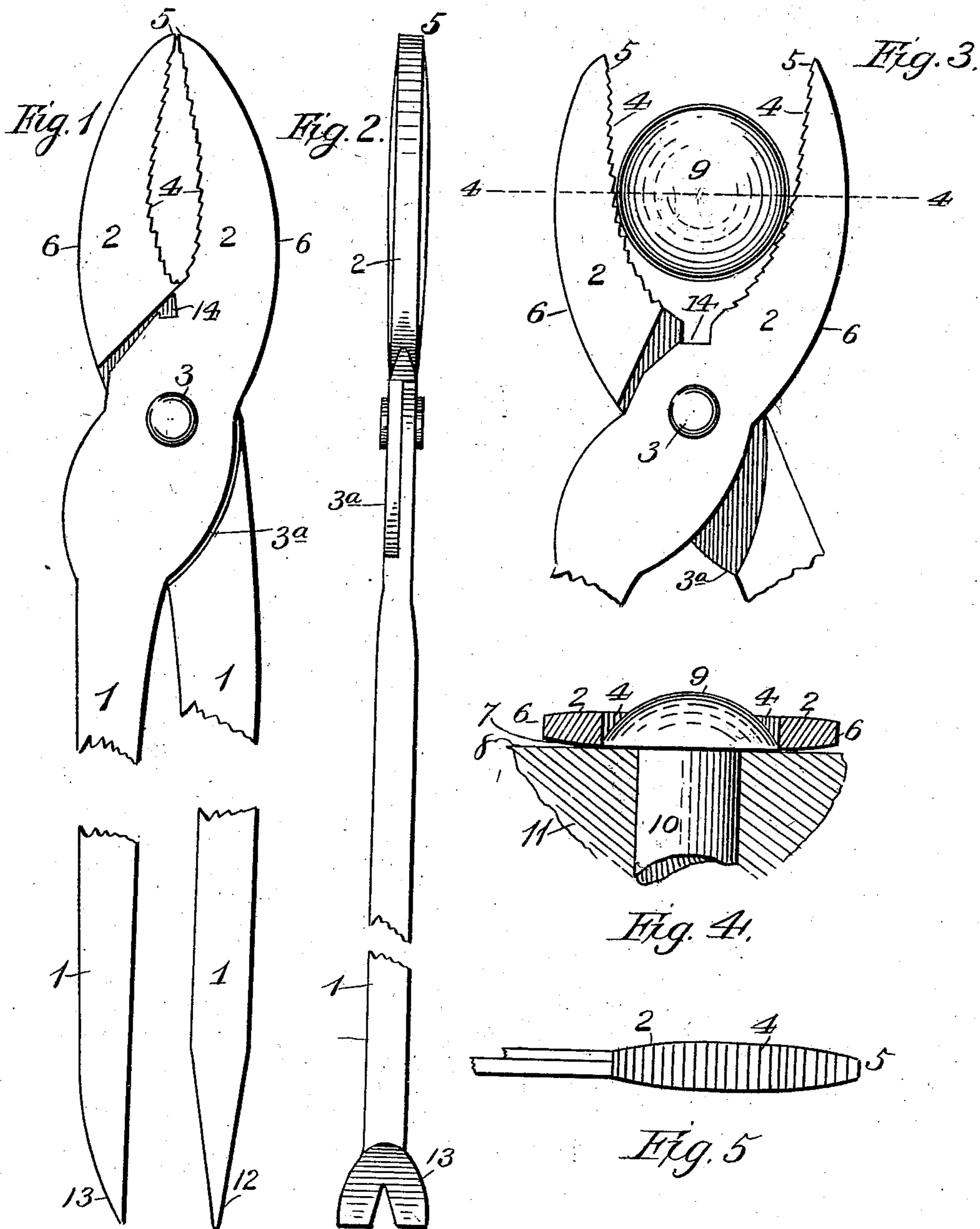


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To all whom it may concern:

Be it known that I, ANTON G. CARLSON, a citizen of the United States, residing at Sholes, in the county of Wayne and State of Nebraska, have invented certain new and useful Improvements in Tongs, of which the following is a specification.

The invention relates to bolt holding tongs, and it has for its object to provide a device of this class which shall be adapted to take a firm grip or hold upon the head of a bolt from which it is desired to remove the nut; a special object of the invention being to provide a tool having convexed or tapering jaws, of greater thickness at their inner or engaging edges than at their outer edges, so that the said jaws may be very readily adjusted to grip the bolt head.

Further objects of the invention are to simplify and improve the construction and operation of this class of tools, generally.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consisting essentially in the improved construction of the tool jaws which will be hereinafter described; the invention further consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawings—Figure 1 is a plan view of a bolt holding tongs embodying the invention. Fig. 2 is a side elevation of the same. Fig. 3 is a top plan view enlarged, showing the jaws of the tool in engagement with a bolt head. Fig. 4 is a transverse sectional view taken on the plane indicated by the line 4—4 in Fig. 3. Fig. 5 is a side elevation showing the inner side or engaging face of one of the jaws.

Corresponding parts of the several figures are denoted by like characters of reference.

The handles 1, 1, are provided at their front ends with the gripping jaws 2, 2, said handles, which extend across each other, being pivotally connected by means of a pin or

bolt 3. The contacting faces of the handles or members are recessed or reduced, as shown at 3^a, in order that the bodies of the handles, as well as the bodies of the jaws, may be disposed approximately in the same planes.

The gripping jaws 2, 2, are provided with relatively broad engaging faces at their inner edges, said faces being provided with ratchet teeth or serrations 4, 4; it being observed that the teeth upon the opposite jaws 2, 2, are beveled or inclined in opposite directions. The jaws 2, 2, are reduced, or tapered, longitudinally in the direction of their terminal points 5, 5, and said jaws are likewise reduced transversely in the direction of their outer edges 6, 6; the opposite sides or faces of said jaws being preferably curved or convexed as will be best seen at 7, in Fig. 4. Owing to this construction it is obvious that the edges of the engaging faces of the jaws may be readily placed in contact with a flat surface 8, as indicated in Fig. 4, thus permitting the jaws to get a ready and firm grip upon the head 9 of a bolt 10, extending through the body 11, of which 8 represents the surface.

For the purpose of increasing the efficiency and utility of the tool, the handles 1, 1, may be shaped at their terminal ends to present, respectively, a screw driver 12 and a nail puller 13. It is also preferred to provide the handles, adjacent to the serrated edges of the jaws, with notches 14 coöperating to form a wire cutter.

The objects and advantages of the improved tool will be readily understood from the foregoing description taken in connection with the drawings. The principal use of the tool is for the purpose of holding bolts while the nuts are being removed therefrom. As is well known, the nuts frequently become fastened upon the bolts by rust or otherwise, until the removal is a matter of considerable difficulty; especially when the heads of such bolts abut upon flat or plane surfaces as is frequently the case; for instance, in the construction of wagons.

With tools of the ordinary description, great difficulty is often experienced in getting a firm hold upon the bolt head, for the reason that the jaws of the holding tongs are of equal thickness throughout, thus making it a matter of considerable difficulty to bring the engaging edges of the jaws in proximity to the edge of the bolt head. With the improved tool of the present invention, the en-

gaging faces are formed upon the thickest portion of the jaws, and the edges of said faces may thus be conveniently adjusted adjacent to the edges of the bolt head, upon which a firm grip may thus be obtained. If necessary, a slight blow of the hammer upon the jaws, after the latter have been adjusted adjacent to the bolt head, will drive the edges of said jaws into the surface 8, thus facilitating the getting of a firm grip upon the bolt head.

The improved tool is simple in construction, inexpensive, and of great practical utility.

It has been pointed out in the foregoing description that the ratchet shaped teeth or serrations on the engaging faces of the jaws are beveled or inclined in opposite directions; the tool may thus be utilized as a wrench for the purpose of turning bolts, pipes and the like, over which the ratchet shaped teeth will readily slip in one direction, while a firm grip will be obtained for movement in opposite direction. By reversing the position of the tool, it may be used for turning objects either to the right or left, as may be desired.

I claim—

1. A tool of the character described, comprising pivotally connected handles extending across each other and having terminal jaws provided on their engaging faces with ratchet shaped teeth, beveled in opposite directions, said jaws being longitudinally and

transversely reduced in an outward direction.

2. A bolt holding implement, consisting of a pair of tongs having gripping jaws provided with serrated engaging faces; said jaws being beveled or reduced longitudinally in the direction of their terminal points and transversely from their engaging faces in the direction of their outer edges.

3. A bolt holding implement, consisting of a pair of tongs having gripping jaws provided with broad serrated engaging faces; said jaws being tapered outwardly in the direction of their terminal points and provided with beveled or reduced convex sides converging from the serrated engaging faces in the direction of the outer edges of the said jaws.

4. A tool comprising a pair of pivotally joined jaws, said jaws thickest at the gripping point and tapering therefrom to the outer edge.

5. A tool comprising a pair of pivotally joined jaws, said jaws thickest at the gripping point and tapering therefrom to the outer edge and toward each end.

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

ANTON G. CARLSON.

Witnesses:

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