T. R. BRUMFIELD.

WIRE TWISTING AND JOINING IMPLEMENT.

APPLICATION FILED JUNE 20, 1918.

1,289,381. Patented Dec. 31, 1918.

Fig. 1.

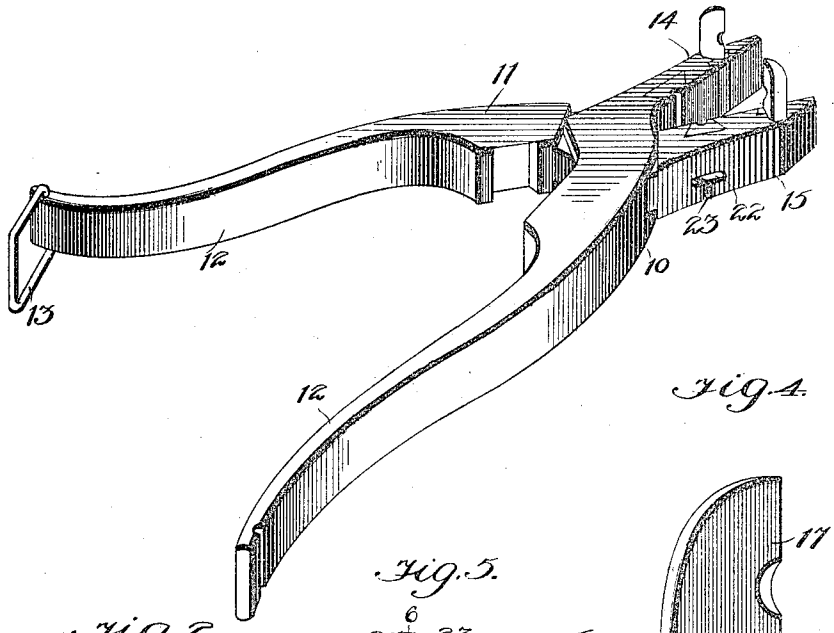


Fig. 4.

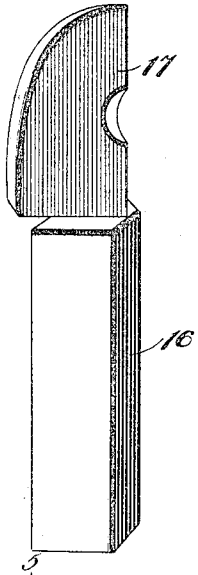


Fig. 5.

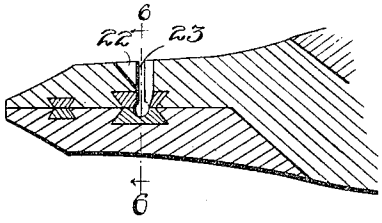


Fig. 2.

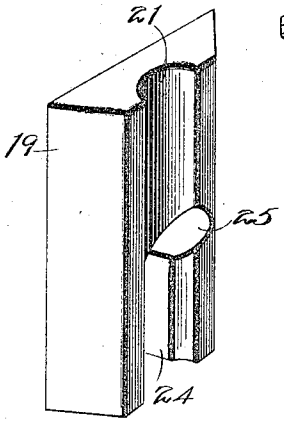


Fig. 3.

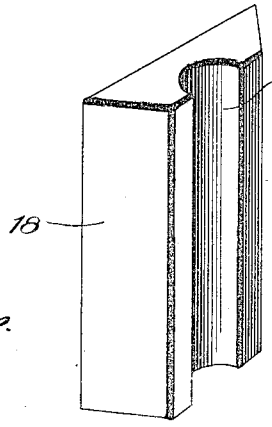
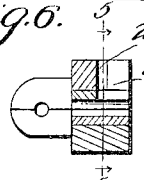


Fig. 6.



WITNESSES

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WIRE TWISTING AND JOINING IMPLEMENT.

1,289,381. Specification of Letters Patent. Patented Dec. 31, 1918.

Application filed June 20, 1918. Serial No. 240,970.

To all whom it may concern:

Be it known that I, THOMAS R. BRUMFIELD, a citizen of the United States, and a resident of Danville, in the county of Pittsylvania and State of Virginia, have invented certain new and useful Improvements in Wire Twisting and Joining Implements, of which the following is a specification.

My present invention relates generally to wire twisting and joining implements and more particularly to an implement by which the angular ends of lapping portions of two wires may be twisted around one another in order to form a connection between the wires, preparatory to the soldering or otherwise firm bonding of the twisted ends together.

In the accompanying drawing illustrating my improved implement,

Figure 1 is a perspective view of the implement complete,

Fig. 2 is a detail perspective view of one of the jaw inserts,

Fig. 3 is a similar view of another of the jaw inserts,

Fig. 4 is a detail perspective view of one of the wire cleaning members,

Fig. 5 is a longitudinal section through the jaw end of the implement, taken substantially on line 5—5 of Fig. 6, and

Fig. 6 is a transverse section taken therethrough, substantially on line 6—6 of Fig. 5.

Referring now to these figures and particularly to Fig. 1, my present invention resides in an implement consisting of intermediately crossed levers 10 and 11, forming handles 12 at one end, the extremity of one of which may support a latch 13 for engagement with the other to lock the levers in closed position, the opposite ends of the levers 10 and 11 forming jaws 14 and 15.

Each of the jaws 14 and 15 has a pair of transversely extending dove-tailed grooves in its inner face, the grooves of the two jaws 14 and 15 being opposite one another in pairs of which the outer pair of grooves receives the dove-tailed extension 16 of a pair of laterally projecting coacting wire cleaning blades 17 by which wire ends to be joined may be cleaned and brightened preparatory to connection.

In the inner grooves of the jaws 14 and 15 are respectively disposed dove-tailed inserts 18 and 19 shown in detail in Figs. 2 and 3. The insert 18 of jaw 14 has a longitudinal wire receiving groove 20 which extends transversely of the inner face of the jaw, and the insert 19 of jaw 15 has a similar wire receiving groove 21, insert 19 being, however, cut away longitudinally from one end to register with certain slots and openings of the jaw 15 as now described.

It is obvious that by virtue of the grooves 20 and 21 of the inserts 18 and 19, the lapped ends of wires to be connected may be extended between the jaws 14 and 15 and held between the latter when the jaws are closed. In order to accommodate the angular end of one of the wires at a time, jaw 15 has a longitudinally slotted opening 22 extending therethrough at a point between, and approximately parallel with, its side edges. Jaw 15 is also provided with a transverse slot therethrough extending from one side edge thereof and into the slotted opening 22, the slot being indicated at 23 and being plainly to be seen by a comparison of Figs. 1, 5 and 6.

It will also be noted that the slot 23 extends in the plane of the groove 21 of the insert 19 and registers with the cut-away end of insert 19 which latter is in the form of a longitudinal slot 24 as seen in Fig. 2, having an angular portion 25 at one end which registers with the inner end of the slotted opening 22 of the jaw 15.

Thus in operation the two lapped ends of the wires to be connected are extended through the space formed by the grooves 20 and 21 of the inserts 18 and 19, the jaws 14 and 15 being closed upon the wires, and the angular end of one of the wires being extended into the longitudinally slotted opening 22 by movement thereof through the slot 23. The entire implement then revolves around the two wires, twisting the angular end of one, around the other, until its length is exhausted. The angular end of the other wire is then drawn until closely adjacent to the twisted angular end of the first wire, and the same operation is repeated.

Previous to this the cleaning cutters 17 may be utilized to thoroughly clean the wires so that after twisting, the operation of soldering the connected ends will be comparatively simple.

It is also to be observed that the jaws 14 and 15 may be utilized to bend the extremi-

ties of the wires to form angular extensions, before they are twisted and joined in the manner above described.

I claim:

A wire twisting implement comprising a pair of crossed levers forming handles at one end and jaws at the opposite end, the latter of which have transverse dove-tailed grooves in their inner faces opposite one another, inserts within the said groove, one of which has a longitudinal slot extending therein from one end and terminating in an angular portion, one of said jaws having a longitudinally slotted opening therethrough at a point between, and approximately parallel with, its side edges, and with the inner end of which the angular portion of the slot of its respective insert registers, and said jaw also having a transverse slot extending therein from one side edge and into the said slotted opening, said jaw slot registering with the slot of the said insert, all as described.

THOMAS ROBERT BRUMFIELD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."