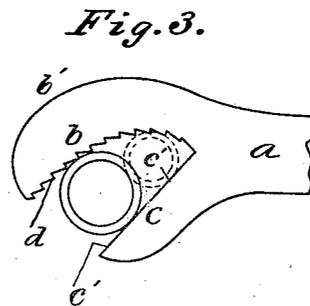
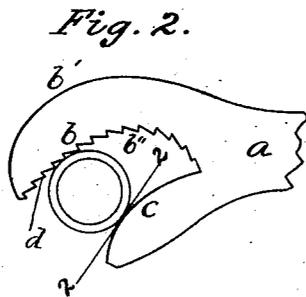
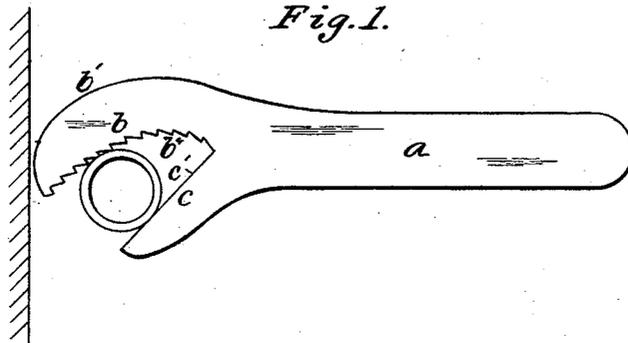


(No Model.)

A. W. CASE.
PIPE WRENCH.

No. 280,793.

Patented July 10, 1883.



Witnesses.

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UNITED STATES PATENT OFFICE.

A. WELLS CASE, OF SOUTH MANCHESTER, CONNECTICUT.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 280,793, dated July 10, 1883.

Application filed May 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, A. WELLS CASE, of South Manchester, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Pipe-Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

Figure 1 is a side view of my device, shown as applied to a pipe near a wall. Fig. 2 is a diagram view illustrating the disadvantages of a form that I avoid. Fig. 3 is a diagram view illustrating one advantage gained by my improvement.

My invention relates to the well-known form of pipe-wrench, in which the jaws are fixed and the pipe grasped by being thrust into the opening of the jaws, and the wrench then revolved to turn the pipe.

In the accompanying drawings, the letter *a* denotes a bar of metal, having one end split or separated to form the grasping-jaw *b* and the bearing-jaw *c*, the opening between them being flaring from their line of departure from the bar. The grasping-jaw *b* is curved on its back *b'* in a line of varying radius, and the inner side or face, *b''*, is also curved in the same direction and provided with the teeth *d*, which are substantially serrations, with the long faces of the teeth in about the line of the tangent of a pipe grasped by the wrench, and the short faces more in the line of the radius at the point in contact. The bearing-jaw *c* has a straight

bearing-face, *c'*, and it is in the combination of the straight faced bearing-jaw with the curved and roughened or serrated grasping-jaw that my improvement mainly consists.

The operation of my device is as follows: The wrench-bar, held in one hand, is thrust against the pipe, Fig. 1, in such manner that the curved jaw first engages it, and then by depressing the outer end the straight jaw slips under or around the pipe until jammed tightly into the opening between the jaws. A continued revolution of the wrench turns the pipe.

In the form of wrench shown in Fig. 2 the pipe slips past the point on the curved lower jaw that is tangent to its line of direction 2 2, (see the figure,) and jams between the jaws back of that point, making it difficult to loosen the hold of the wrench on the pipe, and the incurved lower jaw also presents a more flaring opening at all points than is desirable for perfect action.

My improved wrench presents in the straight face of the bearing-jaw none of these disadvantages, as it both grasps and releases a pipe with ease and certainty, the curved outline of the pipe finding a tangential bearing in all parts of the opening. (See Fig. 3.)

I claim as my invention—

In a pipe-wrench having fixed and flaring jaws, the combination of the grasping-jaw having the curved back and the curved and serrated face with the bearing-jaw having the straight bearing-face, all substantially as described.

A. WELLS CASE.

Witnesses:

CHAS. L. BURDETT,
EDWIN F. DIMOCK.