Dec. 27, 1949 C. E. JAMES 2,492,576

SCREW AND NUT STARTER AND ALIGNMENT TOOL

Filed June 25, 1948

FIG 1

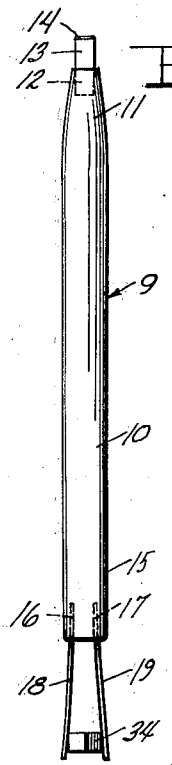


FIG 2

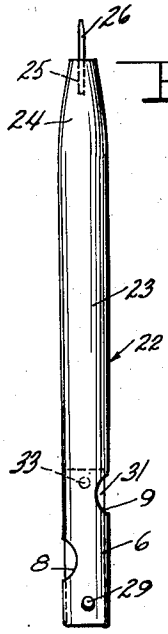


FIG 3

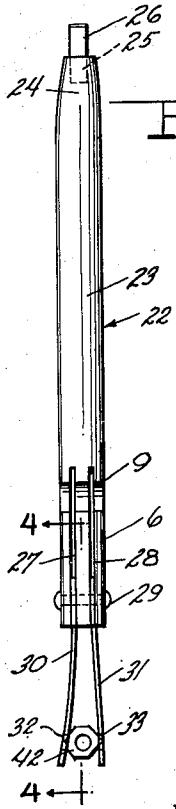


FIG 4

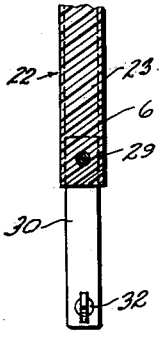
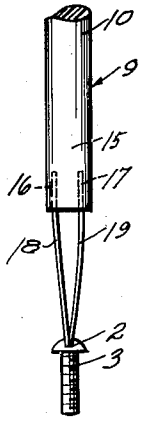


FIG 5



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SCREW AND NUT STARTER AND ALIGNMENT TOOL

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2 Claims. (Cl. 81—125)

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This invention relates to a screw and nut starter and alignment tool.

An object of this invention is to provide a tool which is capable of use in places ordinarily inaccessible for applying and removing a securing element, such as a screw, nut and the like.

Another object of the invention is to provide a cheap, simple and thoroughly efficient tool which will positively hold a securing element until it is partly seated, and which will readily apply such element.

A further object of the invention is to provide a combined tool for not only setting a securing element, but also driving such element in place.

Other objects and advantages will become apparent from the following description.

In the accompanying drawings:

Figure 1 is a side elevational view of the tool according to the present invention, with the blades in expanded position and having a nut therebetween;

Figure 2 is a side elevational view of a modified form of the tool of the present invention, with the blades collapsed;

Figure 3 is an end elevational view of the tool of Figure 2 with the blades extended and in expanded position with a nut therebetween;

Figure 4 is a fragmentary sectional view taken on the line 4—4 of Figure 3;

Figure 5 is a fragmentary side elevational view of the lower portion of the tool of Figure 1, showing the blades in retracted position and in engagement with the kerf of a screw.

Broadly, the invention comprises an elongated body having a bit on one end for engagement with a kerf of a screw, and a securing element-positioning and applying means on the other end of said body.

Referring to Figures 1 and 5 of the drawings, the reference numeral 9 represents the tool of the present invention, the tool embodying a handle 10 in the form of an elongated cylinder body provided with a tapered end 11. The body 10 is fabricated of a plastic material having a low electrical conductivity, but may also be fabricated of wood. The tapered end 11 of the body 10 is provided with a socket 12 in which is dependingly secured a bit 13, the bit being beveled, as at 14, for engagement with the kerf of a securing element, such as a screw, bolt or the like. The other end 15 of the body 10 is provided with a pair of recesses 16 and 17 spaced from each other, said recesses extending inwardly from the end 15 for portions of its length. Seated within the recesses 16 and 17 are the ends of elongated, flat, resilient

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blades 18 and 19, respectively. The blades 18 and 19 are preferably made of brass or steel, and are mounted for expansible and retractible movement relative to each other.

Referring to Figures 2, 3 and 4, the modified form of the tool is designated by the numeral 22, and such tool comprises an elongated body 23 preferably made of plastic and provided with a tapered end 24. The tapered end 24 is provided with a socket 25 in which is seated a bit 26 for engagement with the kerf of a securing element, such as a screw, bolt or the like.

Arranged on the other or opposite end 6 of the body 23 is a securing element-positioning and applying means, which is mounted for swinging movement relative to said body to thereby cause the means to be shifted to either an extended or collapsed state. Such means embodies a pair of elongated, flat, resilient blades 30 and 31, preferably made of brass arranged in spaced relation on a transversely-disposed pin 29 positioned adjacent the end 6 of the body 23 and mounted on said pin for swinging movement into and out of engagement with the longitudinal slots 27 and 28 formed in the body 23 contiguous to its end 6, the slots being arranged in alignment with said blades. The body 23 adjacent its end 6 is provided with a pair of opposed cut-outs 8 and 9 for a purpose to be subsequently described. The blades 30 and 31 are each provided with a circular opening 32 and 33, respectively, for a purpose to be subsequently described, the openings 32 and 33 being arranged adjacent the outer ends of said blades and being in aligned relation with respect to each other.

In the use of the tool of Figures 1 and 5, for holding a nut 34, the blades are expanded and the nut is positioned therebetween and maintained in such position as a result of the resiliency of the blades. In Figure 5, the tool 9 is shown in use as a screw-starter or setter, wherein the blades 18 and 19 are in contracted position and inserted in the kerf 2 of a headed wood or machine screw 3. For ordinary screw driver work, the tool 9 is reversed whereby the bit 13 may be inserted into the kerf of a screw.

In using the tool 22, shown in Figures 2, 3 and 4, a bit 26 is positioned on one end of the handle 23 for ordinary screw driver work, while the other end 6 carries a securing element-positioning and applying means which is adapted to be pivoted into and out of the slots 27 and 28 as desired. Thus, with the blades 30 and 31 in the collapsed position shown in Figure 2, the user's fingers engage the portion of the blades project-

ing through the cut-outs 8 and 9 to thereby pivot the blades to the extended position shown in Figures 3 and 4. In Figure 3, the blades 30 and 31 are shown in expanded position gripping a nut 42, with the opposed high points of the nut 42 being seated in the openings 32 and 33 of the blades 30 and 31.

It is believed that the details of construction, manner of use and advantages of the device will be readily understood from the foregoing without further detailed explanation.

It is to be understood, however, that even though I have herein shown and described a preferred embodiment of my invention, the same is susceptible of certain changes fully comprehended by the spirit of the invention as herein described, and the scope of the appended claims.

I claim:

1. A nut holding and starting tool, comprising a handle, and a pair of laterally-spaced opposed resilient blades secured to one end of the handle and extending longitudinally beyond such end, said blades being provided near their free ends with laterally oppositely arranged apertures extending through the blades for receiving opposite corners of the nut being held between the blades, the apertures preventing accidental displacement of the nut.

2. A nut holding and starting tool, comprising a handle provided in one end with a pair of

laterally-spaced elongated slots, a transverse pivot pin mounted upon the handle adjacent its end having the slots and extending through the slots, and a pair of elongated laterally-spaced opposed resilient blades arranged within the slots and having their inner ends pivotally mounted upon the pin, the blades being provided near their outer ends with transversely-aligned openings for receiving opposite corners of the nut, the blades being swingable into the slots whereby they are releasably held in inoperative positions.

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