(No Model.)

J. W. MAHLON.

PIPE CUTTER.

No. 344,487. Patented June 29, 1886.

Fig. 1.

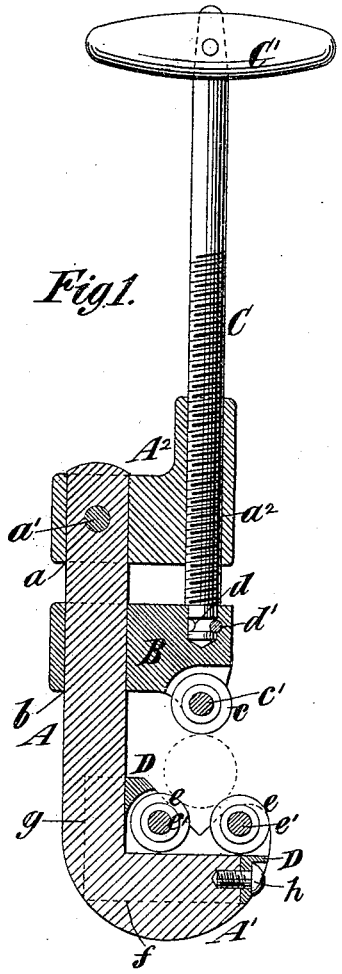


Fig. 2.

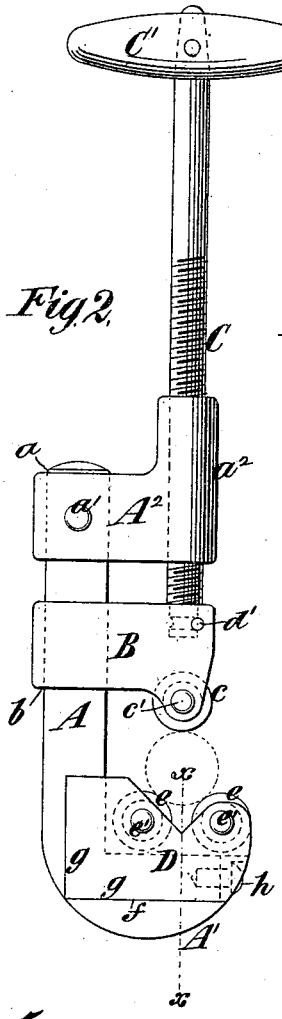


Fig. 3.

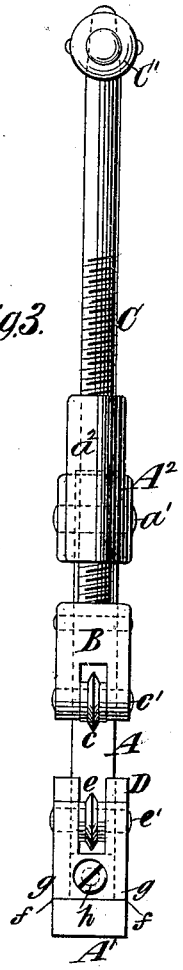


Fig. 5.

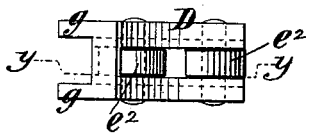


Fig. 6.

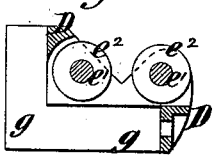
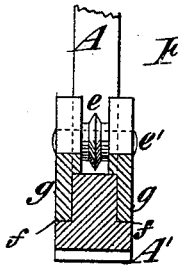


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES W. MAHLON, OF BROOKLYN, N. Y., ASSIGNOR OF ONE-HALF TO ELIZABETH R. MARTENS AND FRANK A. COOMBS, BOTH OF SAME PLACE.

PIPE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 344,487, dated June 29, 1886.

Application filed October 6, 1885. Serial No. 179,104. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. MAHLON, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Pipe-Cutters, of which the following is a specification.

My invention relates to tools or implements which are operated by hand to cut off gas and steam pipe, and which consist, essentially, of a body or frame comprising a straight bar or arm, along which a cutter-holder is traversed by means of a screw, and which has at one end a head or top piece containing a nut, to which the screw is fitted, and at the other end a horizontally-projecting foot portion, which serves to support the pipe while it is operated upon by the cutter or cutters.

The invention consists in novel features of construction and combinations of parts, which are hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical section of a tool embodying all the features of my improvement. Fig. 2 is a side view thereof. Fig. 3 is a front view thereof. Fig. 4 is a section upon the plane of the dotted line *x x*, Fig. 2. Fig. 5 is a plan of the roller-holder, which is detachable from the body or frame of the implement; and Fig. 6 is a section thereof on the plane of the dotted line *y y*, Fig. 5.

Similar letters of reference designate corresponding parts in all the figures.

The body or frame of the tool or implement consists, essentially, of a straight bar or arm, A, which is usually of rectangular transverse section, a horizontally-extending foot portion, A′, at one thereof, and a head or top piece, A^2, at the other end thereof.

B designates the cutter-holder, which is mortised at *b*, to fit the bar or arm A, and is traversed along the same by means of a screw, C, which may be turned by a handle, C′. The cutter-holder carries a cutter, *c*, which is journaled therein by a pin, *c′*, and the screw C is so connected with the cutter-holder that it may be readily turned relatively thereto, and will thereby traverse the holder in either direction. As here represented, the end of the screw has in it an annular groove, *d*, which receives a pin, *d′*, inserted through the cutter-holder.

The top portion or head of the frame A^2 is socketed or mortised at *a*, so as to fit the bar or arm A, and is secured thereto by a transverse pin or bolt, *a′*. The top piece or head comprises a nut, a^2, to which the screw C is fitted.

As represented in Figs. 1 to 4, inclusive, the tool or implement is adapted for cutting out pipe in situations where it is not possible to swing the cutter through a complete circle; hence there are employed in connection with the cutter *c* two other cutters, *e*, which are supported by the foot portion A′ of the frame. These lower cutters, *e*, are not journaled directly in the frame, but are journaled by pins *e′* in the cutter-holder D, which is made separate from and readily detachable from the frame.

The foot portion A′ of the frame is of greatest width at the bottom, and is provided on opposite sides with shoulders *f*, as best shown in Figs. 2 and 4. The cutter-holder D has flanges *g*, which embrace that part of the frame portion A′ above the shoulders *f*, and also the straight bar or arm A of the frame, and the lower edges of these flanges *g* bear upon and are supported by the shoulders *f*, as clearly shown in Fig. 4.

The cutter-holder D may be detachably secured to the body or frame in any suitable manner. I have here represented a screw, *h*, inserted through the front of the holder D and into the body or frame. By taking out this screw the cutter-holder D may be readily removed from the frame, and if it or its cutters become broken or worn out it can readily be replaced by a new and interchangeable part without renewing the frame or any other of the parts thereof.

Where the implement is intended for cutting off new pipe, and can therefore be swung through an entire circle, it is not necessary that the wheels or rollers which are placed opposite the principal cutter, *c*, shall be sharp-edged or cutting tools; and in Figs. 5 and 6 I have shown a roller-holder, D, in which are journaled rollers c^2, having straight cylindric peripheries, and which serve to support the pipe

while it is being cut off by the cutter *c*. The roller-holder D shown in Figs. 5 and 6 is constructed in all respects like the cutter-holder D shown in the remaining figures, and is interchangeable therewith upon the body or frame. Either the cutter-holder or the roller-holder may be placed upon and detachably secured to the frame for use by means of a screw, *h*, or otherwise. The holders D are constructed with an open top above the foot portion A′ of the frame, and in the opening thus formed are journaled the cutters *e* or the rollers e^2.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the body or frame comprising a horizontally-projecting foot portion and the cutter-holder and its operating-screw, of the cutter or roller holder D, having flanges *g*, which embrace the foot portion and detachably secured on said foot portion, the said holder D being constructed with an opening in its top over the foot portion, and cutters or rollers journaled in said openings, substantially as herein described.

2. The combination, with the body or frame comprising a horizontally-projecting foot portion having on opposite sides shoulders *f*, and the cutter-holder and its operating-screw, of the cutter or roller holder D, provided with flanges which embrace the body or frame and the lower edges of which are supported by the shoulders *f*, substantially as herein described.

JAMES W. MAHLON.

Witnesses:
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