

(No Model.)

J. PASS & A. P. SEYMOUR.
PORCELAIN INSULATOR.

No. 476,813.

Patented June 14, 1892.

Fig. 1.

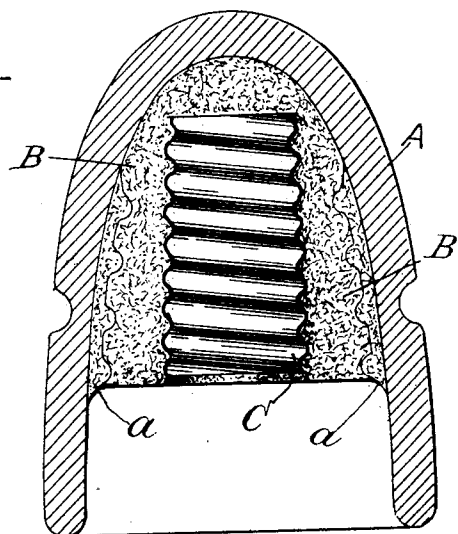
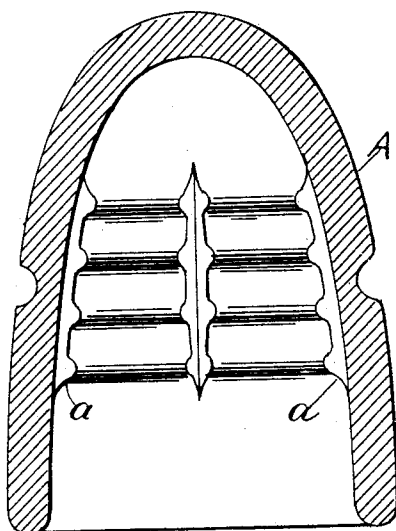


Fig. 2.



ATTEST:

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UNITED STATES PATENT OFFICE.

JAMES PASS AND ALBERT P. SEYMOUR, OF SYRACUSE, NEW YORK.

PORCELAIN INSULATOR.

SPECIFICATION forming part of Letters Patent No. 476,813, dated June 14, 1892.

Application filed March 21, 1892. Serial No. 425,672. (No specimens.)

To all whom it may concern:

Be it known that we, JAMES PASS and ALBERT P. SEYMOUR, citizens of the United States, and residents of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Porcelain Insulators, of which the following is a specification.

Our invention relates to line-insulators for electric wires, and more particularly to that class comprising a socketed block or piece of glass, porcelain, or similar vitreous substance adapted to fit upon a supporting-pin, the socket and pin having each a screw-thread or being plain, as desired.

Our invention is designed expressly for porcelain insulators in which the socket has a screw-thread, although applicable to other materials—as, for instance, glass—and to plain sockets.

The object of the invention is to provide an efficient and serviceable insulator; and it consists in the features of construction and details hereinafter described, and then specified in the claims.

In the accompanying drawings, Figure 1 is a vertical central section through an insulator constructed in accordance with our invention. Fig. 2 is a similar section through the porcelain or similar shell before the application of the cement.

A is the body of the insulator, formed of a shell or block of insulating material closed at one end and open at its other, said shell being, roughly speaking, of an inverted-cup shape, the interior of which constitutes the socket into which the supporting-pin enters, while the edges form a skirt or petticoat adapted to shed water and more fully insulate the wire from the supporting-pin. The shell or block shown is made, preferably, of porcelain and of the shape shown in Fig. 2. The whole surface may be glazed, or the interior from the shoulder *a* inward may be, and preferably is in our invention, left unglazed. This interior surface is also preferably provided with one or more longitudinal and vertical ribs or grooves in order to more effectively hold the cement B, which consists of a mass of porous cementing substance—like, for instance, plaster-of-paris—cast in the

shell after the finishing of the latter. The purpose of leaving the porcelain unglazed is to assist the union of cement and the shell. In the mass B is formed the socket which receives the supporting-pin. If the socket be screw-threaded, the screw-thread may be formed or molded in the casting operation.

C is a bushing of metal for the socket. This bushing is of thin metal and made in any desired way and of any desired material.

For cheapness we use lead, and we may make the bushing by casting the lead on an iron screw which is dipped into a pot of melted lead and then withdrawn, the lead adhering and being readily withdrawn from the mold on cooling. The slight irregularities in a bushing thus formed serve to more effectually hold it in the cement which is cast around it. After casting the cement the insulator is baked or heated with paraffine, filling the interior, so as to thoroughly saturate the porous cement with such water-repellant material and the superfluous paraffine afterward removed. Instead of paraffine any other water-repellent substance might be used which would readily be taken up by the porous cement; but we prefer paraffine. The thin metal bushing protects the cement from injury. We do not, however, limit ourselves to the use of the attached metal bushing, as this part might be omitted. We prefer, however, to use the bushing applied and held as described. If the bushing be not used, it is obvious that the screw-thread of the socket would be formed by a mold which would be withdrawn from the cement before the latter hardens.

What we claim as our invention is—

1. A line-insulator, of porcelain or similar insulating material, having its socket, which fits upon a supporting-pin, formed in a mass of a porous cement cast within the insulator and saturated with paraffine or similar water-repellent substance.

2. A line-insulator consisting of a porcelain shell glazed, excepting at its socketed part, and provided with a mass of porous cement cast in such unglazed part and saturated with paraffine or similar material.

3. In a line-insulator, a socketed block of porcelain or other vitreous insulator having

a socket formed in a mass of cement within the block and provided with a thin metal bushing around which the cement is cast.

4. As a new article of manufacture, a porcelain line-insulator having its socket formed in a mass of porous cement cast in the insulator and saturated with paraffine or similar water-repellent substance, and a bushing of thin metal lining said socket and held fast by the cement.

5. A line-insulator consisting of a porcelain cup-shaped shell provided on its interior with the longitudinal and vertical ribs or grooves,

in combination with a mass of porous cement cast in said shell and saturated with a water-repellent substance and a socket in said cement lined with a protective bushing, as and for the purpose described.

Signed at Syracuse, in the county of Onondaga and State of New York, this 7th day of March, A. D. 1892.

JAMES PASS.

ALBERT P. SEYMOUR.

Witnesses:

SOLON H. LANE,

CHAS. R. HUBBELL.