A fingertip nut and bolt holding tool having a thimble-like support member on which are mounted one or more holding devices. The support member is advantageously formed in a general U-shape by a web from which codirectionally extends a pair of legs shaped to cooperatively embrace a finger. The holding devices preferably include a combination of magnets and wire clips conveniently disposed on the support member of a single tool for permitting the accomplishment of a wide range of various nut and bolt holding tasks.

5 Claims, 7 Drawing Figures
FINGERTIP NUT AND BOLT HOLDING TOOL

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to fingertip tools, and particularly to fingertip mounted nut and bolt holders.

2. Description of the Prior Art

Fingertip tools intended to perform various functions are generally known. See, for example, U.S. Pat. Nos. 2,418,638, issued Apr. 8, 1947 to D. B. Hoover, 2,482,350, issued Sept. 20, 1949 to J. A. Lenix, 2,735,321, issued Feb. 21, 1956 to F. Browne et al., and 2,986,961, issued June 6, 1961 to W. J. Faso. These prior art tools are each directed to a specific work function to be performed.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a fingertip holder for nuts, bolts, and the like, which is in the form of a large thimblelike member placeable over a human fingertip to aid a repairman by making an easy job of the installation of both large and small bolts, screws, nuts, and the like in hard-to-get places.

It is another object of the present invention to provide a special fingertip holder employing small, strong magnets and specially designed wire clips to hold articles firmly in place until the magnets or clips are pulled loose from them.

These and other objects are achieved according to the present invention by providing a tool having: a support member arranged for embracing the tip of a finger; and at least one, and preferably a plurality, of holding devices mounted on the support member for selectively engaging an item and retaining same on the support member.

The support member preferably includes a substantially U-shaped body having a pair of legs connected to a web. The web may be arranged at an oblique angle with respect to the legs, with the legs being shaped for cooperatively embracing a finger of a human hand.

One preferred holding device for a fingertip tool according to the present invention is a magnet mounted on an outer surface of the web which partially forms the support member. A further magnet is advantageously mounted on and arranged extending between the legs of the same member so as to provide a holding surface on the side of the tool as well as at the tip.

The holding devices may also include, advantageously in combination with the aforementioned magnets, a pair of spring retainers mounted on respective ones of the legs of the support member for grippingly retaining a suitable item. The spring devices may include a substantially U-shaped resilient wire clip having legs arranged for gripping between themselves an item to be held. Another preferred spring retainer has a portion in the form of a resilient wire hook arranged for partially embracing an item.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing a fingertip holding tool according to the present invention.

FIG. 2 is a side elevational view showing, on a reduced scale, the tool of FIG. 1.

FIG. 3 is an end elevational view looking from the left in FIG. 2.

FIG. 4 is a top plan view of the tool shown in FIGS. 1 through 3.

FIG. 5 is a bottom plan view of the tool shown in FIGS. 1 through 4.

FIG. 6 is a fragmentary, side elevational view showing the fingertip holding tool of FIGS. 1 through 5 mounted on a human finger and retaining a nut.

FIG. 7 is a fragmentary, side elevational view similar to FIG. 6, but showing the tool holding a bolt.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now more particularly to FIGS. 1 through 5 of the drawings, a fingertip nut and bolt holding tool according to the present invention is formed by a support member 12 having a substantially U-shape created by a web 14 to which are connected a pair of co-directionally extending, substantially parallel legs 16 and 18. Web 14 is arranged at an oblique angle with respect to legs 16, 18. The latter are shaped as illustrated for cooperatively embracing a finger between them. See FIGS. 6 and 7 of the drawings.

Various suitable items, such as nuts and bolts, are retained on support member 12 by various holding devices mounted on member 12. These holding devices, which are discussed in detail below, are advantageously employed in a combination as described below and illustrated in the drawings.

One of the holding devices is a small bar magnet 20, and the like, mounted on a surface of web 14 that is arranged away from the direction of extension of legs 16 and 18. Attachment of magnet 20 may be achieved in any suitable, known manner, such as a glueing. Since support member 12 may itself be constructed in a conventional manner from a suitable material such as a metal, preferably steel, or synthetic resin, the wherefore of attaching magnet 20 to member 12 is considered conventional and well known to those skilled in the pertinent art. Accordingly, it will not be described in detail herein. A further magnet 22 may be mounted on and arranged extending between legs 16 and 18 adjacent web 14 so as to present a magnetic surface on the side of tool 10. Magnet 22 may be attached to member 12 in a manner similar to the attachment of magnet 20 to the same member.

The holding devices also advantageously include spring holders mounted on legs 16 and 18 for grippingly retaining items thereon. One of the spring holders is a substantially U-shaped resilient wire clip 24 having legs 26 and 28 arranged for gripping between them an item such as a nut. To achieve this end, legs 26, 28 are advantageously provided with the illustrated bent or bowed portions shaped to generally and cooperatively conform to the outline of a nut or bolt. The spring holders preferably also include a holder 30 partially formed by a resilient wire hook 32 mounted on the leg other than the leg on which clip 24 is mounted, this being leg 18 as illustrated, and arranged for partially embracing an item being retained. Clip 24 is con-
veniently mounted with its web portion retentively wrapped around a projection 33 so as to be held by the headed portion of projection 23. Holder 30 has a bent portion mounted on leg 18 by, for example, an aperture (not shown) provided in the leg. In this manner, the two spring holders are arranged on member 12 so as to extend in opposed direction from respective ones of legs 16 and 18.

With tool 10 placed over the tip of a finger 34 of a human hand 36, a nut 38 (FIG. 6) or bolt 40 (FIG. 7) may be suitably retained on the tool so as to be positioned in hard to get to places. Some nuts and bolts must be located in places where only a finger can get to. Once securely retained on tool 10, the nut or bolt can be easily brought to the hard to get to place and held there until the appropriate bolt or nut can be positioned with the operator's other hand (not shown) and started onto the nut or bolt being held in the tool. Once started, the tool can be removed from the nut or bolt by applying a little pressure, and a wrench, and the like, used to tighten the nut and bolt with respect to one another.

Although magnet 20 is shown in FIG. 6 as retaining nut 38 and hook 32 is shown in FIG. 7 as retaining bolt 40, it is to be understood that the various holding devices may be used as suitable and appropriate. Further, the various orientations made possible by the plurality of holding devices not only permits a plurality of different size and shaped items to be held on the tool, but also permits the most advantageous orientation to be employed. Clip 24 may be used to retain, for example, both nuts and bolts as desired and appropriate.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. A fingertips nut and bolt holding tool, comprising, in combination:
   a. support means for embracing the tip of a finger, the support means including a substantially U-shaped member forming a thimble-like finger-engaging socket, and having a web and a pair of opposed legs connected to the web and arranged extending co-directionally from the web, one of the legs being disposable adjacent the pad of the associated finger, and the other of the legs being provided with a projection arranged extending away from both of the legs;
   b. holder means mounted on the support means for selectively engaging an item and retaining same on the support means, the holder means including spring means mounted on the legs of the support means for grippingly retaining a bolt, the spring means comprising a resilient wire eye-hook arranged cantilever mounted on the one of the legs and for partially embracing the bolt, and a substantially U-shaped resilient wire clip having a web portion retentively wrapped around the projection provided on the other of the legs and having further legs arranged for gripping between themselves a bolt or nut being retained.

2. A structure as defined in claim 1, wherein the web of the support means is arranged at an oblique angle with respect to the legs, and the legs are shaped for cooperatively embracing a human finger.

3. A structure as defined in claim 2, wherein the holder means includes a magnet mounted on a surface of the support means web that is arranged away from the legs.

4. A structure as defined in claim 3, wherein the holder means further includes a magnet mounted on and arranged extending between the legs of the U-shaped member.

5. A structure as defined in claim 2, wherein the holder means includes a magnet mounted on and arranged extending between the legs of the U-shaped member.