

UNITED STATES PATENT OFFICE.

JAMES W. MAHLON, OF NEW YORK, N. Y.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 118,619, dated August 29, 1871.

To all whom it may concern:

Be it known that I, JAMES W. MAHLON, of the city, county, and State of New York, have invented a new and useful Improvement in Screw-Wrenches and Cutters; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing forming a part of this specification.

This invention consists in a novel arrangement of the screw, nut, and handle of the wrench or cutter relatively to its sliding and fixed jaws, whereby a very strong, durable, and powerful implement is produced.

In the accompanying drawing, Figure 1 is a central longitudinal section of a screw-wrench made according to my invention, and Fig. 2 is a transverse section of the same taken at the plane indicated by the dotted line in Fig. 1.

Similar letters of reference indicate corresponding parts in both figures.

A is the bar of the wrench, on the outer end of which the fixed jaw B of the wrench is formed in the ordinary manner, and on which the sliding jaw C slides. This bar has formed on its other end a shouldered square, *a*, which fits within a socket in a yoke, D, and beyond this square there is formed on the said bar a screw, *b*, which passes through a bridge-like plate, *c*, on the under side of the said yoke, and has screwed on it a nut, E, by means of which the bar is rigidly secured to the yoke. F and G are two parts, which, together, form the handle of the wrench. The part F is of metal, and has a flange or collar, *d*, formed on its upper end, and extends through a socket in the yoke D and through the wooden shell or outer part G of the handle; and it has formed on its lower end a short screw, *f*, for the reception of a nut, H, by which the said part F is secured within the other, G. The upper por-

tion of the part F is hollow and internally screw-threaded, as shown at *n*, in Fig. 1, to constitute a nut, in which the screw I of the wrench works. This screw I is secured at its upper end by a pin, *e*, in a mortise in the under side of the sliding jaw C, immediately over the nut F. The outer part or shell G of the handle is made of wood, with a metal ferrule, J, on its inner end, and is secured so as to turn with the other part F by a pin, K, which passes through the middle portion of both, and is riveted at its ends to keep it in place.

To operate the wrench the handle is turned, and its inner part or nut F, working on the screw I, operates the sliding jaw C.

One marked feature of this wrench is, that the handle and screw are in line with each other, instead of the handle being in line with the bar, as it is in the ordinary wrenches, and that both handle and screw are under the gripping portion of the jaws, whereby, in turning a nut or anything else with the wrench, there is less strain on the jaws than when the handle is arranged in the ordinary manner, and, therefore, the wrench is rendered more durable.

Pipe-wrenches and cutters can be constructed in substantially the same manner; but their handles would be made in one piece, with a T-head, whereby a better hold would be obtained.

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

The combination of the screw I, nut N, handle F G, yoke D, bar A, and jaws B and C, when the whole are arranged substantially as herein set forth.

JAMES W. MAHLON.

Witnesses:

J. W. COOMBS,

R. T. VAN BUSKERCK.

[13.]

Charles Malhoit's

Combined Stone and Iron Shoulder Tool

No. 118,620.

Patented Aug. 29, 1871.

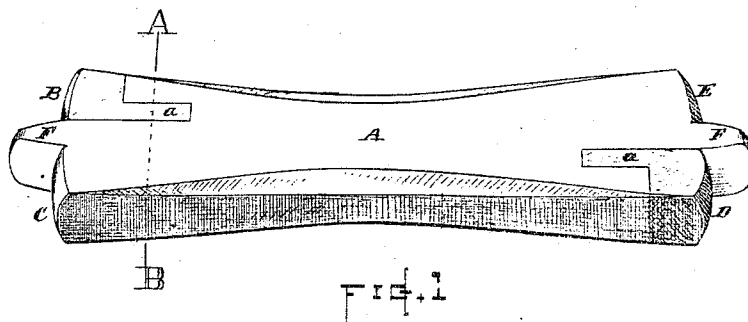


FIG. 1

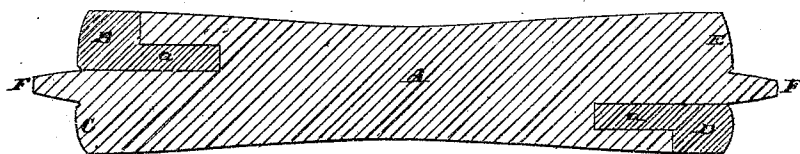


FIG. 2

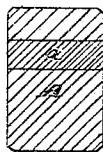


FIG. 3

Witnesses

Wm. H. Zimlich
C. H. Carrish

Inventor

Charles F. Malhoit
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