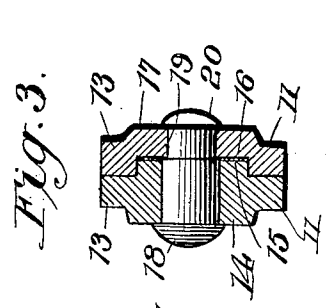
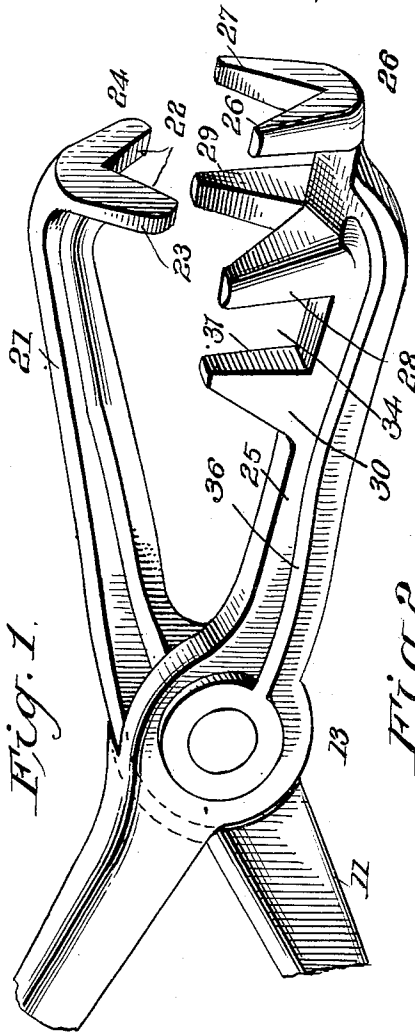
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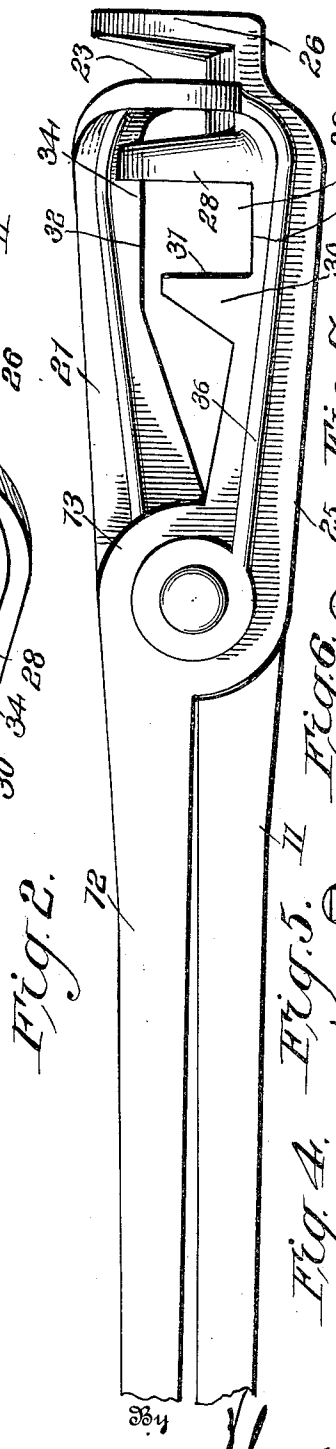
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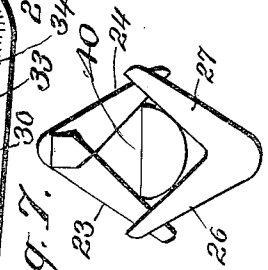
APPLICATION FILED OCT. 3, 1912.

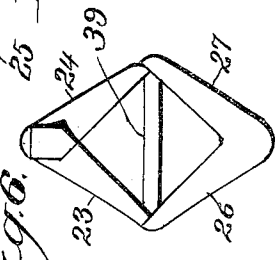
1,119,532. Patented Dec. 1, 1914.

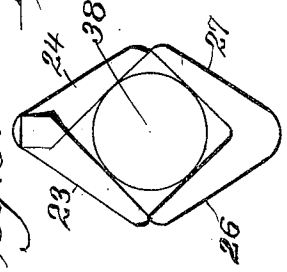


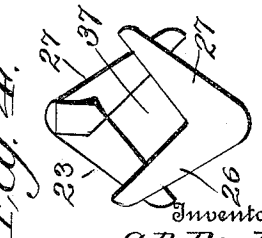












Inventor
S. R. Parks

Witnesses

By

Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SAMUEL R. PARKS, OF FOREST PARK, GEORGIA.

TONGS.

1,119,532. Specification of Letters Patent. Patented Dec. 1, 1914.

Application filed October 3, 1912. Serial No. 723,793.

To all whom it may concern:

Be it known that I, SAMUEL R. PARKS, a citizen of the United States, residing at Forest Park, in the county of Clayton and State of Georgia, have invented certain new and useful Improvements in Tongs, of which the following is a specification.

This invention relates to an improvement in tongs.

The primary object of the invention is to provide a pair of tongs for handling bar iron while it is being heated and worked with means for securely grasping the material regardless of its configuration.

A further object of the invention is to provide a construction in which the bar is supported against longitudinal movement as well as against movement transversely of the tongs.

In the drawings: Figure 1 is a perspective view showing the jaw members open; Fig. 2 a side elevation, the jaw members being closed; Fig. 3 is a section taken on the line 3—3 of Fig. 2; Fig. 4 an end elevation of the jaw members supporting a bar which is square in cross section; Fig. 5 an end elevation of said members supporting a round bar; Fig. 6 a view showing the members supporting a bar which is rectangular in cross section; and Fig. 7 a view of said members supporting a semi-circular bar.

The device comprises pivotally connected members 11 and 12. These members intermediate the handles and their jaw portions are provided with the enlarged substantially circular portions 13. The portion 13 of the member 12 is provided on its outer face with the boss 14 and on its inner face—that is, the face adjacent the other jaw member—with a boss 15 which is of smaller diameter than the boss 14. The jaw member 11 is formed on its inner face with a circular recess 16 which receives the boss 15 of the other jaw member, a bearing thus being formed on which the members may rotate. The enlarged portion 13 of the jaw member 11 is provided with a boss 17, both of the portions 13 being bored to receive the pivot pin or rivet 18, the bore of the member 12 being of greater diameter than the bore of the member 11. The pin 18 is reduced in diameter as at 19, its reduced portion extending within the bore of the member 12. The pin is formed with heads 20 which contact with the bosses 17 and 18, holding the jaw members together. It will be noted by this construction that the sections are so connected that while a free pivotal movement is permitted, the jaw members will be caused to move in a fixed line with respect to each other.

The members cross at the point where they are pivotally connected, and each of said members is provided with a jaw. The terminal of the jaw 21 of the member 11 is disposed substantially at right angles to the body portion of the jaw member. This off-set terminal comprises diverging gripping members or prongs 23 and 24 which extend radially from the jaw member, the inner faces 22 of the gripping members forming a substantially V-shaped gripping surface, the contacting faces of which are plain. The jaw 25 of the member 12 is of a length in excess of the length of the jaw of the member 11, the outer terminal of said jaw is reduced, being disposed at right angles to the jaw, said outer terminal comprising gripping members 26 and 27 of the same configuration as the gripping members 23 and 24. The jaw member 25 is provided with the gripping members 28 and 29 which extend radially from the member and which are disposed in parallel relation to the gripping members 26 and 27. The two sets of gripping members which are supported by the jaw member 25 are disposed to extend on both sides of the off-set terminal of the jaw 21.

A stop 30 is formed integral with the jaw 25 being disposed on its inner face, the stop being formed with the plain face 31 with which the stock which is supported contacts. The jaws 21 and 25 diverge from their pivotal connection, the portions 32 of the jaw member 11 and the portions 33 of the jaw member 12 being disposed parallel to each other, forming a space 34 which will accommodate the head of a bolt when it is supported by the gripping member, the bolt

being prevented from moving longitudinally of the jaws by the stop 31.

It will be noted by this construction that the jaw members consist of coacting V-shaped gripping members, the peculiar configuration of the inner gripping surfaces of said members securely grasping and retaining the stock which is handled regardless of whether the same be circular or square in cross section.

The many advantages of a construction of this character will be clearly apparent, as it will be noted that in heating and working the stock it will be securely supported, due to the fact that the stock is firmly gripped at three distinct points. The gripping members are disposed in staggered relation, assuring a binding contact which would not be secured were the gripping members arranged to contact with diametrically opposite portions of the stock.

While the radially extending gripping members are shown as formed integral with the jaw members, it will be apparent that they could be secured to the jaw members in order that they may be removed and replaced when worn or distorted. Each of the jaw members and the gripping members which are supported thereby are formed on their outer edges with strengthening ribs 36 which prevent the jaws from being readily distorted when handling the stock.

In Figs. 4 to 7 the jaw members are shown as supporting bars of different cross sectional design. It will be noted that as shown in Fig. 4 the jaws will contact with all four sides of the bar 37 which is square in cross section, and that in Fig. 5 a round bar 38 is shown as supported by the jaw members, it being noted that the diverging gripping members completely embrace the bar to support the same against displacement. In Fig. 6 a bar 39, rectangular in cross section, is supported by the jaw members, it being noted that the gripping members contact with the corners of the bar securely holding the same against slipping. In Fig. 7 the jaw members are illustrated as supporting a semi-circular bar 40, it being noted that one set of gripping members contacts with the edges of the bar and the other at diametrically opposite points with the cylindrical portion.

Attention is called to the fact that when a bar is supported by the gripping members, said member will contact with the same at three points longitudinally of the bar and at four points transversely of the bar, this peculiar gripping action positively preventing the displacement of the bar.

Having described the invention, what I claim is:

1. A pair of tongs including pivotally connected crossed handles carrying co-acting jaws, one of said jaws having a laterally and inwardly directed gripping element at its free end provided with a V-shaped notch forming resultant inwardly diverging work engaging fingers, the other of said jaws including spaced laterally and inwardly directed gripping elements at its free end having V-shaped notches alined with each other and with the notch of the first jaw forming resultant pairs of inwardly directed work engaging fingers, the latter jaw being greater in length in order that swinging together of the jaws may seat the gripping element of the first jaw between the spaced gripping elements of the second jaw, the inner side of the second jaw, between its gripping elements, being oppositely beveled to form inclined outwardly diverging faces engageable by the inner faces of the work engaging fingers of the first jaw.

2. A pair of tongs including pivotally connected crossed handles carrying co-acting jaws, one of said jaws having a laterally and inwardly directed gripping element at its free end provided with a V-shaped notch forming resultant inwardly diverging work engaging fingers, the other of said jaws including spaced laterally and inwardly directed gripping elements at its free end having V-shaped notches alined with each other and with the notch of the first jaw forming resultant pairs of inwardly directed work engaging fingers, the latter jaw being greater in length in order that swinging together of the jaws may seat the gripping element of the first jaw between the spaced gripping elements of the second jaw, said second jaw having a laterally and inwardly directed stop spaced between the innermost of its gripping elements and the point of pivotal connection of the handles and in alinement with the notches of the gripping elements, the inner side of the second jaw between this stop and adjacent gripping element being cut-away to lie in an outwardly offset plane from that portion of the inner side of said second jaw extending between the gripping elements thereof.

3. A pair of tongs including pivotally connected crossed handles carrying co-acting jaws, one of said jaws having a laterally and inwardly directed terminal formed with a V-shaped notch providing resultant inwardly diverging faces, the other of said jaws having its inner side oppositely beveled to form inclined outwardly diverging faces engageable by the faces of the notch of the first jaw.

4. A pair of tongs including pivotally connected crossed handles carrying coacting jaws, one of said jaws having an inwardly directed gripping element, the other jaw including spaced inwardly directed gripping elements, the jaws being of unequal length, whereby the gripping element of the first may seat between the gripping elements of

the second, the second jaw having an inwardly directed stop spaced from the innermost of its gripping elements, the inner side of the second jaw, between this stop and adjacent gripping element, lying in an outwardly offset plane with respect to such gripping element.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL R. PARKS. [L. S.]

Witnesses:
A. L. ANDERSON,
CARL DICK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."