W. CAMPBELL.

Improvement in Pipe-Tongs.

No. 130,278. Patented Aug. 6, 1872.

Fig. 1.

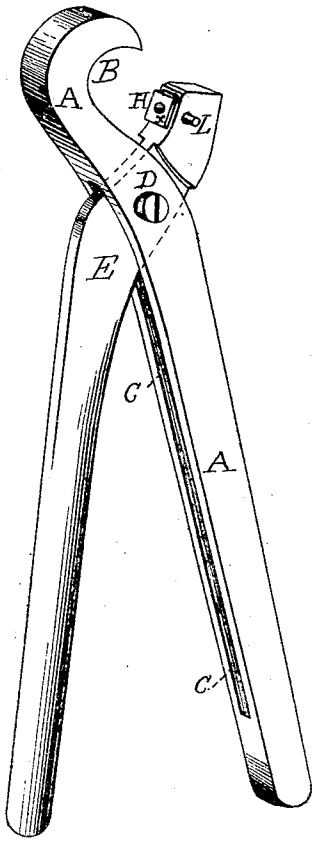


Fig. 2.

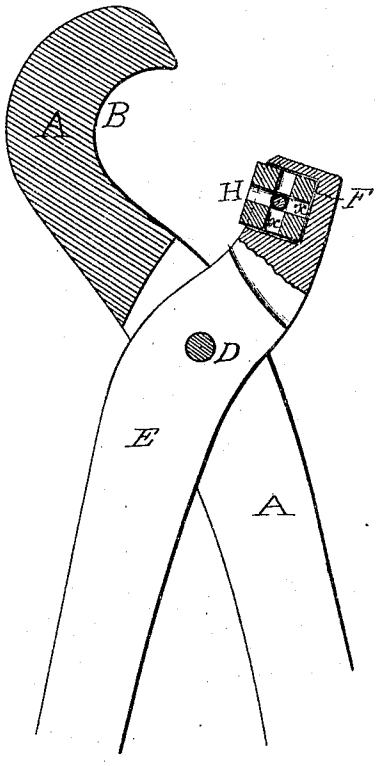
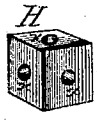


Fig. 3.



Witnesses.
A Ruppert.
E. A. Newman

Inventor.
William Campbell
by his attorneys
Cox & Cox

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

WILLIAM CAMPBELL, OF QUINCY, ILLINOIS.

IMPROVEMENT IN PIPE-TONGS.

Specification forming part of Letters Patent No. **130,278**, dated August 6, 1872.

To all whom it may concern:

Be it known that I, WILLIAM CAMPBELL, a subject of the Queen of Great Britain, but at present a resident of Quincy, Adams county, Illinois, have invented certain new and useful Improvements in Pipe-Tongs, of which the following is a specification, reference being had to the accompanying drawing.

Nature and Objects of the Invention.

The invention relates to an improvement in pipe-tongs, and consists in providing one of the handles thereof with a slot, into which the other handle partially enters when the tongs are closed, and in which such handle is pivoted; the latter handle being provided near its extremity with a recess, in which a movable die is secured, one edge of which comes in contact with the pipe when the tongs are closed. The object of the invention is to prevent the canting of the handles of pipe-tongs, and to furnish the same with a means of changing the grasping-edge of the tool.

Description of the Accompanying Drawing.

Figure 1 is a side view of a device embodying the elements of the invention. Fig. 2 is a longitudinal section of same. Fig. 3 is a perspective view of the grasping-die.

General Description.

A in the accompanying drawing is a bar of metal or other suitable material, having a curve near its upper part, which part terminates in a hook, B, curving toward the opposite end of the bar, the extremity of the hook being reduced to an edge. This bar A is provided with a slot, C, extending laterally through its center from a point near its lower end to about where the curve of the hook B begins, the upper end of the slot being properly inclined. The bolt D pivots the bar or handle E in the slot C in the handle or bar A, by which arrangement the canting of the handles is prevented. Those parts of the handles A and E below the bolt D are about equal in length, but the latter handle is of such thickness as that it can readily enter the slot C. Those parts of the handle E adjacent to the bolt D are properly curved, the handle terminating in a head of such dimensions as to prevent its passing through the slot C. Near the extremity of the handle E, and in that part thereof opposite the hook B, is provided an angular recess, F, in which is placed the die H, the recess being of such dimensions as that when the tongs are closed upon a pipe the upper edge of the exposed surface of the die H shall come in contact with the surface of the pipe and thus hold it securely between the hook B and the edge of the die H. To effect this, that part of the handle E above the bolt D should be shorter than the corresponding part of the handle A. The die H consists of a piece of metal of a cubical form. This die is provided with three holes or apertures, *x*, passing directly through its center from the centers of its surfaces, and is held in position by a pin, L, which passes through the walls of the recess F and one of the apertures in the die H. It is obvious that the tongs may be made adjustable, so as to be used on a larger or smaller sized pipe, by providing the handles A and E with corresponding apertures, through which the bolt D may be passed as a pivot; for, as the pivot D is removed from the upper ends of the handles, the grasping capacity of the tongs is increased, and vice versa. It is also plain that the recess F may be shaped so as to have greater length than width, and its walls being provided with corresponding apertures the die H may be adjusted in such recess to suit the service required, and afford as it is moved from or toward the upper end of the handle E, respectively, a greater or less grasping capacity. The superficies of the recess should conform to the shape of the die employed so far as to afford bearing-surfaces on its rear top and lower inside edges.

Operation.

Open the tongs, place the hook B about the pipe to be manipulated, close the tongs. This brings the upper edge or corner of the die H directly in contact with the pipe, presses against the hook B, and holds the pipe immovably. Turn the tongs in the desired direction as far as required, open the handles, move the tongs to their former position. Thus, by a repetition of these movements the object of the employment of the tongs is accomplished.

It will be perceived that by this operation of moving the tongs the surface of the die H is exposed to attrition, and thus the grasping-

edge thereof is kept sharp. When the die becomes worn, or its grasping-edge dulled, it is only necessary to remove the pin L and turn the die so as to present a different edge, and then replace the pin, thus renewing the grasping edge of the device.

Claims.

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

1. The reversible cubical die H, provided with the apertures *x*, for the uses and purposes shown and described.

2. The handle A, provided with the slot C, into which the handle E passes in closing, substantially as and for the uses and purposes shown and described.

3. The handle E, provided with the rectangular die H, secured in the recess F by the pin L, substantially as shown and described.

4. The handle A, provided with the slot C, into which the handle E passes in closing, in combination with the handle E, when provided with the rectangular die H, secured in the recess F by the pin L, substantially as shown and described.

In testimony that I claim the foregoing improvements in pipe-tongs as above described I have hereunto set my hand and seal.

WILL. CAMPBELL. [L. S.]

Witnesses:

WILLIAM N. RENTFROW,

THOS. T. WOODRUFF.