

April 23, 1946.

J. F. BALLAK

2,399,090

WING NUT

Filed March 29, 1945

FIG. 1.

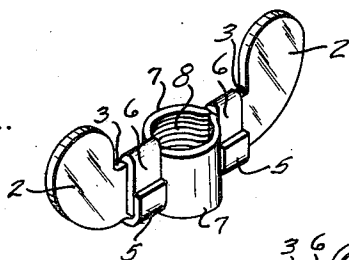
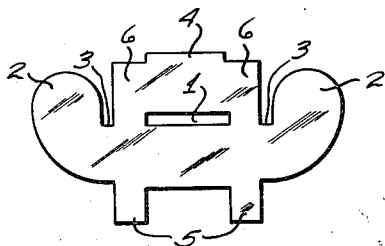


FIG. 2.

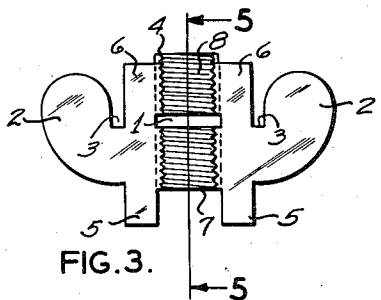


FIG. 3.

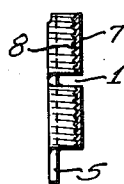


FIG. 5.

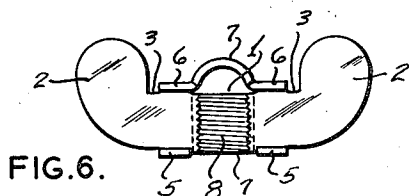


FIG. 6.

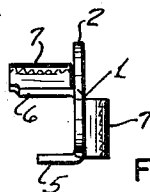


FIG. 7.

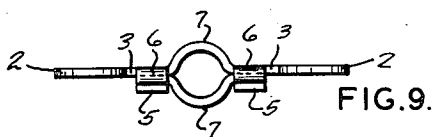


FIG. 9.

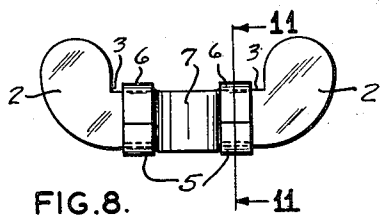


FIG. 8.

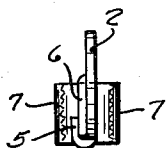


FIG. 10.

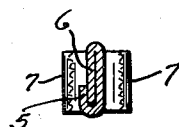


FIG. 11.

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2,399,090

WING NUT

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Application March 29, 1945, Serial No. 585,409

2 Claims. (CL 10-86)

This invention relates to wing nuts, and particularly to such a nut formed of an integral piece of any suitable material which is capable of being bent into shape. Its construction is such as to preclude any possibility of its parts being accidentally pried apart so that its efficiency would be impaired, since it has members integrally formed therewith to hold the structure firmly in its completed form, and in this respect it differs from other integrally formed devices of this kind heretofore known. My new wing nut is simple, durable, and its production requires a minimum of time and expense.

In the drawing—

Fig. 1 is a perspective view illustrating the wing nut in its completed form.

Fig. 2 illustrates the blank for the wing nut as it appears when stamped from a piece of material.

Fig. 3 illustrates the blank with its central portions threaded.

Fig. 4 is a top plan view of the blank as shown in Fig. 3.

Fig. 5 is a sectional view taken on line 5-5, Fig. 3, particularly illustrating the threaded portions of the blank.

Fig. 6 is a front elevation of the blank partially bent into position with its threaded portions at a right angle to each other.

Fig. 7 is a side elevation of the blank illustrated in Fig. 6.

Fig. 8 is a front elevation of the wing nut with all its parts bent into their permanent positions.

Fig. 9 is a top plan view of the wing nut illustrated in Fig. 8.

Fig. 10 is a side elevation of the wing nut illustrated in Fig. 8.

Fig. 11 is a sectional view taken on line 11-11, Fig. 8, illustrating particularly the retaining members.

The invention comprises a blank stamped out of a piece of any suitable material, preferably a metal that can be bent and will retain its bent shape. The blank is provided with a centrally positioned elongated slot 1, and at each side the blank terminates in a wing 2, said wings being spaced apart from the upper portion of the blank, as shown at 3. At its upper edge the blank has at its central portion a projection 4 extending upwardly a slight distance beyond said upper edge, and at its lower edge the blank has a pair of downwardly extending lugs 5, the space between the lugs 5 being equal to the width of the projection 4 and to the length of the elongated slot 1, and the width of the lugs 5 being equal to the length

of the section 6 of the blank at each side of the projection 4.

When the above described blank has been stamped out, its center section, which embraces that portion of the blank lying between the upper edge of the projection 4 down to the space between the lugs 5 and includes the elongated slot 1, is bent to form an elongated, semi-tubular portion 7 (Figs. 3 and 4), and with a suitable tool or die threads 8 are pressed into said portion 7, and as will be observed from Fig. 3, one-half of the screw-threaded portion 7 will lie above and the other half below the elongated slot 1.

The blank is then bent along a horizontal line extending from the center of the elongated slot 1 to the space 3, until the upper half of the screw-threaded portion 7 and its adjacent sections 6 are positioned at a right angle to the lower half of said screw-threaded portion. The lugs 5 are then bent upwardly toward the upper half of the screw-threaded portion 7 until said lugs are also positioned at a right angle to the lower half of said screw-threaded portion. The blank is now in the position shown in Figs. 6 and 7.

The bending of the blank is continued until the sections 6 in the upper half of the blank adjacent the upper half of the screw-threaded portion 7 lie against the lower section of the blank adjacent the lower half of the screw-threaded portion 7. It will be remembered that the elongated slot 1 was included in that section of the blank which forms the semi-tubular portion 7, so that the upper and lower edges of said slot were simultaneously bent into semi-circular shape, and it will be clearly seen that as the upper and lower halves of the semi-tubular portion 7 are bent toward each other as above described, the semi-circular edges of the slot 1 will spread farther apart at their centers, until when the upper and lower halves of the blank rest against each other, said semi-circular edges will form a circle, and this circle will be the upper edge of an interiorly screw-threaded, tubular member formed by the two halves of the semi-tubular portion 7. The lugs 5 are then bent upwardly until they rest against the downwardly bent sections 6, so that said lugs constitute retaining members to hold the parts firmly in the positions into which they have been bent, and the wings 2 provide convenient members for grasping the wing nut when it is being operated.

From what has been said above, it will be seen that my wing nut when completed is of light weight, which is an advantage when it is handled in quantities. Also, it is obvious that there is no limitation as to the depth of the screwthreads

which are formed in the tubular member 7, but these may be as deep or as shallow as the particular use to which the wing nut is to be put requires.

I claim:

1. The method of producing a wing nut which comprises stamping from a piece of material a blank provided with an elongated aperture, said blank having a pair of peripheral projections at its side edges partially spaced away from the intermediate portion of said blank and a pair of downwardly extending projections at its bottom edge, forming identical, screw-threaded semi-tubular portions above and below said elongated aperture, bending said intermediate section of the blank along the axis of said aperture to form a tubular member from said semi-tubular portions, and then bending said downwardly extending projections upward on a line in the same plane as the bottom edge of the blank until said projections rest against the downbent portion of said intermediate section to hold said parts in position.

2. The method of producing a wing nut provided with single ply grasping members, which comprises stamping from a piece of material a blank provided with an elongated aperture, said blank having a pair of peripheral projections at its side edges partially spaced away from the intermediate portion of said blank and a pair of downwardly extending projections at its bottom edge, forming identical, screw-threaded semi-tubular portions above and below said elongated aperture, bending said intermediate section of the blank along the axis of said aperture to form a tubular member from said semi-tubular portions, and then bending said downwardly extending projections upward on a line in the same plane as the bottom edge of the blank until said projections rest against the downbent portion of said intermediate section to hold said parts in position.

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