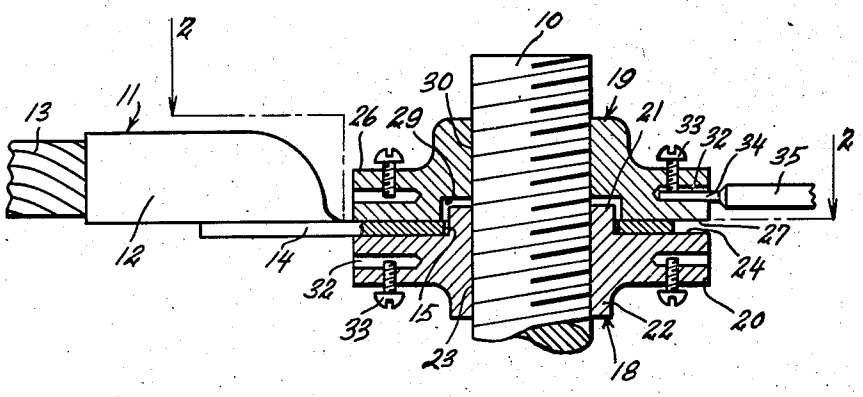
March 16, 1943. W. COX 2,314,079

THREAD PROTECTOR NUTS

Filed May 2, 1941

Fig. 1



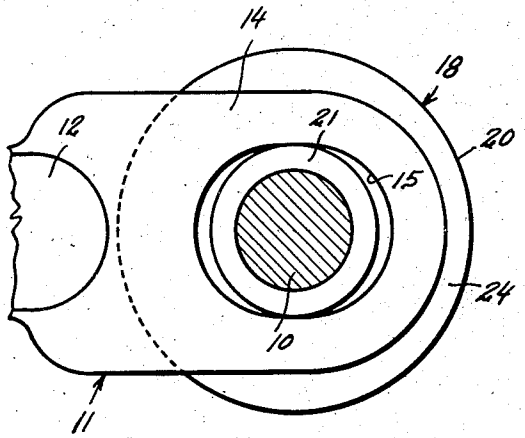


Fig. 2

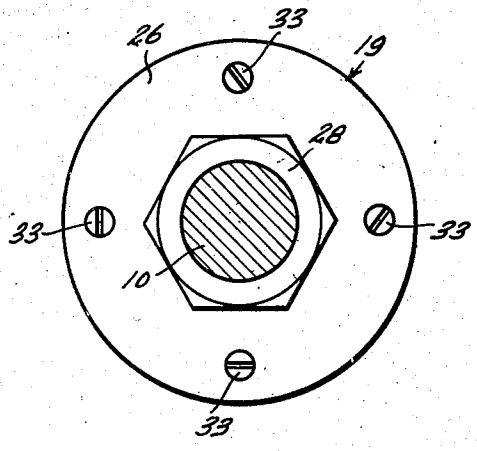


Fig. 3

Inventor

Woodford Cox

By Carl Miller

Attorney

Patented Mar. 16, 1943 2,314,079

UNITED STATES PATENT OFFICE

2,314,079

THREAD PROTECTOR NUTS

Woodford Cox, Harrisburg, Ill.

Application May 2, 1941, Serial No. 391,575

1 Claim. (Cl. 85—32)

This invention relates to a clamping nut device particularly adaptable for use with a threaded terminal stud or post of an electric apparatus, and it is the principal object of this invention to provide a pair of clamping nuts designed to clamp therebetween a cable terminal or connector bar in connecting the same to said stud or post, the nuts having a mating relationship such that the threads of the stud or post will be positively protected against injury such as customarily results when the same is directly engaged by said terminal or bar.

With the foregoing and other objects in view, the invention resides in the novel arrangement and combination of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

A practical embodiment of the invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a sectional view showing a pair of thread protector nuts with a cable terminal clamped therebetween.

Figure 2 is a transverse horizontal sectional view on line 2—2, Fig. 1, showing the cable terminal seated on face of lower nut.

Figure 3 is a plan view of the upper nut.

Referring to the drawing in detail, 10 denotes a threaded stud or post such as may be used on a battery, switchboard or other electrical apparatus, and to which the cable terminal 11 is to be connected. The cable terminal 11 is of a well known type comprising a tubular shank portion 12 in which the end of an electric conductor cable 13 is securely connected, and a flat extension or clamping end 14 provided with an elongated opening 15. While a cable terminal has been shown by way of example, it is to be understood that the clamping nuts to be hereinafter described may be used with a conductor bar or any other type of perforate electrical connecting member. In fact as will be obvious from the following description the pair of clamping nuts may be used on any threaded member where it is desired to protect the threads thereof from injury.

The thread protector nuts are constituted by a lower nut 18 and a mating upper nut 19. The lower nut 18 is shaped to provide a circular flange 20, an upper cylindrical boss 21 and a lower wrench engaging head 22 which may be, for example, of hexagonal form. Both the boss 21 and head 22 are co-axially disposed on each side of the circular flange, there extending through the same a threaded bore 23. Preferably the upper face 24 of the circular flange is machined to provide a flat surface, and the boss 21 is also machined to an external diameter such as to permit the same to fit into the opening 15 of the cable terminal 11 with the clamping end 14 thereof thus in seating engagement with the flat face 24.

The upper nut 19 is shaped to provide a circular flange 26 of substantially the same dimensions as the flange 20 on the lower nut 18, and the underside face 27 of the flange 26 is likewise machined to provide a flat clamping surface. Above the flange 26 the nut 19 is provided with an hexagonal wrench engaging head 28, and extending into the flange 26 co-axial with the head 28 is a circular recess 29 of a diameter slightly exceeding the external diameter of the circular boss 21 on the lower nut 18, and of a depth such as to permit the reception therein of the upper portion of said circular boss 21. Extending axially through the nut 19 is a threaded bore 30 of the same dimensions and number of threads as to size as that of the threaded bore 23.

Thus, it will be seen that by first placing the lower nut 18 on the stud 10, then placing the flat extension 14 of the cable terminal 11 on the face 24 of the nut 18 with the boss 21 projecting up through the opening 15 in said flat extension, and then placing the upper nut 19 on the stud 10, that by setting up the nuts 18 and 19 on the stud 10 the cable terminal 11 will be clamped between the clamping faces 24 and 27. As the cylindrical boss 21 projects into the cylindrical recess 29 it is apparent that the boss 21 thus acts as a guard for the threads of the stud 10 so that the same can never be marred or otherwise injured by the cable terminal 11.

This clamping nut construction will permit axial adjustment of the cable terminal 11 on the stud 10 at any point thereon in the manner readily apparent.

In some instances it may be desirable to attach small conductor wires to the stud 10, as for example an ammeter wire conductor to an ammeter. Accordingly the flanges 20 and 26, respectively of the nuts 18 and 19, are provided with inwardly extending radial openings 32, there being four such provided on each flange. Arranged normal to the axis of each opening 32 and projecting from the flange on the same

side as the wrench engaging head thereon are set screws 33. Referring to Fig. 1, the end 34 of a conductor 35 is shown secured in an opening 32 by the set screw 33.

Having thus described the invention what is claimed is:

A combined thread protector and connector for an elongated threaded terminal element comprising in combination, a pair of nuts engaged upon the threaded terminal element in superposed relation and movable as a unit to varying positions thereon, each nut having opposed flat contact faces, a cylindrical annular boss integral with one nut and projecting axially beyond the flat contact face thereof, the other nut having an annular recess extended inwardly of the flat contact face of the nut, said annular boss being complemental to the recess and of less diameter than the recess so as to provide a free fit whereby said contact faces may be brought into contacting engagement with an interposed terminal connector engaged upon said boss.

WOODFORD COX.