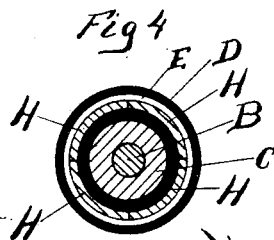
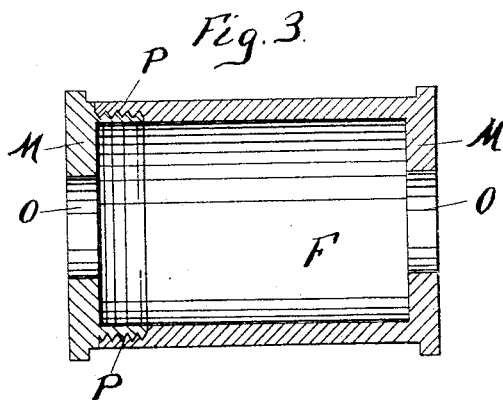
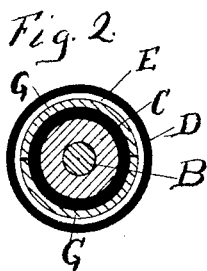
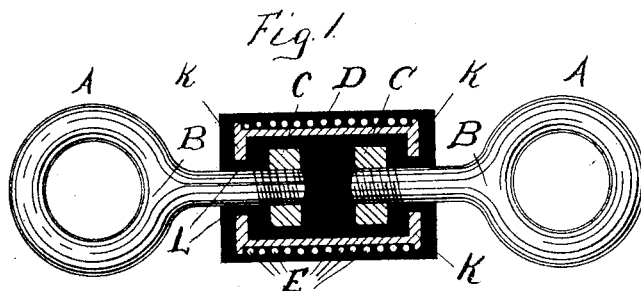


(No Model.)

M. C. CHASE.
INSULATOR.

No. 458,221.

Patented Aug. 25, 1891.



Witnesses

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MURREY C. CHASE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE ELECTRICAL SUPPLY COMPANY, OF ILLINOIS.

INSULATOR.

SPECIFICATION forming part of Letters Patent No. 458,221, dated August 25, 1891.

Application filed November 14, 1890. Serial No. 371,394. (No model.)

To all whom it may concern:

Be it known that I, MURREY C. CHASE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Insulators, of which the following is a full, clear, and exact specification.

My invention relates to insulators, particularly such as are adapted to be employed for supporting electrical-railway trolley-wires at the points where they pass about curves. It is illustrated in the accompanying drawings, wherein—

Figure 1 is a longitudinal section. Fig. 2 is a cross-section. Fig. 3 is a detail of the modification. Fig. 4 is a cross-section of modification.

Like parts are indicated by same letters in all figures.

A A are rings upon the end pieces B B. Each end piece is provided with an enlargement or collar or nut C, which may be screw-threaded to such end piece or made continuous therewith and secured thereto in any desired manner.

D is a body of insulation which separates and surrounds the parts, substantially as indicated in the figures.

E is a binding-wire, which may be employed to secure together the parts of which the coupling or coupling-cylinder is composed. This cylinder is marked F, and may be composed of semi-cylindrical sections G G or smaller sections H H, and the sections may be provided at each end with the projecting portions or end pieces K K, leaving the central aperture L L between them, through which the end piece B may pass. If the body of the cylinder F is made of a single piece, the projecting ends of the sections would assume the form of disks M with apertures O. One end would then be screw-threaded onto the other, as indicated in Fig. 3, at the point P. In either case the end pieces with their enlargements C C are insulated within such cylinder or cylindrical portion and held in the position indicated in Fig. 1, the overhanging projections K K or disks M M being opposed to the enlargements C C, as indicated in Fig. 1. When the whole has been placed in position,

the binding-wire E secures the sections together, if sections are used.

The use and operation of my invention are as follows: My invention is designed to furnish a suitable insulator for supporting electric wires, and particularly for the purpose of supporting bare wires used in street-railway work at the point where they pass about curves. One end of the insulator is made fast to a suitable stay and the other is secured to the wire, and thus when the wire is drawn tight the insulator must resist considerable force tending to separate its two ends. On each of these ends or end pieces is formed an enlargement, and are inclosed to be held by end coupling-pieces, which have also projecting ends. Insulation is then interposed between the enlargements of the end pieces and the projecting ends of the coupling-pieces, so that when the force is exerted it is expended on a body of insulation lying between parts which tend to move in opposite directions toward and facing each other. In order that there may be no tendency of these coupling-pieces to move laterally, they are formed in a continuous cylinder with projecting ends, as hereinbefore suggested, or preferably in sections forming a more or less complete cylinder, and are then wrapped together by a binding-wire after the enlargements on the ends have been placed in position within such cylinder. The preferable way of reaching this result is by placing the parts thus in position and then placing a vulcanizable compound in and about the whole and then vulcanizing such compound in position.

I claim—

1. An insulator consisting of two projecting metallic ends with enlargements, and a cylindrical coupling-piece with inward-projecting ends within which lie the enlargements and interposed insulation.

2. An insulator consisting of two projecting metallic ends with enlargements, and a cylindrical coupling-piece with inward-projecting ends within which lie the enlargements and interposed insulation, said cylindrical portions composed of sections and a binding to secure the same together.

3. An insulator consisting of two projecting metallic ends with enlargements, a cylin-

dricai coupling-piece with inward-projecting ends within which lie the enlargements and interposed insulation, and insulation entirely surrounding the coupling, so that the end
5 pieces are insulated from each other, but when drawn apart the pressure is applied to the body of insulation lying between parts which tend to move toward each other.

4. In an insulator, the combination of two
10 end pieces adapted to support a wire to be insulated, a coupling, and a body of insula-

tion about and between the parts, so that when pressure is applied to the end pieces to draw them in opposite directions they are held together, and such pressure is applied
15 on a body of insulation between parts which tend to move in opposite directions.

MURREY C. CHASE.

Witnesses:

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