No. 680,866. Patented Aug. 20, 1901.

A. KATZKI.

PIPE CUTTER.

(Application filed June 5, 1900.)

(No Model.)

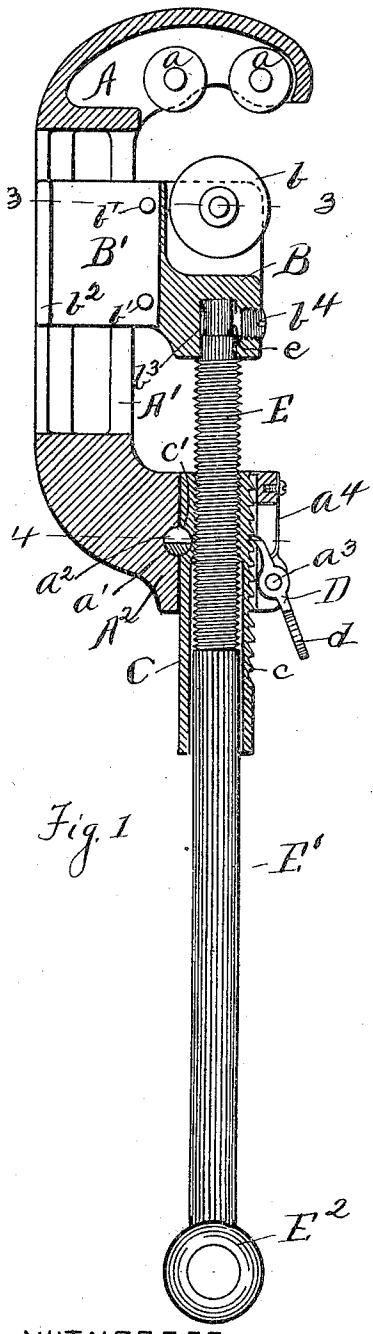


Fig. 1

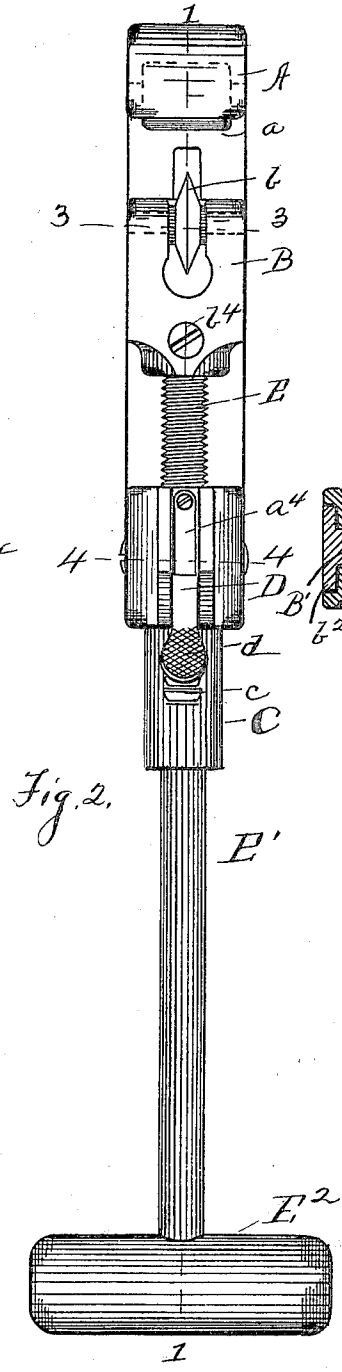


Fig. 2.

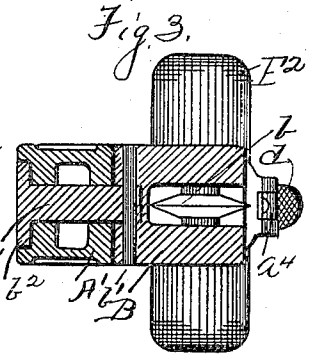


Fig. 3.

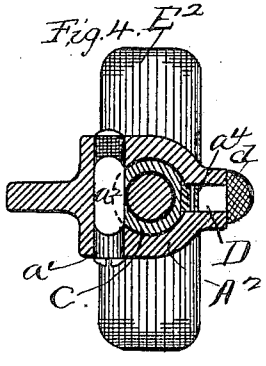


Fig. 4.

WITNESSES

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ALBERT KATZKI, OF ERIE, PENNSYLVANIA.

PIPE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 680,866, dated August 20, 1901.

Application filed June 5, 1900. Serial No. 19,157. (No model.)

To all whom it may concern:

Be it known that I, ALBERT KATZKI, a citizen of Germany, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Pipe-Cutters; and I do hereby declare the following to be 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.

This invention relates to pipe-cutters; and it consists in certain improvements in the construction thereof, as will be hereinafter fully described, and pointed out in the claims.

The object of the invention is to provide a pipe-cutter in which the cutter-head may be more rapidly moved to the work than in pipe-cutters heretofore made and in which pressure may be applied to the cutter after being brought to the work.

The invention is illustrated in the accompanying drawings, as follows:

Figure 1 shows a section on the line 1 1 in Fig. 2. Fig. 2 shows a front elevation of the device. Fig. 3 shows a section on the line 3 3 in Figs. 1 and 2. Fig. 4 shows a section on the line 4 4 in Figs. 1 and 2.

A marks the stationary head, in which is arranged the rotary cutters *a a*. Extending from the stationary head is the guide A′, which comprises two side pieces, between which the guide extension B′ of the movable cutter-head B slides. The guide extension B′ is provided with the flanges b^2, which pass by the guides A′ and lock the extension-guide B′ in place. The extension-guide B′ is secured to the movable head B by the pins *b′*. A cutting-wheel *b* is journaled in the movable head and positioned to be brought in proper relation with the wheels *a a* when the movable head B is pressed forward to its work. Secured to the guide A′ and arranged opposite the stationary head A is the screw-head A^2. Passing through this screw-head is a guide-opening in which slides a nut C. The nut C is provided on its front surface with the ratchet-teeth *c*. The pawl D is pivoted in the screw-head A^2 by means of a pivot-pin a^3 and is pressed into engagement with the teeth *c* by means of the spring a^4. The teeth *c* are so beveled that the nut C may be moved forward by the pawl D, but is prevented from a return movement while the pawl D is in position. The pawl D is provided with the thumb-piece *d*, by which it may be pressed out of the position in which it engages the teeth *c*. When in this position, the nut C may be readily drawn back, if desired.

A semicircular slot *c′* is cut in the back side of the nut C, and a circular key *a′* is screwed into the head A^2. This key *a′* has the notch a^2 in it of sufficient depth to clear the nut C when the notch is brought toward the front of the cutter. With the key *a′* in this position the nut may be moved to its work by a sliding movement and the cutting action produced by means of the screw operating in the nut. If for any reason it is not desired to use the ratchet or quick-action mechanism, the key *a′* may be turned in the head A^2, bringing the circular part of the key into the notch *c′* of the nut C. This locks the nut against movement in the head, and the cutter may be used as ordinary cutters are used.

A screw E is arranged to operate in the nut C. This screw has an annular groove *e* at its end, and the end is placed in the socket b^3 in the sliding head B. A set-screw b^4 is screwed into the sliding head B and into the annular notch *e*, so as to lock the screw E with the sliding head D. A stem E′ extends from the screw E, and this is provided with the usual turning-handle E^2.

In the ordinary operation of the device the screw is placed on the pipe and the cutter moved up to its work by sliding the nut C through the screw-head A^2. When the cutter has reached its work, it is pressed forward by means of the screw, as with the ordinary cutters. After the cut is complete the pall D is moved out of engagement with the ratchet-teeth *c*, and the nut C and the sliding head may be withdrawn from the work.

What I claim as new is—

1. In a pipe-cutter, the combination of a fixed cutter-head; a movable cutter-head arranged to move in relation to said cutter-head; a screw-head rigidly connected to said cutter-head arranged opposite said fixed head and having a guide-opening therein; a sliding nut in said guide-opening of the screw-head; means for locking said nut in position; and a screw operating in said nut upon said sliding head.

2. In a pipe-cutter, the combination of a fixed cutter-head; a movable cutter-head arranged to move in relation to said cutter-head; a screw-head rigidly connected to said cutter-head arranged opposite said fixed head and having a guide-opening therein; a sliding nut in said guide-opening of the screw-head; a ratchet mechanism arranged to allow forward movement of said nut for locking said nut against a return movement; and a screw operating in said nut upon said sliding head.

3. In a pipe-cutter, the combination of a fixed cutter-head; a movable cutter-head arranged to move in relation to said cutter-head; a screw-head rigidly connected to said cutter-head arranged opposite said fixed head and having a guide-opening therein; a sliding nut arranged in said guide-opening of the screw-head; a ratchet mechanism arranged to allow forward movement of said nut and for locking said nut against a return movement; a key mechanism arranged to be brought in the path of the sliding nut to lock said nut permanently in position or to be moved out of the path of said nut to allow a sliding movement of said nut; and a screw in said nut arranged to operate upon said movable head.

4. In a pipe-cutter, the combination with the head, A, having the guide, A′, thereon; a movable head, B, arranged to move the guide, A′; a screw-head, A^2, secured to the guide, A′; a sliding nut, C, arranged in the head, A^2, having the ratchet-teeth, *c*, thereon; the pawl, D, pivoted in the head, A^2; and the screw, E, operating in said nut upon said movable head, B.

5. In a pipe-cutter, the combination with the head, A, having the guide, A′, thereon; a movable head, B, arranged to move on the guide, A′; a screw-head, A^2, rigidly secured to the guide, A′ and having a guide-opening therein; a sliding nut, C, arranged in said guide-opening of the head, A^2, and having the ratchet-teeth, *c*, thereon; the pawl, D, pivoted in the head, A^2; the screw, E, operating in said nut upon said movable head, B; and the key, *a*′, having the notch, a^2, therein arranged to operate upon the nut, C, as described.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT KATZKI.

Witnesses:
JOHN S. RILLING,
H. C. LORD.