No. 676,730. Patented June 18, 1901.

J. F. WILSON.

ADJUSTABLE JAW TONGS.

(Application filed Apr. 9, 1900.)

(No Model.)

Fig. 1.

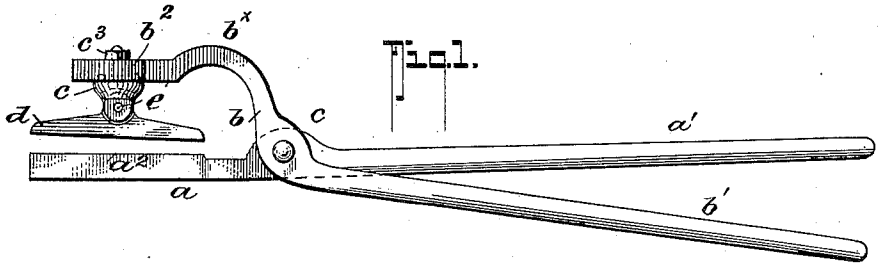


Fig. 2.

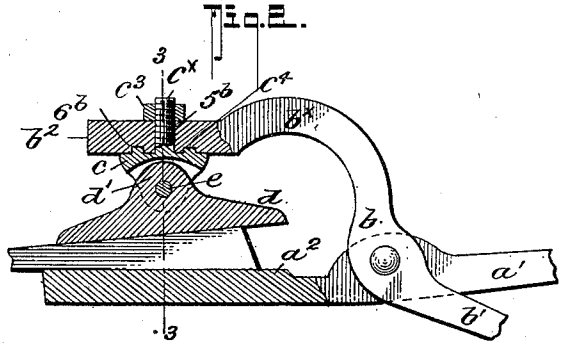


Fig. 3.

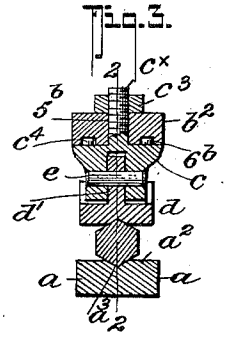


Fig. 4.

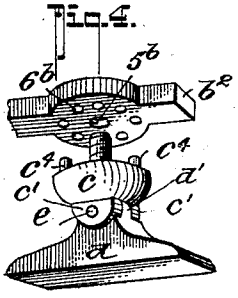
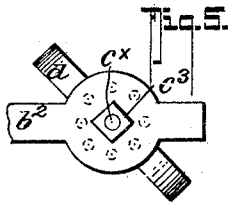


Fig. 5.



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JOHN FRANK WILSON, OF MILFORD, MASSACHUSETTS.

ADJUSTABLE-JAW TONGS.

SPECIFICATION forming part of Letters Patent No. 676,730, dated June 18, 1901.

Application filed April 9, 1900. Serial No. 12,230. (No model.)

To all whom it may concern:

Be it known that I, JOHN FRANK WILSON, residing at Milford, in the county of Worcester and State of Massachusetts, have invented new and Improved Adjustable-Jaw Tongs, of which the following is a specification.

This invention is in the nature of improved tongs or pliers more especially intended for blacksmiths' uses; and it refers more particularly to that class of clamping-tongs having adjustable jaws capable of firmly gripping different sizes and shapes of material.

My invention seeks to provide a simple and inexpensive appliance of the character described having in its general make-up a fixed clamping-jaw and a movable jaw adjustable in a vertical plane or at right angles with the fixedly-held jaw and having simple devices for holding it to the desired adjustments.

In its subordinate features my invention consists in certain details of construction and novel combination of parts, all of which will hereinafter be fully explained, and specifically pointed out in the appended claim, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of my improved tongs. Fig. 2 is a vertical section of the jaw ends thereof, taken substantially on the line 2 2 of Fig. 3. Fig. 3 is a cross-section on the line 3 3 of Fig. 2, with a slight modification of the jaw clamping-surfaces. Fig. 4 is a detail view of the end of the adjustable jaw members, and Fig. 5 is a detail plan view of the parts shown in Fig. 4.

In the practical construction my improved tongs comprise the two members a b, having handle portions a' b', as shown. The forward end of the tongs member a is widened to form a clamping-surface a^2, which may be perfectly flat, as indicated in Figs. 1 and 2, or it may have a groove or recess a^3, as shown in Fig. 3, for more firmly gripping articles having sharp corners. The outer end of member b curves upward, as at $b^\times$, and then downward and forward, as at b^2, the part b^2 ending at a point in advance of the center of the lower jaw a^2. The member b^2 has a central aperture 5^b and an annular series of sockets 6^b, surrounding the aperture 5^b, as best shown in Fig. 4. The upper jaw is adjustably secured to the upper-jaw-holding member b^2, and the said jaw (indicated by d) is also supported in such manner that it will at all times rock in its longitudinal plane. For such purpose the jaw d has an upwardly-extending apertured ear d', adapted to fit between a pair of lugs c', that form a part of a head-block c. The block c has a central upwardly-projecting threaded shank $c^\times$, adapted to pass through the central aperture 5^b to engage with a securing-nut c^3, and the said head-block also has a series of dowels or lugs c^4 to engage the sockets 6^b. (See Figs. 2 and 3.) The under or clamping face of the jaw d may be flat or provided with a V or other shaped groove, as illustrated in Fig. 3.

From the foregoing, taken in connection with the accompanying drawings, it is thought the advantages and manner of operating my improvement will be readily understood. By constructing the several parts as shown and described the upper jaw d can be set to extend in the same longitudinal plane with the lower jaw, and by reason of the jaw d being held to rock on a pivot-pin e, that passes through the ears of the head-block and the jaw d, said jaw will readily accommodate itself to the size or contour of the article to be clamped, as illustrated in Fig. 2.

If desired to set the upper or adjustable jaw at an angle to the lower or fixedly-held jaw, it is only necessary to loosen the nut c^3 sufficiently to permit turning the head-block c, with jaw d, to the desired angle, after which the jaw can be held fast by reason of the head-block dowels engaging the sockets 6^b and tightening-nut c^3.

My improved form of tongs, while adapted for clamping any ordinary class of articles such as are usually lifted by a device of this kind, is more especially useful for clamping hoop-iron, rod-wire, spring metal, and the like.

The adjustment of the jaw d can be almost instantly effected, and when once set by reason of the manner of joining it with the member b it will remain firm to its desired clamping position.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In tongs as described, the combination with the fixed jaw member and the opposing tongs-head, said head having a vertical aperture in

its outer end, one or more indentations in its under face surrounding the said aperture, of a head-block comprising a spindle projected through the apertured end of the upper head of the tongs, said block having a pendent apertured portion and lugs adapted to engage the indentations in the head portion, and a swinging jaw member having bifurcated ears adapted to straddle the pendent portion or head-block and the pivot-pin for joining the said jaw with the head-block, all being arranged substantially as shown and for the purposes described.

JOHN FRANK WILSON.

Witnesses:
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