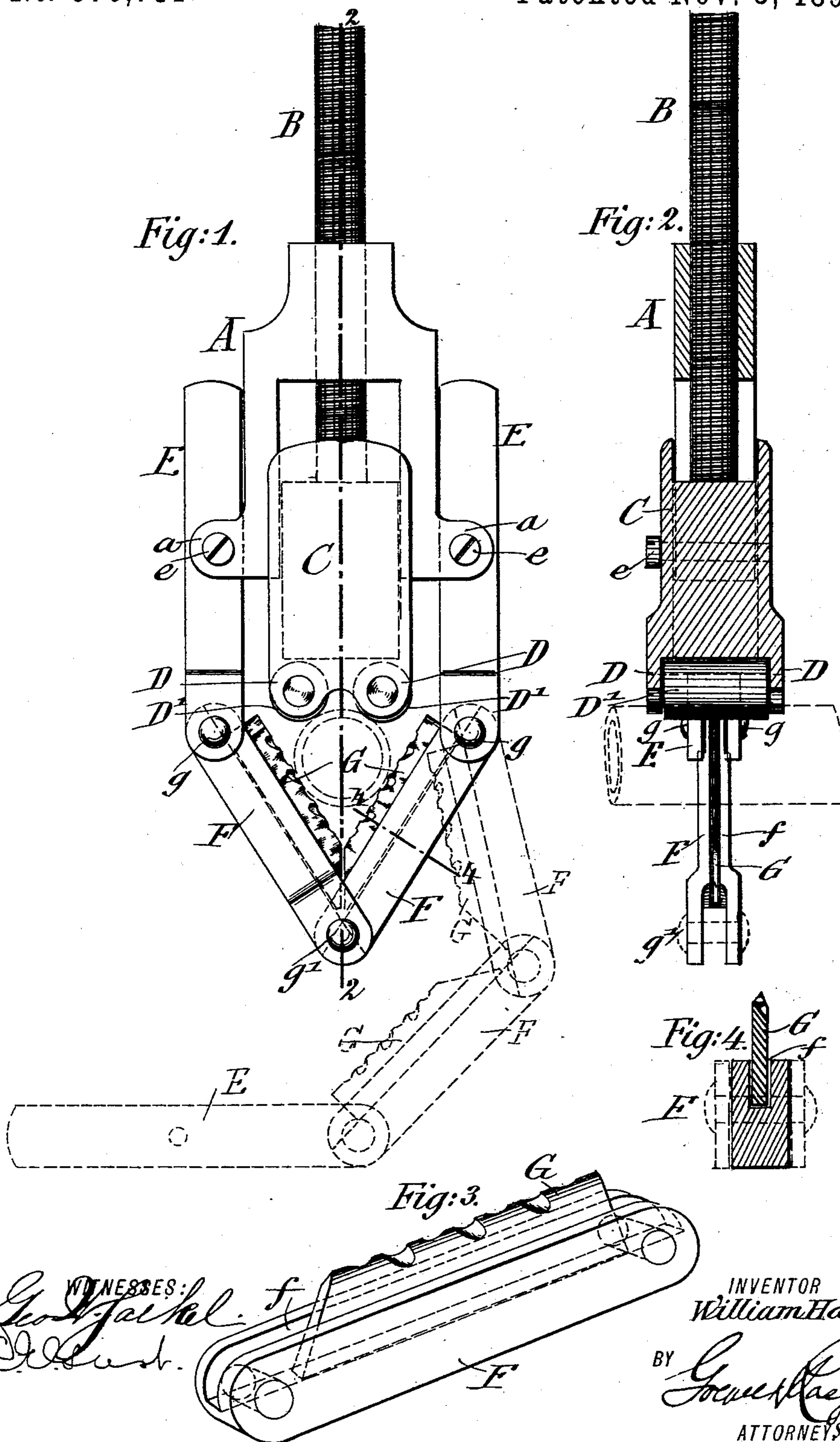


W. HAAS.  
PIPE CUTTER.

Patented Nov. 3, 1896.





# UNITED STATES PATENT OFFICE.

WILLIAM HAAS, OF NEW YORK, N. Y.

## PIPE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 570,751, dated November 3, 1896.

Application filed May 19, 1896. Serial No. 592,101. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM HAAS, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Pipe-Cutters, of which the following is a specification.

This invention has reference to an improved pipe-cutter of that class in which the pipe is supported against suitable rollers and subjected to the action of cutting-blades, the improvements being designed with a view of producing a smoother cut edge, without any inwardly-projecting bur, so that a neater and cleaner pipe-cutter is obtained; and the invention consists of a pipe-cutting implement provided with a block having rollers forming a pipe-rest, and inclined cutters having undulating cutting edges and set into inclined jaws which are pivoted to each other and to parallel side pieces attached to the block-holder, the abutting ends of the cutter being mitered off, so that they abut against each other at the same angle formed by the supporting-jaws. Either one of the side pieces can be readily detached from the block-holder, so as to move the pivoted jaws into position for removing, resharpening, and replacing the cutters.

In the accompanying drawings, Figure 1 represents a side elevation of my improved pipe-cutter, the full lines showing the same in position ready for use, while the dotted lines show the cutter-supporting jaws in detached position. Fig. 2 is a vertical transverse section in line 2 2, Fig. 1. Fig. 3 is a perspective view of one of the jaws and cutters, drawn on a larger scale; and Fig. 4 is a vertical transverse section through one of the jaws and cutters on line 4 4, Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a U-shaped holder, the shank of which is provided with a threaded central hole for receiving the screw-threaded and adjustable handle B. The sides of the U-shaped holder A are provided with outwardly-projecting ears *a a* at their lower ends. In the holder A a block C is guided in longitudinal direction, it being provided with grooves in its sides for being guided along the sides of the holder A,

the inner end of the block C being acted upon by the end of the screw-threaded handle, so as to be adjusted to the greater or smaller size of pipe to be cut. When a larger pipe is to be cut, the handle is screwed back, so as to permit the inward or backward motion of the block C, while for smaller sizes the handle and the block are moved forward. The outer end of the block C is provided with a recess, so as to form ears *D'*, which are provided with bearings for two rollers *D' D'*, one at each side of the center line of the block of the tool, said rollers forming rests or abutments for the pipe to be cut.

To the outwardly-projecting ears *a a* of the holder A are attached by means of transverse connecting screw-bolts *e e* parallel side pieces *E E*, the upper ends of which rest flat against the sides of the holder A, while the lower ends are forked, so as to receive the cutter-holding jaws *F F*, which are pivoted thereto, as shown clearly in Fig. 1. The cutter-holding jaws are each provided with a longitudinal recess *f*, into which the cutter *G* is inserted, one end of the cutter abutting against a pivot *g*, while the opposite end is mitered in such a manner that when the ends of the cutters abut against each other the same angle is formed between the cutters that is formed between the jaws *F F*. By the abutting of the mitered ends of the cutters they are firmly held in position in the jaws, as their opposite ends are firmly pressed against the pivots *g*, by which the connection of the jaws with the side pieces *E E* is formed. The opposite ends of the jaws are also pivoted together by a pin *g'*, one jaw being bifurcated, so as to embrace the end of the other jaw, as shown in Fig. 2. The cutting edges of the cutters are made undulating or corrugated, so that a certain clearance is formed between the cutting edges, by which the fine dust or shavings produced during the cutting action are conducted off, whereby a better and cleaner cut is obtained, while by the more effective cutting of the corrugated or saw-like cutting edges the inwardly-projecting bur, which is an objectionable feature in pipes cut by the cutters heretofore in use, is almost entirely dispensed with.

The cutters can be readily removed from the jaws for resharpening by detaching one of the connecting screw-bolts *e* of the side



pieces E E and swinging the latter and the jaws into open position, as shown in dotted lines in Fig. 1. In this position the cutters can be readily detached from the jaws and re-  
 5 placed in the same after being sharpened, the jaws being replaced in normal position in the shape of a V, while the side pieces E E are readily attached to the ears of the holder by the screw-bolts e e, as shown in full lines in  
 10 Fig. 1. By this arrangement the sharpening of the cutter is greatly facilitated and thereby a more handy and effective pipe-cutting tool obtained.

The operation of the pipe-cutter is analogous to the pipe-cutters heretofore in use. The pipe is inserted between the rollers of the holding-block and the cutters, the block is then tightly applied by a few turns of the screw-threaded handle. The pipe-cutter is  
 15 then oscillated or rocked to and fro on the pipe at the point where the same is to be cut, and the cutters fed forward by a forward adjustment of the rollers, which is accomplished from time to time by turning the handle.

25 The rocking motion of the pipe-cutter is continued alternately on the forward adjustment of the block until the pipe is cut off, some suitable oil for the working parts being supplied during the cutting action. The result is a neat and clean cut with a greatly-  
 30 reduced inwardly-projecting bur at the cutting edge, which is objectionable, as it serves as an obstruction and enlodgment for sediments passing through when the pipe is in use.

35 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A pipe-cutter, consisting of a U-shaped

holder, a block guided in the same and provided with rollers at the outer end, a screw-  
 40 threaded handle turning in the holder and bearing on the inner end of the block, side pieces attached alongside of the holder, jaws pivoted to each other and to the side pieces, and cutters inserted into said jaws and abut-  
 45 ting at their lower ends, substantially as set forth.

2. A pipe-cutter, consisting of a U-shaped holder provided with a screw-threaded hole and outwardly-projecting ears, a block guided  
 50 in said holder and provided with rollers, a screw-threaded handle passing through the hole of the holder and acting on the inner end of the block, side pieces arranged alongside of the holder, screw-bolts connecting said  
 55 side pieces to the ears of the holder, recessed converging jaws pivoted to each other and to the side pieces and cutters inserted into the recesses of said jaws and provided with mitered ends abutting against each other, while  
 60 the opposite ends abut against the pivot-pins connecting the jaws with the side pieces, substantially as set forth.

3. In a pipe-cutter, two cutting-knives arranged at an angle to each other, so as to abut  
 65 at one end, and provided with undulating or corrugated cutting edges, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in pres-  
 70 ence of two subscribing witnesses.

WILLIAM HAAS.

Witnesses:

PAUL GOEPEL,  
 GEO. W. JAEKEL.