A. OCHSNER.

Pipe-Tongs and Cutter.

No. 197,658. Patented Nov. 27, 1877.

Fig. 1.

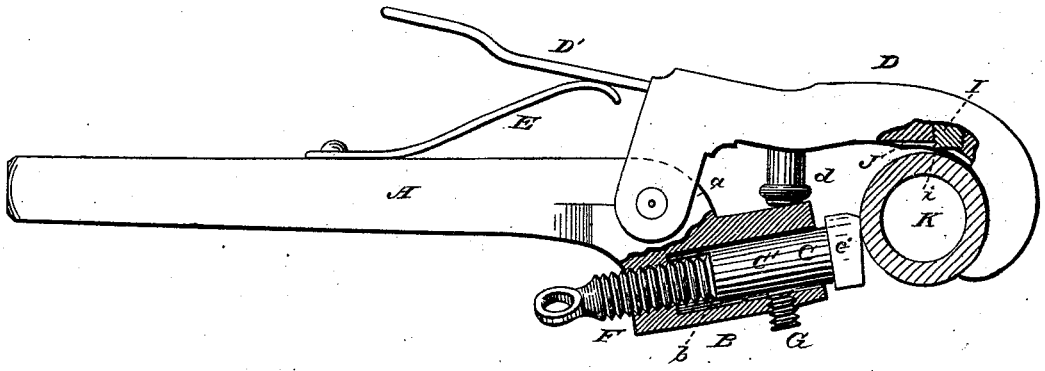


Fig 2.

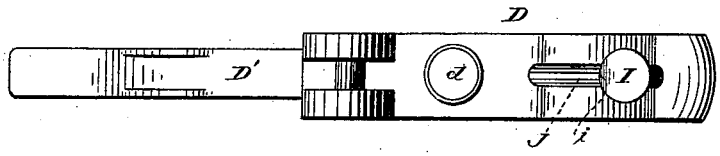


Fig. 3.

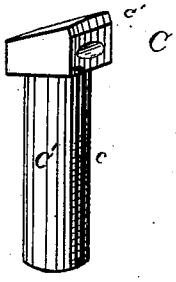
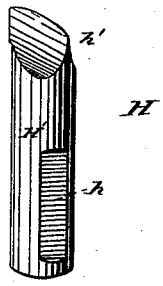


Fig. 4.



Attest:

E. E. Court

Otto Kaltnorth

Inventor:

Anton Ochsner

by

Wm. H. Babcock

Attorney.

UNITED STATES PATENT OFFICE.

ANTON OCHSNER, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN PIPE TONGS AND CUTTERS.

Specification forming part of Letters Patent No. **197,658**, dated November 27, 1877; application filed August 22, 1877.

To all whom it may concern:

Be it known that I, ANTON OCHSNER, of the city of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Pipe Tongs and Cutters; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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.

Figure 1 represents a side elevation of my improved instrument arranged for use as a pipe-tongs, the side of the block for holding the detachable jaw being partly broken away. Figs. 2, 3, and 4 show, in detail, the interchangeable pieces whereby the instrument may be converted at will into a pipe-tongs or a pipe-cutter.

The chief object of this invention is to provide for conveniently effecting such a transformation, and thereby to unite in one the advantages of two distinct implements. This object is effected by the construction and combination of the various parts and devices hereinafter particularly set forth.

In the accompanying drawing, A designates the main handle or shank of my pipe tongs and cutter, and B an externally rectangular tubular block for holding the straight jaw C of a pair of pipe-tongs. D designates the curved jaw of said tongs, which is pivoted at its rear end to a lip, *a*, on handle A, near the inner end of block B.

The rear end of said jaw D is provided with a short additional handle, D′, against the under side of which bears one end of a spring, E, the other end of said spring being secured to handle A. The action of said spring is to force said handles apart, and thereby force the jaws together, so as to gripe pipe K. When said handles are forced together by a firm grasp the jaws open. The inside of the lower part of curved jaw D is provided with a stop, *d*, which engages with block B, and prevents said curved jaw from being turned too far forward by the action of said spring E.

The rear part of the central passage *b* of tubular block B is screw-threaded to receive an adjusting-screw, F, which operates against the inner end of the shank C′ of straight jaw C. By means of said adjusting-screw said straight jaw may be moved toward or from said curved jaw, thereby varying the distance between them, so as to suit the size of the pipe, without throwing the curved jaw D too far back. Said straight jaw is clamped in any desired position of such adjustment by means of a small clamping-screw, G, which works through one side of tubular block B, and bears against a flattened space, *c*, in the side of said shank C′. Said straight jaw C is provided with a block, *c′*, having an inclined upper surface, which presses against the tube that is to be held, so as to grasp it securely, with the cooperation of curved jaw D.

H designates a chisel, having a shank, H′, with flattened space *h* and an inclined cutting-edge, *h′*.

To convert my implement into a pipe-cutter, it is only necessary to withdraw straight jaw C and substitute chisel H. The adjusting-screw and clamping-screw, hereinbefore described, operate on the shank of the chisel precisely as on the shank of the straight jaw.

Various changes may be made in the devices above described without departing from the spirit of my invention. For instance, a spiral or any suitable form of spring may be used between the handles A and D′, and their pivoting may be effected in any convenient manner.

After a pipe has been cut by the cutting devices above described, its exterior at the cut is generally somewhat rough and ragged. To remove the raised pieces of metal and reduce said exterior to perfect smoothness, I set into curved jaw B a pin or stud, I, which has a sharp edge, *i*, toward the handle A.

J designates a longitudinal recess or groove in the inner face of said jaw, extending from said cutting-edge *i* toward said handle. A part rotary motion of the implement (the rough edge of the cut pipe being placed in said groove J) causes edge *i* to shave off all raised bits of metal, and produce the smoothness desired.

These devices are also susceptible of modi-

fication without departing from the spirit of my invention.

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

1. The combination of main handle A, having tubular block B attached to it, with curved jaw D, handle D′, stop *d*, and spring E, forming an implement adapted to be used either with a griping-jaw or a cutting-chisel, substantially as set forth.

2. The combination, in a pipe-cutter, of a straight jaw and suitable handles, with a curved jaw, having groove J and pin I, having trimming-edge *i*, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ANTON OCHSNER.

Witnesses:

GEORGE TERRY,

ROGER M. SHERMAN.