(No Model.)

N. W. VANDEGRIFT & F. ARMSTRONG.

PIPE CUTTER.

No. 330,175. Patented Nov. 10, 1885.

Fig. 1.

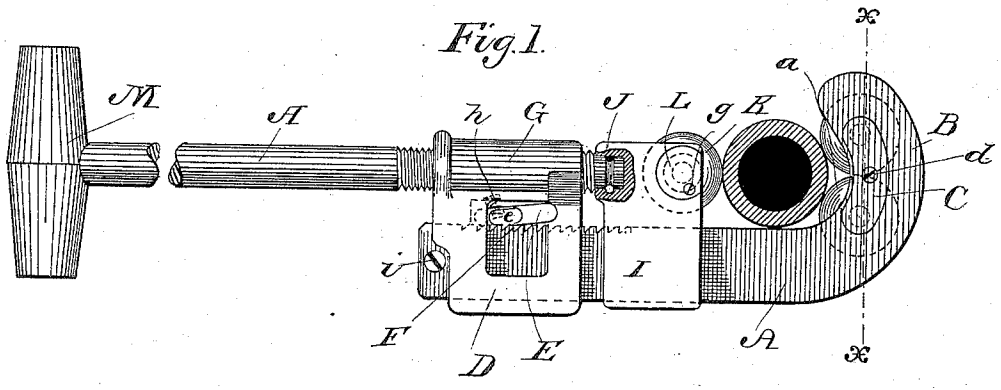


Fig. 2.

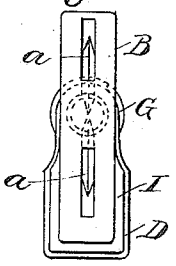


Fig. 3.

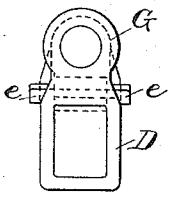
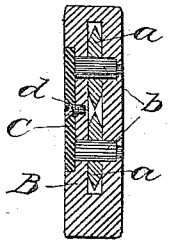


Fig. 4.



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UNITED STATES PATENT OFFICE.

NATHANIEL W. VANDEGRIFT AND FRANK ARMSTRONG, OF BRIDGEPORT, CONNECTICUT; SAID VANDEGRIFT ASSIGNOR TO SAID ARMSTRONG.

PIPE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 330,175, dated November 10, 1885.

Application filed March 3, 1885. Serial No. 157,614. (No model.)

To all whom it may concern:

Be it known that we, NATHANIEL W. VANDEGRIFT and FRANK ARMSTRONG, citizens of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Pipe-Cutters; and we 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.

Our invention relates to certain novel and useful improvements in pipe-cutters, but more especially to that class of pipe-cutters in which cutting-disks are journaled in a frame, one jaw of which is movable, and has for its object to provide a device of this description in which the movable jaw may be operated with great ease and rapidity for the accommodation of pipes of various sizes, and at the same time the requisite pressure obtained to force the cutters against the pipe to be cut; and with these ends in view our invention consists in the details of construction and combination of elements hereinafter fully and in detail explained, and then specifically designated by the claim.

In order that those skilled in the art to which our invention appertains may fully understand its construction, we will proceed to describe the same in detail, referring by letter to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an elevation of our device in operative position; Fig. 2, an end view of the same; Fig. 3, an end view of the pawl-frame, and Fig. 4 a detail section taken at the line *x x* of Fig. 1.

Similar letters denote like parts in the several figures of the drawings.

A is a bar, bent at its outer end, so as to form the stationary jaw B, within which are journaled cutters *a*, by means of the short shafts *b*. These shafts are inserted in holes, which are formed by first boring a small hole entirely through the metal of the bar at the desired point, and then counterboring concentric with the first hole to a size capable of holding the shafts, and extending almost through the bar. The short shafts are held in position by means of a cap-plate, C, which fits into a suitably-formed recess, and is there retained by means of a screw, *d*. This forms a cheap and neat method of journaling the cutters, and renders the replacing of broken or worn cutter-wheels exceedingly simple.

D is a frame, the lower portion of which embraces and slides upon the bar A. Within this frame is pivoted or socketed a spring-actuated pawl, E, adapted to engage a rack, F, formed in the upper surface of the bar. Upon either side of this pawl, and formed integral therewith, are projections *e*, within convenient reach of the operator, and used for lifting the pawl out of engagement with the rack against the resiliency of its spring. The upper portion, G, of the pawl-frame forms a nut, in which runs the threaded portion of rod H.

I is a block sliding upon bar A forward of the pawl-frame, and to this block the forward end of the rod H is swiveled, as is clearly shown at J, Fig. 1.

K is a cutting-disk similar to those in the jaw B, and journaled in like manner, its shaft being retained in place by means of cap L and screw *g*. The rod H is extended out to a convenient length, and is provided with a handle, M.

The operation of our improvement is as follows: The jaw B is hooked around the pipe or rod to be operated upon and the pawl-frame moved forward. As the cutter-block is secured upon the end of rod H, said block will also be moved forward. When the desired position of the cutter against the work is attained, the pawl-frame is securely held as against any backward movement by the interlocking of the spring-pawl with the rack. The necessary further forward movement of the cutter to effect the cutting of the work is furnished by turning the threaded rod H so as to push the cutter-block away from the pawl-frame, and consequently toward the stationary jaw. To move the cutters apart, it is only necessary for the operator to disengage the pawl from the rack against the resiliency of its spring *h*, and run the frame and block backward along the bar, the screw *i* limiting said movement.

After the operation just described has been performed several successive times it will be

found necessary to withdraw the threaded end of the rod H through its nut, so as to move the cutter-block up close to the pawl-frame.

In adjusting and readjusting our improved device but little time is consumed, and at the same time the tool possesses great strength and durability.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with the racked bar and stationary jaw having cutters journaled therein, of the movable jaw and its cutter, the frame sliding on the bar behind the movable jaw, the rod threaded in and extending through the top of the frame and swiveled to the movable jaw, and the spring-actuated pawl pivoted within the frame and adapted to engage with the rack, all arranged as described, and for the purpose set forth.

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

NATHANIEL W. VANDEGRIFT.
FRANK ARMSTRONG.

Witnesses:
J. J. AMORY,
WM. S. BULL.