Sept. 29, 1925. 1,555,289

R. P. JACKSON

INSULATOR

Filed Sept. 16, 1918

Fig. 1.

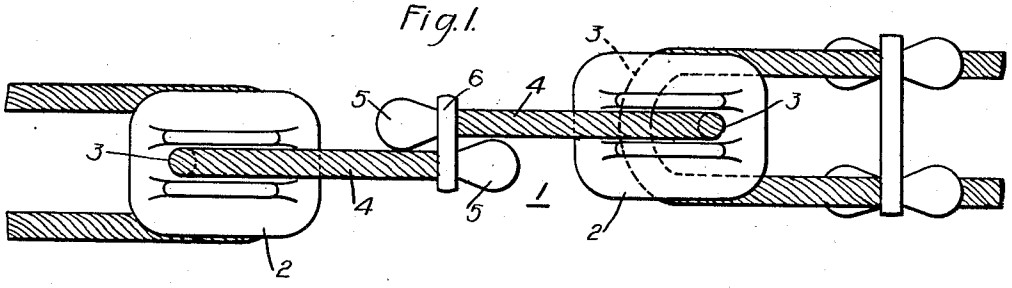


Fig. 2.

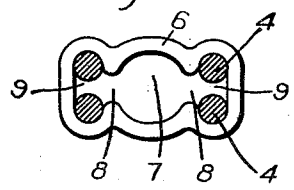


Fig. 3.

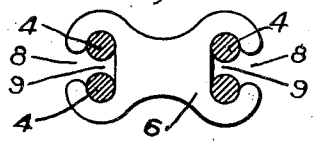
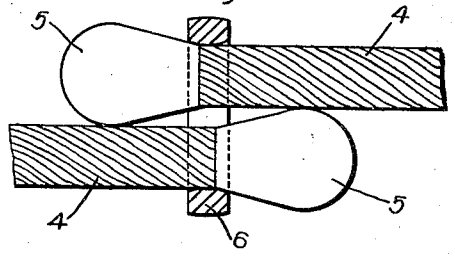


Fig. 4.



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UNITED STATES PATENT OFFICE.

RAY P. JACKSON, OF EDGEWOOD PARK, PENNSYLVANIA, ASSIGNOR TO WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

INSULATOR.

Application filed September 16, 1918. Serial No. 254,216.

To all whom it may concern:

Be it known that I, RAY P. JACKSON, a citizen of the United States, and a resident of Edgewood Park, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Insulators, of which the following is a specification.

My invention relates to strain insulators and particularly to connecting means therefor.

One object of my invention is to provide a device of the above-indicated character that shall facilitate the assembly and disassembly thereof by hand manipulation.

Another object of my invention is to provide a flexible conductor for a strain insulator that, in operative position, shall be securely engaged in wedging relation to a similar member.

A further object of my invention is to provide a connector embodying substantially-aligned longitudinal cooperating members having enlarged overlapping ends and means disposed intermediate said ends for preventing separation thereof in the direction of each other.

In practicing my invention, I provide a plurality of relatively-short flexible cables, each of substantially U-shape, having the curved portions thereof disposed loosely in an aperture in an insulating member or other device and enlarged ends on the legs that project from the member with which they are associated. These ends are each respectively paired with the ends of a similar cable, thereby forming a substantially continuous loop, with the respectively correlated enlarged ends slightly overlapping each other. A holding member embraces each of the cables, intermediate the overlapping ends, to wedgingly engage the same in operative position and permit a relatively quick assembly and disassembly of the insulator.

Fig. 1 of the accompanying drawings is a fragmentary side-elevational view of a series or chain insulator embodying my invention; Fig. 2 is a detail view taken at right angles to Fig. 1, of a holding member embodying my invention; Fig. 3 is a detail view, similar to Fig. 2, of a modified form of holding member; and Fig. 4 is a detail view showing the relation that may be assumed in operative position by certain portions of an insulator connector embodying my invention.

A series or chain insulator 1 comprises a plurality of members 2 of porcelain or other suitable insulating material that may be provided with angularly-related transverse apertures 3 for the loose reception of relatively-short cables or other flexible members 4. Each member 2 may be provided with two of the flexible members 4 that interlink and extend outwardly in opposite directions to meet the ends of a pair of similar members 4 projecting from the next adjacent member 2 or other device. Portions 5 of ball or other shape, and constituting enlarged ends of the members 4, are respectively paired with similar portions of the next adjacent member 4 and engage the latter in slightly overlapping relation, being maintained in this relation by a holding member 6 that closely embraces each of the respectively paired co-operating members 4 intermediate and adjacent the portions 5. The portions 5 may be secured to the ends of the cable 4 by welding or in any other suitable manner.

The member 6 constitutes substantially a hollow frame having a relatively large central recess 7 communicating, through channels 8, with recesses 9 for the reception of the members 4. In assembling the insulator 1, the enlarged ends 5 are inserted through the recess 7 and moved transversely through the channels 8 into the recesses 9, whereupon the members 4 and 5 may assume the positions indicated in Fig. 4. The recesses 9 may be slightly larger than twice the cross sectional area of the member 4 to receive two of such members and to permit the desired co-operative relation between each of them and the adjacent portion 5 of the other. As the channels 8 will permit the passage of only one of the members 4 at one time, the parts may not be readily separated except by hand-manipulation. In Fig. 3 a modification of the member 6 is shown, the central aperture member 7 being omitted and the recesses 9 being accessible from the outer ends of the member 6.

When in operative position, the members 4, 5 and 6 are wedgingly engaged with respect to each other to provide secure connection between the members 2 or between one of the members 2 and another device, such as a conductor or supporting member.

When it is desired to replace an injured member 2 or disassemble the insulator 1, a slight contraction of the insulator, by which the tension thereof is relieved, permits the ready and quick hand-manipulation of the members 4 in removing them from the recesses 9.

While I have shown and described particular forms of my invention, changes may be effected therein without departing from the spirit and scope thereof, as set forth in the appended claims.

I claim as my invention:

1. A connector comprising two elongated members to be connected and having enlarged overlapping ends provided thereon before the connection thereof, and a connecting member for disposition between said ends and having an opening which receives and embraces said members with the enlarged head of each held against the side of the other.

2. A connector comprising two elongated members to be connected and having enlarged overlapping ends provided thereon before the connection thereof, and a connecting member for disposition between said ends and having a single opening by which it receives said ends and embraces said members, said connecting member being constructed to prevent the withdrawal of said ends through said opening.

3. A connector comprising two elongated members having overlapping end-to-end related enlarged portions, and a member disposed between said enlarged portions having a recess for the reception of both said members and an entrance to said recess to admit the members to the recess one at a time only.

4. A connector comprising two flexible members of U-shape arranged as a continuous loop and having two pairs of enlarged overlapping ends, and a holding member having a portion disposed between the overlapping enlarged ends of each pair thereof, said holding member having two openings each of such shape and size as to receive a portion of each flexible member and to prevent the passage therethrough of the enlarged ends and an entrance to each of said openings to admit the flexible members to the openings one at a time only.

5. A connector comprising two flexible members of U-shape arranged as a continuous loop and having two pairs of enlarged overlapping ends, and a holding member having a portion disposed between the overlapping enlarged ends of each pair thereof, said holding member having a central recess of larger diameter than said enlarged ends and two openings communicating with the recess, each of such shape and size as to receive a portion of each flexible member and to prevent the withdrawal therethrough of the enlarged ends, said holding member also having an entrance to each of said openings to admit the flexible members to the openings one at a time only.

In testimony whereof, I have hereunto subscribed my name this 27th day of August, 1918.

RAY P. JACKSON.