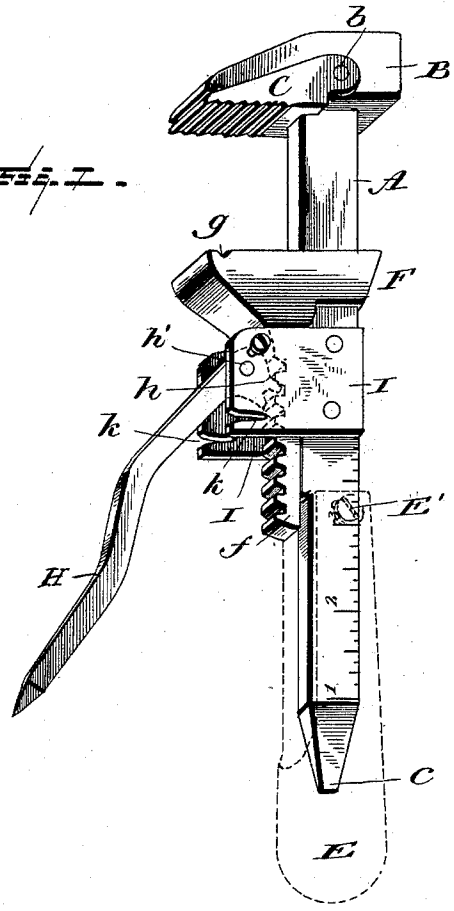
(No Model.)

J. A. LITEL.

WRENCH.

No. 483,461. Patented Sept. 27, 1892.

Fig. 1.



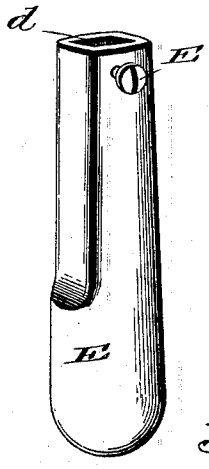


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN A. LITEL, OF HAM'S PRAIRIE, MISSOURI.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 483,461, dated September 27, 1892.

Application filed June 4, 1892. Serial No. 435,483. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. LITEL, a citizen of the United States, residing at Ham's Prairie, in the county of Callaway and State of Missouri, have invented certain new and useful Improvements in Wrenches; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in wrenches of that class comprising, also, a variety of other devices; and it has for its objects, among others, to provide an improved device of this character which shall comprise a greater number of articles and those so constructed and arranged and combined as to occupy a minimum amount of space and yet each readily accessible for use as may be desired. I form the shank of the fixed jaw to adapt it for use as a try-square, a rule, a screw-driver, or one arm of a compass or calipers. A removable handle is provided for the end of this shank. The device is also capable of use as a nut-wrench and pipe-wrench, as a nut-cracker, and a wire-cutter.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of my improved wrench with the handle removed, its being shown in its relative position by dotted lines and in perspective view detached in Fig. 2.

Referring now to the details of the drawings by letter, A designates the shank, carrying the fixed jaw B, one end of which is formed with a flat head to constitute a hammer. To this head is detachably pivoted on a pivot *b* a supplemental jaw C, having a serrated acting face, to adapt the wrench for use as a pipe-wrench by simply applying this supplemental jaw. Without it the wrench is fitted as a nut-wrench. The shank is graduated, as seen in Fig. 1, for use as a rule, and the end is formed into a screw-driver *c*, as also seen in Fig. 1.

E is a removable handle having a socket *d*, to receive the end of the shank, to which it is removably secured, as by a set-screw E′. With the handle removed the device may be used as a try-square.

F is the movable jaw. It is provided with an extension *f*, which is toothed or formed into a rack-bar, the jaw embracing the shank in the usual manner and movable thereon. The acting face of this jaw is adapted for use as a nut-wrench in connection with the flat face of the fixed jaw, or with the serrated jaw as a pipe-wrench, and this acting face of the movable jaw is also formed with a transverse notch or channel *g* to adapt it for use as a nail-puller. It may also serve as a nut-cracker.

The movable jaw is actuated by the toothed cam-head *h* on the lever H, which toothed head engages the teeth of the rack-bar, as seen in Fig. 1, the lever being pivoted at *h′* between the ears or extensions of the plates I, secured to the shank A, the pivot being designated by the letter *h′*. This lever is curved, as shown, and its free end pointed to adapt it for use as one leg of a compass or of calipers, the other leg being formed by the shank A. The lower front edges of the plates I are provided with the notches *k*, which, in connection with the lever, fit the device for use as a wire-cutter, as will be readily understood from Fig. 1, the wire being designed to be inserted in the notches and cut by the action of the lever thereagainst.

The device is ready for use in any one or more of its offices, and in practice has proved most efficient for each and every one above mentioned.

What I claim as new is—

1. A combination-tool embodying in the one device a nut-wrench, a pipe-wrench, a hammer formed by the fixed jaw of the wrench, a nail-puller formed on the movable jaw, a screw-driver, and a rule formed on the shank of the fixed jaw of the wrench, a wire-cutter, calipers, a nut-cracker, and a try-square, all constructed and arranged relatively to each other as set forth.

2. The combination, with the shank and its fixed jaw, of the movable jaw sleeved on said

shank and provided with a rack-bar, the plates fixed on the shank and provided with notches to serve as a wire-cutter, and a lever pivoted between said plates and having a toothed cam-head engaging said rack-bar and acting, in conjunction with the said notches, to form the wire-cutter, as set forth.

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

JOHN A. LITEL.

Witnesses:
J. FRANK SPANHURST,
J. R. PENN.