(No Model.)

A. J. BARBER & H. A. TRIPP.

PIPE WRENCH.

No. 421,892. Patented Feb. 25, 1890.

Fig. 1.

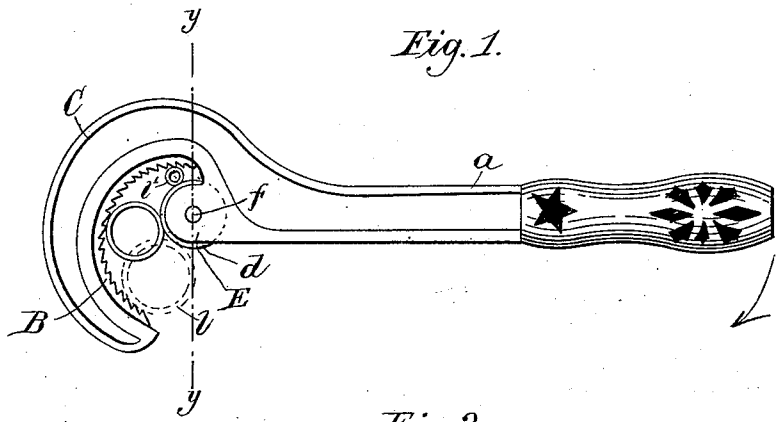


Fig. 2.

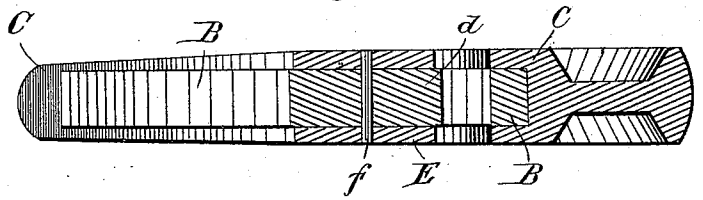
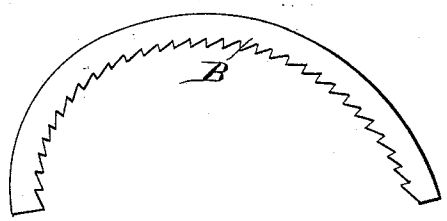


Fig. 3.



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UNITED STATES PATENT OFFICE.

ARTHUR J. BARBER AND HENRY A. TRIPP, OF SODUS, NEW YORK.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 421,892, dated February 25, 1890.

Application filed September 16, 1889. Serial No. 324,144. (No model.)

To all whom it may concern:

Be it known that we, ARTHUR J. BARBER and HENRY A. TRIPP, citizens of the United States, residing in the town of Sodus, county of Wayne, and State of New York, have invented an Improvement in Pipe-Wrenches.

The following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation of our improved wrench. Fig. 2 is a section on line *y y*, Fig. 1. Fig. 3 is a side elevation of the serrated plate B.

In said views, *a* represents the bar, which is formed with a long curved jaw C, diverging from a central pivotal support *d*, in which is firmly secured the serrated plate B. The jaw C is extended and recurved, as shown, so as to surround the wheel or pivotal support *d*, through about a half-circle, and the serrated plate made as nearly coextensive therewith as practicable to adapt the implement to round pipes of largely-varying sizes. The jaw is formed eccentrically in respect to the wheel, but so as to entirely surround it if sufficiently prolonged. Heretofore a wrench with jaws having substantially an angular arrangement with respect to each other, one of which jaws was supplied with steps to adapt it to grasp rectangular objects, has been described, and such device is not of our invention, nor is the wheel or support *d*. Projecting from the bar *a* are two ears *e e*, as shown in Fig. 2, between which the pivotal support *d* is mounted upon axis *f*. Said pivotal support is arranged to coact with the serrated plate B, secured in the diverging jaw C in holding-pipes *l l'* while actuating the same.

The serrated plate B is preferably made from tool-steel and fitted in the diverging jaw C, so that it can be replaced, if necessary; but this construction is not absolutely essential, as the jaw C, plate B, and bar A may all be drop-forged in a single piece.

The advantages of this pipe-wrench over most of the pipe-wrenches in use are that it does not require to be adjusted for different sizes of pipe. In Patent No. 271,595, granted to S. A. Bostwick, February 6, 1883, the pivotal support is mounted in a sliding block, and is moved backward or forward by an adjusting-screw to engage different sizes of pipe. We disclaim the construction therein shown.

In use the wrench is placed on the pipe, as shown in Fig. 1, and the handle moved in the direction of the arrow, when the pipe is firmly grasped between the serrated plate and the pivotal support. The largest size the wrench will grasp is shown at *l*, Fig. 1, while the smallest size is engaged at *l'* and all intermediate sizes between those two points. When it is desired to remove the wrench from a pipe, all that is necessary is to reverse the motion of the handle, and the pipe is instantly released.

We are aware that pipe-wrenches have been constructed having diverging jaws. Usually one is made having ratchet-teeth, while the other is left smooth; but it is found that by substituting a roller in a fixed bearing in place of the smooth jaw, and constructing the serrated jaw, as in Fig. 1, so as not to require any adjustment of the roller, a handy pipe-wrench is thus produced, and one that will engage the pipe and release the same more readily. Such wheels have heretofore been used in movable supports and combined with serrated jaws of such form that the adjustability of the wheels was essential to any considerable range of application.

What we claim as new, and desire to secure by Letters Patent, is as follows:

In a pipe-wrench, the bar *a*, having a serrated jaw C and pivoted support *d*, the former being slightly eccentric and divergent and surrounding the latter through about a half-circle, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ARTHUR J. BARBER.
HENRY A. TRIPP.

Witnesses:
WALTER TRIPP,
J. J. SEYMOUR.