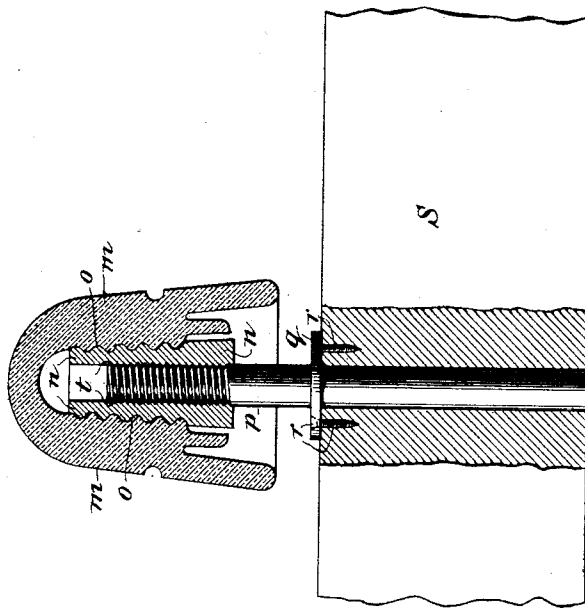


(No Model.)

D. DOREN.
INSULATOR SUPPORT.

No. 472,529.

Patented Apr. 12, 1892.



Witnesses

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DENNIS DOREN, OF NEW YORK, N. Y.

INSULATOR-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 472,529, dated April 12, 1892.

Application filed July 20, 1891. Serial No. 400,024. (No model.)

To all whom it may concern:

Be it known that I, DENNIS DOREN, a citizen of the United States of America, residing in the city, county, and State of New York, have made a new and useful Improvement in Means for Attaching Insulators to Cross-Arms, Telegraph-Poles, or other Supports, of which the following is a specification.

The glass insulator employed to carry telegraph-wires is usually supported upon the cross-arm by a wooden pin, which is turned within a female screw in the glass hood. The use of wooden pins for this purpose, however, is objectionable in that they are not sufficiently strong, unless of large cross-section, to resist the shearing forces brought upon them by the tension and weight of the wires, and thus it is that wooden pins of sufficient size require the boring of such large holes in the cross-arms that the cross-section of the latter must be much larger than would otherwise be necessary.

The object of my invention is to substitute a pin of iron for one of wood, thus dispensing with large holes in the cross-arms, and, as a consequence, much of the timber commonly used in their construction. To accomplish this desirable result, at the same time securing a rigid connection between the iron of the pin and the glass of the hood without breaking the latter or impairing insulation, the upper end of the iron supporting-pin is covered with a thimble consisting of wood or other tenacious insulating material, while upon the outer surface of the latter is worked a screw. A corresponding female screw is formed in the glass insulator, and within this cavity the iron pin with its surrounding thimble is inserted, and it is by this means that the glass threads of the insulator are kept apart from the iron pin, while at the same time a rigid connection is secured.

In the accompanying drawing, *m* is the glass insulator, and *o* its female screw. *n* is the wooden thimble, while *t* represents a screw-thread upon the upper end of the iron pin *p*. Obviously the bore of the wooden thimble should be slightly smaller than the screw end of the pin *p*, in order that the latter when screwed within the thimble may effect a rigid connection. The bore of the

thimble should not be given a screw-thread, though it is necessary that a screw-thread be worked upon the outer surface of the wooden pin to correspond with the screw in the insulator, otherwise the glass hood would be broken. The iron pin *p* is usually vertically attached to the cross-arm, and as here shown is provided with a shank which passes downward through a vertical aperture. To prevent the insulator, however, from falling upon the cross-arm, the pin will usually be provided with a collar *q*, which may be formed either by casting or swaging. The collar or ring is held in position and made rigid with the cross-arm by screws or nails *r r*; but other means may be employed for holding pin *p* in position.

I am aware that others have employed india-rubber caps for effecting a connection between an iron supporting-pin and a glass insulator; but this material is not sufficiently strong and enduring to rigidly and securely join a glass hood to an iron shank.

What I claim, and desire to secure by Letters Patent, is—

1. The combination of a glass insulator, an iron pin for supporting the same, and a wooden thimble screwed thereon for making connection between said insulator and said iron pin.

2. The combination of a glass insulator having a screw-cavity, a pin *p* for supporting said insulator, having upon its upper end a ferrule of wood screwed thereon, whereby rigid connection between the pin and insulator may be formed without bringing the metal of the pin and the glass of the insulator in contact one with the other.

3. The combination of a glass insulator, a metal supporting-pin having a screw-thread upon its upper end, a ferrule of wood or other suitable material within which said pin is screwed, a screw-thread formed upon the exterior of said ferrule, and a cavity within the insulator provided with a female screw within which the iron pin and its ferrule are turned, substantially as described.

DENNIS DOREN.

Witnesses:

WM. ARNOUX,
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