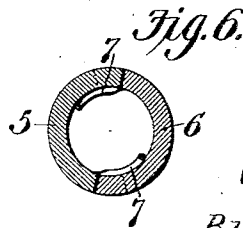
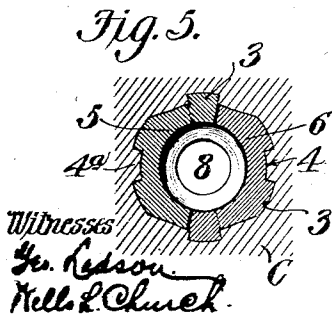
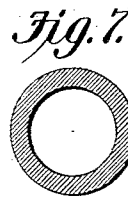
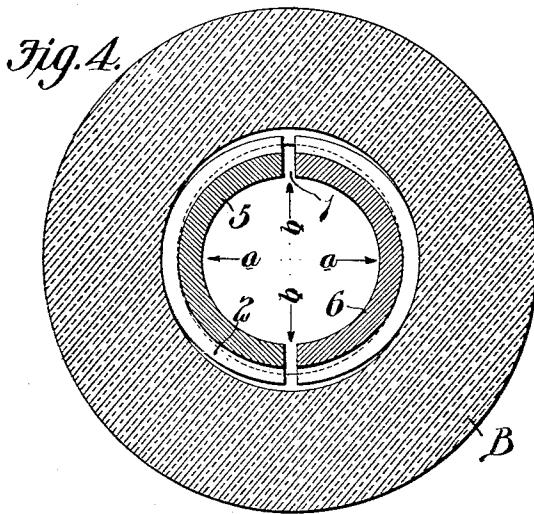
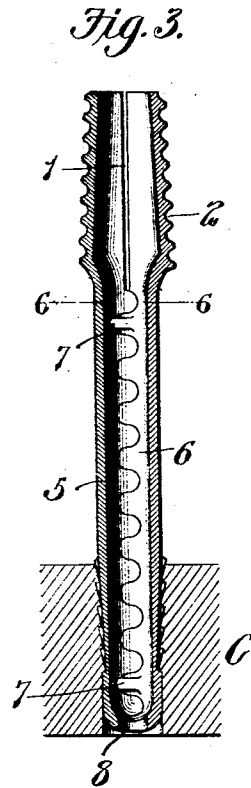
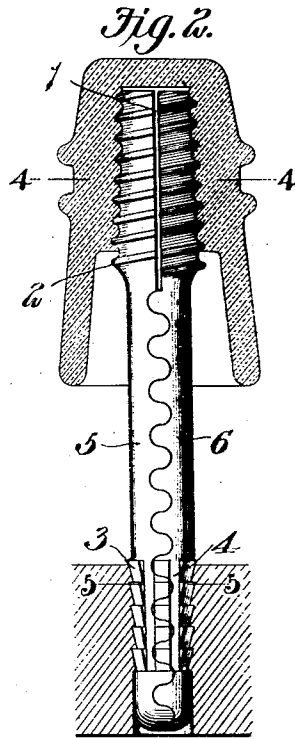
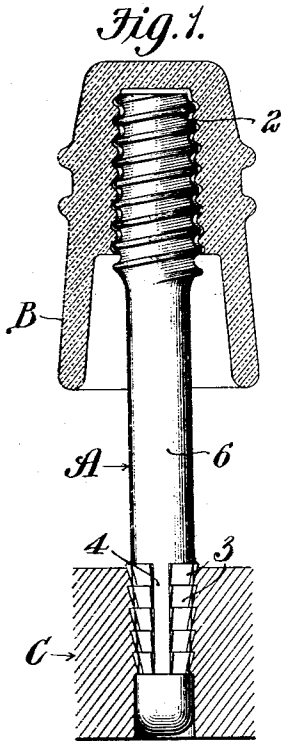


C. G. ETTE.
METALLIC INSULATOR PIN.
APPLICATION FILED DEC. 24, 1907.

905,414.

Patented Dec. 1, 1908.



Inventor:
Charles G. Ette.
By DeKewell & Co. Attys.

UNITED STATES PATENT OFFICE.

CHARLES G. ETTE, OF ST. LOUIS, MISSOURI, ASSIGNOR TO ETTE INVESTMENT COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

METALLIC INSULATOR-PIN.

No. 905,414.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed December 24, 1907. Serial No. 407,926.

To all whom it may concern:

Be it known that I, CHARLES G. ETTE, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Metallic Insulator-Pins, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of an insulator pin constructed in accordance with my invention, said figure also showing in section an insulator mounted on said pin; Fig. 2 is a side elevation of said pin taken at right angles to Fig. 1; Fig. 3 is a longitudinal sectional view of the pin; Fig. 4 is an enlarged cross sectional view taken on the line 4—4 of Fig. 2; Fig. 5 is a cross sectional view taken on the line 5—5 of Fig. 2; Fig. 6 is a cross sectional view taken on the line 6—6 of Fig. 3; and Fig. 7 is a cross sectional view of a one-piece pin.

This invention relates to insulator pins; namely, devices that are employed for supporting insulators such as are generally used in connection with electric wiring.

The main object of my invention is to provide a metallic insulator pin which is so constructed that the expansion of the metal from which the pin is formed will not cause the insulator to break.

Another object of my invention is to provide a metallic insulator pin having means of novel construction for preventing the pin from turning or pulling out of the support in which it is mounted. And still another object of my invention is to provide a metallic insulator pin comprising a plurality of sections that are connected together in a novel manner.

Referring to the drawings which illustrate the preferred form of my invention, A designates a pin that is formed of metal and B designates an insulator mounted on screw threads on the upper end of said pin. A longitudinally extending slot 1 is formed in the screw-threaded portion of the pin so as to produce two separate parts that can move inwardly or toward each other when the metal in the pin expands and thus prevent breakage of the insulator which is usually formed of some fragile material such, for example, as glass or porcelain. The slot 1

in the pin provides for the expansion of the pin in one direction, namely, in the direction indicated by the arrows *a* in Fig. 4, and to provide for the expansion of the pin in the opposite direction, as indicated by the arrows *b* in said figure, I form the screw threads 2 on the pin oval instead of round so that the cooperating screw threads on the interior of the insulator will bear closely on the threads of the pin at only two points instead of completely around the pin. In other words, I provide the pin with screw-threads of such shape that the insulator bears snugly on only two sides of the pin and provide the pin with one or more longitudinally extending slots that permit the portions of the pin which are snugly embraced by the insulator to move inwardly or toward each other when the metal in the pin expands.

The pin is provided at its lower end with a plurality of separated ribs having transversely extending serrations or teeth 3 so that when the pin is driven into a support C these teeth or serrations will bite into the support and thus prevent the pin from drawing out or becoming accidentally displaced. By separating the serrated ribs from each other I produce longitudinally extending channels 4 which are filled by portions 4^a of the support when the pin is in operative position, as shown in Fig. 5, so that it will be impossible for the pin to rotate or turn in the support. This is a very desirable feature of an insulator pin for during the operation of applying the insulator or removing it from the pin, the pin is subjected to great torsional strain which tends to make it turn or rotate in the support. I prefer to form the serrated or toothed ribs 3 slightly tapered, as shown in Fig. 1, so as to prevent the pin from being driven too far into the support. The pin is hollow and is preferably formed in two sections 5 and 6 that are provided on their longitudinal edges with interlocking teeth which extend throughout the entire length of the unscrew-threaded portion of the pin, the longitudinal edges of said sections being spaced away from each other at the upper end of the pin to form the slots 1. The pin is formed of cast metal and the main advantage of forming it in sections is the low cost of manufacture.

The section 6 of the pin is provided on its

interior with lugs 7, as shown in Figs. 3 and 6, which are embraced by the section 5 of the pins when said sections are placed together, said lugs preventing one section from being moved transversely relatively to the other section when the sections are placed together preparatory to inserting the pin in the opening in the support C. I also prefer to form an opening 8 in the lower end of the pin, as shown in Fig. 3, so as to prevent water from collecting in the pin.

While I prefer to form the pin in sections, as previously described, it will, of course, be understood that so far as the screw-threaded portion and the serrated portion of the pin are concerned, it is immaterial whether the pin is formed in one piece, as shown in Fig. 7, or in two sections, as shown in the other figures of the drawing, for the two sections of the pin are placed together before the pin is inserted.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A metallic insulator pin provided at one end with a longitudinally extending slot which provides for the expansion of the pin in one direction, and screw-threads of approximately oval shape that are adapted to cooperate with screw-threads of substantially circular shape on an insulator and thus provide for the expansion of the pin in the opposite direction; substantially as described.
2. A metallic insulator pin provided at one end with a plurality of separated parts which provide for the expansion of the pin in one direction, and screw-threads of approximately oval shape that are adapted to cooperate with screw-threads of substantially circular shape on an insulator and thus provide for the expansion of the pin in the opposite direction; substantially as described.
3. A metallic insulator pin provided at

one end with a plurality of longitudinally extending slots which provide for the expansion of the pin in one direction, and screw-threads of approximately oval shape that are adapted to cooperate with screw-threads of substantially circular shape on an insulator and thus provide for the expansion of the pin in the opposite direction; substantially as described.

4. A hollow insulator pin formed of metal and having a slot which provides for the expansion of the pin in one direction, and screw-threads of approximately oval shape that are adapted to cooperate with screw-threads of substantially circular shape on an insulator and thus provide for the expansion of the pin in the opposite direction; substantially as described.

5. A cast metal insulator pin consisting of a plurality of sections that are provided on their longitudinal edges with interlocking teeth, and means independent of said teeth for preventing one section from being moved transversely of the other section when they are placed together; substantially as described.

6. A metal insulator pin comprising a plurality of sections provided on their longitudinal edges with interlocking teeth, and lugs on one section which are embraced by the other section when said sections are placed together; substantially as described.

7. A hollow insulator pin formed of metal and consisting of two semi-cylindrical-shaped sections that are provided on their longitudinal edges with interlocking teeth; substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this nineteenth day of December 1907.

CHARLES G. ETTE.

Witnesses:

EDWARD SCHWIDDE,
BERNARD J. BURRICHTER.