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C. C. SIBLEY.

TOOL FOR CONNECTING WIRE TO SCREWS, BOLTS, OR THE LIKE.

APPLICATION FILED AUG. 3, 1904.

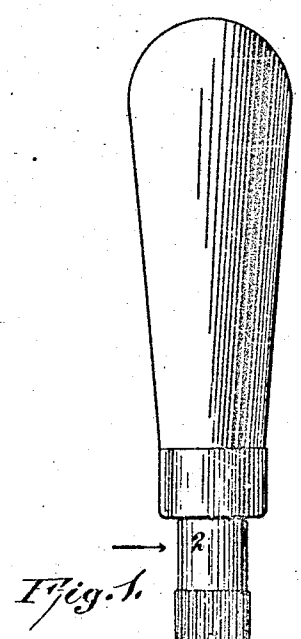

Fig. 1.

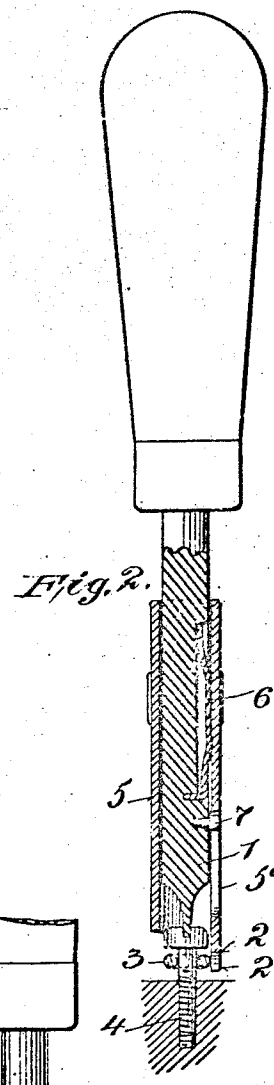

Fig. 2.

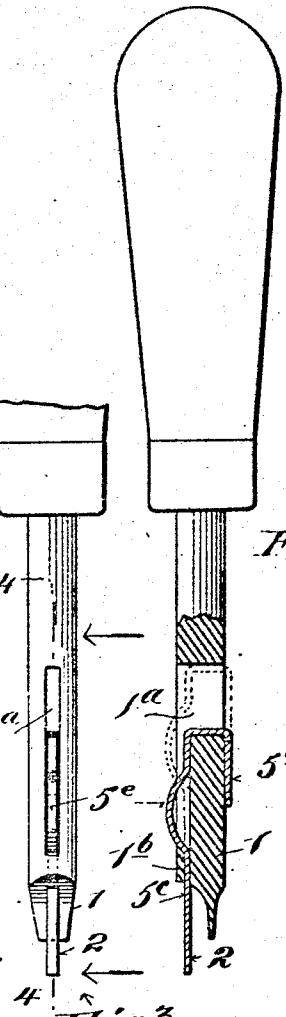

Fig. 4.

Fig. 3.

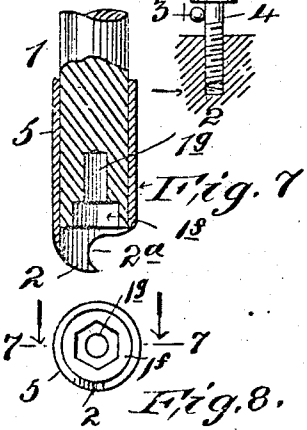

Fig. 7.

Fig. 8.

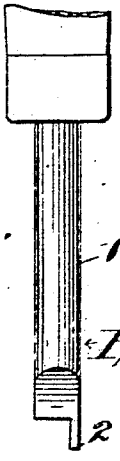

Fig. 5.

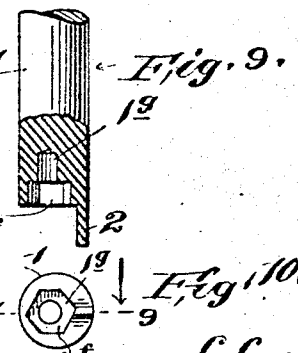

Fig. 9.

Fig. 10.

Fig. 6.

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No. 789,941. Patented May 16, 1905.

UNITED STATES PATENT OFFICE.

CLARENCE C. SIBLEY, OF PERTH AMBOY, NEW JERSEY.

TOOL FOR CONNECTING WIRE TO SCREWS, BOLTS, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 789,941, dated May 16, 1905.

Application filed August 3, 1904. Serial No. 219,289.

To all whom it may concern:

Be it known that I, CLARENCE C. SIBLEY, a citizen of the United States, and a resident of Perth Amboy, Middlesex county, New Jersey, have invented certain new and useful Improvements in Tools for Connecting Wire to Screws, Bolts, or the Like, of which the following is a specification.

The object of my invention is to provide simple and efficient tools, such as a screw-driver or wrench, adapted for readily winding wire around a screw, bolt, or the like for making electrical connections.

My invention comprises a tool adapted to operate a screw, nut, bolt, or the like and provided with an extension adapted to pass along the side of the screw or the like to engage a wire to wrap the same around the shank of the screw, bolt, or the like.

The invention also comprises the novel details of improvement that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part hereof, wherein—

Figure 1 is a side elevation of a screw-driver embodying my invention. Fig. 2 is a vertical section substantially on the line 2 2 in Fig. 1. Fig. 3 is a side view of a modification. Fig. 4 is a similar view, partly in section, on the line 4 4 in Fig. 3. Fig. 5 is a detail of a modified form of screw-driver. Fig. 6 is an end view thereof. Fig. 7 is a detail section showing my invention applied to a wrench, taken substantially on the line 7 7 in Fig. 8. Fig. 8 is an end view of Fig. 7. Fig. 9 is a detail section on the line 9 9 in Fig. 10, showing a modified form of wrench; and Fig. 10 is an end view thereof.

Similar numerals of reference indicate corresponding parts in the several views.

In the drawings the numeral 1 indicates a tool, shown in Figs. 1 to 6 in the form of a screw-driver, which is provided with a projection or prong 2, adapted to engage a wire 3 to wrap it around the shank of a screw, bolt, or the like 4. In Figs. 1 and 2 the projection or prong 2 is shown carried by a sleeve 5, mounted to slide upon the screw-driver 1, so that the prong may be pushed down below the screw-driver, as in Fig. 2, to engage the wire 3 or rise above the operative end of the screw-driver, as in Fig. 1, to permit further use of the screw-driver in the ordinary manner. I preferably provide means for holding the sleeve 5 upon the screw-driver in positions set, and for this purpose I have shown a spring 6 carried by the screw-driver and adapted to bear against the sleeve 5 and enter a slot 5^a in the sleeve, a pin 7, carried by the screw-driver, entering the slot 5^a, serving to limit the sliding movement of the sleeve upon the screw-driver and preventing independent rotation of one upon the other. I preferably form the projection or prong 2 on one side or face in hook form or recessed, as at 2^a, to afford a firm grip upon the wire.

In using my improvement the wire 3 is placed under the head of the screw 4 and close to the shank thereof, the sleeve 5 is pushed up along the screw-driver, and the end of the screw-driver is inserted in the slot of the screw. The sleeve 5 is then pushed down to bring the projection or prong 2 in line with the wire, and then the sleeve, prong, and screw-driver are turned, whereupon the prong 2 engages the wire and wraps it around or partially around the shank of the screw and the sleeve is slipped up above the wire and the screw-head set down upon the wire by the screw-driver in the ordinary way.

Instead of the projection or prong 2 being carried by a sleeve it may be carried by a part of a bar or wire 5^c, guided to travel in a slot 1^a and project from an opening 1^b, formed in the shank of the tool, as in Figs. 3 and 4, the bar or wire 5^c being shown bent through the slot 1^a and down on the other side of the screw-driver at 5^d to keep the bar in position. A raised portion 5^e on the bar 5^c serves to permit the same to be operated by the thumb or finger. The tool in this form is operated as described with reference to Fig. 1.

Figs. 5 and 6 illustrate a simple form of screw-driver capable of winding the wire around the shank of the screw, in which the screw-driver is provided with an integral or rigid projection or prong 2, projecting below the operating or narrow end of the screw-driver. In this form the screw-driver end is

set into the slot in the screw and turned, and the prong engages the wire and wraps it around the shank of the screw, and then a separate screw-driver may be used to complete setting the screw-head down upon the wire.

Figs. 7 and 8 illustrate my improvements applied to a wrench of the kind provided with a socket at the end for engaging a nut or bolt-head. In this case 1^r indicates the socket for the nut or bolt-head, and 1^s the socket to receive the shank of the bolt, and the sleeve 5, with its prong 2, in accordance with Figs. 1 and 2, is mounted to slide upon tool 1. In this form the wire is placed against the shank of the bolt or screw, the tool applied to the nut or bolt-head, and the prong 2 turned to wrap the wire around the shank and then raised and the tool next turned to set the nut or bolt.

In Figs. 9 and 10 a tool of the form shown in Figs. 7 and 8 for the nut or bolt is provided with a prong 2, integral with or secured to the tool and operating in manner described with respect to Figs. 5 and 6 for turning the wire around the shank of the bolt.

My improvements, while simple in construction, will be convenient for applying wires or conductors to screws, bolts, and the like for making connections for electrical purposes, for while the tool is set upon the screw, bolt, or nut a single turn wraps the wire around the shank, and considerable time and annoyance may be saved over the use of an ordinary screw-driver or wrench.

The details of construction shown and described may be varied without departing from the spirit of my invention.

Having now described my invention, what I claim is—

1. A tool for setting screws, bolts or nuts provided with a projection to engage a wire to bend it around a screw or bolt, substantially as described.

2. A tool for setting screws, bolts or nuts provided with a projection having a recessed side portion to engage a wire, substantially as described.

3. A tool for setting screws, bolts or nuts provided with a movable projection adapted to be adjusted beyond the operative portion of the tool for engaging a wire, substantially as described.

4. A tool for setting screws, bolts or nuts provided with a sleeve having a projection to engage a wire, substantially as described.

5. A tool for setting screws, bolts or nuts provided with a longitudinally-movable sleeve provided with a projection to engage a wire, said projection having a recessed face, substantially as described.

6. A tool for setting screws, bolts or nuts provided with a longitudinally-movable sleeve provided with a projection to engage a wire, and means for holding the sleeve upon the tool in positions of adjustment, substantially as described.

7. A screw-driver provided with a projection to extend beyond the operative edge and in the line of the axis of the screw-driver to bend a wire around a shank, substantially as described.

8. A screw-driver provided with a sleeve mounted to slide thereon and having a projection to pass beyond the operative end of the screw-driver to engage a wire, substantially as described.

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