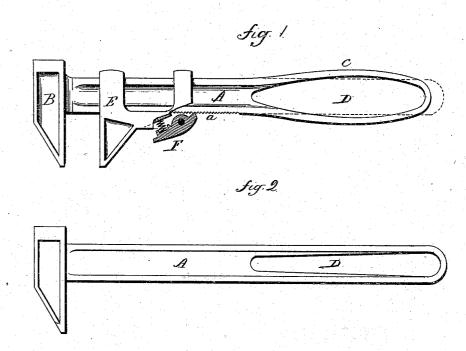
O. B. NORTH. WRENCH.

No. 172,155.

Patented Jan. 11, 1876.



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UNITED STATES PATENT OFFICE.

OLIVER B. NORTH, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO O. B. NORTH & CO., OF SAME PLACE.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 172,155, dated January 11, 1376; application filed December 9, 1875.

To all whom it may concern:

Be it known that I, OLIVER B. NORTH, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Wrenches; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, sectional side view; Fig. 2, the bar, handle, and head as formed to receive

the movable jaw.

This invention relates to an improvement in that class of wrenches in which the movable jaw is provided with a pawl to engage upon the bar to hold the movable jaw in any desired position. These wrenches have usually been constructed with a wood or metal handle set on over the shank formed on the bar, the bar, head, and shank forged accordingly.

The object of this invention is to simplify the construction; and it consists in forming the bar, head, and handle in a single piece, the handle end open, and of substantially the same width as the bar, and then, after the movable jaw has been passed onto the bar over the handle end, that open end is spread to give the necessary width and convenient shape to the handle, as more fully hereinafter set forth.

A is the bar, B the head, and C the handle. In the manufacture of this wrench the handle is an extension of the bar, and is made of substantially the same size, externally, as the bar, but no larger, and with an opening, D, through the handle end. Thus formed, the movable jaw E is passed on over the handle end to the bar proper, and is provided with the spring-pawl F to engage notches a, formed in the bar. After the movable jaw has been thus passed over the handle end, that end is spread, as seen in Fig. 1, to give the requisite shape to the handle. This prevents the removal of the adjustable jaw from the bar, and enables the casting of the bar, handle, and stationary jaw in one and the same piece of malleable metal-hence very materially cheapening the construction, and producing a strong and serviceable wrench.

I claim....

The herein-described wrench, consisting of the bar A, head B, and handle C, in one and the same piece, combined with the movable jaw E, passed onto the bar over the handle end, and the said handle end subsequently spread to give shape to the handle, substantially as described.

OLIVER B. NORTH,

Witnesses:

LUCIUS H. PRINDLE,

I. D. WEED.