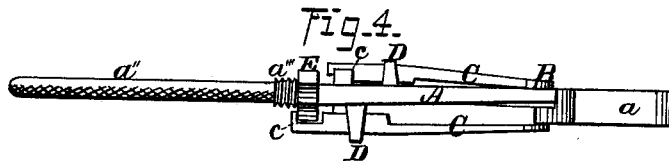
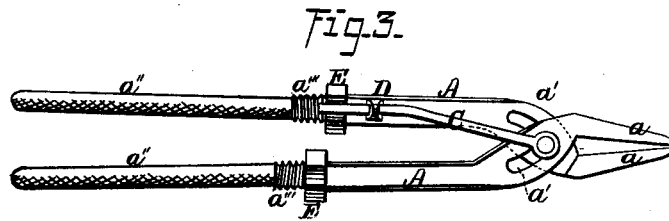
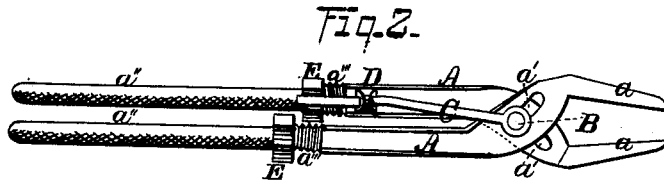
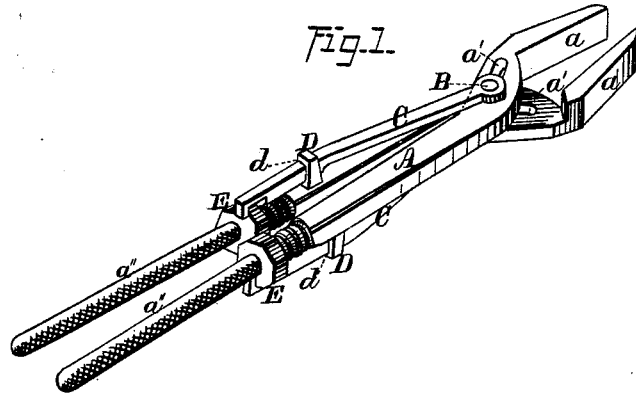


J. VAN MATRE.
BLACKSMITH'S TONGS.

No. 191.734.

Patented June 5, 1877.



WITNESSES-

Jas. E. Hutchinson.
 W. C. Chaffee.

INVENTOR-

Joseph Van Matre,
 by Prindle & Co. his
 attorney

UNITED STATES PATENT OFFICE.

JOSEPH VAN MATRE, OF CADIZ, INDIANA.

IMPROVEMENT IN BLACKSMITHS' TONGS.

Specification forming part of Letters Patent No. 191,734, dated June 5, 1877; application filed October 6, 1876.

To all whom it may concern:

Be it known that I, JOSEPH VAN MATRE, of Cadiz, in the county of Henry, and in the State of Indiana, have invented certain new and useful Improvements in Blacksmiths' Tongs; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective view of my improved device arranged for use. Figs. 2 and 3 are plan views of the same, showing, respectively, the jaws arranged at their widest and narrowest gage, and Fig. 4 is an elevation of one edge of said device.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable a pair of blacksmith's tongs to be easily and quickly adjusted so as to grasp between its jaws articles having any thickness between certain limits; and to this end it consists in the means employed for adjusting to and securing in position the bolt or rivet that forms the pivoted bearing for and upon which the tongs move, substantially as is hereinafter shown.

In the annexed drawing, A represents one section of my tongs, which has the usual form, and at a point immediately in rear of its jaw *a* is provided with an opening, *a'*, for the reception of the bolt or rivet B, which forms the pivotal bearing between said section and the opposite section.

The openings *a'* and *a'* are elongated in a line with the portions of the sections in which they are formed, and as said portions at such points are constructed obliquely to the other portions of said sections each of said elongated openings has a line diagonal to the jaw *a*, and has nearly a right angle to the opposite opening *a'*.

If, now, the bolt B is moved to and secured in position at the rear ends of the openings *a'* and *a'*, the jaws *a* and *a* will be separated to their widest extent, as seen in Fig. 2, while by moving said bolt toward the forward ends of said openings said jaws will be drawn together until, as said bolt reaches its limit in such direction, their ends will meet, as seen in Fig. 3.

In order that the adjustment of the pivotal bolt B may be easily and quickly effected, the following-described means are preferably employed:

A bar, C, is pivoted at one end to or upon each end of the bolt B, and extends from thence rearward to or near the longitudinal center of the handle *a''* of the opposite section, its rear portion being held in position laterally by means of a guide, D, that is secured upon said section, and is furnished with an opening, *d*, through which said bar passes.

At a point near the rear end of each bar C a screw-thread, *a'''*, is formed upon the handle *a''*, and upon said thread is placed a nut, E. A notch, *e*, corresponding to the length of said nut E is formed in the lower edge, at the rear end of said bar, which notch embraces said nut loosely and causes said bar to follow the latter when moved lengthwise of said threaded portion.

If, now, the nuts E and E are moved forward or rearward the bars C and C and pivotal bolt B will be correspondingly moved, and the jaws *a* and *a* adjusted toward or from each other.

It will be seen that the improvement described can be applied to any form of tongs, pliers, or other similar devices employed for grasping articles between jaws which are capable of being moved toward or from each other.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

The means employed for adjusting the rivet B lengthwise of the openings *a'* and *a'*, consisting of the nuts E and E, fitted upon the threaded portions *a'''* and *a'''* of the handles *a''* and *a''*, and the bars C and C, pivoted at their front ends upon said bolt, and at their rear ends caused to loosely embrace the ends of said nuts, said parts being combined in the manner and for the purpose substantially as shown.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of September, 1876.

JOSEPH VAN MATRE.

Witnesses:

JOHN HAWKINS,
ANDREW J. McCORMACK.