed at the wider or heel end of the wedge shaped block or slide 14, is a stem 15, which slidably fits in a bore leading from the closed end of the guide-way 9, while surrounding this stem is a coiled expansion spring 17, which has its bearing against the enlargement 10, and the block or slide 14, respectively, for action upon the latter to normally hold it in locking position, yet by engaging and pushing upon the heads of the pins 13, the block or slide 14 will be released for the freeing of the shanks to permit the adjustment of the jaws 5 and 6, with respect to each other, and in this manner the wrench is quickly and accurately adjusted.

What is claimed is:

A wrench comprising a solid shank having an integral jaw, a hollow shank forming a housing coextensive with and slidably receiving the solid shank, a jaw on the hollow shank for cooperation with the other jaw, a widened portion formed on the hollow shank next to the jaw thereon and having

a guideway extending through the latter, and also having slots in opposite walls of said guideway, a wedge working in the guideway to engage the solid shank, members mounted in the opposite sides of the wedge and projected through the slots exteriorly of the hollow shank, a stem on the wider end of the wedge and extending beyond the widened portion, and a coiled expansion spring surrounding the stem and acting to advance the wedge in the guideway between the solid shank and jaw on the hollow shank.

In testimony whereof I affix my signature.

ANTON HULTHIN.

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