UNITED STATES PATENT OFFICE

HENRY EDWARD LEWIS, OF REDDITCH, ENGLAND

DEVICE FOR HOLDING AND MANIPULATING SCREWS, NUTS, AND LIKE SMALL ARTICLES

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This invention relates to a new or improved device for holding and manipulating screws, nuts, and like small articles, and refers particularly to a device intended for holding a screw or nut to give it a lead on its thread when it has to be fitted in such a position that it cannot readily be held in the fingers.

When screws or nuts have to be fitted in such positions a considerable amount of time and trouble is frequently wasted in attempting to start the thread, as the screw or nut cannot be held by the tool used for driving it and there is considerable danger of dropping and losing it.

The object of my invention is to provide a simple and inexpensive tool whereby either a screw or nut can be held to place in position and rotated to start the thread, after which the screw or nut can be driven home by the ordinary tool.

A device according to my invention consists of resilient jaw members of spring steel strip or like material adapted to grip, the screw or nut and a handle to which the jaw members are interchangeably fitted.

For gripping a screw, flattened free ends of the jaw members, which normally spring apart, are forced together and inserted into the slot in the head of a screw when their resilience will tend to force them apart and so cause them to grip and retain the screw.

For gripping a nut the ends of the jaw members are pressed to angular form to receive the corners of a nut which is placed between them after resiliently forcing the jaws apart.

The two pairs of jaw members may be formed separately in which case they are detachably and interchangeably received in the handle, or they may be formed together in which case they are reversibly pivoted on the handle.

Some practical forms of my improved device are illustrated in the accompanying drawings in which—

Figure 1 is a front elevation of one form of the device with the jaws for gripping a screw shown in position in the handle.

Figure 2 is a similar view showing the jaws gripping a screw and detached from the handle.

Figure 3 shows a side elevation and plan of the second pair of jaws gripping a nut.

Figure 4 shows a modified construction in which the jaws are pivotally attached to the handle.

Figure 5 shows the jaws in the act of being reversed.

Figure 6 shows a slight modification.

The devices illustrated are made wholly from steel strip so that they can be produced very cheaply, and the strip may be blued or nickel-plated to prevent rusting.

In Figures 1 and 2 the handle part a is formed from a length of spring steel strip bent round to form a loop handle and with the ends b brought up parallel to each other. The strip is bent in such a manner that the free ends are normally separated and a slid-able clip c is fitted over them so that by sliding the clip along the ends are forced together to grip the jaw members which are placed between them.

The jaw member d for gripping a screw is formed from a length of thin spring steel strip doubled over upon itself at the middle of its length. The free ends normally spring apart and are tapered off as shown at e so that they may enter the slot in the head of a screw f when pressed together.

The second jaw member g is formed in the same way but the ends are normally forced together and their extremities are pressed to angular form as shown at h to grip the corners of a nut i placed between them.

To prevent slipping of the jaws in the handle, projections k may be pressed in one or both limbs b of the handle to co-operate with holes l in the jaw members.

In the modification shown in Figure 4 the screw and nut gripping parts are formed by co-operating parts at opposite ends of two lengths of spring strip m, m, which lie between the limbs b of the handle and are pivoted therein upon a rivet n.

Either pair of jaws is brought into operation by rotating the strips upon the rivet as shown in Figure 5. The limbs of the handle

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are so bent that they press upon the strips \( m \) adjacent to the handle and projections \( p \) in the limb co-operate with holes \( q \) in the strips to lock the strips resiliently in either operative position.

As an additional safeguard a sliding clip \( r \) may be provided on the handle as shown in Figure 6, the clip being slotted for the passage of the strips, but this is not essential.

I claim:

1. A device for holding and manipulating screws, nuts, and like small articles comprising a handle, a pair of resilient parallel arms on said handle, a pair of parallel resilient strips pivoted between said arms, tapered co-operating portions at one end of said strips which are normally separated and can be pressed together to enter a slot in a screw head, and angular parts at the other end of said strips which are normally pressed together and can be separated to grip the corners of a nut placed between them.

2. A device for holding and manipulating screws, nuts, and like small articles comprising a length of steel strip bent round to form a loop handle and two projecting parallel arms, two parallel lengths of steel strip pivoted between said arms, co-operating projections and recesses on said arms and strips to locate them in definite respective positions, and co-operating jaw parts at each end of said strip for engaging the articles.

HENRY EDWARD LEWIS.