Oct. 26, 1943. P. ROSENBLOOM 2,332,602

SAFETY WRENCH

Filed April 22, 1942

FIG. 1.

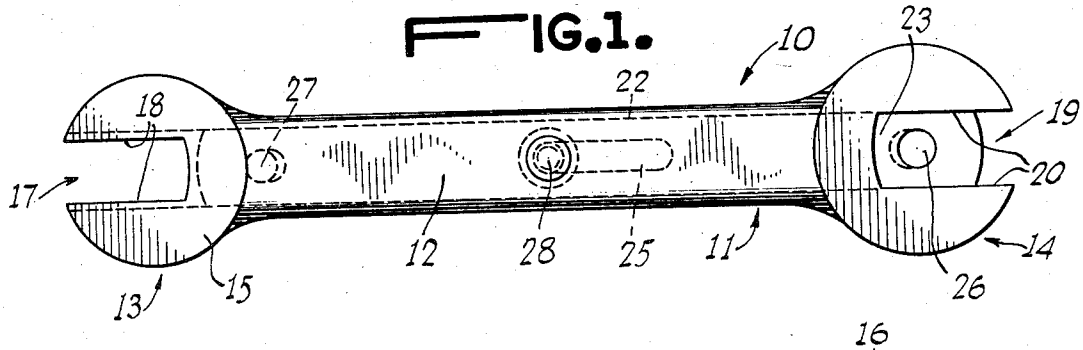


FIG. 2.

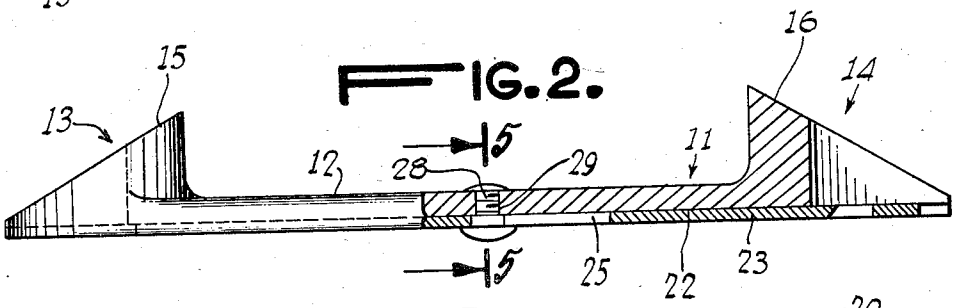


FIG. 4.

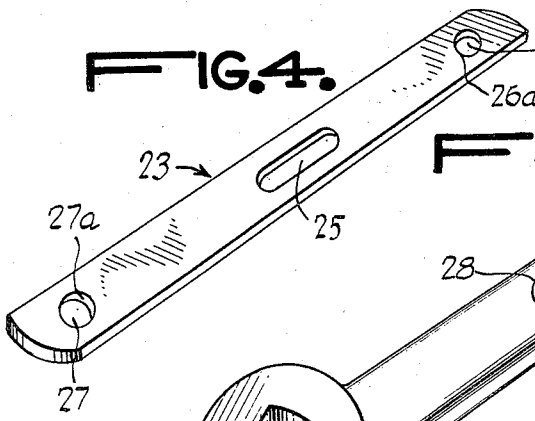


FIG. 3.

FIG. 6.

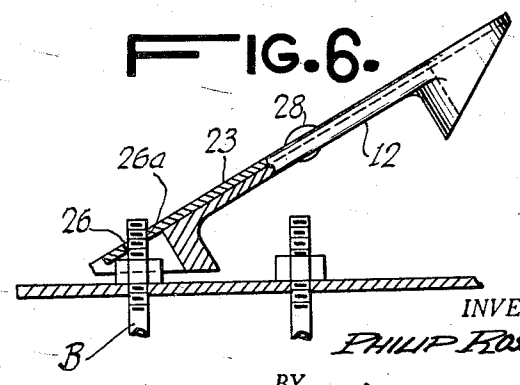
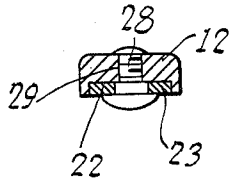


FIG. 5.



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SAFETY WRENCH

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Application April 22, 1942, Serial No. 440,023

1 Claim. (Cl. 81—119)

This invention relates to wrenches.

One object of my invention is to provide a wrench provided with means to engage a bolt, thereby preventing the wrench from accidentally loosening and slipping from the nut.

A further object of this invention is to provide a wrench of the character described, which may be used at various angles projecting away from the work, whereby to permit use in close quarters.

A still further object of this invention is to provide a two-ended wrench having a single adjustable slide provided with openings at the ends thereof to engage a bolt, the slide being replaceable and easy to adjust for use at either end.

A further object of this invention is to provide a compact, rugged and durable wrench of the character described, which shall be safe to use, which shall increase the speed of use, which shall be relatively inexpensive to manufacture, and yet practical and efficient to a high degree.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claim.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a top plan view of a wrench embodying the invention;

Fig. 2 is a side elevational view thereof, with parts broken away and in cross-section;

Fig. 3 is a perspective view of the wrench;

Fig. 4 is a perspective view of the safety slide;

Fig. 5 is a cross-sectional view taken on line 5—5 of Fig. 2; and

Fig. 6 is an elevational view showing the wrench in operation, and with parts broken away and in cross-section.

Referring now in detail to the drawing, 10 designates a wrench embodying the invention. The wrench comprises a body 11 having a shank portion 12 with heads 13 and 14 at the opposite ends thereof. The heads 13 and 14 are similar, except as to dimension, the heads being dimensioned for different sized nuts.

The heads 13 and 14 have upwardly and inwardly inclined top surfaces 15 and 16, respectively. Head 13 is formed with a cut-away or slot 17 to receive a nut. Said slot has parallel side walls 18 of substantially triangular shape. The head 14 is formed with a slot 19 having parallel side walls 20 and is adapted to engage a nut of somewhat greater size.

The body 11 is formed on the underside thereof with a longitudinal flat groove 22 extending from end to end. Slidably mounted within groove 22 is a safety slide 23. The safety slide 23 comprises a flat bar of metal having parallel side edges. Said bar is formed with a central longitudinal slot 25 and with openings 26 and 27 adjacent the ends thereof. The slide 23 has limited sliding movement within slot or groove 22, and is held in the groove by a central bolt 28 passing through a central threaded opening 29 in the shank 12. The bolt 28 passes through the slot 25 in the safety slide 23.

It will now be understood that upon moving the safety slide 23 to the right, and then tightening the bolt 28, the head 14 may be used to tighten a nut on the bolt. Upon moving the slide to the left, head 13 of the wrench is used.

The openings 26 and 27 are for the purpose of engaging the bolts, while the wrench is being used as illustrated in Fig. 6 of the drawing. It will be noted that the wrench is used in inclined position, as illustrated in Fig. 6.

The inner sides of the openings 26 and 27 are beveled inwardly and not in a direction towards the exposed surface of the slide 23 as at 26a and 27a, to permit the bolts B to pass straight up through the openings when the wrench is tilted. As shown in Fig. 6 of the drawing, the wrench may be used in close quarters and will pass over adjacent bolts. Engagement of the safety head with the bolt prevents the wrench from accidentally slipping off the nut which is being tightened or loosened.

It will be noted that the holes or openings at both ends of the safety slide have diameters a fraction larger than the threaded holes of the nuts, permitting easy engagement with or disengagement from the bolt without damaging the threads thereof.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A wrench comprising a shank, a head at one end of the shank, said head having an inwardly and upwardly inclined outer surface and a slot to receive a nut, said shank having a longitudinal groove coextensive therewith on one face thereof, a safety member having a longitudinal opening slidable in said groove, said shank having a threaded opening, a bolt extending through the opening in the safety member and into the threaded opening, said member having an inwardly beveled opening at its outer end, said opening at the outer end of the safety member adapted to extend into the nut-receiving slot in the head upon adjustment of said member.

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