E. Ripley,

Pipe Wrench.

No. 31,034 Patented Jan. 1, 1861.

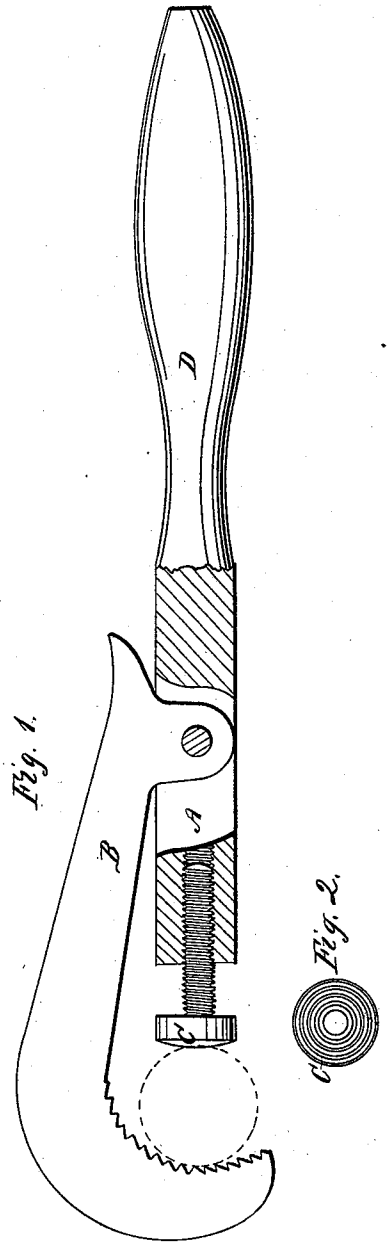


Fig. 1.

Fig. 2.

Inventor;

Ezra Ripley

By atty A B Stoughton

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EZRA RIPLEY, OF TROY, NEW YORK.

WRENCH.

Specification of Letters Patent No. 31,034, dated January 1, 1861.

To all whom it may concern:

Be it known that I, EZRA RIPLEY, of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Wrenches for Turning Pipes, Round Bolts, and Similar Articles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side view, partly in section, of the wrench, Fig. 2 is an end or face view of the adjustable revolving jaw.

The same letters refer to like parts in each of the figures.

The nature of my improvement, consists in combining an adjustable rotating faced jaw, with a wrench stock or bar having a hook or claw gripper hinged to it, this rotating faced jaw so operating in its adjustment, that the gripping or holding face of said jaw when applied to pipes and rods of varying diameters may not at most times present the same point of contact on the face of the jaw to the article or object to be turned or wrenched.

The description of my improved wrench is as follows, viz:

A is the wrench stock, having the hook or claw gripper B hinged to it in the manner shown.

C is an adjustable revolving faced jaw, having the face side moderately convex, and provided with a series of ridged or grooved concentric circles, or the jaw face is otherwise prepared or roughened so as to give its holding surface sufficient "grip" on the article to be wrenched, to prevent slipping. This rotating jaw is constructed substantially in the manner, and has its bearing and a direct screw adjustment, independent of a revolving nut in aid of that purpose, in, and at the head of the wrench stock, as seen in the annexed drawing.

The principal advantage of the rotating faced jaw over a non rotating faced sliding jaw, is; in presenting generally as the diameters of the articles to be turned vary, a special point of contact on the revolving jaws face to each special diameter or size of rod or pipe acted upon; thereby obtaining a gripping face on an adjustable jaw much better designed for durability and efficiency in operation.

It will be seen that the drawings, description and operation, of my improved wrench, show a substantial difference between it and an adjustable sliding jaw wrench. The difference is in the manner in which the gripping faces of the adjustable jaws of the two respective wrenches, operate upon the article, to be wrenched, for; in the sliding jaw wrench, the point of contact on the sliding jaw face of the article acted upon, is the same invariably, be the diameters of the articles wrenched large or small, whereas in the revolving faced jaw wrench, the point of contact on the jaw face, of the article wrenched, is more or less varied, as the diameters of the articles acted upon differ. There is also another point of difference between the sliding jaw wrench, and the revolving faced jaw wrench, in the manner of adjustment of their respective jaws for use; the sliding jaw having an indirect screw adjustment by aid of a revolving nut, in combination with it, and a screw thread on the wrench shank; while the adjustment of the revolving faced jaw is positive and direct, without the aid of a nut, revolving in combination with it.

Having described my improved wrench I wish to be understood, as laying no exclusive claim to a hook or claw gripper hinged to a wrench stock, or any especial claim to a revolving faced jaw, irrespective of its combination with other parts of a wrench, or any broad claim to a screw adjustment of the movable jaw of a wrench irrespective of the peculiar construction and operation of such jaw, but

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

The rotating face adjustable jaw C, having a direct screw adjustment as described, in combination with the hook or claw gripper B, hinged to the wrench stock or bar A, combined substantially, and operating in the manner and for the purposes as herein set forth and shown.

EZRA RIPLEY.

Witnesses:

L. STONE,

J. J. SAVAGE.