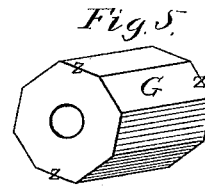
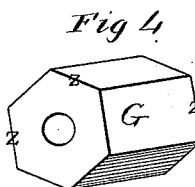
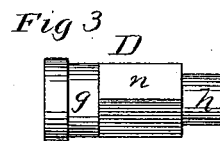
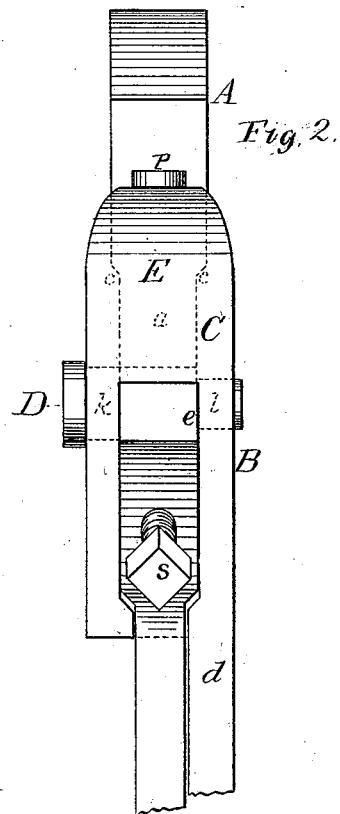
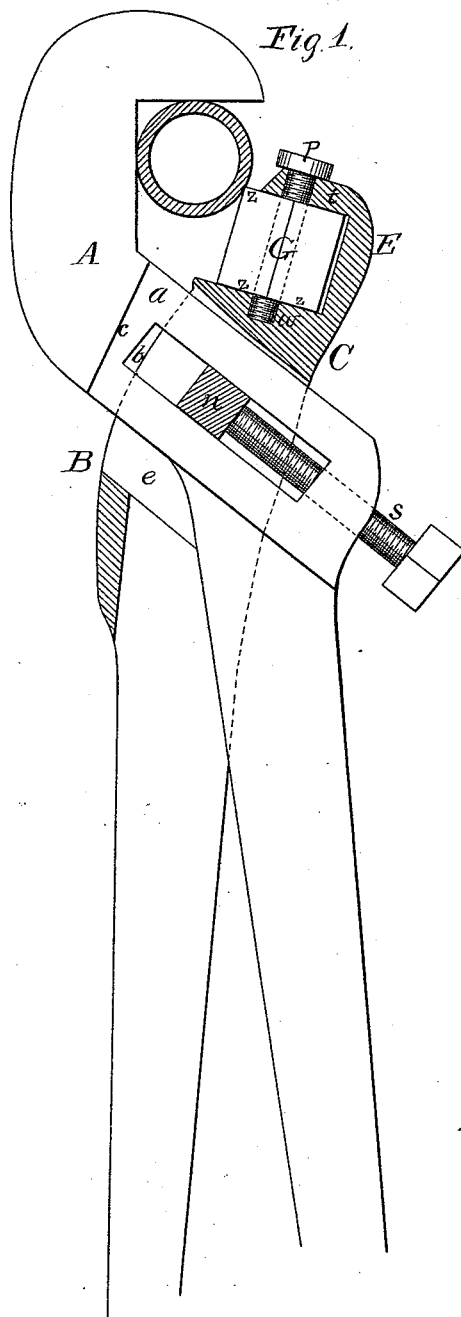


H. BANISTER. Pipe-Tongs

No. 216,014.

Patented June 3, 1879.



WITNESSES
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UNITED STATES PATENT OFFICE.

HENRY BANISTER, OF ERIE, PENNSYLVANIA.

IMPROVEMENT IN PIPE-TONGS.

Specification forming part of Letters Patent No. **216,014**, dated June 3, 1879; application filed April 21, 1879.

To all whom it may concern:

Be it known that I, HENRY BANISTER, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and valuable Improvement in Pipe-Tongs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical section of this invention. Fig. 2 is a front view, and Figs. 3, 4, and 5 are details.

This invention has relation to pipe and blacksmiths' tongs; and it consists in the construction of the squared double-bearing pivot-pin, passing through the slot of the main jaw and connecting the two jaws of the tongs, and the reversible gripping-block, capable of rotary adjustment on a pin passed axially through it in the direction of the length of the jaw, whereby a central or equalized action of said jaw is maintained, all as hereinafter shown and described.

In the accompanying drawings, the letter A designates the main or hooked jaw of the tongs, having an oblique pivotal portion or body, *a*, which is transversely slotted in the direction of its length, as shown at *b*, said portion being slightly reduced in size laterally from the shoulders *c* of the head or hook, so that it, as well as the handle, will pass readily through the box-bearing of the lesser or movable jaw C. This jaw C has a lateral handle, *d*, extending downward from one side of its body B, which is slotted vertically to form a central box-bearing, *e*, for the reception of the slotted portion of the main jaw, thereby effecting an equalization of the lateral strain on the main jaw, as well as on the lesser jaw, which is guided thereby.

The two jaws are connected by means of a square pivot-pin, D, having two cylindrical end journals, *g* and *h*, which are respectively seated in bearings *k* and *l* in the side walls of the body B of the lesser jaw. The middle or square portion, *n*, of this pin passes through the transverse slot *b* of the main jaw, and fits neatly therein, so that in the turning of the jaws this central portion is held steady, and the movement is upon the said journals of the

pin in their seats. In this manner a double pivotal bearing is provided for the tongs, while the pivotal point can be adjusted to provide a larger or smaller bite between the jaws by means of a set-screw, *s*, working through the body of the main jaw into the slot *b* in the direction of its length, and bearing positively against the squared body of the pivot-pin therein.

The head of the lesser jaw is recessed in the opposite direction to the concavity of the main jaw, so that the opening of its holding-head E faces the latter, serving in this position to receive the gripping-block G, which is confined therein by means of a screw-pin, *p*, which passes through an aperture in the top *t* into a threaded hole, *w*, in the floor or base of the recess.

The block G is prismatic, having usually six or eight sides and twelve or sixteen gripping-edges, *z*, which can be successively brought into action by the rotation and reversal of the block, as occasion may require, the axis of rotation of the block being in the general direction of the length of the jaw.

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

1. The pipe or blacksmiths' tongs having, in connection with the vertically-slotted body B of the jaw C, forming a box-bearing, *e*, the transversely-slotted body *a* of the main jaw A and the centrally-squared pivot-pin D, having the cylinder end journals *g* *h*, and fitting by its squared portions *n* neatly in the slot of the main jaw, through which it passes, substantially as specified.

2. In a pipe or blacksmiths' tongs, the jaw C, having a holding-head, E, opening toward the main jaw, and perforated in its top and base, and the reversible and rotary adjustable prismatic gripping-block G, confined in the head by the axis-pin extending in the direction of the length of the jaw, and enabling the gripping-edges of the block to be presented to the work by rotation thereon, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY BANISTER.

Witnesses:

JACOB F. WALTHER,
A. E. PERSONS.