No. 606,690. Patented July 5, 1898.

T. SPRIGGS.

WRENCH.

(Application filed May 26, 1897.)

(No Model.)

Fig. 1.

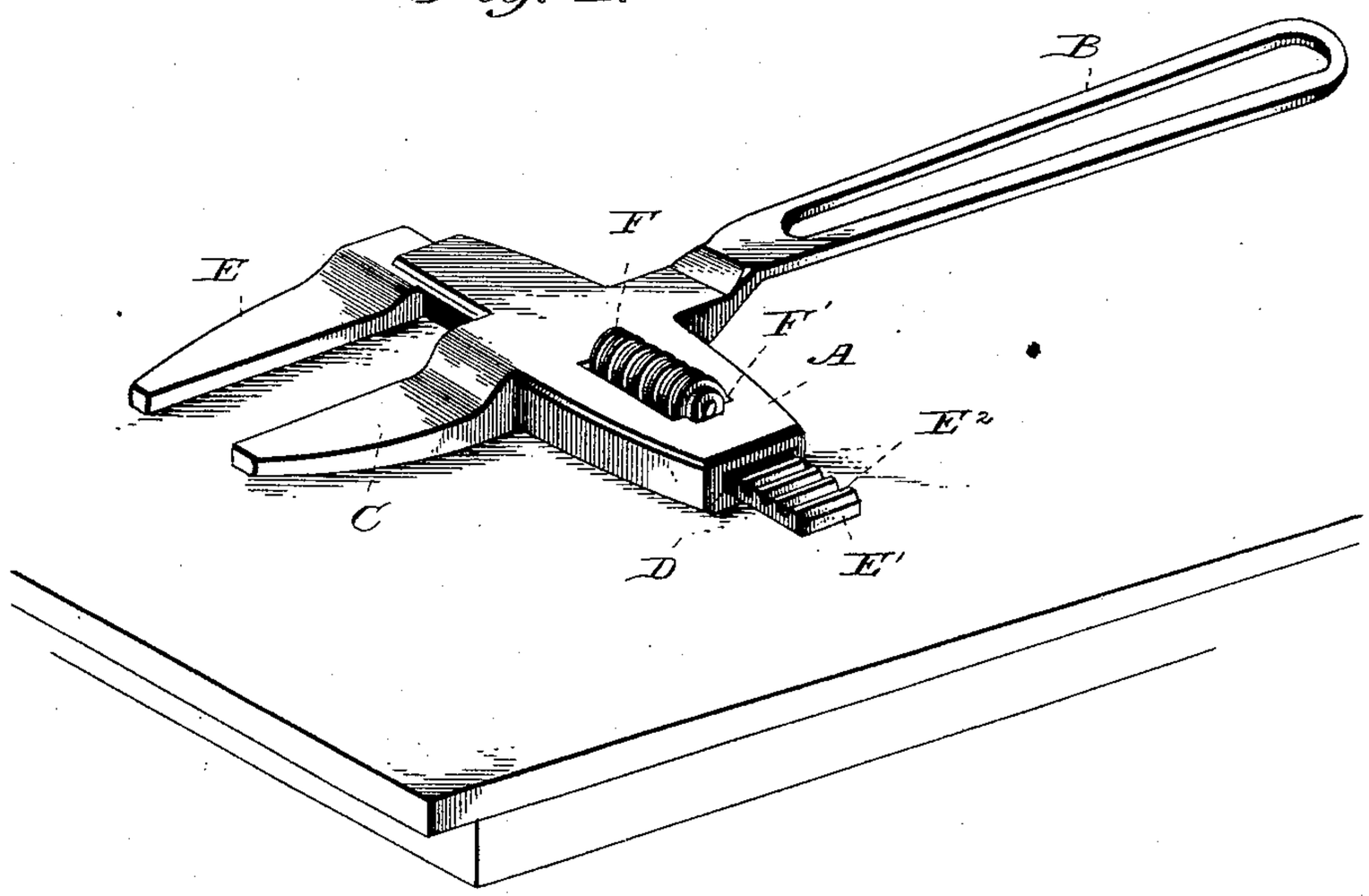


Fig. 2.

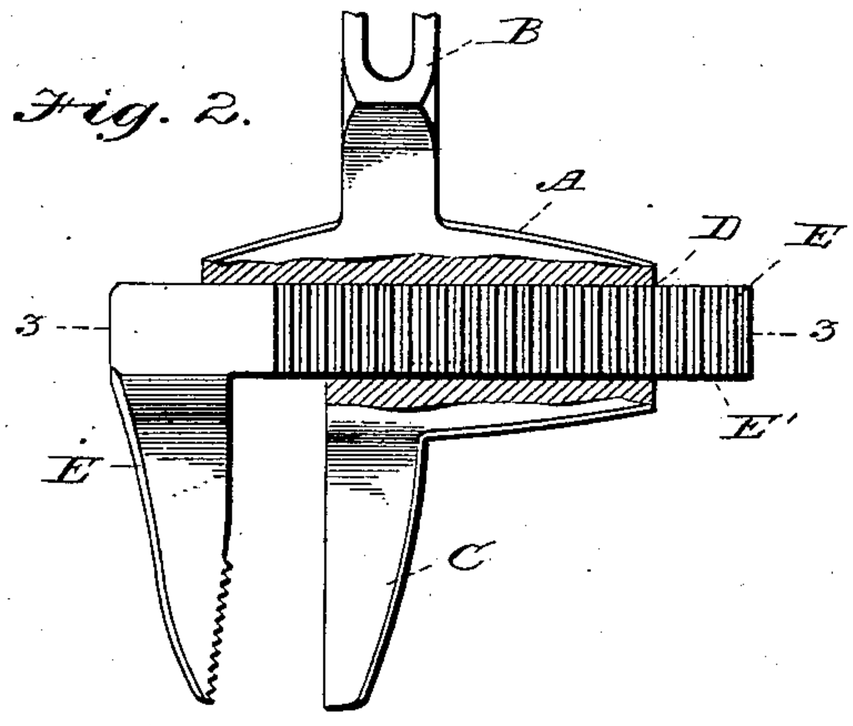


Fig. 3.

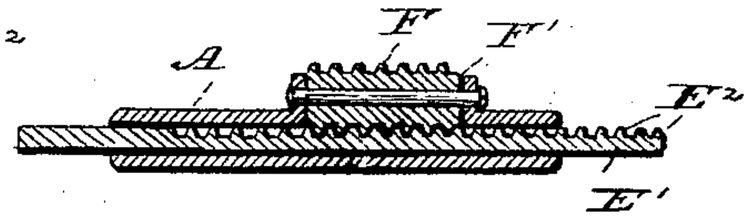


Fig. 4.

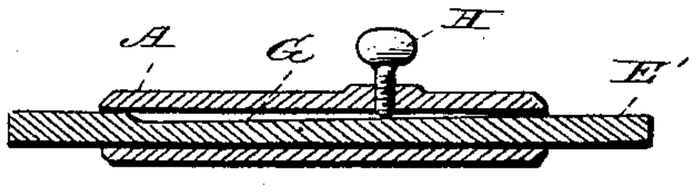
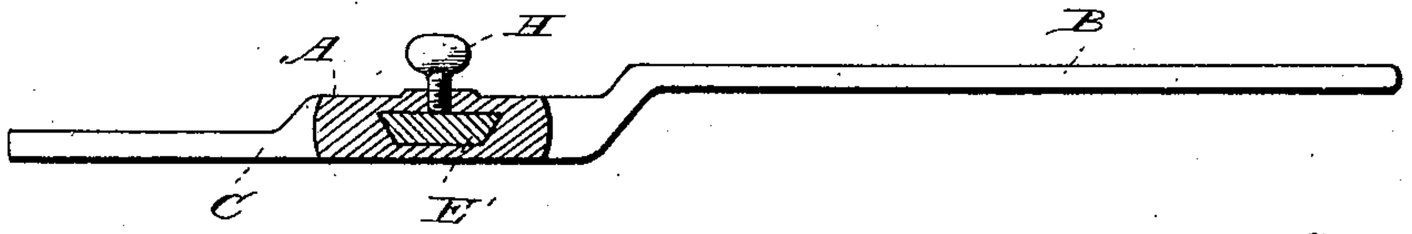


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS SPRIGGS, OF LITTLE RIVER, KANSAS.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 606,690, dated July 5, 1898.

Application filed May 26, 1897. Serial No. 638,203. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SPRIGGS, residing at Little River, in the county of Rice, State of Kansas, have invented a new and useful Improvement in Wrenches, of which the following is a specification.

My invention relates to certain improvements in wrenches of the class known as "movable jaw;" and the objects of my said invention are, first, to provide a simple, cheap, and durable tool with as few parts as possible and capable of being held and adjusted with one hand; second, to provide a simple and easily-operated means of adjustment, and, third, to provide a body adapted to receive a movable jaw and means whereby the said movable jaw can be easily and quickly removed when it is desired to change the tool from a nut-wrench to a pipe-wrench.

With these objects in view my invention consists in the combination and arrangement of parts, such as will be hereinafter fully described, and specifically pointed out in the claim.

Referring to the drawings, in which similar letters of reference are used to indicate similar parts, Figure 1 is a perspective view of my device complete when used as a nut-wrench. Fig. 2 is a plan view of the same, the body being broken away to show the shank of the movable jaw, which in this instance is shown with serrations to be used as a pipe-wrench. Fig. 3 is a transverse section taken about on the line 3 3 of Fig. 2 and showing my preferred construction of adjusting mechanism. Fig. 4 is a similar view to Fig. 3, but showing a modified construction of adjusting mechanism; and Fig. 5 is a longitudinal section taken in front of the jaws and showing the shank of the movable jaw in cross-section.

Referring to the drawings by letter, A designates the main body portion of the wrench, which has cast integral therewith the handle B. This handle B is preferably made with a slotted center, as shown in Fig. 1, for the purpose of lightness and also to provide means for hanging. The body portion A has cast integral therewith the stationary jaw C, and is shown somewhat thinner and lighter than the body. I have shown the gripping-face of this jaw plain, but it might be provided with serrations when it is to be used solely as a pipe-wrench. The body A is provided with a longitudinal slot D for the reception of the shank E′ of a movable jaw E. This shank E′ is provided on the upper surface with a rack E^2 and is adapted to move freely in the slot D of the body A. Suitably mounted in an opening F′ on the upper surface of the body A is a worm F, adapted to mesh with the rack E^2 on the shank of the movable jaw E, and thereby adjust the said jaw either backward or forward to open or close the gripping-faces of the jaws.

In Fig. 1 I have shown both of the jaws with plain gripping-faces, which would be the proper construction when they are to be used as a nut-wrench. In Fig. 2 I have shown the movable jaw provided with serrations or teeth on its gripping-face, and this would be the proper construction when to be used as a pipe-wrench.

It will be readily seen from the foregoing description that my wrench can be held and operated by one and the same hand, the worm being operated by the thumb; also, that the movable jaw can be quickly and easily removed and another inserted when it is desired to change from a nut to a pipe wrench, or vice versa.

The worm and rack are preferably of a high pitch, so that the revolution of said worm will move the jaw quickly.

In Figs. 4 and 5 I have shown a modified construction of adjusting mechanism for my wrench which consists in making the shank of the movable jaw without the rack and inclining the upper face of the same, as shown at G in Fig. 4. I also provide a set-screw H, adapted to impinge on the inclined surface of the shank E′ and hold the jaw firmly in the required position. When this construction is used, I also provide the shank E′ with beveled edges, as shown in Fig. 5. I find this construction thoroughly practical, but not as desirable as my other construction, on account of its not being capable of being held and operated by one and the same hand.

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

A combined nut and pipe wrench comprising a head, A, having a handle, B, and jaw, C, formed integral therewith, a transverse

slot provided in said head, a movable jaw, E, having a shank formed at right angles thereto provided with teeth on its upper face adapted to slide in the said transverse slot, an opening provided in the head, A, having upwardly-extending lugs in its ends, a worm-sleeve mounted in the opening between the said lugs adapted to engage the teeth on the shank of the movable jaw, substantially as described.

THOMAS SPRIGGS.

Witnesses:
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