

(No Model.)

I. CRESSEY.

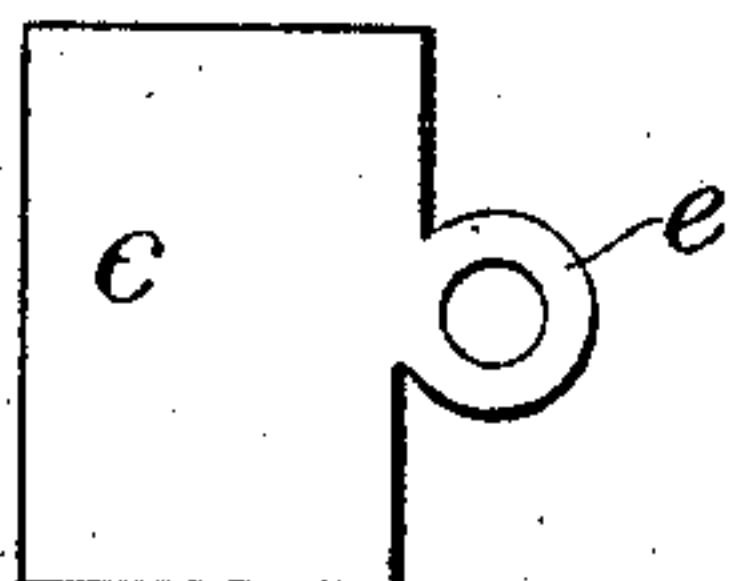
WRENCH.

No. 314,517.

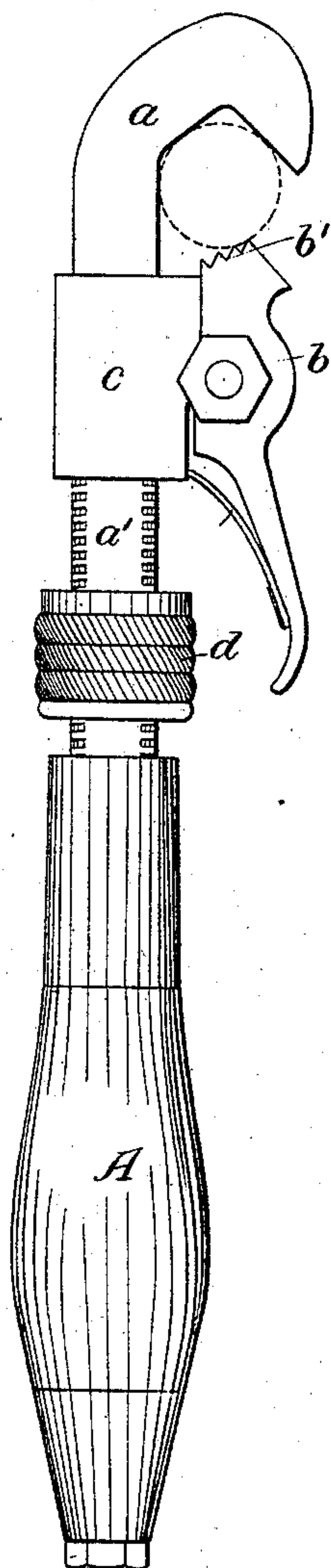
Patented Mar. 24, 1885.

*Fig. 1*

*Fig. 2*



*Fig. 3*



Witnesses  
B. J. Boyer  
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# UNITED STATES PATENT OFFICE.

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## WRENCH.

SPECIFICATION forming part of Letters Patent No. 314,517, dated March 24, 1885.

Application filed November 3, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ISAIAH CRESSEY, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Wrenches, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to pipe-wrenches, and is intended as an improvement upon that class of wrench wherein a fixed jaw having an angular inner face and a screw-threaded shank portion integral therewith is provided with an adjustable slide-block, upon which is pivoted a spring-held movable jaw having a serrated bearing-face, the relative arrangement of the said jaws being such as to afford a smaller space for the admission of the pipe or other cylindrical object to be grasped than between the biting-faces thereof.

This invention has for its object to produce a wrench more durable and simple in construction than those heretofore known to me; and it consists in details hereinafter fully described.

Figure 1 is a side elevation of a wrench embodying this invention, the adjusting-nut being turned on the screw-threaded shank away from the slide-block; Figs. 2 and 3, details of the slide-block and movable jaw, respectively.

The fixed jaw *a*, screw-threaded shank portion *a'* integral therewith, handle *A*, movable jaw *b*, having a serrated biting-face, *b'*, and spring *b<sup>2</sup>*, mounted on the slide-block *c*, are all as usual, so need not be herein described.

To gain greater rapidity in the adjustment of the parts above referred to, I have provided the screw-threaded shank portion *a'* with an adjusting-nut, *d*, disconnected from the slide-block *c*, as shown in Fig. 1, thus permitting free access to all parts thereof, and allowing it to be turned on the screw-threaded shank-portion a complete rotation or more by one movement on the part of the operator.

When the apparatus is in use, to grip the pipe or other cylindrical object, the adjusting-nut is turned on the shank portion until it bears directly against the slide-block *c*, when it serves as an abutment therefor. The slide-block *c* is provided with a projection, *e*, a cross-section of which includes a little more than a half-circle, which forms a pivot for the

movable jaw *b*, which is provided with a correspondingly-shaped recess, (see Fig. 3,) said movable jaw being passed laterally on the said projection *e*, thus forming a pivotal connection better adapted to resist the strain exerted upon it, and of cheaper construction than the hinge-joints heretofore used. The movable jaw is prevented from lateral movement on the projection *e* by means of a bolt passing entirely through the same, and having a flattened head larger in diameter than the diameter of the said projection, and secured by a nut of as large diameter as the head.

It will readily be seen that owing to the peculiar shape of the projection *e* the movable jaw *b*, when once mounted thereon, cannot slip off, and the projection extending the entire width of the slide-block *c* also being flush with the sides of the movable jaw, affords a fulcrum therefor capable of resisting great strain.

When desired to grip a pipe or other cylindrical object, the spring-held movable jaw *b* is compressed by means of the tail-piece 2, the slide-block *c* is moved forward to bear against the pipe, the adjusting-nut is then turned on the screw-threaded shank portion until it bears directly against the said slide-block, when the movable jaw is released, gripping the pipe firmly, the adjusting-nut in this position serving as an abutment for the slide-block.

I claim—

A wrench having a fixed jaw, *a*, screw-threaded at its shank, a slide-block, *c*, adapted to slide thereon and provided with a rounded pivotal projection, *e*, a spring-held movable jaw, *b*, having a serrated bearing-face and a tail-piece, 2, and provided with a recess corresponding to the said projection *e*, upon which it is mounted, a bolt having an enlarged head and nut passing through said projection preventing lateral movement of the movable jaw, a spring, *b<sup>2</sup>*, and an adjusting-nut, all constructed and operated substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ISAIAH CRESSEY.

Witnesses:

B. J. NOYES,  
JOS. P. LIVERMORE.