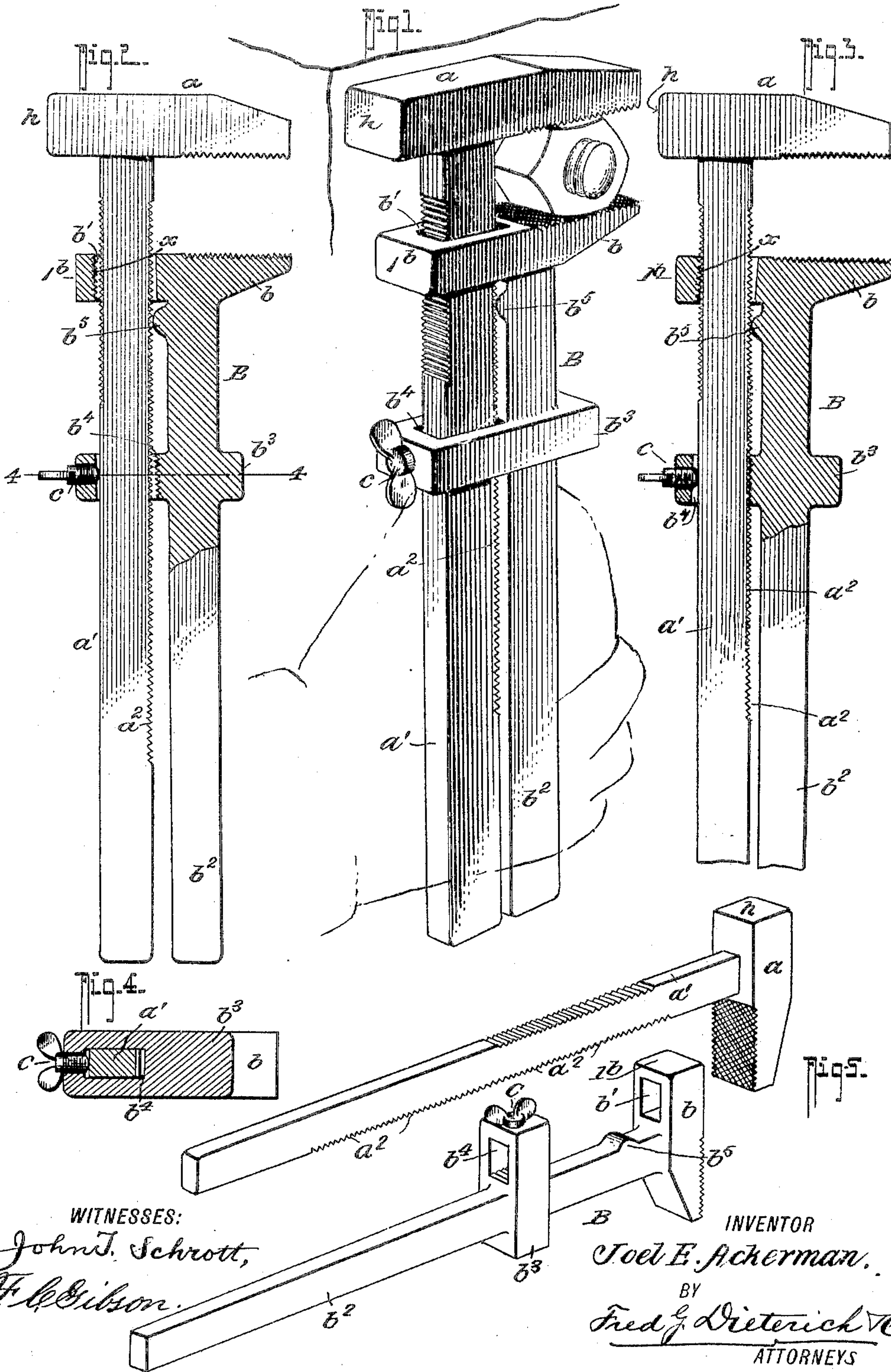


No. 794,067.

PATENTED JULY 4, 1905.

J. E. ACKERMAN.
WRENCH.

APPLICATION FILED MAR. 10, 1905.



WITNESSES:
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WRENCH.

SPECIFICATION forming part of Letters Patent No. 794,067, dated July 4, 1905.

Application filed March 10, 1905. Serial No. 249,457.

To all whom it may concern:

Be it known that I, JOEL E. ACKERMAN, residing at Valley Junction, in the county of Monroe and State of Wisconsin, have invented a new and Improved Construction of Wrench, of which the following is a specification.

My invention particularly relates to improvements in that type of wrenches having a sliding jaw and handle-lever grip, means for holding the sliding jaw to its adjusted positions; and my said invention seeks to provide a wrench of the character stated of a simple and economical construction composed of but two pieces in which the adjustment of the parts can be quickly effected and a powerful leverage applied under ordinary hand-grip pressure for sustaining the sliding jaw to its adjusted position and in which the two members have such construction and coöperation that when the hand-grip is applied the sliding jaws will be positively held interlocked and from moving away from the object clamped.

My invention consists in the peculiar construction of the two members, and especially the combination of parts, whereby a double grip is applied on the main jaw and at each side of the fulcrum-point of the lever or movable jaw, all of which will be hereinafter fully described, pointed out in the claim, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved wrench, showing the manner in which it is used. Fig. 2 is a vertical section of the same, showing the two members adjusted to permit of freely sliding out the "hammer-jaw" and its handle. Fig. 3 is a similar view showing the position of the two members when arranged to grip a nut and illustrating the manner in which a "double grip," one above and the other below the pivot or fulcrum-point, is effected. Fig. 4 is a transverse section taken on the line 4-4 of Fig. 2, and Fig. 5 illustrates the two parts that constitute my improved wrench separated.

In the practical construction my wrench consists of a main or stationary jaw *a*, integrally formed with its shank *a'* and having the outer or heel end shaped to form a ham-

mer-head *h*, its shank being of uniform rectangular shape in cross-section its entire length with the outer edge near the lower end formed with serrations or teeth *a''*, the reason for which will presently appear.

B designates the combined sliding and lever member, the upper end of which is formed with a jaw *b*, that opposes the jaw *a* and has its heel portion *1^b* formed with a rectangular aperture *b'* for the passage of the shank *a'* and to provide for freely sliding the shank therein. Said aperture *b'* is of greater width than the shank *a'*, as clearly shown in Fig. 2. At a point some distance below the jaw *b* the shank or lever bar *b²* has a second heel portion *b³*, that extends back and has an opening *b⁴* similar to the aperture *b'* in the other heel member *1^b* for the free passage of the shank *a*. At a point between members *1^b* and *b³* the lever-bar *b²* on its inner edge has a rounded projection *b⁵*, which forms the fulcrum for the lever-bar *b²* as it engages the adjacent edge of the opposing shank.

So far as described it will be readily apparent that the projection *b⁵*, which is preferably located near the jaw *b*, while acting as the fulcrum for the bar *b²* also serves to normally hold the two members *a'* and *b²* in such alignment that the member A can be freely pulled out of the apertured heel portion of the jaw *b* and the apertured heel portion *b³*, and, furthermore, by reason of the manner in which the fulcrum engages the shank *a'* a powerful leverage is effected on the face X of the heel member of the jaw *b* to cause said face, which is also preferably serrated, as shown, to tightly bite or grip the serrated edge of the shank *a'*. To hold the two members from becoming accidentally separated when the wrench is not in use, a set-screw C may be mounted in the outer end of the lower heel portion of the member B, which when tightened will engage shank *a'* and hold the two parts A and B firmly locked together.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The hereinbefore - described improved wrench, comprising a main jaw and shank,

the latter being of uniform shape throughout its length, a sliding jaw and shank, said sliding jaw having a slotted heel-piece, the sliding shank having a slotted extension, said extension and slotted heel-piece being arranged to slidably receive the opposing jaw-shank, the sliding shank having a projection on its

inner edge at a point between the two slotted heel portions, all being arranged substantially as shown and described.

JOEL E. ACKERMAN.

Witnesses:

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