March 25, 1930. J. R. MARSHALL 1,751,827

INSULATOR

Filed Sept. 10, 1927

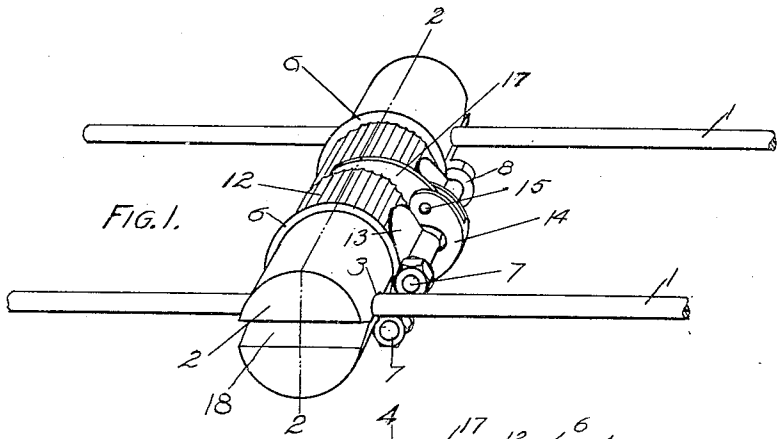


FIG. 1.

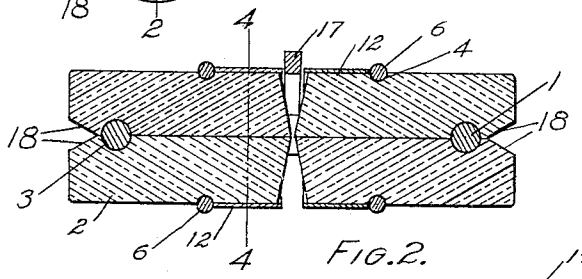


FIG. 2.

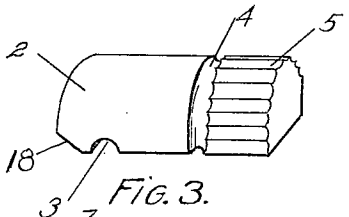


FIG. 3.

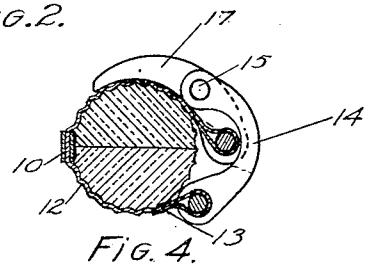


FIG. 4.

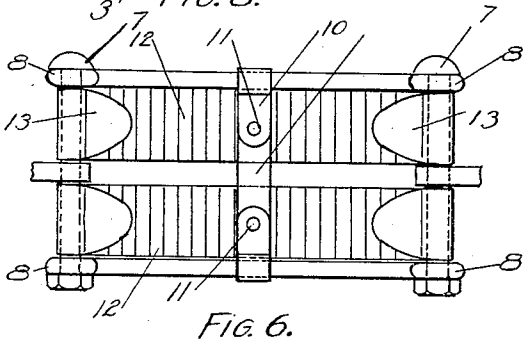


FIG. 6.

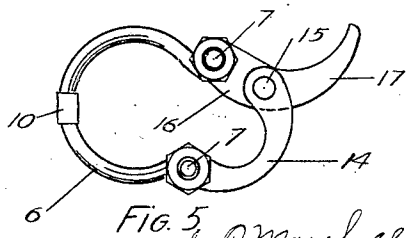


FIG. 5

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UNITED STATES PATENT OFFICE

JOHN R. MARSHALL, OF McKEAN, PENNSYLVANIA

INSULATOR

Application filed September 10, 1927. Serial No. 218,674.

This invention is designed to provide insulators which may be used as spreaders for parallel wires, or for wires running at various angles to each other. The device is particularly designed for readily engaging and disengaging the wires and may be advantageously used where the insulator is supported by the wires themselves. Features and details of the invention will appear from the specification and claims.

A preferred exemplification of the invention is illustrated in the accompanying drawings as follows:—

Fig. 1 shows a perspective view of the assembled device.

Fig. 2 a section on the line 2—2 in Fig. 1.

Fig. 3 a perspective view of one of the halves of one of the insulator blocks.

Fig. 4 a section on the line 4—4 in Fig. 2.

Fig. 5 an end view of the connector clamp.

Fig. 6 a view of the clamp extended to a flattened condition.

1 marks the conductor wires which are to be insulated. As shown they are parallel but one of the advantages of the invention is the ability to carry wires with varying relative directions. 2 marks a half of an insulator block. These halves 2 are each provided with grooves 3 which extend transversely to the axis of the block and are oppositely placed so that when the blocks are together they form a perforation for receiving and securing the conductor wires 1. The blocks are also provided with annular grooves 4 toward their inner ends and are fluted, or corrugated at 5 at their inner ends.

Clamping wires 6 extend part way around the blocks, the wires being arranged in the grooves 4. Bolts 7 extend through eyes 8 in the ends of these wires, thus connecting the ends of the wires. Straps 10 extend from wire to wire at the central parts of the wires, the straps being bent over the wires, and the return ends being secured by rivets 11. Corrugated plates 12 extend between the bolts 7, said plates being adapted to engage and register with the corrugations 5 on the ends of the blocks. These plates are bent over at 13, thus securing them on the bolts and the rivets 11 extend through the plates securing the central parts of the plates in place.

A contracting link mechanism connects the ends of the wires. This has a link 14 arranged on one of the bolts 7 and this link 14 is connected by a pin 15 with a second link 16 extending to the opposite bolt. A lever arm 17 extends from the link 16.

With the contracting links in open position the wire 6 springs open sufficiently to slip the insulator blocks into place so as to bring the grooves 4 into register with the wires 6. The beveled notches 18 facilitate the placing of the blocks over a conductor.

In operation the conductors are positioned between the blocks. This is possible when the contracting links are open. The beveled notches leading to the openings in the blocks facilitate this action. The links are then swung and this contracts the rings into clamping engagement and the corrugated plate into engagement with the corrugations 5 so as to lock the blocks relatively in alinement, or adjustment to correspond with the relative directions of the wires and as the lever 17 reaches its final position, as shown in Fig. 4, it automatically locks in that position, the lever extending past the drawing center.

What I claim as new is:—

1. In an insulator, the combination of two insulator blocks, each formed in halves with opposing grooves forming wire-receiving perforations; and means securing the halves and blocks together, said means permitting the adjustment of the blocks to vary the relative directions of the perforations.

2. In an insulator, the combination of two insulator blocks, each formed in halves with opposing grooves forming wire-receiving perforations, each block having an annular groove; and a clamp extending into the annular grooves securing the halves and blocks together.

3. In an insulator, the combination of two insulator blocks each formed in halves, said assembled blocks each having an annular groove and the halves having oppositely placed grooves forming wire-receiving perforations with the halves assembled, said per-

forations being transverse to the axis of the annular groove, and a clamp extending into the annular grooves and securing the halves and blocks together, the clamp comprising a ring having connecting contracting links.

4. In an insulator, the combination of two insulator blocks each formed in halves, said assembled blocks each having an annular groove and the halves having oppositely placed grooves forming wire-receiving perforations with the halves assembled, said perforations being transverse to the axis of the annular grooves and a clamp securing the halves of the blocks together, said clamp having wire edges adapted to engage the annular grooves, and means connecting the wire edges said means contracting the wire edges into the annular grooves.

5. In an insulator, the combination of two insulator blocks each formed in halves, said assembled blocks each having an annular groove and the halves having oppositely placed grooves forming wire-receiving perforations with the halves assembled, said perforations being transverse to the axis of the annular grooves; and a clamp securing the halves of the blocks together, said clamp having wire edges adapted to engage the annular grooves, and means connecting the wire edges, said means comprising contracting links connecting the wire edges and contracting the wire edges into the annular grooves.

6. In an insulator, the combination of two insulator blocks each formed in halves, said assembled blocks each having an annular groove and the halves having oppositely placed grooves forming wire-receiving perforations with the halves assembled, said perforations being transverse to the axis of the annular grooves, and a clamp securing the halves of the blocks together, said clamp having wire edges adapted to engage the annular grooves, and means connecting the wire edges, said means comprising self-locking contracting links connecting the wire edges and contracting the wire edges into the annular grooves.

7. In an insulator, the combination of two insulator blocks, each formed in halves with opposing grooves forming wire-receiving perforations, said blocks having annular grooves and corrugated ends; a clamp securing the halves and blocks together comprising wire edges arranged in the annular grooves; corrugated devices between the wire edges engaging the corrugations of the blocks and locking them in adjustment; and means for contracting the devices and wire edges into clamping position.

8. In an insulator, the combination of two insulator blocks, each formed in halves with opposing grooves forming wire-receiving perforations, said blocks having annular grooves and corrugated ends; a clamp, securing the halves and blocks together comprising wire edges arranged in the annular grooves; corrugated devices between the wire edges engaging the corrugations of the blocks and locking them in adjustment; and means for contracting the devices and wire edges into clamping position comprising contracting links between the ends of the wires.

In testimony whereof I have hereunto set my hand.

JOHN R. MARSHALL.