

(No Model.)

E. JUDSON.
PIPE WRENCH.

No. 371,143.

Patented Oct. 4, 1887.

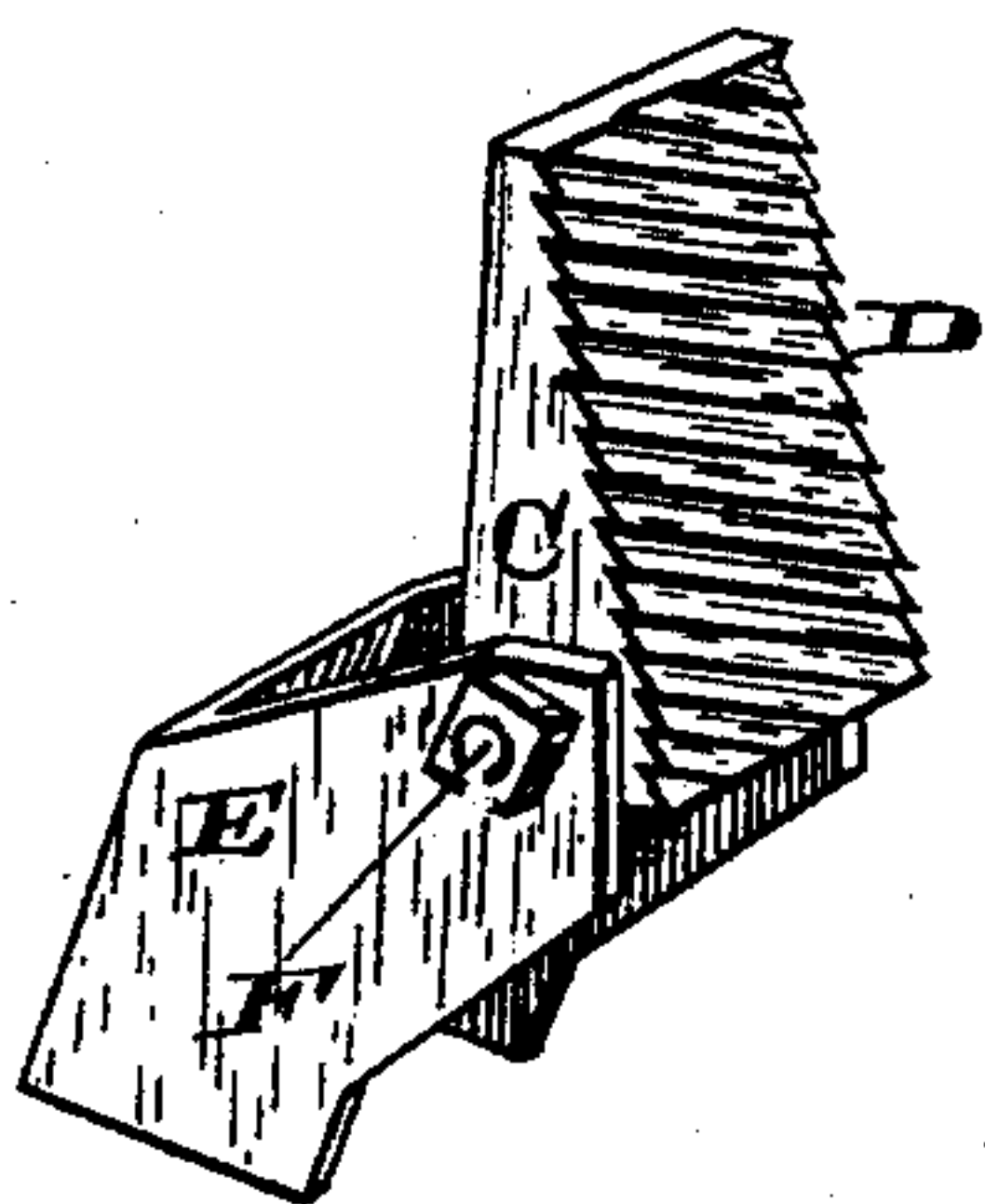


Fig. 1.

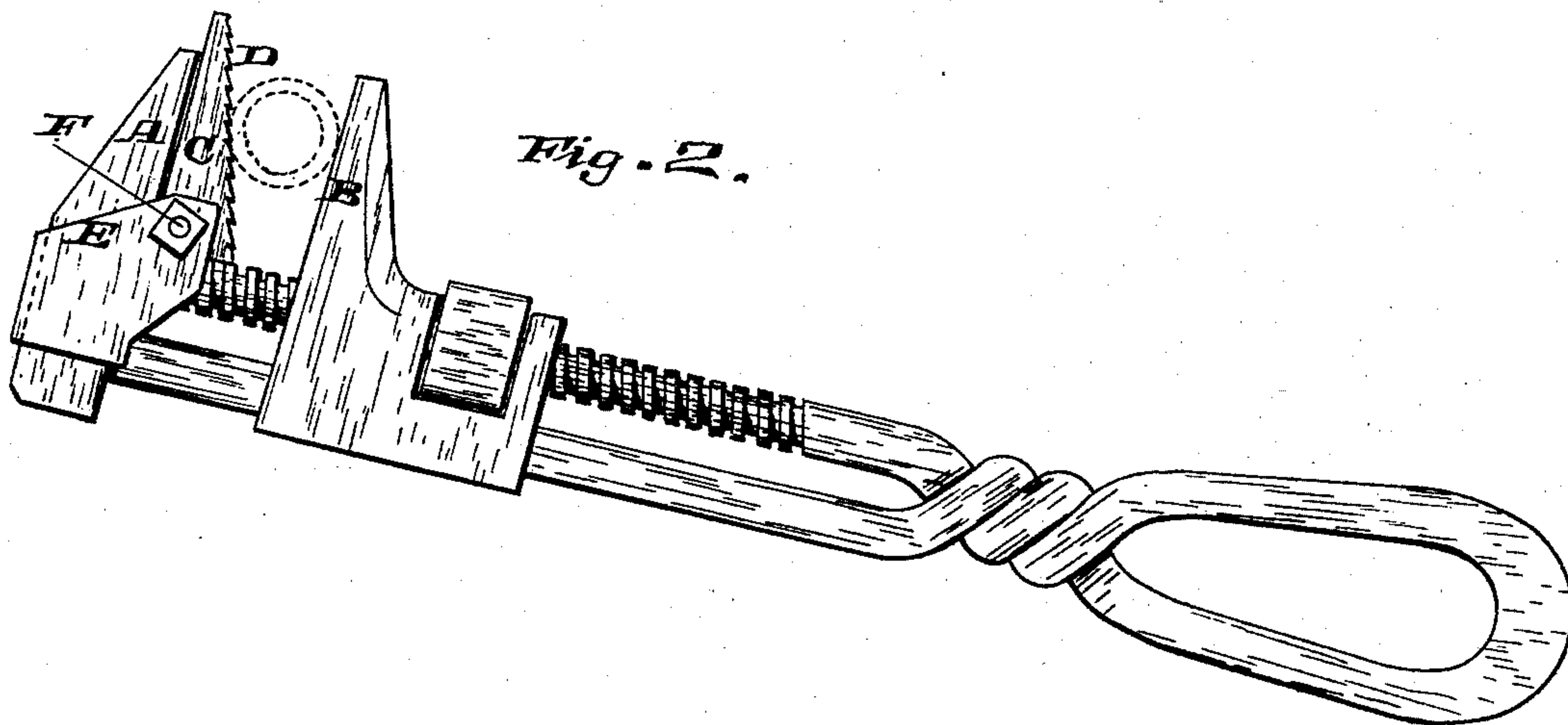


Fig. 2.

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UNITED STATES PATENT OFFICE.

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PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 371,143, dated October 4, 1887.

Application filed January 6, 1887. Serial No. 223,613. (No model.)

To all whom it may concern:

Be it known that I, EGBERT JUDSON, of the city and county of San Francisco, State of California, have invented an Improvement in Attachments for Wrenches and Vises; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an attachment which is especially applicable to the jaws of monkey-wrenches or for hand or other vises; and its object is to provide a removable supplemental piece with a corrugated front, which can be placed within one of the jaws, so that the wrench or vise can be used upon round rods or pipes in the same manner as it is ordinarily used upon angular nuts.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of the independent plate with a strap or means for attaching it to the jaw. Fig. 2 is a view of the wrench, showing the supplemental jaw in place thereon.

A is the fixed and B the movable jaw of a wrench to which I have shown my invention attached. In the present case the inner faces of these jaws are parallel with each other, and are suitable for turning square or angular nuts or bolts, but cannot be applied to rods, pipes, or other round surfaces. In order to make the wrench applicable to rounded surfaces, I employ a supplemental plate or jaw, C, the back of which is flat and smooth and fits against the inside of the jaw A. The front or gripping face, D, is beveled or inclined, as shown, so that the thickest portion of the plate is inwardly, or toward the shank of the wrench, while the outer portion is thinner. The face of this jaw is corrugated, or provided with holding-teeth, as shown, and when a round rod, bolt, or pipe is grasped between the smooth movable jaw B and the corrugated supplemental jaw C it lies within a tapering or wedge-shaped space, and when the wrench is turned the teeth upon the face of the supplemental jaw will grasp the rounded surface, so that it will be held rigidly between this jaw and the movable jaw of the wrench. The pressure is such that this plate will be held firmly in contact with the stationary jaw, against which it rests, and cannot be moved or slipped out of place by any amount of power which can be applied to turn the rod

or pipe. It is preferable, however, to form a loop or clasp, E, which is bent so as to fit over the back of the fixed jaw A of the wrench, and its ends extending down upon each side of the supplemental jaw or plate are secured to it by a bolt, F, which passes through the two ends and through the inner end of the jaw, as shown. By passing the bolt through the ends of the loop or clasp and the supplemental jaw a pivot-connection is formed between these parts, which permits said jaw to adjust itself so that its flat back will at all times come squarely against the inner face of the fixed jaw, even though the face of said jaw should be worn or irregular. The clasp should preferably be made wide enough so that the part extending across the back of the jaw will rest upon the straight portion, which insures the parts being kept in place upon the wrench.

When the supplemental jaw is not needed, it can be slipped off and put into the pocket or otherwise disposed of, as it occupies but very little room. It will be manifest that this jaw may be used by simply placing it inside the jaw of the wrench, as it will not move after the wrench is placed upon the rod or pipe to be turned; but for convenience it is better to have the clasp or some equivalent attachment to hold it in place when the wrench is removed from the pipe or rod. It will also be seen that the same form of jaw can be applied to hand or bench vises or to other holding-jaws, which are more especially fitted for rectangular work, in order to make them applicable to cylindrical articles. By the use of this jaw I am enabled to apply the utmost power upon a wrench to turn a cylindrical bolt, rod, or pipe, and the jaws will not slip or turn in the least, nor will the supplemental jaw move from its place, as the force applied tends to press it outward against the main jaws of the wrench and lock it firmly against it.

The strap or loop forms a socket, into which one of the main jaws of the wrench may be slipped or from which it may be withdrawn instantly, as no bolts or holding devices are necessary. This construction also makes the attachment applicable to any wrench which may be convenient to the workman, and does not necessitate a particular wrench to which the device must be fitted.

Having thus described my invention, what

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

The fixed jaw A and the sliding jaw B, in combination with a strap or loop forming a
5 socket into which the fixed jaw may be inserted, the supplemental piece C, pivoted thereto and extending from the outer end of said jaw to the shank only, having a flat straight back and inclined serrated front, and the
10 pivot-bolt passing through the front of the

strap or loop and the lower part of the supplemental piece, all constructed and arranged to operate as herein described.

In witness whereof I have hereunto set my hand.

EGBERT JUDSON.

Witnesses:

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