

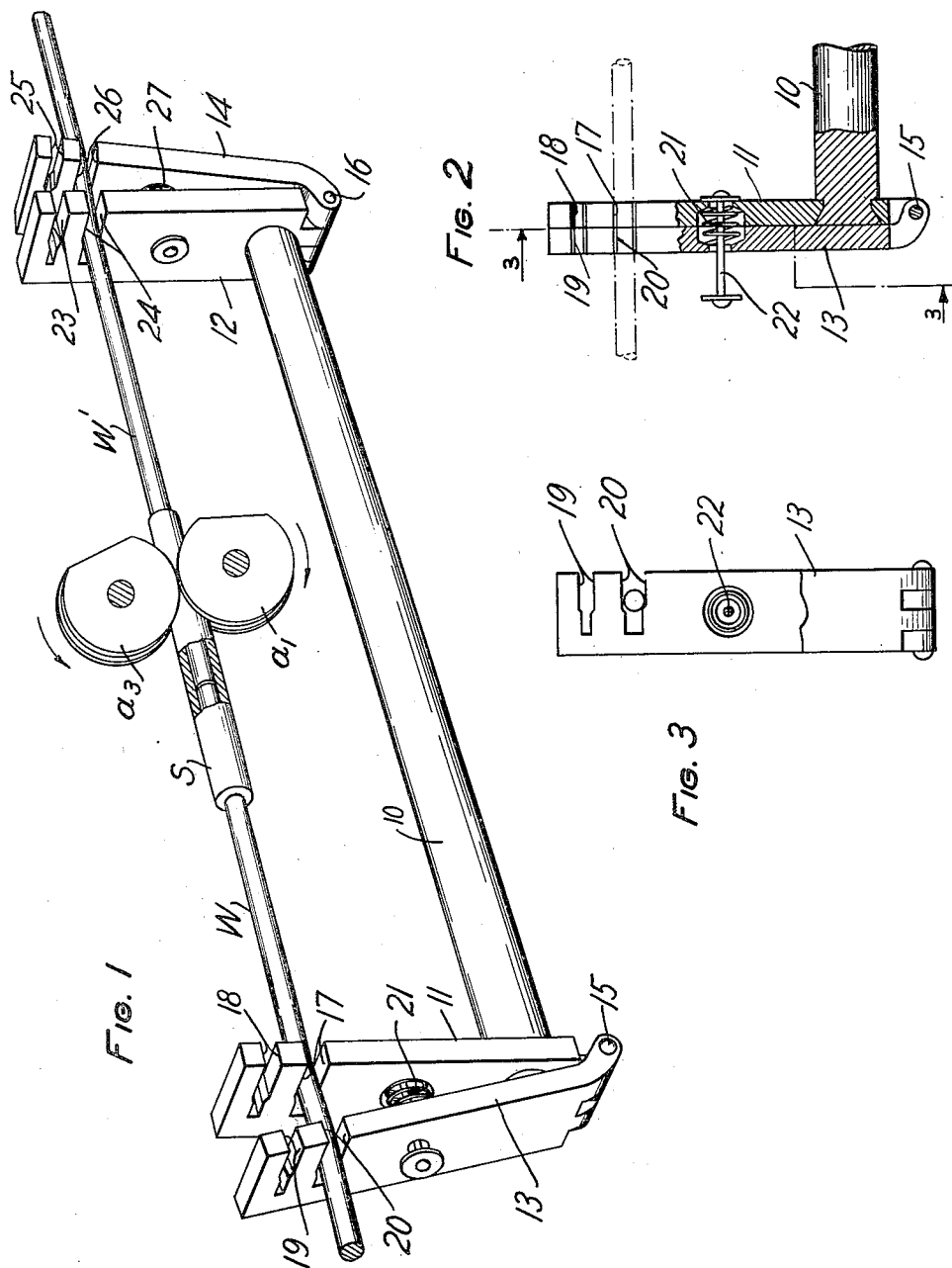
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CLAMPING DEVICE

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CLAMPING DEVICE

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This invention relates to clamping devices, and particularly to a clamping device for holding abutting conductor ends in position while being joined by rolling or drawing a sleeve thereon. In such tools a pair of forming rollers or dies are placed in position on the sleeve and actuated by a manually operated lever arm for pressing the sleeve on the ends of the conductors for connecting them.

10 In such a tool, however, the drawing operation of the sleeve is more easily performed if the wires are held in place in the sleeve during the forming operation.

The object of this invention is the provision of a clamping device of this character which will be simple in operation and wherein the wires to be connected are held in adjusted position in the sleeve in a positive manner.

20 In this device a bar is provided at both ends with plates which are secured thereon and provided with grooves at their free end portions. On these plates are hinged other plates having grooves which register with the groove of their associated plates when the plates in each pair are held in parallel relation to each other. Means is provided for forcing the hinged plates out of parallelism and their grooves out of registry to grip the wires and thus prevent any axial movement of the wires in the sleeve while the rolling operation is being performed.

35 In the drawing, Fig. 1 is a perspective view of the device showing a pair of conductors in position thereon. Fig. 2 is a view of a set of plates with portions cut away showing the spring connection between the plates, and Fig. 3 is a partial end view taken approximately on line 3—3 of Fig. 2.

40 In Figs. 1 and 2, 10 is a bar to the ends of which the plates 11 and 12 are secured, as by riveting, as shown in Fig. 2. On the ends of plates 11 and 12 adjacent the bar 10 are hingedly mounted on pivots 15 and 16 the plates 13 and 14 respectively. The plates 11 and 13 are provided at their free ends with grooves 17—18 and 19—20 respectively. The grooves in these plates are so positioned that when the plates are brought in parallel relation to each other the grooves 17—20 and

18—19 register with each other as shown in Fig. 2. A spring 21 interposed between the plates 11 and 13 is provided for moving or forcing the hinged plate 13 from the position shown in Fig. 2 to the position shown in Fig. 1 for a purpose that will be hereinafter described in detail.

A small rod 22 is provided for limiting the movement of the hinged plate 13.

Similarly the plates 12 and 14 are each provided with grooves 23—24 and 25—26 in which the wire is placed for gripping it through the movement of plate 14 under the action of spring 27. The cooperating grooves in each pair of plates 11—13 and 12—14 are each of a smaller width at their bottom in order to receive wires of different diameters.

In the operation of this device the wires W, W' to be connected are first placed with their abutting ends in the sleeve S. The plate 13 is then moved against the resistance of spring 21 in parallel relation with its associated plate 11 wherein the alignment of the grooves 17 and 20 permits the placing of the wires W therein. The plate 13 is then released and the spring 21 forces the plate 20 outward for gripping the wires due to the disalignment of the groove 17 in plate 11 and the groove 20 in plate 13. The wire W' is then placed in the grooves 24 and 26 of plates 12 and 14 wherein this wire is held positively against movement in the manner above described. The wires W and W' are thereby positively held against axial movement in the sleeve S against the movement of the rollers a_1 and a_2 of the tool.

The grooves 19—20 in plate 13, 18—17 in plate 11 etc. may be made of any width in order to receive wires of any desired diameters.

What is claimed is:

1. In a wire clamping device, a supporting rod, a plate mounted on each end of said rod, a plate hinged on each of the plates on the rod, means in each plate for receiving the wire, and resilient means acting on each hinged plate for gripping the wire.

2. In a wire clamping device, a supporting rod, a pair of plates mounted on each end of said rod, one plate on each pair being

movable with respect to the other plate in that pair, resilient means interposed between the plates of each pair for forcing each associated movable plate outward and cooperating means in each of said plates for gripping the wire.

3. In a wire clamping device, a supporting rod, a pair of plates mounted on the ends of said rod, registering means carried by the plates in each pair for receiving the wires, and means for moving the plates out of registry with respect to the other plates for gripping and holding the wires.

In witness whereof, I hereunto subscribe my name this 13th day of May, 1930.

JOSEPH F. BARRY.