L. O. VEBER.

Wrench.

No. 166,665. Patented Aug. 10, 1875.

FIG. 1.

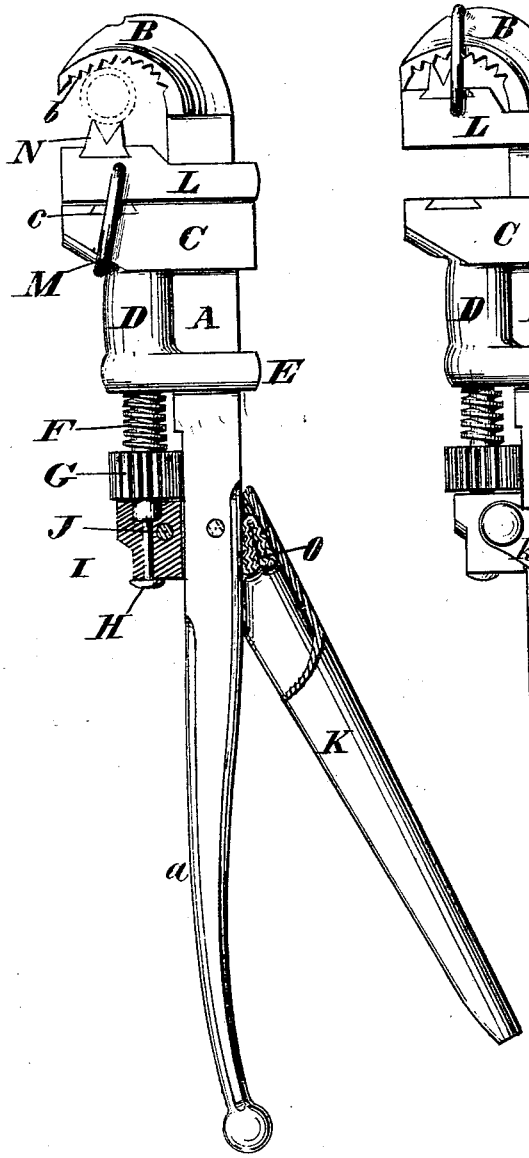


FIG. 2.

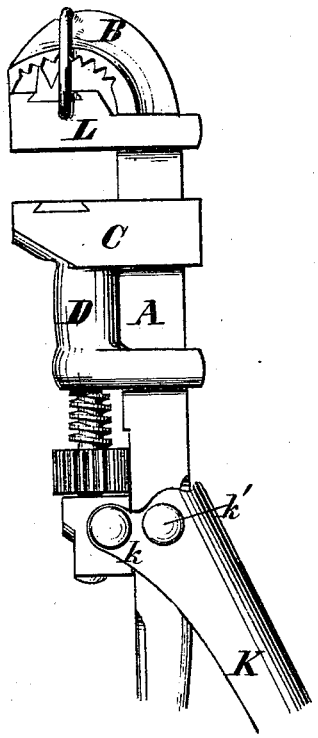
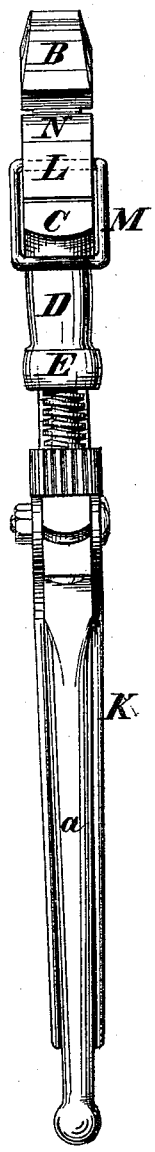


FIG. 3.



WITNESSES

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LUCIUS O. VEBER, OF SCHUYLER'S LAKE, NEW YORK.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **166,665**, dated August 10, 1875; application filed May 17, 1875.

To all whom it may concern:

Be it known that I, LUCIUS O. VEBER, of Schuyler's Lake, in the county of Otsego and State of New York, have invented an Improvement in Wrenches, of which the following is a specification:

The subject of my invention is a tool adapted for use either as a pipe-wrench or as an ordinary screw-wrench. It is constructed with a concave toothed jaw for holding a cylindrical object, a sliding jaw adjustable by means of a screw, in customary manner, and an intermediate jaw, which may be locked in connection with either the concave jaw or a flat sliding jaw, and is constructed with one flat face for use with screw-nuts, and one toothed face for use with cylindrical objects. The adjusting-screw of the lower jaw is connected with a lever, by which the necessary motion is imparted to the sliding jaw for the purpose of griping and releasing a pipe or screw coupling or other object. A gum or other spring is applied beneath this lever, to retract automatically when released.

In the accompanying drawing, Figure 1 is a side elevation of the instrument, partly in section, illustrating its adaptation to the purposes of a pipe-wrench. Fig. 2 is a side elevation, showing its adaptation to the purposes of an ordinary screw or monkey wrench. Fig. 3 is a front view, with the parts shown in the same positions as in Fig. 1.

A represents the main arm of the wrench, constructed with a common handle, *a*, and terminating at the other extremity in a concave jaw, B, having the customary teeth *b* for holding a pipe or other cylindrical object. C is a jaw fitted to slide on the main arm A, and constructed with a socket, D, and guiding-band E, encircling the square portion of said arm A. The jaw C has a flat face, and is provided with a customary dovetailed steel face-piece, *c*, which may be removed and replaced by removing the tooth-bit N, thereby dispensing with the intermediate jaw L when used only as a pipe-wrench. F represents a screw fitting within the screw-socket D, and provided with a milled head, G, for turning the screw F to open or close the jaws. The screw F G is constructed with a pivot, H, fitting within a box, I, which is attached by a pivot, J, to the short arms *k* of a lever, K, which latter is fulcrumed at *k'* to the arm A. L represents an intermediate jaw, interposed between the sliding jaw C and the stationary jaw B, and provided with a link or yoke, M, by which it may be connected with either of the said jaws, as illustrated in Figs. 1 and 2. On the upper face of the jaw L it is provided with a removable toothed bit, N, adapted for use, in combination with a concave jaw, B, for holding a pipe or other cylindrical object, as illustrated in Fig. 1. The lower face of the intermediate jaw L is flat, adapting it to operate, in combination with the sliding jaw C, for the ordinary purposes of a screw-wrench. O represents a spring, of rubber or other material, for throwing out the lever K, and thus retracting the jaw to a slight extent, together with the intermediate jaw L, if the latter be coupled thereto, as illustrated in Fig. 1.

This device is specially useful when the instrument is employed for the purposes of a pipe-wrench, in which case it is necessary to frequently take and release the hold.

The following is claimed as new:

A wrench consisting of a main arm, A, upper jaw B, lower jaw C, and intermediate jaw L, adapted to be coupled to either the upper or lower jaw by means of a link, M, said lower and intermediate jaws sliding upon the arm A, as set forth.

LUCIUS O. VEBER.

Witnesses:

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