

C. W. HILTON.
Wrench.

No. 202,259.

Patented April 9, 1878.

Fig 1

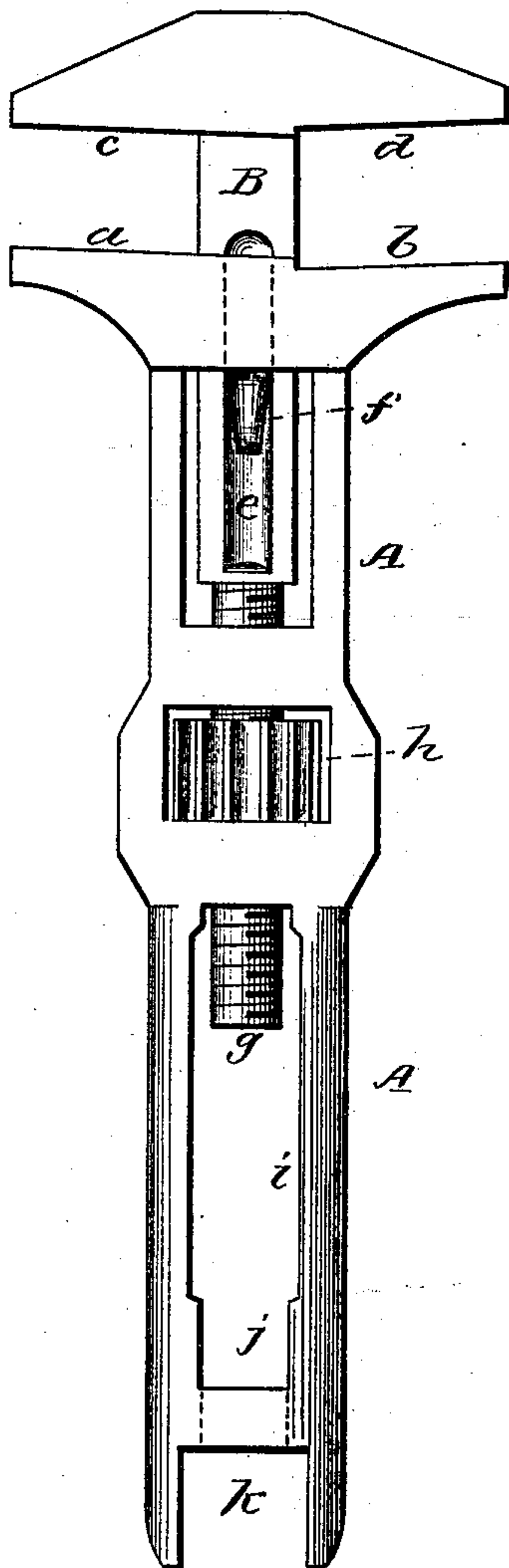
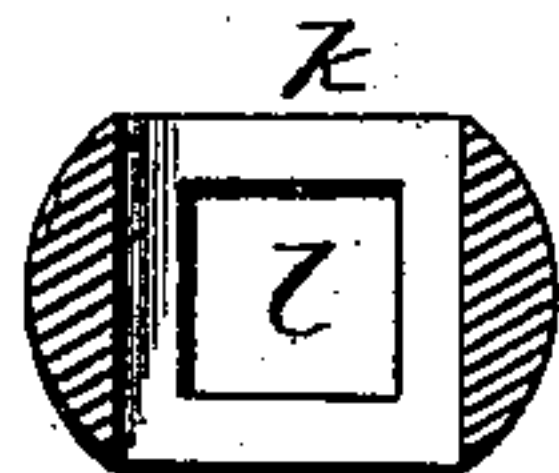


Fig. 2.



WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

CHARLES W. HILTON, OF BACON HILL, ASSIGNOR OF ONE-HALF HIS RIGHT
TO J. HOWARD THOMPSON, OF NORTHUMBERLAND, NEW YORK.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 202,259, dated April 9, 1878; application filed
March 26, 1878.

To all whom it may concern:

Be it known that I, CHARLES W. HILTON, of Bacon Hill, in the county of Saratoga and State of New York, have invented a new and valuable Improvement in Wrenches; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of my invention, and Fig. 2 is an end view of the handle.

This invention has relation to wrenches; and the object and purpose thereof are to construct a wrench that will be durable, simple in its operating parts, and one in which the jaws may be readily adjusted and adapted to fit various sizes and forms of nuts, and also constructing the handle of the wrench so that it may be used in intricate places, or in places where the adjustable jaws could not be used.

The invention therefore consists in the construction and combination of the various parts, as will be hereinafter described, and subsequently pointed out in the claim.

In the accompanying drawings, A represents the handle, terminating at its upper end in stationary jaws *a b*. Passing down through a slot in the handle A is a bar, B, to the top of which are the movable jaws *c d*. The jaws, as will be noticed, are inclined slightly in an upward direction, and have an offset to adapt the jaws to nuts not of the square form, and which vary in size. Thus it will be noticed that when the one side of the jaws *a c* are adjusted to the nut, the jaws *b d*, having the offset, will present a slightly wider space, and, should the next nut following be slightly larger in circumference, all that will be necessary is to simply turn the wrench over and use the jaws *b d*, avoiding the necessity of using the adjusting thumb-nut.

The bar B has upon one of its sides a groove, *e*, running lengthwise thereof, within which

fits a finger, *f*, the same being secured to the stationary jaws *c d*, or to one side of the upper end of the handle A. By this construction the bar B and the jaws connected thereto are steadied and guided in their movement.

The lower end of the bar B terminates in a screw-rod, *g*, which receives a thumb adjusting-nut, *h*, by which the jaws *c d* are operated.

The handle A is formed with jaws *i j k*, of different sizes, and also an opening, *l*.

The various sizes of jaws in the handle renders the wrench very convenient, as the handle may be used in places where it would be impossible to use the jaws upon the head of the wrench; and when the jaw *k*, at the extreme end of the handle, is required to be used the handle is held in a vertical position, or similar to a screw-driver.

It frequently occurs that the screw-bolt upon which the nut is placed extends some distance above the nut; and with those wrenches designed or constructed to be used similar to a screw-driver, being held in a vertical or nearly vertical position, it has been found difficult to remove the nut, owing to the extreme length of the screw-bolt above the nut coming in contact with the end of the handle. To adapt the jaw *k* to remove nuts from screw-bolts of various heights, or those bolts which extend somewhat above the nut, an opening, *l*, of sufficient size is made in the handle, to allow the end of the screw to pass up through it during the operation of unscrewing the nut, the end of the screw-bolt acting as a guide to the jaw *k*, and retaining it in place upon the nut.

A wrench constructed according to my invention is not alone strong and durable, but light in weight, and easily handled and operated.

The wrench may be constructed of any suitable metal, and the movable jaws may either be cast with the bar, or welded or otherwise secured thereto; and in place of securing the guard or finger to the side of the jaws or handle, it may be cast with the wrench, and bent to its place after the iron is tempered.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the handle or body A, and jaws *a b*, and the guard or finger *f*, of the bar B, groove *e*, and jaws *c d*, the jaws *b d* having the offset, as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES WILLIAM HILTON.

Witnesses:

J. H. DE RIDDER,
FRED. McNAUGHTON.