

J. A. SANDFORD, JR.
SUSPENSION INSULATOR EYEBOLT.
APPLICATION FILED JAN. 21, 1913.

1,122,030.

Patented Dec. 22, 1914.

Fig. 2.

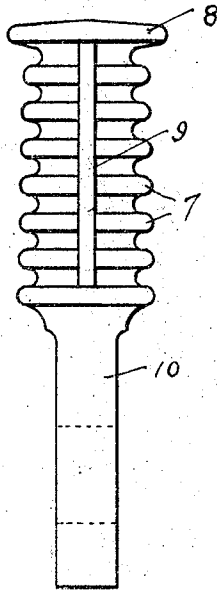


Fig. 3.

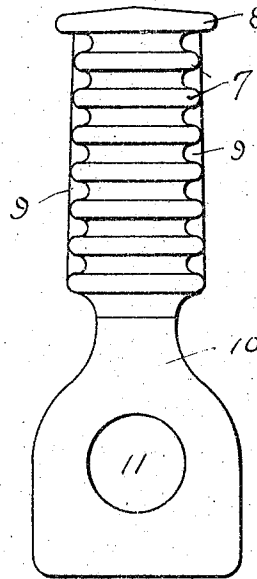
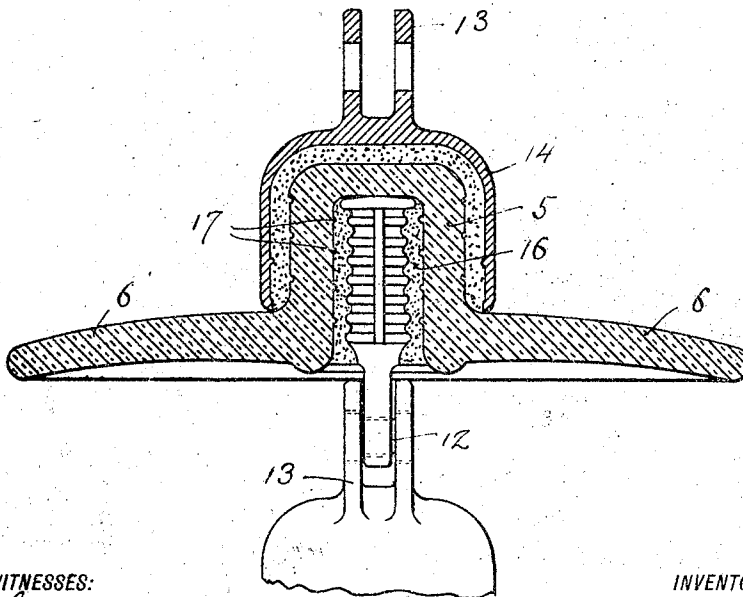


Fig. 1.



WITNESSES:

L. H. Grote.
H. E. Kline

INVENTOR

JOSEPH A. SANDFORD, JR.

BY

Stinson and Stinson
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOSEPH ADDISON SANDFORD, JR., OF EAST LIVERPOOL, OHIO, ASSIGNOR TO THE R. THOMAS AND SONS COMPANY, OF EAST LIVERPOOL, OHIO, A CORPORATION OF OHIO.

SUSPENSION-INSULATOR EYEBOLT.

1,122,030.

Specification of Letters Patent.

Patented Dec. 22, 1914.

Application filed January 21, 1913. Serial No. 743,331.

To all whom it may concern:

extend from one end of the shank to the other.

The eye end of the bolt is here shown as a flattened web 10 perforated at 11 to receive the pin 12 which passes through the lugs 13 on the cap 14 cemented on the head of the insulator. The perforation may be of any desired shape and the eye may be formed in other ways if desirable.

An eye bolt of this construction, by reason of its greater diameter of shank, requires a less body of cement 16 than has heretofore been necessary to use, and consequently the cement dries more quickly and there is less danger of the bolt being disturbed before the cement has "set" during the course of its manufacture. The conical inclination of the shank body and the enlarged cap corrugation 8, result in the formation of an annular slightly wedge-shaped body of cement surrounding the shank and engaged by the ribs 7 on the shank and the ribs 17 on the inner face of the insulator head, which is of great mechanical strength. The longitudinal ribs 9 on the shank also engage the cement and the bolt is thus prevented from swiveling.

Obviously the precise formation of the transverse and longitudinal ribs may be varied within the scope of my invention, as also the degree of conicity of the shank and of the size of the head rib, and I do not limit my invention to the precise structure shown.

I claim as my invention:—

A connecting bolt for suspension insulators comprising an eye portion and a shank portion adapted to be cemented in the insulator head, said shank portion being generally conical in shape with transverse and longitudinal ribs, and, at the inner end of the shank adjacent the reduced portion thereof, an enlarged annular rib forming a cap, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

JOSEPH ADDISON SANDFORD, JR.

Witnesses:

RALPH R. ORR,
H. S. RUSSELL.

Be it known that I, JOSEPH ADDISON SANDFORD, JR., a citizen of the United States of America, and residing in the city of East Liverpool, in the county of Columbiana and State of Ohio, have invented a certain new and Improved Suspension-Insulator Eyebolt, of which the following is a specification.

My invention relates to insulator eye bolts and particularly to an eye bolt for suspension insulators, the object of my invention being to provide an eye bolt of this character which forms a joint of improved mechanical efficiency with the insulator head when cemented in position.

In the accompanying drawing:—Figure 1 is a vertical section through a suspension insulator showing my improved eye bolt in position; Figs. 2 and 3 are elevations at right angles to each other, of the eye bolt alone and drawn to a larger scale.

Suspension insulator units are commonly united by means of a metallic eye bolt cemented at one end in the head of the insulator and extending below the latter sufficiently far to engage a cooperating element on a metallic cap cemented on the head of the insulator. The strain upon the eye bolt is very great and it is found in practice that it occasionally becomes loose in its cement due not only to longitudinal strains but also to torsional strains which cause the pin to swivel in the insulator head, with consequent detrimental effect upon the cement in which it is embedded. The present pin is designed to minimize these dangers by providing a more efficient mechanical joint between the pin and the head of the insulator. To this end I make the shank of the eye bolt, viz., that portion which is embedded in cement in the head 5 of the insulator 6, of greater diameter than has heretofore been customary and of slightly conical shape throughout the major portion of its length. A series of transverse annular ribs or corrugations 7 are formed on this shank, and the terminal rib 8 is enlarged to form a cap approximately the least internal diameter of the insulator head. Longitudinal ribs 9 of which two are shown,