C. FENTON.

Cutter for Pipe-Cutter or Wrench.

No. 208,582. Patented Oct. 1, 1878.

Fig. 1.

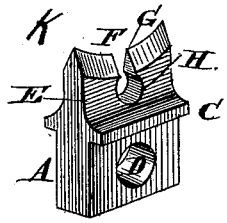


Fig. 2.

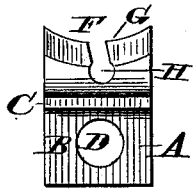


Fig. 3.

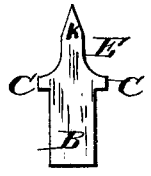


Fig. 4.

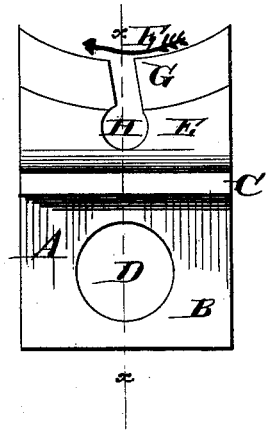
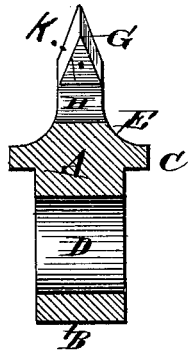


Fig. 5.



Attest:
H. R. Pennie,
J. A. Rutherford.

Inventor.
Chas. Fenton.
By. James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

CHARLES FENTON, OF NEW YORK, N. Y.

IMPROVEMENT IN CUTTERS FOR PIPE CUTTERS OR WRENCHES.

Specification forming part of Letters Patent No. **208,582**, dated October 1, 1878; application filed April 19, 1878.

To all whom it may concern:

Be it known that I, CHARLES FENTON, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Cutters for Pipe Cutters or Wrenches, of which the following is a specification:

This invention relates to an improved cutter for pipe cutters or wrenches; its object being to so form the cutting-edges of said cutter that it will truly and cleanly cut either a pipe or solid cylindrical bar of metal, and leave no burr on either side when employed for pipe-cutting, and which will be extremely durable and simple in construction, and may be readily applied to or removed from the jaw of the cutter or wrench.

To this end my invention consists of a block of tempered steel, having a rectangular shank to fit in a recess formed therefor in the stationary or movable jaw of a pipe cutter or wrench, and provided with shoulders on each side, which rest against the face of the jaw, from which shoulders the block is gradually beveled on opposite sides toward its forward edge, which is formed with a segmental guide, triangular in cross-section, and with an inclined slot leading to a transverse recess in the block, the slot being at such an angle to the segmental edge of the block as to form a true cutting-point, that will operate like the cutting-tool of a lathe, and will not operate to separate the metal simply by pressure.

In the drawings, Figure 1 represents a perspective view of my improved cutter; Fig. 2, a side elevation thereof. Fig. 3 represents an end elevation of the cutter; Fig. 4, an enlarged side elevation thereof, and Fig. 5 a sectional view on the line *x x* of Fig. 4.

The letter A represents the cutter, which consists of a block of tempered steel, having a rectangular shank, B, to fit in a correspondingly-shaped recess in the stationary or movable jaw of a pipe cutter or wrench.

On opposite sides of the block are formed the shoulders C C, which abut against the face of the jaw when the cutter is in place, and serve to hold the same truly in position and take the strain of the pivot or pin by which the cutter is held in place, and which passes through the aperture D in the shank B.

From the shoulders the block is gradually contracted, as shown at E E, and the edge is made segmental or concave in shape, and beveled off to an angle in cross-section, as appears at K, so as to bear against the periphery of the tube or cylindrical bar to be cut, and travel in the groove formed by the cutting-edge, thus serving as a segmental guide, K, to carry the cutter truly around said tube or bar.

The letter F represents an inclined slot formed in the contracted portion of the block at such an angle to the segmental edge F as to form a true cutting-point, G, which will operate as a chisel or the tool of a lathe, to remove the metal as the cutter is carried around the tube or pipe, and not separate it by simple pressure or abrasion. The slot terminates in a transverse recess, H, through which the cuttings escape.

The advantages of my improved cutter are apparent from the above description.

It will be perceived that, when in place in a pipe cutter or wrench and applied to the pipe, the cutting or chisel point G, when the cutter or wrench is rotated, first clears a shallow groove around the pipe or bar, the beveled or segmental edge of the cutter traveling in said groove, and serving to guide the cutter and keep it true.

As pressure is brought to bear on the cutter by means of the movable jaw, the cutting-edge of the cutter cuts deeper and deeper until the pipe or bar is entirely cut through, leaving the ends perfectly clean, without burrs or other irregularities to be afterward removed.

It is intended in practice to employ a set of removable and interchangeable cutters, having their segmental edges struck on radii of different length, to adapt the cutters to pipes of different diameters, a given size of cutter being adapted to operate upon pipes having radii less than that of the arc on which the segmental cutter is formed.

What I claim is—

A cutter for a pipe cutter or wrench adapted to be secured in the movable or stationary jaw thereof, and constructed with a segmental guide to embrace the pipe or bar, and with an inclined slot forming a chisel or true cutting-point, whereby the pipe is divided by removing the metal, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

CHARLES FENTON.

Witnesses:

THOS. CROCKER,

ADOLPH E. BOSSE.