

(No Model.)

H. H. LUSCOMB.
STRAIN INSULATOR.

No. 515,779.

Patented Mar. 6, 1894.

Fig. 1

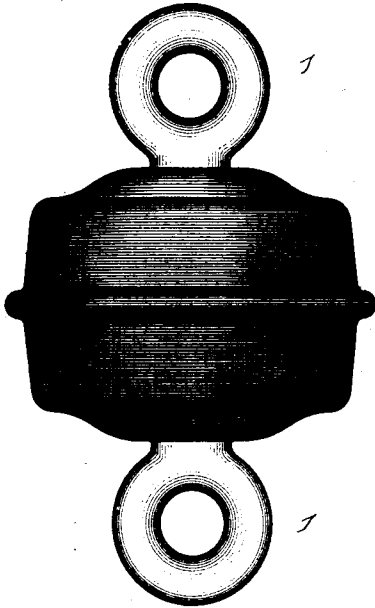


Fig. 2

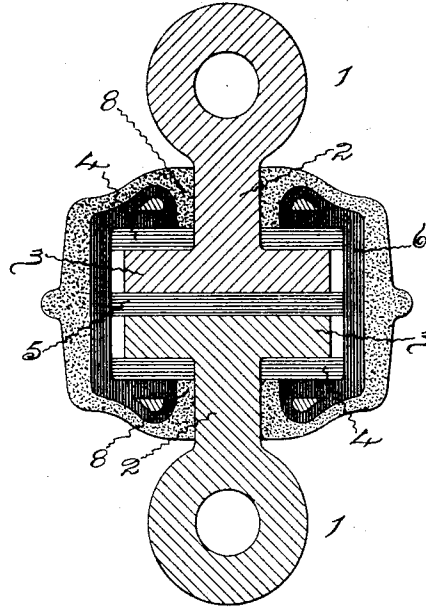


Fig. 3

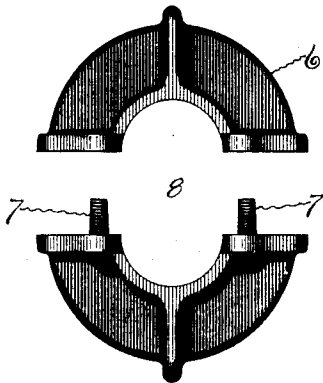
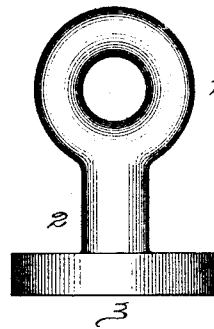


Fig. 4



Witnesses:
C. E. Buckland
A. L. Hare.

Inventor:
Henry Herbert Luscomb.
by
Harry R. Williams
att'y.

UNITED STATES PATENT OFFICE.

HENRY HERBERT LUSCOMB, OF HARTFORD, CONNECTICUT, ASSIGNOR TO
THE JOHN PRATT COMPANY, OF SAME PLACE.

STRAIN-INSULATOR.

SPECIFICATION forming part of Letters Patent No. 515,779, dated March 6, 1894.

Application filed November 4, 1893. Serial No. 490,054. (No model.)

To all whom it may concern:

Be it known that I, HENRY HERBERT LUSCOMB, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Insulators, of which the following is a specification.

The invention relates to the class of insulators that are constructed for supporting heavy electric line wires or wires subjected to considerable strain, such as the line, guard or span wires of an electric railway; and the object is to provide an insulator of this class which is simple in construction, easily and quickly assembled and very strong.

Referring to the accompanying drawings:—Figure 1 is a side view of the insulator. Fig. 2 is a central section of the same. Fig. 3 is a plan of the interior shell; and Fig. 4 is a side view of one of the headed eyes.

In the views, 1 indicates the eyes or loops to which the wires are fastened. Each of the eyes has an integral shank, 2, on which is a disk or flattened head, 3, with plane front and back faces. These parts are formed in any convenient manner of any desired metal having sufficient tensile strength to withstand any strain that might be put upon the insulator when in use. One or more sheet mica washers, 4, slightly larger in diameter than the heads, 3, are slipped upon the shanks of the eyes, and when the heads are placed together with one or more sheet mica disks, 5, between them a shell, 6, is put over these to hold them together. This shell is a drum formed in longitudinal sections of cast metal so as to be cheap and strong, the sections being held together by means of lugs, 7, projecting from one part through openings in the other, which lugs are headed over after being put through the openings so as to securely hold the sections together. The interior of the drum, which is of sufficient size to just inclose and tightly hold the heads and the sheet mica disks and washers, is slightly larger in diameter than the heads on the eye shanks, that is, it is about the diameter of the washers and disks, and through the ends, the inner faces of which are plane surfaces, are openings, 8, slightly larger than the shanks but much smaller than the diameters of the

heads on the shanks. After the drum is put together over the mica separated heads and fastened, which tightly holds together these parts, the exterior is covered with a plastic material and the whole placed in a mold and subjected to heat and pressure to harden the composition and give the final exterior shape to the insulator. This, of course, forces the composition into any crevices in the interior of the drum around the shanks of the eyes and stiffens the parts as well as aids in holding the sections of the drum together and preventing the leakage of electricity from one eye to the other during moist or wet weather over the surfaces of the drum, which is usually ribbed so as to insure the adhesion of the composition, also give strength without an unnecessary weight of metal.

By means of this construction an insulator is provided which will stand great strain and has a long life as its strength is only limited by the tensile strength of the metal employed, and there is no composition or friable material between the strain resisting parts to deteriorate, or become damaged, or to soften under heat. If the exterior coating of composition at any time should wear off or become broken away the insulator is as strong as ever and the only inconvenience that would result would be a possible creeping of electricity in damp or wet weather from one eye to the other over the surface of the shell. The strain on the eyes is transmitted by their heads to the ends of the drums which are so strong as to prevent any liability that the heads will separate or pull away from each other, there being no chance for the ends of the drums to unfold or bend out, and all strain coming in line with the ends of the drums on each section equally there is no tendency for the sections to open or come apart. The inner faces of the ends of the drum and the faces of the heads of the eyes are broad, flat planes, so the sheet mica disks or their equivalents are easily put in place and the parts tightly held together without any danger that the disks will crumble or break out even if the outside composition does crumble away, as the disks are used in their laminated natural condition.

I claim as my invention—

1. An insulator consisting of a pair of eyes having integral shanks bearing washers of laminated insulating material and enlarged heads integral with the shanks but insulated from each other, and a sectional metallic drum surrounding the enlarged heads and the washers on the shanks, substantially as specified.
2. An insulator consisting of a pair of eyes having shanks bearing washers of laminated insulating material and enlarged heads insulated from each other, and a metallic drum surrounding the enlarged heads and the washers on the shanks, said drum being formed in longitudinal sections one of which is provided with transversely projecting prongs and the other with openings to receive the prongs whereby the sections of the drum are secured together, substantially as specified.
3. An insulator consisting of a pair of eyes having integral shanks bearing washers of laminated insulating material and enlarged heads integral with the shanks but insulated from each other, and a metallic drum surrounding the enlarged heads and the washers on the shanks, said drum being formed in longitudinal sections one of which is provided with transversely projecting prongs and the other with openings to receive the prongs whereby the sections of the drum are secured together, substantially as specified.
4. An insulator consisting of a pair of eyes having integral shanks bearing washers of laminated insulating material and enlarged heads integral with the shanks but insulated from each other, a metallic drum surrounding the enlarged heads and the washers on the shanks, said drum being formed in longitudinal sections of metal with outward projecting strengthening ribs, one of which sections is provided with transversely projecting prongs and the other with openings to receive the prongs whereby the sections of the drum are secured together, and a jacket of insulating material molded about the exterior of the drum and the strengthening ribs, substantially as specified.

HENRY HERBERT LUSCOMB.

Witnesses:

H. R. WILLIAMS,
C. E. BUCKLAND.

It is hereby certified that the assignee in Letters Patent No. 515,779, granted March 6, 1894, upon the application of Henry Herbert Luscomb, of Hartford, Connecticut, for an improvement in "Strain-Insulators," should have been described and specified as *The Johns-Pratt Company* instead of "The John Pratt Company;" and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 20th day of March, A. D. 1894.

[SEAL.]

JNO. M. REYNOLDS,
Assistant Secretary of the Interior.

Countersigned:

JOHN S. SEYMOUR,
Commissioner of Patents.

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