June 19, 1951 M. C. BECKER 2,557,628

NUT-HOLDING ATTACHMENT FOR WRENCHES

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Fig. 1

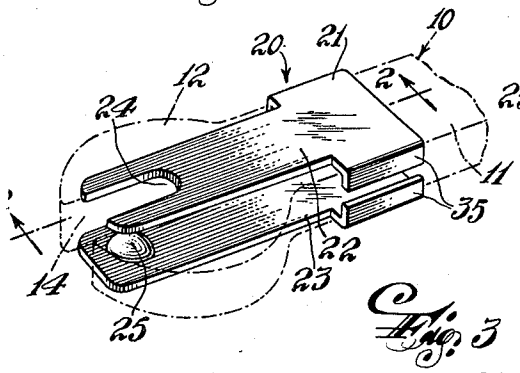


Fig. 2

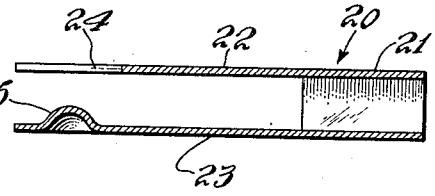


Fig. 3

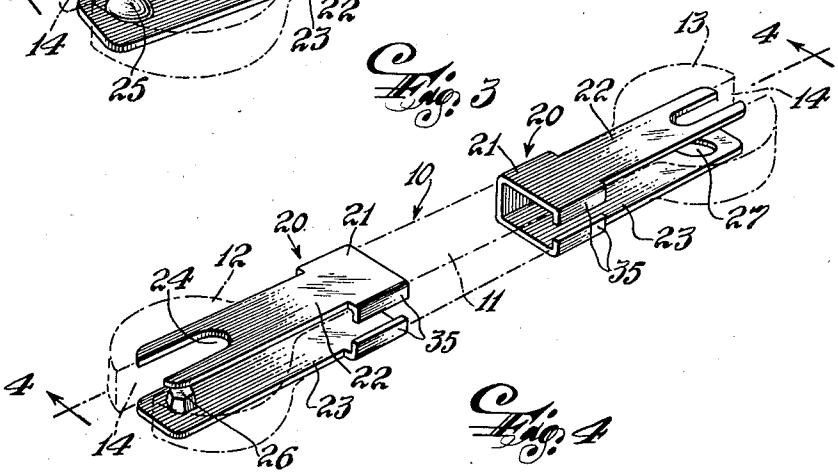


Fig. 4

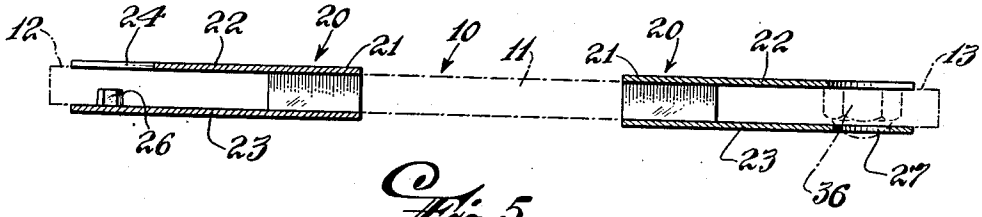
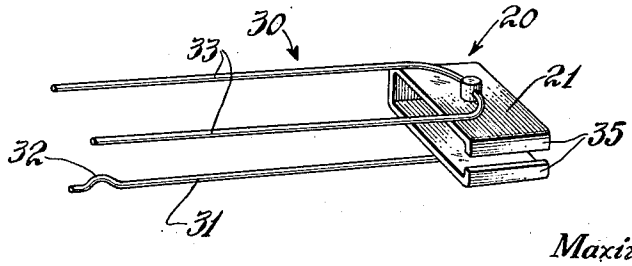


Fig. 5



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Fig. 6

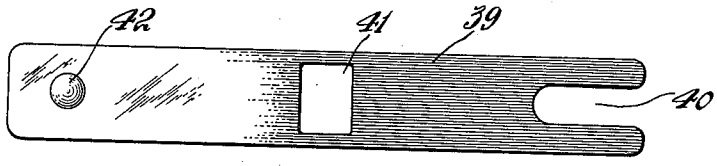


Fig. 7

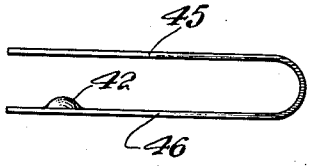


Fig. 8

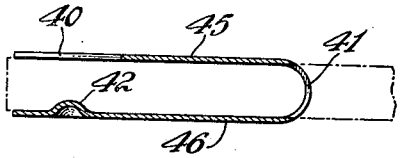


Fig. 9

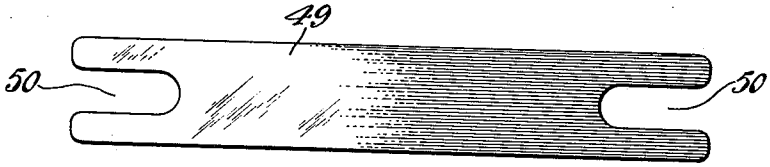


Fig. 10

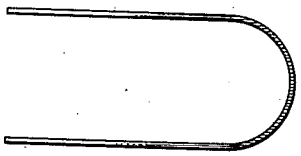
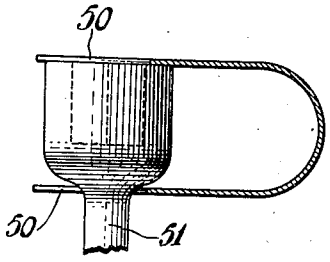


Fig. 11



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NUT-HOLDING ATTACHMENT FOR WRENCHES

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6 Claims. (Cl. 81—125)

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This invention is directed to novel tools for holding nuts so that they may be placed and maintained in position at those places that conveniently cannot be reached by hand. These novel tools may be used either in the coupling and uncoupling of nuts.

The invention is hereinafter described in conjunction with the accompanying drawings, wherein:

Fig. 1 is a fragmentary view in perspective of a tool embodying my invention.

Fig. 2 is a cross sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a modification of the invention shown in Fig. 1.

Fig. 4 is a cross sectional view taken on line 4—4 of Fig. 3.

Fig. 5 is another modification of the invention shown in Fig. 1.

Fig. 6 is a cut-out blank employed in the production of another embodiment of the invention.

Fig. 7 is the blank shown in Fig. 6 after bending and before coupling with a tool.

Fig. 8 is the holder shown in Fig. 7 in combination with a tool.

Fig. 9 is a cut-out blank employed in the production of still another embodiment of the invention.

Fig. 10 is the blank shown in Fig. 9 after bending and before coupling with a tool.

Fig. 11 is the holder shown in Fig. 10 in combination with a tool.

As shown in the drawings, there is a tool, and as indicated in dot and dash lines, a flat wrench 10, which may consist of a shank or handle 11 having a head 12 at one end thereof and if desired a head 13 at the other end thereof. The heads 12 and 13 are bifurcated to provide nut receiving slots or recesses 14 of the same or different widths to accommodate nuts of corresponding widths.

According to this invention, there may be provided a nut holder 20 of spring metal or the like in combination with such a tool 10. As shown in Fig. 1, there is provided a substantially U-shaped body or yoke 21 adapted to be slipped on the shank 11 of the wrench 10. Integral with the legs of the U body 21 are a pair of flat arms 22 and 23 parallel to each other. The arm 22 is bifurcated at its free end to provide a slot or recess 24 therein whose width is less than that of slot 14 and slightly greater than the opening through a nut which is to be accommodated by slot 14. The arm 23 has a projection or nub 25 opposite the slot 24 and ex-

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tending inwardly into the slot 14. The nut retaining projection or nub 25 may be pressed in the arm 23 and may be in the form of a segment of sphere instead of the nub 25, a projection 26 (Figs. 3 and 4) in the shape of a hexagonal head may be secured to the arm 23 and extends into the opening 14.

The unit 20 may be composed of spring metal and may be slipped on to the shank 11 of the wrench 10 and is held in position by mere frictional engagement therewith. The unit 20 may be slid rearwardly on the shank 11 to inoperative position from the operative position shown in Figs. 1 and 3.

Another embodiment of the invention is shown at the end of the shank 11 having head 13. In this embodiment the arm 23 has an opening 27 (Figs. 3 and 4) for accommodating a round head nut.

If desired both sets of arms 22 and 23 shown in Fig. 3 may be secured to and carried by a common yoke 21, and in this embodiment, when one set of arms 22 and 23 is in the operative position, the other set is in inoperative position.

Still another embodiment of the invention is shown in Fig. 5 in which the yoke 20 has a U-shaped rod 30 secured to arm 21. A rod 31 having a bent nut-retainer portion 32 is secured to the other arm 21 and extends parallel to and below the midspace between arms 33 of U rod 30. This unit may be mounted on the shank 11 of tool 10 and when in operative position, the arms 33 are located along the head of the wrench and above the space of the slot in the head 12 and the arm 31 extends below the mid-space of the slot.

In all of the aforesaid various embodiments of the invention, and the band 21, if desired, may have a projecting side 35 extend over a side of the shank 11 so that all four sides of said shank are engaged by the retaining member.

In all of the aforesaid embodiments of the invention, a nut, such as 36, shown in Fig. 4 is inserted between the arms 22 and 23 and into the slot or recess of the head of wrench 10. When a round head nut 36 is used, the retainers 20 whose arm 23 has an opening therethrough is employed and the head of the nut is located in that opening and the threaded opening in the nut is located below the space 24 of arm 22. If the nut is an open nut, with the threaded opening extending through the entire thickness of the nut, the embodiment shown in Figs. 1, 2 or 5 may be used and in this case the nub 25 or bent over portion 32 extends into one end of the nut

located between the arms **22** and **23** and in the slot or recess of the wrench head to detachably couple the nut to the wrench. When the nut has a closed head with a hex recess therein the nut is placed between arms **22** and **23**, with the hex projection **26** (Fig. 3) inserted into the hex recess therein.

In the embodiment shown in Figs. 6–8, a rectangular strip **39** of thin spring metal may be cut out and stamped to provide a slot or recess **40** similar to slot **24** of Fig. 1 at one end thereof, a central transverse opening **41** at about the midlength thereof and a nub or projection **42**, similar to projection **25** of Fig. 1, at the other end thereof. Instead of the nub **42** a hex projection similar to **26** or opening **27** both of Figs. 3 and 4 may be provided. Then the formed blank may be bent over on its transverse center to provide a pair of arms **45** and **46**. This unit finds particular application for combination with those tools whose shanks are of the same width as the heads at the ends thereof or with a single head wrench. In either case the wrench is inserted through the opening **41** and makes frictional engagement with the shank to be maintained in position with the slotted ends thereof extending partially over the slot or recess of the tool.

In the embodiment shown in Figs. 9–11, a rectangular strip **49** of thin spring metal may be cut out at both ends to provide a slot or recess **50** at each end thereof as shown in Fig. 9. Then this slotted strip may be bent over to take on the general U shape shown in Fig. 10. This unit finds application in combination with a tool such as a socket wrench **51** shown in Fig. 11. This unit is assembled with wrench **51** by inserting the shank of the wrench into one of the slots and the other end of the unit rests on the end face of the nut receiving head of the wrench. The pressure exerted by the slotted ends of the unit against the ends of the wrench head maintains the unit in position on the tool and maintains a nut in the socket or recess of the wrench.

I claim:

1. A tool for holding and placing a nut comprising the combination of a wrench having a nut receiving recess with a pair of nut-retaining members secured to each other in fixed relationship, one of said members having a slot therein and overlying said recess.

2. A tool for holding and placing a nut comprising the combination of a wrench having a shank and a nut receiving recess at one end thereof with a pair of gripping members, means located on said shank and securing said members to each other, one of said members having a slot at the free end thereof, in operative position the end of said member with the slot in the free end thereof only partially overlying the recess in said wrench and means in said other member for engaging said nut for retaining said nut against displacement out of said recess.

3. A tool for holding and placing a nut comprising the combination of a wrench having a shank and a nut receiving recess at one end thereof, a yoke slideably mounted on said shank, a pair of members secured to end extending from said yoke, one of said members having a slot therein at the free end thereof, the other member having a projection extending towards said first mentioned arm and into the recess in said wrench.

4. A tool for holding and placing a nut comprising the combination of a wrench having a shank and a nut receiving recess at one end thereof, a yoke slideably mounted on said shank, a pair of members secured to and extending from said yoke, one of said members having a slot therein at the free end thereof, the other member having an opening in said other member, said opening, slot and recess communicating with each other.

5. A device adapted to be coupled with a wrench having a shank and a nut receiving recess at one end thereof, said device comprising a pair of members capable of gripping said shank, one of said members having a slot in one end thereof, means in said other member for centrally engaging a nut, said means disposed opposite said slot.

6. A device adapted to be coupled with a wrench having a shank and a nut receiving recess at one end thereof, said device comprising a yoke capable of being slideably mounted on said shank, a pair of members secured to and extending from said yoke, one of said members having a slot therein at the free end thereof, the other member having a projection extending towards said slot and capable of being located in the normal opening in a nut.

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