H. Tilden,

Wrench.

No. 85,624. Patented Jan. 5. 1869.

Fig: 1.

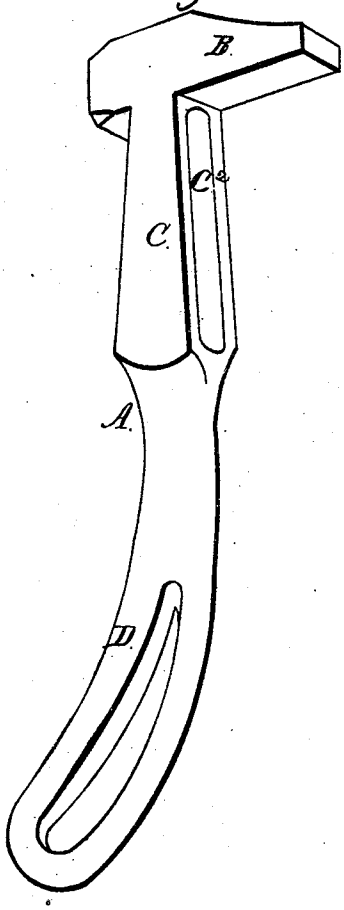


Fig: 2.

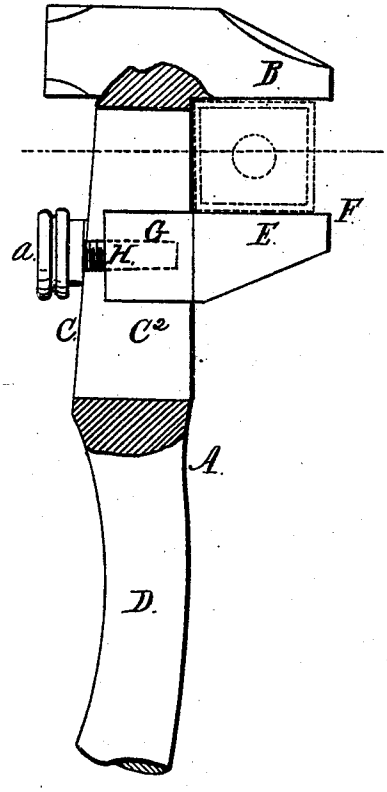


Fig: 3.

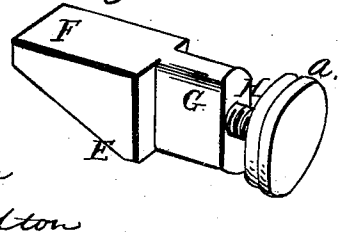
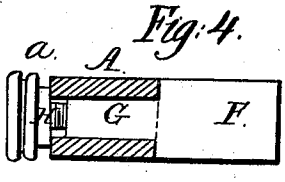


Fig: 4.



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Letters Patent No. 85,624, *dated January* 5, 1869.

IMPROVEMENT IN WRENCHES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HOWARD TILDEN, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and improved Wrench; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to a new and useful improvement in that class of wrenches which are provided with a fixed and a sliding jaw.

The invention consists in a novel construction of the wrench, as hereinafter fully shown and described, whereby a very simple and inexpensive means is obtained to effectually resist the casual movement or forcing away of the sliding jaw from the fixed jaw, when the wrench is used.

To this end, a portion of the handle of the wrench (which is provided with a stationary or fixed jaw) is made of tapering or wedge-form, leaving its narrowest part nearest the fixed jaw, and increasing in width as it recedes from said jaw.

Through this portion of the wrench, in line with the jaw, and edgewise to the wedge, is a slot, of a thickness equal to about one-half that of the body of the wrench.

The movable jaw in its main portion is of the same thickness as the body of the wrench, with a projection of the thickness of and fitting into the slot in which it is moved back and forth, to accumulate the space between the two jaws to fit any size of nut, as required.

A screw passes from the back of the wrench through the slot into a nut formed to receive it in the movable jaw. The head upon this screw seats itself upon the back of the wedge, bringing the projecting shoulder of the jaw snugly and firmly against the front of the wedge and retaining it in position.

When the wrench is used, the tendency is to force the jaws apart, which presses the head of the screw and the shoulder upon the wedge, and fastens them firmly in position.

To release and move the jaw, a slight blow or jar upon the end of the wrench suffices, when the screw is easily turned and a new adjustment effected.

Figure 1 is a perspective view of the main body of the wrench.

Figure 2, a detached perspective view of the movable jaw, with its fastening-screw.

Figure 3 is a side view, showing a portion of the body of the wrench broken away and removed, so as to show the central slot with the movable jaw and screw therein, as arranged in position ready for use.

Figure 4, a cross-section of the body of the wrench, with a top view of the movable jaw and screw, as arranged therein.

Similar letters of reference indicate corresponding parts.

A is the main body of the wrench, consisting of the stationary jaw B, the wedged-shape part C, slot C^2, and handle D, all forged or cast in one piece.

E is the movable jaw, having the part F of the same thickness as the stationary jaw B, and its projecting portion G, which enters the slot C^2, of just sufficient thickness to move freely therein and retain it from turning.

H is the screw, having a head, *a*, equal to or slightly exceeding the thickness of the body of the wrench.

This screw passes from the back through the slot into a nut formed in the body of the movable jaw.

I do not propose to confine myself to the precise form and arrangement here shown, as the same may be varied in several ways and still retain the main features of my invention; as, for instance, I may make the screw stationary in the jaw, with a nut to turn upon its back end, or pass the screw freely through the jaw, with a nut on its front end, or I may form a slot in the movable jaw to pass over the body of the wrench, which would still retain its tapering or wedge-form.

The construction is exceedingly simple, the parts strong and not liable to derangement, and the facilities for adjustment not exceeded by any form of wrench now made.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the wedge-shaped body C of the wrench with the movable jaw E and tightening-screw H, all made and operating in the manner substantially as herein shown and described.

HOWARD TILDEN.

Witnesses:

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