A. H. NELLER.

WIRE TWISTING TOOL.

APPLICATION FILED DEC. 14, 1907.

898,912. Patented Sept. 15, 1908.

Fig. 1.

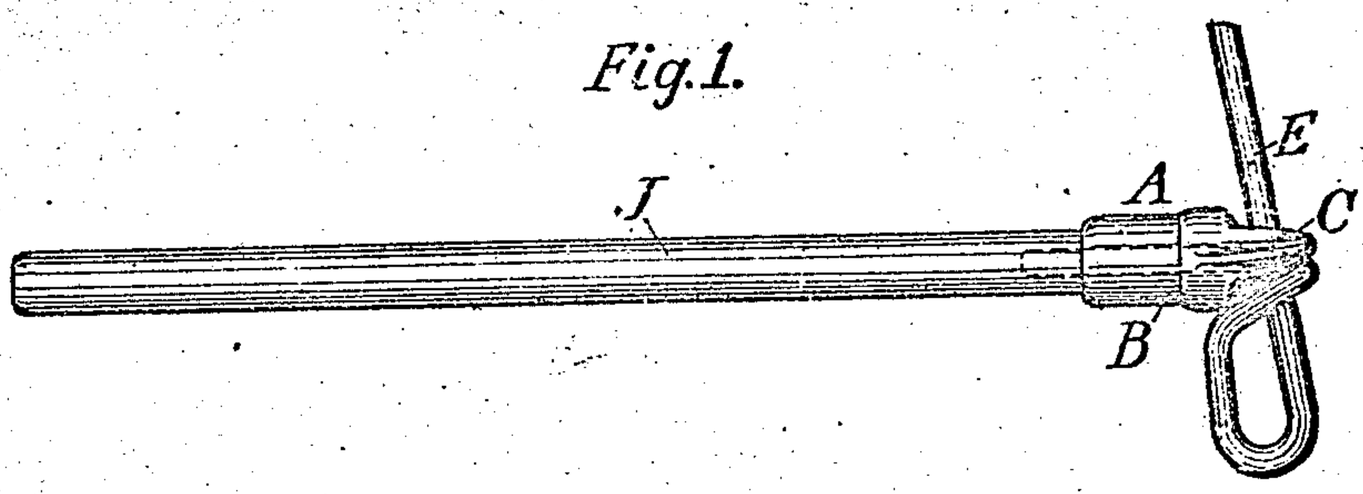


Fig. 3.

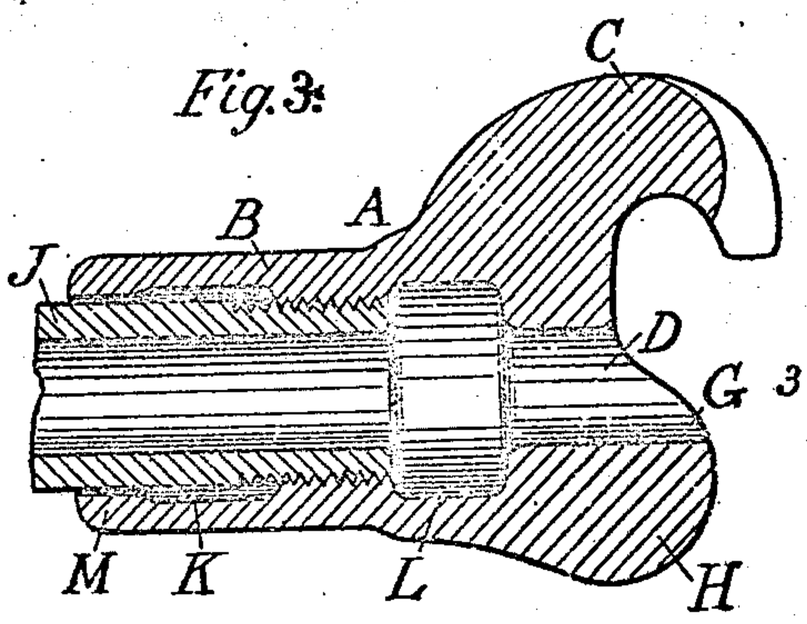


Fig. 2.

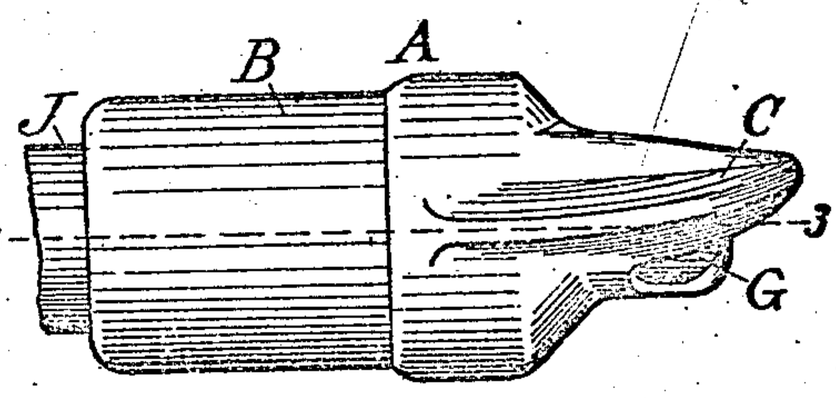


Fig. 4.

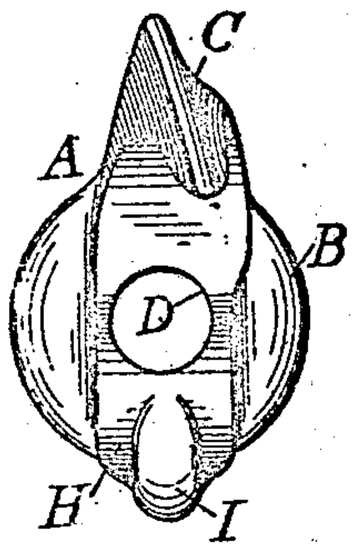


Fig. 5.

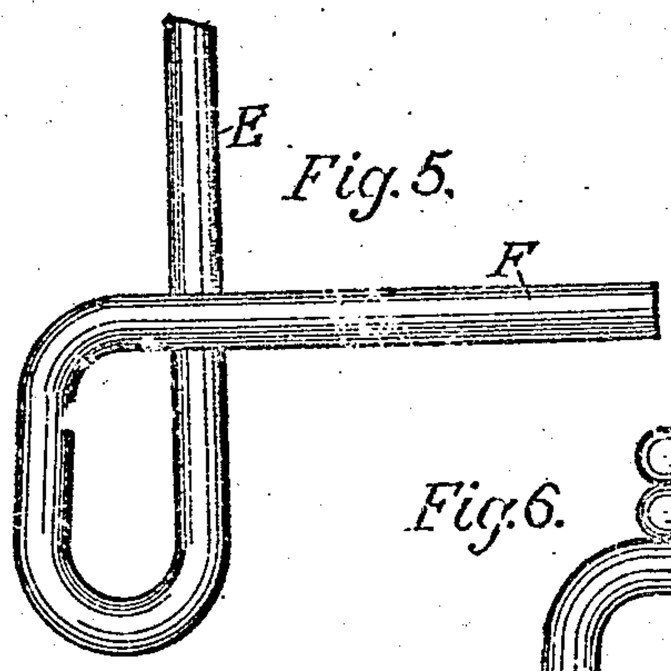
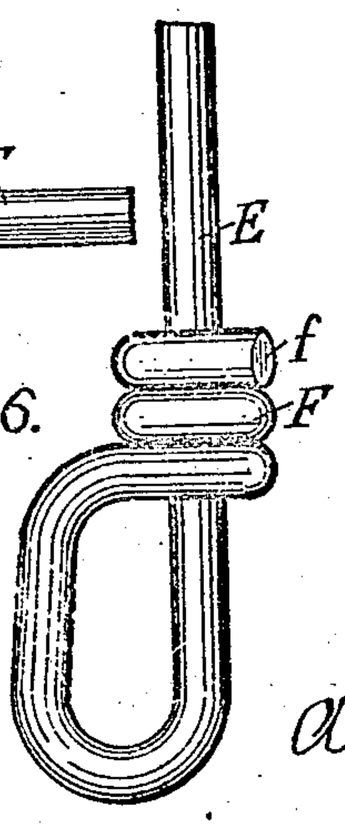


Fig. 6.



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WIRE-TWISTING TOOL.

No. 898,912. Specification of Letters Patent. Patented Sept. 15, 1908.

Application filed December 14, 1907. Serial No. 406,433.

To all whom it may concern:

Be it known that I, ALBERT H. NELLER, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Wire-Twisting Tools, of which the following is a specification.

The object of my invention is to provide a device by means of which wire may be conveniently twisted about itself to secure a loop in the end thereof, or a twist formed about a wire or other object as desired, and it consists of an implement for that purpose as hereinafter set forth and more specifically pointed out in the claims.

In the accompanying drawings forming a part of this specification, Figure 1 is a view showing the twister in position to form a twist about a wire in the end of which a loop has been formed. Fig. 2 is an enlarged view of the head of the twister. Fig. 3 is a longitudinal section of the head on line 3—3 of Fig. 2. Fig. 4 is an end elevation of the head. Fig. 5 is an enlarged view of a wire looped and bent as in Fig. 1 preparatory to being twisted. Fig. 6 shows a twisted loop completed.

Referring to the drawing A represents the main operative part or head of the twister. The said head is formed of a hollow tubular body B provided with an upwardly and forwardly projecting hook C which grips the wire or other object about which a twist is to be formed. In the end of the head beneath the hook is formed a longitudinal annular opening D extending to the hollow part of the head as shown in Fig. 3, and designed for the wire to be twisted to be placed therein. In Fig. 1 the twister is shown in position with the hook holding a wire E in the end of which a loop has been made and the free end F of the loop bent across the main length as shown in Fig. 5 to be twisted thereon to secure the said loop as shown in Fig. 6. The end F to be twisted is extended into the said annular opening and hollow part of the head as shown by dotted lines, and in twisting the lower inner face G of the opening presses against the wire to bend the same. A depending lug H with a rib I is formed on the head beneath the said face to give it strength. The said lug also projects forwardly beneath the hook C extending the said lower bending face G of the opening, which enables the extreme end *f* of the wire twist to be crimped more closely. One side of the hook C which is designed to rest against each last successive twist of the wire as it is made, is formed or inclined at an angle to one side of the opening D as shown most clearly in Figs. 2 and 4, to follow the slope of the wire and allow the turns of the twist to be formed closely together.

To operate the twister a handle J is attached which as shown is of pipe exteriorly threaded at one end and fitting into the interiorly threaded hollow body of the head. The said hollow body is preferably interiorly threaded only a short distance and recessed at K and L with only the end at M fitting the pipe closely to take part of the pressure from the threads when the twister is in use. This recessing prevents the necessity of boring out the interior of the head in case a little roughness is formed on the casting.

The interior diameter of the handle is preferably the same as that of the annular opening D so that the end of a wire may be inserted therein as far as desired and rest smoothly on the lower bending face G of the opening and the inside of the handle. To twist the free end F of the loop shown in Fig. 5 about the main length E in the manner illustrated in Fig. 6, the end E is held firmly in a vise or otherwise. The said free end F of the wire is inserted in the twister as described with the inclined face of the hook towards the loop and the said hook in position about the wire E as in Fig. 1, which shows the twister in position after a half turn has been made in the wire. In this position the handle is pulled towards the operator and the bending face G of the opening D presses against the wire to bend the same. The twister is held in position by the hook which is pulled against the main length of the wire by the resistance of the twist as it is made.

It will be seen that it is important that the handle J be tubular so as to freely admit the end F to any extent required. It is preferable that the head A be constructed and secured to the handle as described, but this is not absolutely essential. Its construction may be varied to some extent and by making the hook C and lug H integral with the handle it is evident that a separate head may

be dispensed with, although it is preferable to construct the head and attach it to the handle as shown.

What I claim is:—

1. A wire twisting tool adapted to twist one end of a wire around another by catching over and being turned around the latter while in a position of approximately right angles thereto, said wire ends standing at approximately right angles to each other, and said tool comprising a tubular handle to receive and hold the end of the wire to be twisted, and a hook to catch over and turn upon the other.

2. A wire twisting tool adapted to twist one end of a wire around another by catching over and being turned around the latter, while in a position of approximately right angles thereto, said ends standing at approximately right angles to each other, and said tool comprising a tubular handle fitted with a head having an opening corresponding with the tubular opening in the handle, so as to receive and hold the end of the wire to be twisted, and a hook to catch over and turn upon the other.

3. A wire twisting tool comprising a tubular handle and a head provided with an opening corresponding with the opening in the handle, said opening being adapted to receive the end of the wire to be twisted, also having a hook to catch over the wire about which the twist is to be made, and an extended face on the opposite side to press against and bend the end of the wire to be twisted.

4. A wire twisting tool comprising a tubular handle, a head having an opening of different diameters, the inner part to fit over and connect to the outer side of the handle, the central portion being recessed to make the opening larger, and the outer portion contracted to correspond with the inside opening of the handle, and a hook on one side of said outer opening, as and for the purpose set forth.

5. A wire twisting tool provided with a bending face adapted to bear against the wire to be twisted, and a hook to grip the wire or other object about which a twist is to be formed and turned at an angle to one side of the said bending face to follow the slope of the wire and allow the turns of the twist to be formed closely together.

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