(No Model.)

H. ALEXANDER.

PIPE TONGS.

No. 508,591. Patented Nov. 14, 1893.

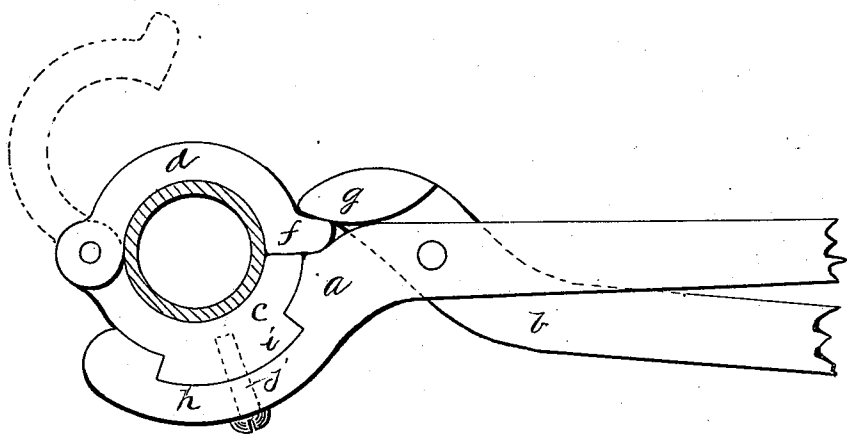

Fig. 1.

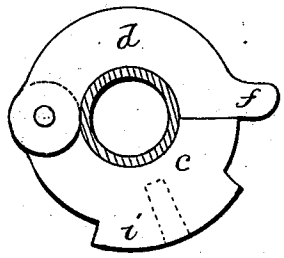

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

HENRY ALEXANDER, OF PORTLAND, MAINE.

PIPE-TONGS.

SPECIFICATION forming part of Letters Patent No. 508,591, dated November 14, 1893.

Application filed February 23, 1893. Serial No. 463,294. (No model.)

To all whom it may concern:

Be it known that I, HENRY ALEXANDER, of Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Pipe-Tongs; 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.

My invention relates to improvements in pipe tongs, and more particularly to pipe tongs for use on brass and other soft metal pipes. It consists of two semi-circular jaws hinged together, one jaw attached to and held by one handle, and the other having a ledge or projection upon which the end of the other handle is adapted to press. It consists further in making said jaws removable from said handle.

In the drawings herewith accompanying and making a part of this application, Figure 1 is a side elevation of my improved tongs, and Fig. 2 is a side elevation of the jaw removed from the handle, said jaws being designed for a smaller pipe.

Same letters refer to like parts.

In said drawings *a* represents that one of the handles to which the jaws are attached and *b* the other handle. Attached to handle *a* is a semi-circular jaw *c* to which is pivotally attached at the outer extremity a semi-circular jaw *d*, said jaws being of equal diameter. Said jaw *d* has a ledge *f* projecting out from its inner end. The handle *b* is pivotally attached to the handle *a* and has on its outer extremity a projection *g* adapted to engage and press against the ledge on jaw *d* when the jaws are closed and the handles pressed together. The jaw *c* may be cast integral with the arm *a*, or it may be cast separately and attached in such manner that it can be readily detached, when it is desired to use the tongs for different sized pipes. In the latter case, a convenient form for attaching the removable jaw to the end of the handle is shown. A dove tail groove *h* is made in the end of the arm and a tongue *i* is made on the jaw adapted to be inserted in said groove. The tongue may be locked in the groove in any convenient manner, as for example by a screw *j* passing through the arm and into the jaw, as seen in Fig. 1.

The operation of my improved pipe tongs is as follows: The handles are opened and the hinge jaw *d* is raised to the position shown in dotted lines in Fig. 1. The jaws are then placed around the pipe, the hinge jaw dropped into the position shown in Fig. 1, and the handles pressed together until the hinge jaws grip firmly the pipe throughout its entire circumference, as seen in Fig. 1, the jaws having the same diameter as the pipe.

It will be seen that one set of handles may be used for a series of jaws adapted to fit pipes of different sizes, the external diameters of the jaws in each case being the same and the tongue and ledge on the several jaws being the same, but the internal diameters of the jaws differing according to the size of pipe upon which they are to be used.

The advantages of my improved pipe tongs are, that the circular jaws grip the pipe throughout its entire circumference, thus giving great frictional surface and preventing the jaws from turning on the pipe, that smooth jaws may be used which do not scratch or mar the external surface of the pipe as is the case when the jaws are milled, which is necessary when the jaws touch the pipe only in a part of its circumference, to give the requisite friction, that the jaws are readily placed upon the pipe and quickly brought to a bearing, and that the jaws are detachable so that a series of jaws of different sizes can be used with one set of handles.

Having thus described my invention and its use, I claim—

1. In a pipe tongs, the combination with two handles pivotally attached together, of two semi-circular jaws, hinged together, one of said jaws being attached to the end of one handle, and the other jaw having a ledge, which the end of the other handle is adapted to engage, substantially as and for the purposes set forth.

2. In a pipe tongs, the combination with two handles pivotally attached together, of two semi-circular jaws, of equal diameters, hinged together, one of said jaws being attached to the end of one handle, and the other jaw having a ledge, which the end of the other han-

dle is adapted to engage, substantially as and for the purposes set forth.

3. In a pipe tongs, the combination with two handles pivotally attached together, the end of one handle having a dove tail groove therein, of two semi-circular jaws hinged together, one jaw having a tongue on the outside thereof, adapted to enter said groove in the handle, and the other having a ledge projecting into the path of the end of the other handle, substantially as and for the purposes set forth.

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

HENRY ALEXANDER.

Witnesses:
ELGIN C. VERRILL,
NATHAN CLIFFORD.