Feb. 13, 1945. F. MALCOM 2,369,400

NUT HOLDER FOR WRENCHES

Filed March 29, 1943

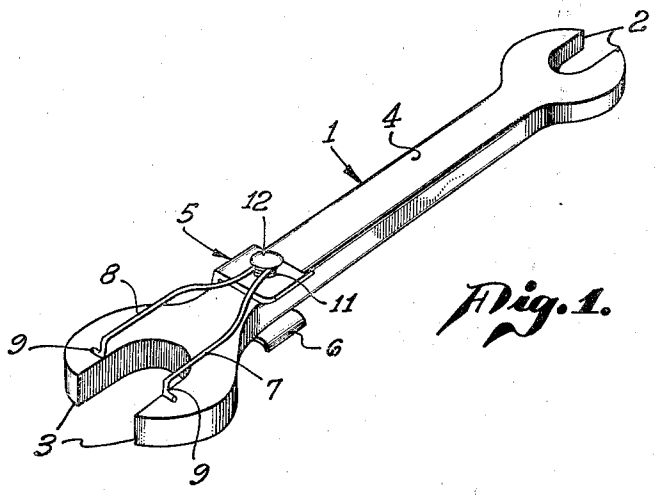


Fig. 1.

Fig. 2.

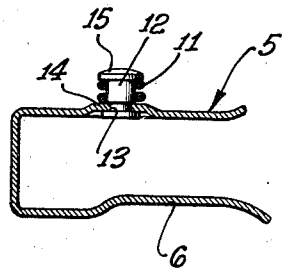


Fig. 3

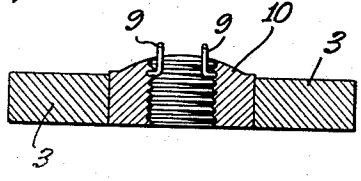
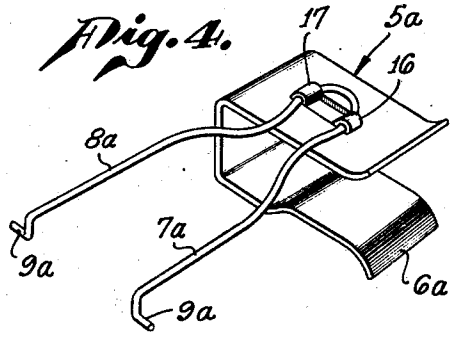


Fig. 4.



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NUT HOLDER FOR WRENCHES

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5 Claims. (Cl. 81—125)

My invention relates to devices for temporarily holding a nut in place between the jaws of a wrench to facilitate the starting of nuts upon bolts located in positions of comparative inaccessibility.

In many industries in which bolts or studs are required to be provided with nuts, it is the common practice for the workman to attempt to start the nut upon the bolt or stud by hand and then to apply a wrench to the nut for the subsequent tightening operations. This practice is satisfactory where the bolt or stud may be readily reached by the hand of the workman but it frequently occurs that the position of the bolt makes it difficult of access and difficulty is encountered in starting the nuts upon the bolts.

It is therefore an object of my invention to provide a device for facilitating starting the nuts upon the bolts while the nut is held in the same wrench which will be required for the subsequent tightening operations.

Another object of my invention is to provide a relatively simple attachment which may be placed upon standard open end type or S-type wrenches which will when in place thereon cooperate with the nut engaging portions of the wrench to hold a nut in place between the jaws of the wrench.

Other objects and advantages of my invention will be apparent from a study of the following specifications, read in connection with the accompanying drawing, wherein

Fig. 1 is a perspective view of a double ended open end wrench with my nut holding attachment in place thereon;

Fig. 2 is a vertical sectional view taken through the wrench engaging member of my attachment as shown in Fig. 1;

Fig. 3 is a vertical sectional view taken through the end of a wrench and illustrating the manner in which my attachment will hold the nut in place between the jaws of the wrench; and

Fig. 4 is a perspective view of a modified form of my nut holding attachment.

Referring to the drawing, I have illustrated in Fig. 1 a standard open end wrench 1 which may have either one or both of its ends provided with nut engaging jaws 2 and 3, the portion of the wrench 1 between the two sets of jaws comprising an elongated and substantially flat-sided handle 4.

The attachment for holding nuts in place between the jaws of the wrench comprises a mounting member 5 which may be either permanently or removably secured upon the shank or handle portion 4 of the wrench, the mounting member 5 illustrated in Figs. 1 and 2 comprising a U-shaped member formed of sheet metal and preferably formed of metal having considerable resilience so that the mounting member 5 may be placed upon the shank portion 4 of a wrench and will grip the wrench between the upper and lower leg members of the U-shape.

As shown particularly in Fig. 2, the base of the U-shape is made slightly longer than the thickness of the shank 4 of the wrench with which it is to be associated and the lower leg 6 is offset upwardly toward the upper leg so that the distance between the offset portion and the upper leg is slightly less than the thickness of the shank of the wrench. The outer ends of both legs are bent slightly outwardly to act as guides, aiding in the placing of the mounting member upon the wrench shank.

The mounting member 5 carries a pair of spring fingers 7 and 8 which extend from the mounting member to approximately the center of the depth of the nut receiving recess between the jaws 3 of the wrench, the outer ends of the spring wires 7 and 8 being bent downwardly and outwardly as shown at 9.

The spring members 7 and 8 are preferably arranged such that when these members are in their normal undistorted positions the ends 9 will be spaced apart a distance substantially in excess of the diameter of the threaded hole through a nut which is to be used with the wrench so that when the spring arms are pressed toward each other and the ends placed within a nut 10 as shown in Fig. 3, the spring arms or fingers will engage and hold the nut 10 in position between the jaws of the wrench.

The spring arms 7 and 8 may be formed in any suitable manner though I have illustrated one form which these arms might assume which may be readily and inexpensively manufactured as by forming the arms as opposite ends of a single piece of spring wire which has its center coiled as indicated at 11 to receive a pin or rivet 12 holding the arms securely upon the mounting member 5.

By using this construction, a single rivet 12 may have one of its ends riveted through an opening 13 in an up-struck portion 14 of the upper leg of the mounting member 5 and after the coils 11 of the spring fingers 7 and 8 have been placed upon the rivet, the upper end of the rivet may be peened over as indicated at 15, completing the assembly of the device.

By forming the attachment with a mounting

member of the type indicated at 5, a single nut holder attachment may be readily removed from one wrench and placed upon another or a single one of the attachments may be employed alternately at opposite ends of the same wrench 1.

In Fig. 4 I have illustrated a modified form of construction which may be substituted for the construction shown in Figs. 1 and 2, wherein a mounting member 5a may be stamped or formed in substantially the same shape as the mounting member 5 shown in Figs. 1 and 2. The nut engaging fingers are formed at opposite ends of a single loop of wire which may be secured to the mounting member 5a as by striking up from the upper leg of the mounting member a pair of lugs 16 and 17 and which may be curled or bent over the opposite legs 7a and 8a of the finger forming loop. In this type of construction the entire assembly operations may be performed upon a punch press.

While I have shown and described the preferred embodiment of my invention, I do not desire to be limited to any of the details of construction shown and described herein, except as defined in the appended claims.

I claim:

1. The combination with a wrench having a handle terminating in jaws spaced apart to receive a nut therebetween, of a pair of spring fingers, means on said handle mounting said fingers on said wrench with said fingers extending parallel to said handle and over said jaws transversely of the axis of a nut disposed between said jaws, and nut engaging means on the ends of said fingers for insertion into the threaded bore of said nut to engage the threads formed therein and releasably hold said nut suspended between said jaws.

2. The combination with a wrench having a handle terminating in jaws spaced apart to receive a nut therebetween, of a pair of spring fingers, means on said handle mounting said fingers on said wrench with said fingers extending parallel to said handle and over said jaws transversely of the axis of a nut disposed between said jaws, and nut engaging means on the ends of said fingers for insertion into the threaded bore of said nut to engage the threads formed therein and releasably hold said nut suspended between said jaws, said fingers being so shaped as to have normal unstressed positions disposed on opposite sides of the space between said jaws and spaced apart a distance exceeding the distance between said jaws.

3. The combination with a wrench having a handle terminating in a pair of jaws spaced apart to receive a nut therebetween, of a mounting means on said handle, and a spring member secured to said mounting means, said spring member having a U-shaped form including a pair of resilient fingers extending parallel to said handle and transversely of the axis of a nut placed between said jaws to a position opposite said nut, said fingers terminating in L-shaped ends disposed with one leg of said L-shape substantially at right angles to the length of said fingers and with the other legs of said L-shapes extended away from each other and substantially at right angles to the length of said fingers, whereby said spring fingers may be pressed together and said ends inserted into the threaded bore of said nut to engage said other legs of said L-shapes with the threads in said bore to releasably hold said nut suspended between said jaws.

4. An attachment for wrenches having a handle terminating in jaws spaced apart to receive a nut positioned with its axis transverse to the length of said handle comprising: a U-shaped resilient clamp to be slipped on to and grip said handle; an upright post secured to one of the legs of said U-shaped clamp; and a helical spring surrounding said post, the ends of said helical spring being so positioned with respect to said clamp as to extend in the direction of the length of said handle to said jaws and terminating in nut engaging means for insertion within the threaded bore of a nut placed between said jaws to engage the threads within said bore and releasably hold said nut between said jaws.

5. An attachment for wrenches having a handle terminating in jaws spaced apart to receive a nut positioned with its axis transverse to the length of said handle comprising: a U-shaped resilient clamp to be slipped on to and grip said handle; a hair-pin spring including a pair of interconnected spring fingers so positioned with respect to said clamp as to extend parallel to said handle toward said jaws and terminating in nut engaging elements to be inserted within the threaded bore of a nut placed between said jaws to engage the threads in said bore and releasably hold said nut between said jaws; and means securing said hair-pin spring to said clamp comprising a pair of clips formed integrally with one of the legs of said U-shape and each bent about one of said spring fingers adjacent the point of interconnection of said fingers.

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