

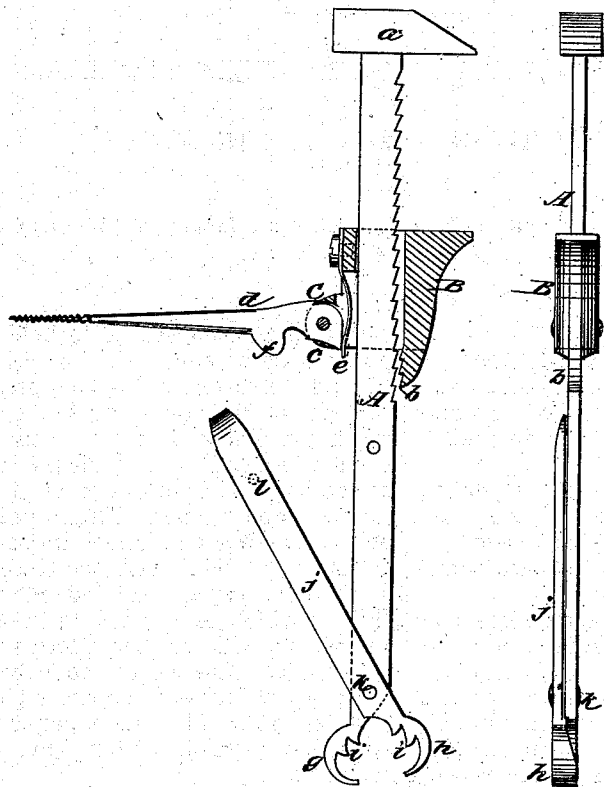
I. U. MALPHURS.
COMBINATION TOOL.

No. 186,259.

Patented Jan. 16, 1877.

Fig. 1.

Fig. 2.



WITNESSES:

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INVENTOR:

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BY *[Signature]*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ISHAM U. MALPHURS, OF GAINESVILLE, FLORIDA.

IMPROVEMENT IN COMBINATION TOOLS.

Specification forming part of Letters Patent No. **186,259**, dated January 16, 1877; application filed December 4, 1876.

To all whom it may concern:

Be it known that I, ISHAM U. MALPHURS, of Gainesville, in the county of Alachua and State of Florida, have invented a new and Improved Combination Tool, of which the following is a specification:

Figure 1 is a side elevation with a portion broken away to show the internal construction more clearly. Fig. 2 is a front view.

Similar letters of reference indicate corresponding parts.

My invention relates to the arrangement in a single piece of a number of useful tools; and it consists in the combination of a wrench, a screw-driver, nippers, pipe-tongs, and gimlet.

Referring to the drawing, A is a ratchet-bar, upon one end of which the head *a* is formed, making one of the jaws of the wrench. B is the movable jaw of the wrench, which is mortised to fit the bar A loosely, and is provided with the ratchet-teeth *b*, which are capable of engaging with the ratchet-teeth of the bar A. The mortise in the movable jaw is open through a portion of its length, and the sides of the jaw are elongated, forming ears *c*, between which the lever *d* is pivoted. This lever is provided with a shoulder, which bears against a spring, *e*, attached to back of the movable jaw, and projecting between the

ears *c*, and which serves to hold the lever *d* either open or shut. A lug, *f*, is formed on one side of the lever *d*, which presses against the side of the bar A, as the lever is folded down parallel with the bar and draws the ratchet-teeth of the movable jaw into the teeth of the bar. The long arm of the lever *d* is formed into a gimlet. The end of the bar opposite the head *a* is formed into a curved ball or jaw, *g*, provided with the teeth *i*. A similar ball or jaw, *h*, is formed on the end of a lever, *j*, which is pivoted to the bar A at *k*, and which, with the jaw *g*, forms nippers and pipe-tongs. The end of the lever *j* is formed into a screw-driver, and a short pin, *l*, projects from its inner side, and engages with a hole in the bar A when the tongs are shut up and not in use.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A combination tool consisting of a monkey-wrench, gimlet, pipe-tongs, nippers, and screw-driver, combined and arranged substantially as herein shown and described.

ISHAM U. MALPHURS.

Witnesses:

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