(No Model.)

C. H. MILLER.

PIPE-TONGS.

No. 259,895. Patented June 20, 1882.

Fig. 1.

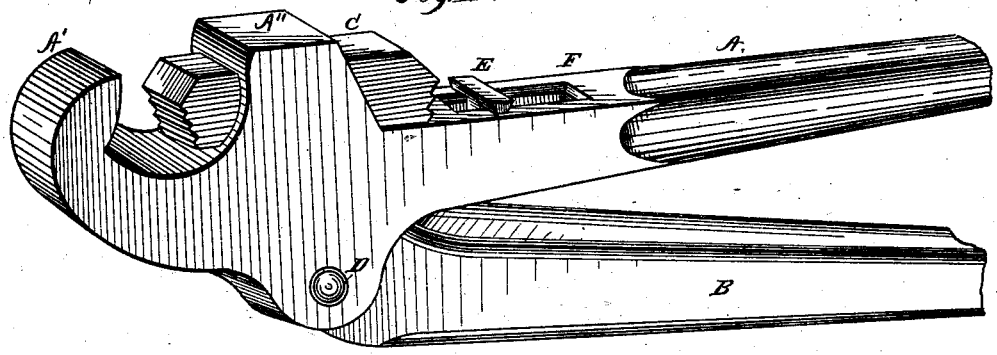


Fig. 2.

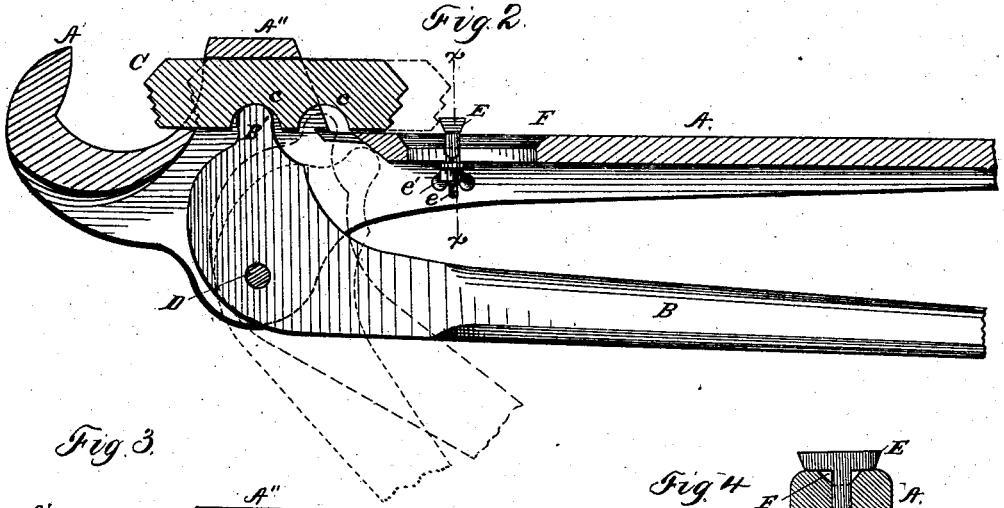


Fig. 3.

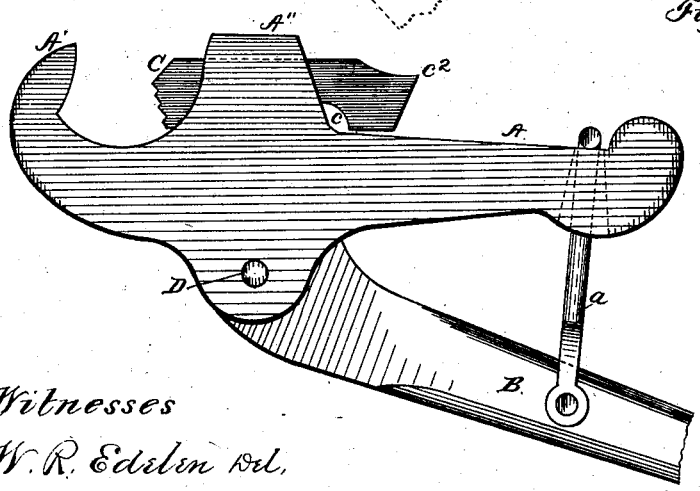


Fig. 4

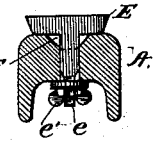
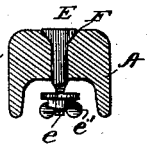


Fig. 5.



Witnesses
W. R. Edelin Jr.
Robt H. Porter

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N. PETERS. Photo-Lithographer. Washington. D. C.

UNITED STATES PATENT OFFICE.

CHARLES H. MILLER, OF ERIE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO E. S. NOYES, OF SAME PLACE.

PIPE-TONGS.

SPECIFICATION forming part of Letters Patent No. 259,895, dated June 20, 1882.

Application filed March 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. MILLER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in Pipe-Tongs and Similar Implements; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters or figures of reference marked thereon.

My invention relates to the construction of pipe-tongs and similar wrenches and pinchers, and particularly to that class of such devices as have one of the jaws adjustable.

The nature and scope of my invention will best be understood from the following general description and claims.

The invention is shown in the accompanying drawings, as follows:

Figure 1 is a perspective view. Fig. 2 is a longitudinal vertical section, with one of the parts of the tongs left in elevation. Fig. 3 is a side elevation, showing an alternative construction. Figs. 4 and 5 show details of construction. They are sections on the line *x x* in Fig. 2.

The construction is as follows:

A and B are the two parts or handles of the tongs, pivoted together at D. The part A is provided with a mortise or opening through it and an extension or ears, in which mortise the part B sets, and the pivot D is in the ears. The part A is provided with a hook-jaw, A′, and a head, A″, having an opening through it, in which the movable jaw C is inclosed. The part B is, in effect, a cam-lever, the lobe of the cam being somewhat pointed, as at B′, and fits in a recess, *c*, in the movable jaw C. The movable jaw C is, in fact, a bit, and is made of steel and provided on its ends with serrations or teeth to enable it to grip the pipe operated upon. It is also provided on its side with recesses *c c*, (there may be as many of these as desired,) into which the cam-point sets. The die can move freely in the opening in the head A″, when it is operated by the movement of the handle B. In Fig. 2 the dashed lines show the position of the handles when the jaw or die C is moved back. The dotted lines show the handle B moved so far that the point B′ is out of the recess *c*, and the die C is free to be taken out of the socket in which it moves. To prevent the die being thrown out by such a movement of the handle when not wanted, I provide a stop, E, which sets in a slot, F, in the handle A, and can be held at any desired point by a jam-nut, *e′*. The slot F is beveled on its upper side, like a countersunk opening, and the stop E is beveled to fit in it. By loosening the nut *e′* the stop E can be turned lengthwise of the handle and slot, and will fall into the slot and sink down level with the surface of the handle, and thus allow the die C to be removed. The compass of the jaws is regulated by notch or recess *c*, into which the cam-point B′ may be placed.

One end of the die or bit C may be formed so as to act as a pipe-cutter, as at c^2 in Fig. 3, and by taking the bit out and turning it around the tongs can be used as a pipe-cutting instrument.

The tongs may be operated with only one handle, if constructed as shown in Fig. 3. The handle A is here shown as very short, and weighted at the outer end to balance the hook-jaw A′, and it is connected to the handle B by a link, *a*.

The link serves to hold the jaws open at a certain point, so that when the tongs are placed around the pipe the long arm can be moved upwardly and the jaws made to grasp the pipe between them, whereas if the short and long arms were not connected together by means similar to the link the jaw upon the short arm, by reason of its weight, would drop and make such a space between it and the jaw upon the long arm as to prevent an operator from having any leverage to get a grip.

A belt or other hand punch may be constructed in the same manner as the tongs shown by changing the form of the hook A′, and the bit or die C and nippers having an adjustable cutter can be similarly constructed.

I am aware that the jaw of a monkey-wrench has been moved by a cam-lever, the adjustment of the jaw as to its compass being effected by a worm-wheel, as ordinarily. Therefore I do not claim broadly the movement of the jaw by a cam-lever.

If desired, the cam-lever, in place of having

one point, may have many arranged like the cogs on a segment-gear, and the bit C may be formed like a rack on its lower side, in which case the movement would be like a rack and pinion, and the adjustment of the jaw as to its compass would be effected by setting it forward or back a certain number of cogs on the cam or segment-pinion; but I consider one point or tooth on the lever sufficient, as shown, and two recesses, *c*, placed as shown, are sufficient, for they are so placed that by turning the bit around end for end a different compass is had from each recess than before such change is made.

What I claim as new is—

1. In a pipe-tongs, the part A, having the stationary jaw A′ thereon, and provided with a head, A″, which has an opening to receive the movable jaw, in combination with a cam-lever, pivoted thereto and connected therewith, back of said pivot, by a link, *a*, and the movable jaw C, having recesses *c c*, in which the point of the said cam-lever rests and operates, substantially as set forth.

2. In a pipe-tongs, the combination, with the parts A, B, and C, constructed substantially as shown, of the adjustable stop E, for the purposes mentioned.

3. In a pipe-tongs, the combination, with the parts A, B, and C, constructed substantially as shown, of the beveled slot F and beveled headed stop E, having a set-screw for holding the stop in place, said last-named parts operating together substantially as and for the purposes mentioned.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of March, 1882.

CHARLES H. MILLER.

Witnesses:
JNO. K. HALLOCK,
ROBT. H. PORTER.