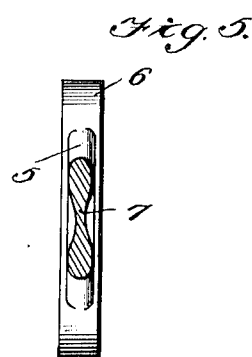
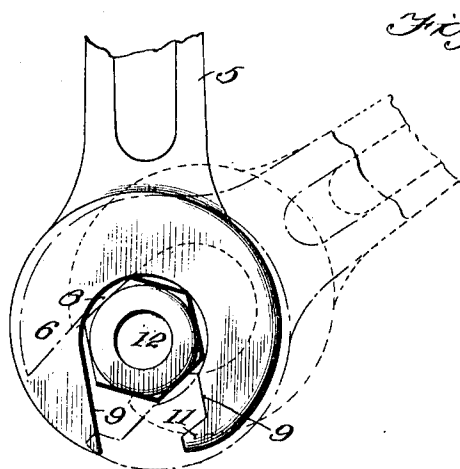
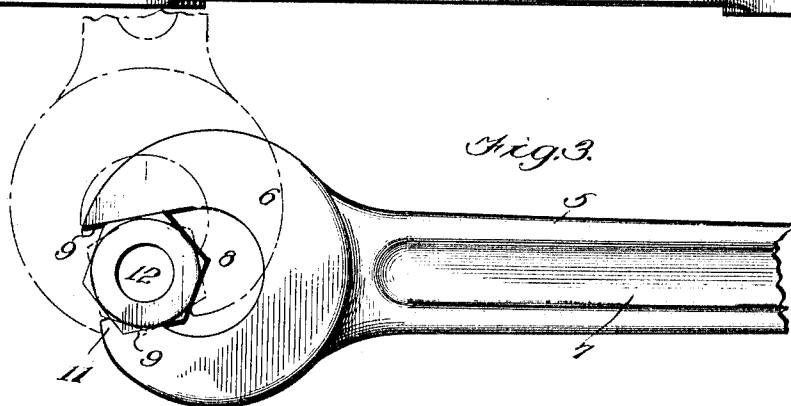
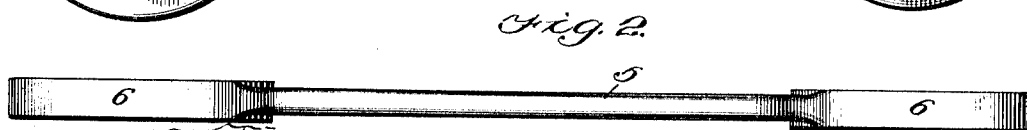
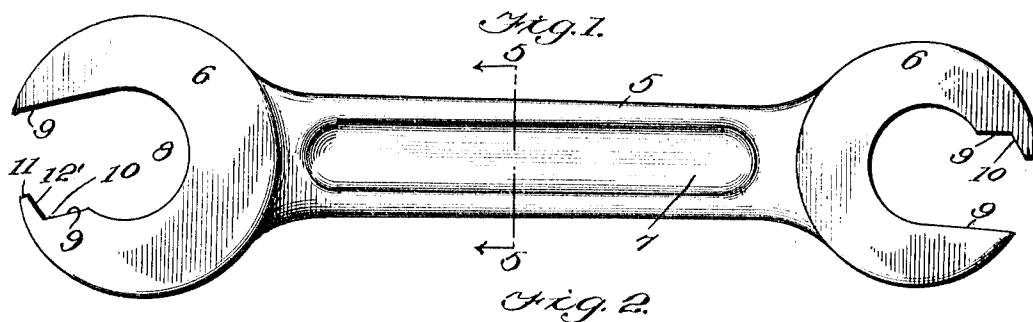


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WRENCH.
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1,061,609.

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UNITED STATES PATENT OFFICE.

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WRENCH.

1,061,609.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES C. GUERNSEY, citizen of the United States, residing at Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches and more particularly to wrenches of the rigid jaw type.

The primary object of the invention is to provide a wrench or spanner of simple and durable construction by means of which nuts may be turned on or off the threaded ends of bolts and the like without removing the tool from the nut during the adjustment thereof and without the employment of a ratchet wrench.

A further object of the invention is to provide a wrench or spanner including a shank having a nut receiving socket opening though the adjacent end thereof to form co-acting work engaging jaws, one of which is provided with a lateral stop lip or projection, the distance between the jaws being less than the diameter of the socket so that when the lip is in engagement with the nut, the latter may be turned to the right or left and when said nut registers with the socket, the wrench may be rotated or partially rotated to secure a fresh grip on said nut.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency, as well as to reduce the cost of manufacture.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claim.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a side elevation of a wrench or spanner constructed in accordance with the present invention; Fig. 2 is an edge view of the same; Fig. 3 is a side elevation, showing in full lines, the nut grasped between the jaws and in dotted lines, the position assumed by the wrench when the latter is moved upwardly in the act of turning the nut on a threaded bolt or other

support; Fig. 4 is a similar view, showing in full lines, the nut within the socket preparatory to returning the wrench to normal position, and in dotted lines, the wrench head in position to engage the nut preparatory to obtaining a fresh grasp thereon; Fig. 5 is a transverse sectional view taken on the line 5—5 of Fig. 1, and looking in the direction of the arrow.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

The improved wrench forming the subject matter of the present invention is preferably stamped, cast or otherwise formed from a single piece of metal and comprises a shank or hand grip 5 having its ends enlarged and thickened to form terminal heads 6, the side walls of the shank 5 being preferably provided with shallow depressions 7 to assist the operator in firmly grasping the tool when using the latter. Each head 6 is provided with a substantially circular nut receiving socket 8 opening through the adjacent end of the jaw to form co-acting work engaging jaws 9, the distance between said jaws being less than the diameter of the socket so that when the socket registers with the nut, the wrench may be rotated or partially rotated on the nut to obtain a fresh grip thereon. One of the jaws of each head is preferably cut-away at 10 to form a stop lip or projection 11 adapted to bear against the adjacent wall of the nut 12 and thus prevent the wrench from slipping off of the nut when turning said nut off or on the threaded end of a bolt or the like. The inner faces of the lips 11 are preferably inclined or beveled at 12' to conform to the shape of the walls of the nut, which, in the present instance, is shown hexagonal in shape, but it will of course be understood that the face 12' may be straight or arranged at substantially right angles to the wall of the recess 10 for engagement with rectangular nuts, if desired. It will here be noted that the faces of the jaws 9 are disposed at a slight angle or inclination with respect to the shank 5, the inner face of one of said jaws forming in effect a continuation of the circular wall of the adjacent socket, so as not to offer any obstruction when the wrench is adjusted on the nut in the act of obtaining a fresh grip on

the latter. One of the heads 6 is preferably larger than the other so as to permit the wrench to be used for adjusting nuts of different sizes.

- 5 In using the device, the wrench is positioned over a nut with the latter seated in the socket 8, after which the wrench is adjusted on the nut until the lip 11 bears against the adjacent face of the nut, when
10 by rotating or partially rotating the wrench, said nut may be turned on or off the bolt. After a partial rotation has been imparted to the nut, the wrench is adjusted longitudinally of the nut until said nut registers
15 with the socket, when by partially rotating the wrench and subsequently moving said wrench so as to cause the lip 11 to engage the nut, a fresh grip may be had on the latter, thus causing the tool to act in the
20 same manner as an ordinary ratchet wrench.

The lips 11 on the heads 6 are preferably extended in opposite directions so that when the tool is reversed, said lips will always be in position to engage a nut.

It will of course be understood that the wrenches may be made in different sizes and shapes and nicked, japanned or otherwise coated to give the wrenches a neat, attractive appearance and also to protect the tools from the deleterious action of the elements.

Having thus described the invention, what is claimed as new is:

A wrench having a head formed with a circular socket and work-engaging faces extending laterally from the said socket, one of said faces being tangential to the circular socket and the other of said faces being parallel with said tangential face, the inner ends of both faces being in the circumference of the socket and the outer end of one face being extended angularly toward the other face.

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

CHARLES C. GUERNSEY.

Witnesses:

CHARLES H. LITTLEFIELD,
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