(No Model.)

W. SCHOLES.

PIPE CUTTER.

No. 589,101. Patented Aug. 31, 1897.

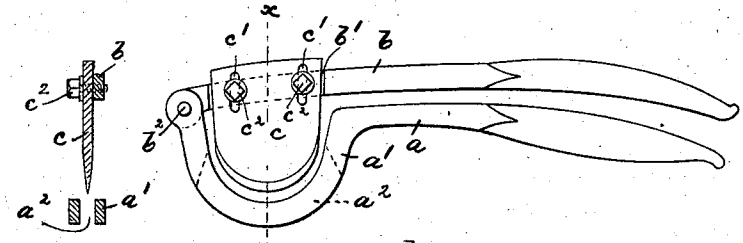


Fig. 1

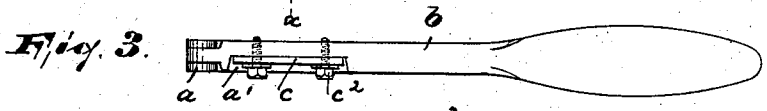


Fig. 3.

Fig. 2.

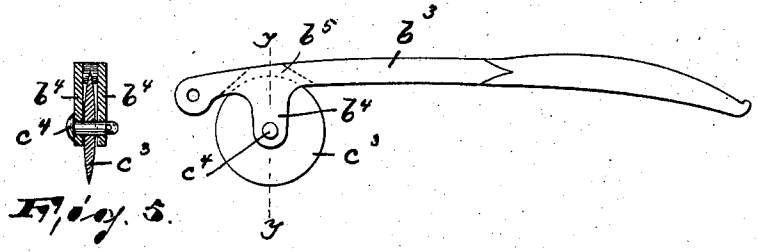


Fig. 4.

Fig. 5.

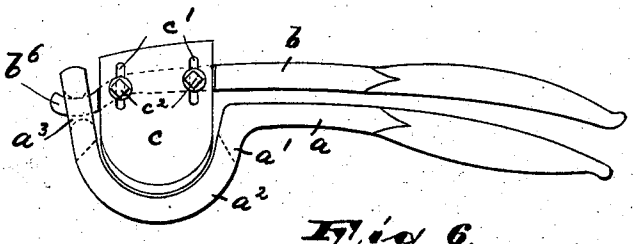


Fig. 6.

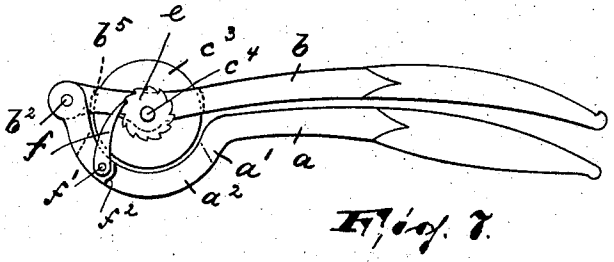


Fig. 7.

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UNITED STATES PATENT OFFICE.

WILLIAM SCHOLES, OF PATERSON, NEW JERSEY.

PIPE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 589,101, dated August 31, 1897.

Application filed November 21, 1896. Serial No. 612,938. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SCHOLES, a citizen of the United States, residing in Paterson, county of Passaic, and State of New Jersey, have invented certain new and useful Improvements in Pipe-Cutters for Lead Pipes; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to pipe-cutting implements; and it has reference particularly to that class of such devices whereby the pipe may be cut from its exterior inwardly by manipulating the implement about the pipe as an axis until the cutting-blade has severed the same.

Referring to the accompanying drawings, Figures 1 and 6 illustrate modified forms of my improved pipe-cutter, Figs. 3 and 2 being, respectively, a sectional view on line $x\ x$ and a top plan view of the cutter shown in Fig. 1. Fig. 4 is a view in side elevation of one of the members of another modified form of my improved cutter, Fig. 5 being a sectional view on line $y\ y$ of Fig. 4; and Fig. 7 is a view of the preferred form of my invention.

In Fig. 7 members a and b are pivoted together at one of their ends at b^2, the free ends of said members being shaped so as to form suitable handles. The member b carries a revoluble cutting-disk or circular blade which is arranged in a recess b^5, provided in the side of and contiguous to the pivoted end of said members. The axis of this disk is a pin c^4, to which it is rigidly secured and which is journaled in the member. The disk is mounted upon one end of said pin, and on the other end thereof a ratchet e is rigidly secured, so as to rotate the axis and the disk whenever it is itself rotated.

The member a is curved downwardly opposite the disk c^3 on member b and is provided with a longitudinally-extending vertical slot a^2, which is adapted to receive a portion of the periphery of the disk, so as to permit of closely folding the two members a and b. The curvature in member a is obviously for the purpose of retaining the pipe between the members of the implement during the cutting operation. A pawl f is pivoted at f' on the side of the member a, and its free end is adapted to engage the teeth of a ratchet e, carried by the other member. By means of this pawl-and-ratchet arrangement means for rotating disk c^3 is provided, so that the wear on its cutting edge is equalized.

f^2 indicates a stop for the pawl.

In Fig. 4 one of the members of a device somewhat similar to that shown in Fig. 7 is illustrated. The ratchet-and-pawl arrangement is in this case eliminated. The member b^3 is provided with downwardly-projecting arms b^4, between and near the ends of which the cutting-disk is journaled at c^4. To bring the bearings of the disk closer to the member b^3, the latter is provided with a vertical slot longitudinally arranged.

Figs. 1 and 6 indicate other modifications of my invention. In the former view a pair of members pivotally connected at their ends and shaped substantially like the members already referred to in connection with the device shown in Figs. 4 and 7 is shown. In the latter view the members are made detachable. The member a is provided with an aperture a^3, adapted to receive the end of the member b, which is bent in an upward direction, as shown at b^6. The principal difference between the devices shown in these two figures and those already described is that the former are provided with stationary instead of revoluble blades, and are consequently otherwise differently constructed, so as to accommodate this arrangement and so as to also make the implement otherwise desirable and serviceable. The said blades, which are indicated in the drawings by the reference-letter c, are provided with slots c', through which extend securing-bolts c^2, that also project through member b, so as to hold the blade in position. By this arrangement the blade is not only made detachable, but is rendered capable of adjustment with reference to the member a when the instrument is folded. The said member is recessed on one side, as at b', so as to receive the blade, thereby permitting the alinement of the blade with respect to the slot a^2, which, as above described, is provided in the member a.

It is thus seen that a pipe-cutter which is not only simple, strong, and capable of conveying and imparting great power to the cutting device or blade, but one whose blade is either so constructed and arranged as to render its frequent sharpening unnecessary or as to permit its removal for such sharpening when necessary, is provided.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

A pipe-cutter consisting of two members, *a*, *b*, hinged together at one of their ends, a pin journaled in the member *b* near the hinged end thereof, a cutting-disk rigidly mounted on the pin and arranged close to one side of the member *b*, the side of said member being recessed to receive the disk, a ratchet-wheel also mounted rigidly on the pin and arranged close to the other side of the member *b*, and a pawl carried by the member *a* and adapted when the members are folded together to engage the ratchet so as to revolve the disk, said member *a* having a vertical slot adapted to receive the disk edge, and being curved downwardly opposite the disk for the reception of the pipe, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 4th day of November, 1896.

WILLIAM SCHOLES.

Witnesses:
ALFRED GARTNER,
WM. D. BELL.