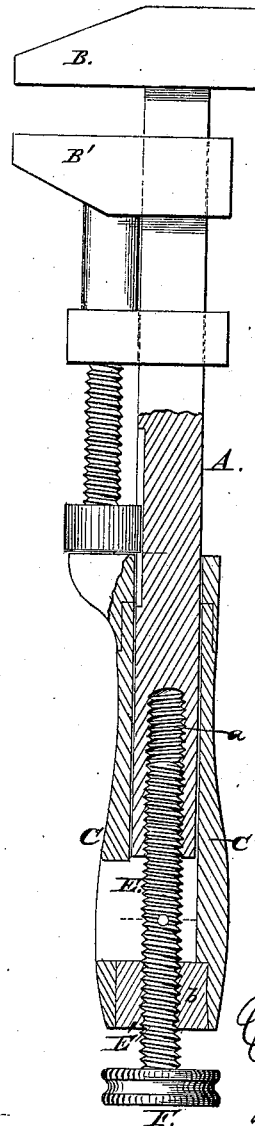


C. C. Webber,

Wrench.

N^o 54,471.

Patented May 1, 1866.



Witnesses:

Wm. E. Lyon
Theo. Lusk

Inventor:

C. C. Webber.
per Munn & Co
Attorneys

UNITED STATES PATENT OFFICE.

C. C. WEBBER, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO HIMSELF
AND WARREN M. SMITH, OF SAME PLACE.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 54,471, dated May 1, 1866.

To all whom it may concern:

Be it known that I, C. C. WEBBER, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

The drawing is a view of a wrench showing, by a longitudinal section of a part of the same, the application of my invention.

The object of my invention is to provide a way for tightening the gripe of the wrench still more than can be done by the thumb-screw usually employed; and it consists in fitting the bar of the wrench to slide into a socket in the handle thereof, and employing a screw having a fine and a coarse thread cut upon it, the former working in the bar and the latter in a nut in the handle, whereby I am enabled to draw down the outer jaw upon the article taken hold of with great force.

To enable others to understand my invention, I will proceed to describe it.

A represents the bar of the wrench. B B' the two jaws, the latter being operated by a screw in the usual way. C is the handle of the device, which may be of metal or wood, as desired. Into the handle C there is made a longitudinal slot, into which is fitted to slide the bar A of the wrench.

E E' designate a screw-rod, one part of which, E, has a fine thread cut upon it, which works into a box, a, in the lower end of the bar A,

and the other part, E', has a coarse thread made upon it, which works into a box, b, set in the end of the handle. This screw-rod E E' is provided at the end of the wrench with a head, F, by which to operate it.

Another way of moving the bar A in the handle C may be suggested. For instance, a hollow screw could be run on the shank of the wrench and an outside thread caused to run in the handle, and this would effect the same end; and indeed other ways might be suggested.

In using the wrench the jaw B is first screwed tightly up to the article in the usual way; then to obtain a better or firmer hold the jaw B is caused to clamp the article tighter, it being made to operate by means of the head F.

Should it be desired to have the screw E E' screwed harder than the hand would do it, a small lever can be used, one end of which is to be inserted in holes made in the periphery of the head F. Indeed it can be screwed in this way sufficiently to flatten an ordinary gas-pipe. The difference of the two threads of the screw-rod E E' gives the power, as can be readily seen.

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

The combination of the jaw B, bar A, screw-rod E E', handle C and nut b, and head F, substantially as specified.

C. C. WEBBER.

Witnesses:

STEPHEN E. SEYMOUR,
N. S. BEEBE.