A. C. MOORE & E. L. OZMENT.

WRENCH.

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Fig. 1.

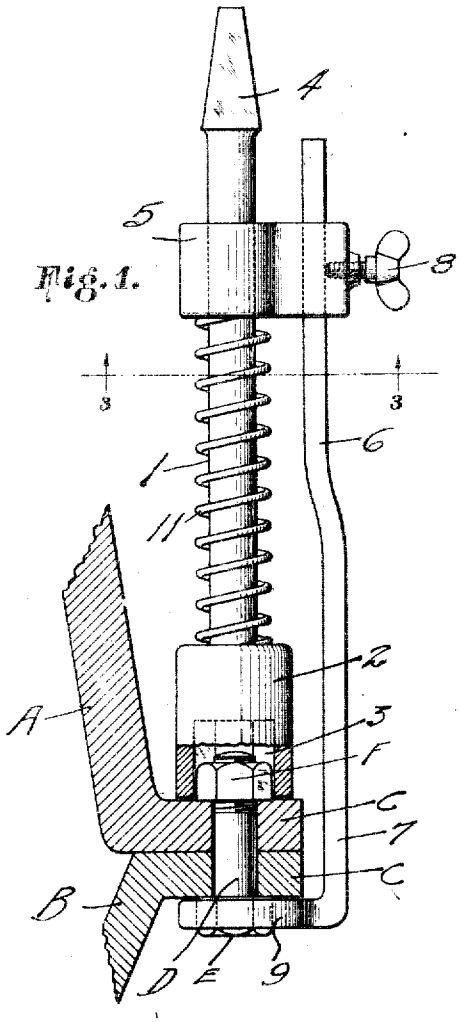


Fig. 2.

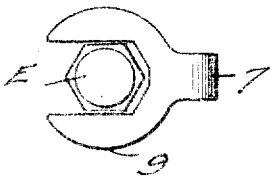
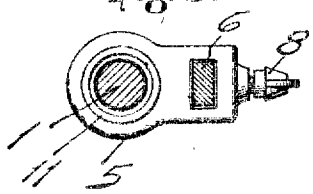


Fig. 3.



WITNESS

C. B. Ellis

INVENTOR.

Asa C. Moore

Edward L. Ozment

BY

Jack & Ashby

ATTORNEY.

UNITED STATES PATENT OFFICE.

ASA C. MOORE AND EDWARD L. OZMENT, OF DALLAS, TEXAS.

WRENCH.

1,260,698. Specification of Letters Patent. Patented Mar. 26, 1918.

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To all whom it may concern:

Be it known that we, ASA C. MOORE and EDWARD L. OZMENT, citizens of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to new and useful improvements in wrenches.

In certain structures, particularly automobile engines, it is customary to unite parts with machine bolts. Such bolts have a cylindrical or round shank and therefore in order to remove the nut it is often necessary to employ two tools, one engaged with the head of the bolt to prevent its turning and the other engaged with the nut for removing the same. It frequently happens that these bolts are so located that two workmen are required to remove the bolts which is expensive and laborious.

We have conceived an idea whereby this work can be done by one workman and performed efficiently and expeditiously. In carrying out the invention a structure is provided which includes a member for engaging and holding the head of the bolt and another member for engaging the nut and capable of being revolved whereby the nut may be screwed on to or unscrewed from the bolt.

In a more specific embodiment of the invention a shaft is provided and a support is mounted on the shaft so as to be adjustable longitudinally thereof and to permit the shaft to turn therein. A wrench head is provided on the end of the shaft for engaging a nut and resilient means is interposed between the support and the head tending to force the head away from the support. A holding member is adjustably carried by the support and has a jaw overhanging the wrench head for engaging the head of the bolt, the resilient means acting to draw the jaw and the wrench head together so as to cause the same to engage the work. The shaft may be revolved by suitable means.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawings, in which an example of the invention is illustrated, and wherein—

Figure 1 is an elevational view of a wrench constructed in accordance with this invention, and illustrating it in position for removing a nut or a bolt which is shown as connecting the flanges of two members,

Fig. 2 is a plan view of the jaw and the head of a machine bolt, and

Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 1.

In the drawings the numeral 1 designates a cylindrical shaft having an enlarged wrench head 2 fixed on one end and provided with a multi-sided socket 3 for receiving a nut. We have shown on the opposite end of the shaft a tool-end 4 which may be inserted in an ordinary brace for revolving the shaft, but it is to be understood that the shaft may be revolved or turned in any suitable way or attached to any suitable means for performing this operation.

A block 5 is mounted transversely of the shaft and has a snug sliding fit thereon. The lateral portion of the block receives the flat sided shank 6 of a bolt head and holding member 7, said shank being slidable through the block and being fastened thereto by a wing screw 8. The member 7 is offset from the shaft so as to permit a jaw 9 to engage over flanges and other obstructions. The jaw 9 is directed inwardly from the shank of the member and overhangs the head 2. A coiled spring 11 is confined on the shaft between the block 5 and the head 2.

In Fig. 1 two sections A and B of a structure are shown and these have flanges C fastened together by a machine bolt D having a head E and a nut F. To engage the wrench with the bolt and nut the shaft 1 is held relatively fixed and the block 5 pushed toward the head 2 against the tension of the spring 11 so as to displace the jaw 9 from the head 2 whereby the flanges C may be received therebetween and the nut received in the socket 3 and the bolt head E in the jaw 9. When the block is released the spring forces it away from the head 2 whereby the jaw is drawn against the flange adjacent the bolthead. It will be seen that if the jaw 9 cannot be moved away from the head 2 a sufficient distance to receive parts therebetween on account of the compression of the spring, the distance between the jaw and block 5 may be varied by loosening the thumb screw 8 and adjusting the member 7. It is obvious that the wrench may be inverted and used either from above or below the work.

After the parts have been engaged with the head and nut of the bolt it is merely

necessary to revolve the shaft 1 to either remove the nut or tighten up the same, and it is obvious that this may be quickly done. One man with this wrench may remove nuts from a great number of bolts and do so in locations which would be extremely awkward if it was necessary to use two tools and the services of two men.

The foregoing description and illustration clearly express the invention, but it is to be understood that said illustration is merely an exemplification and the invention may be carried out in various other ways.

What we claim; is,

In a wrench of the character described, a revoluble shaft, a nut receiving socket fixed on the end of the shaft, a block slidable on the shaft and having a lateral extension, a coiled spring confined on the shaft between the socket and the block, a jaw overhanging the socket, an elongated supporting member carrying the jaw and extending longitudinally of the shaft, said member extending through and being slidable in the lateral extension of the block, and means for fastening the said member in the block permitting a longitudinal adjustment of the member, whereby the distance between the block and the jaw may be varied.

In testimony whereof we affix our signatures.

ASA C. MOORE.
EDWARD L. OZMENT.