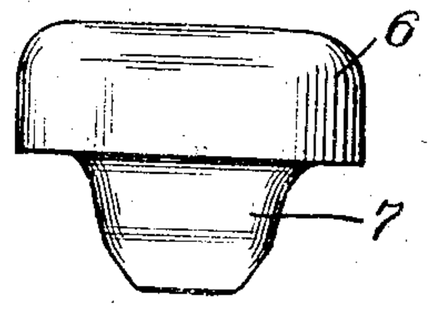
F. SCHAUB.

INSULATOR.

APPLICATION FILED JAN. 11, 1908.

919,386.

Patented Apr. 27, 1909.



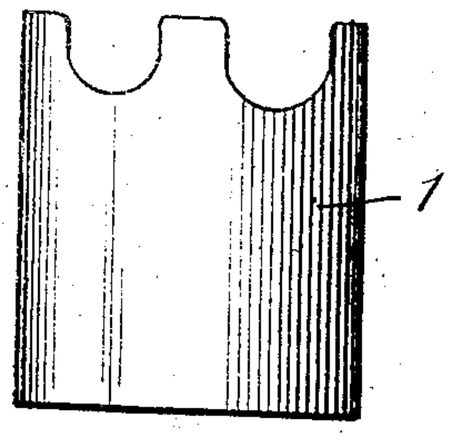


Fig. 1.

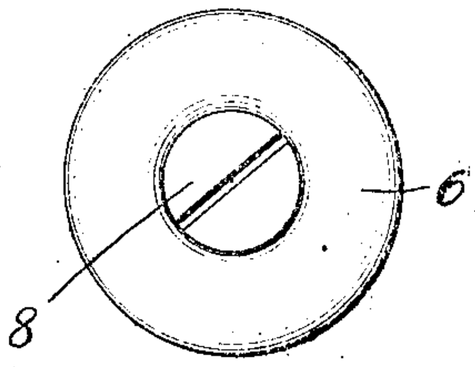


Fig. 4.

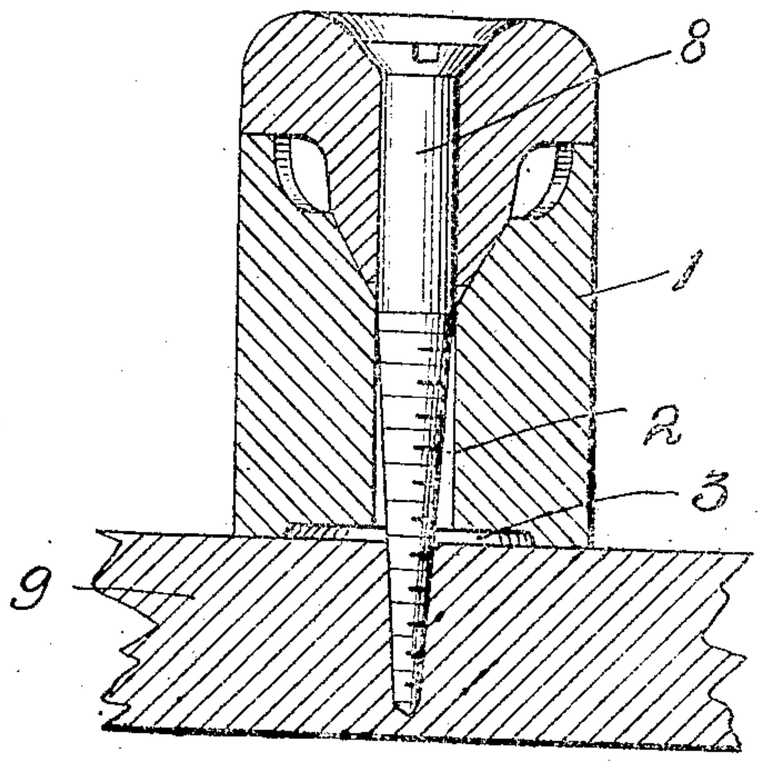


Fig. 2

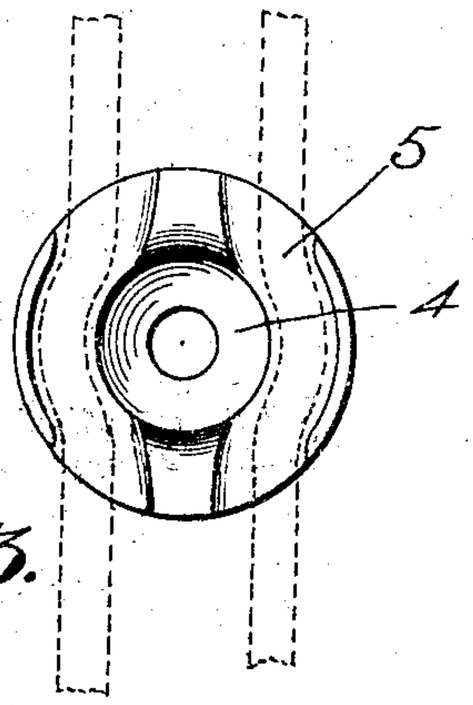


Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

FERDINAND SCHAUB, OF JERSEY CITY, NEW JERSEY

INSULATOR.

No. 919,386. Specification of Letters Patent. Patented April 27, 1909.

Application filed January 11, 1908. Serial No. 410,361.

To all whom it may concern:

Be it known that I, FERDINAND SCHAUB, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Insulators, of which the following is a full, clear, and exact specification.

This invention relates to insulators or supporting posts for electrical conductors, and particularly to those which consist of a base portion and a removable cap, between which two parts the conductors are adapted to be clamped, and it is the object of my invention to improve and simplify the construction of such devices and to increase their strength and efficiency in use, while at the same time decreasing the expense attending their manufacture.

In the accompanying drawing forming part of this specification, Figure 1 is a view in side elevation showing the two members of the insulator in separated relation. Fig. 2 is a vertical section of the device in assembled position. Fig. 3 is a plan view of the lower or socket member. Fig. 4 is a plan view of the upper or cap member.

Like reference numerals indicate corresponding parts in the different figures of the drawing.

The reference numeral 1 indicates the base member, which is constructed of any suitable material, and is formed with a central bore 2, and a shallow cutaway portion 3. The bore 2 at its upper end extends into an approximately-conical socket 4, near the upper ends of which sockets are formed a plurality of slightly curved, wire-receiving grooves 5, through which the electrical conductors extend, as indicated by the dotted lines in Fig. 3. Any desired number of wire-receiving grooves 5 may be formed in the upper end of the base member 1: for instance, two such grooves are shown in Figs. 1, 2, and 3 of the drawing. It is obvious that one may be used, or three or four, or, in fact, any number that can be accommodated upon the insulator posts, and I do not wish to limit myself as to this. It is also obvious that the grooves may vary in size, as shown in Fig. 1, wherein two different size grooves are shown, and which are adapted to receive wires of different sizes.

The upper or cap member 6 is formed with an approximately-conical, tapered, or bell-shaped expanding plug 7, the small lower end of which is adapted to fit into the socket 4 of the base member 1. When the electrical conductors have been fitted into the grooves 5 of the member 1 and the cap member 6 has been fitted into position, the expanding plug 7 serves to kink or bend the electrical conductors outward in the curved grooves 5 and to hold them firmly in said grooves against displacement, either longitudinal or in any other direction. The expanding plug 7 preferably is circular in cross-section so that it will readily fit down into the socket 4 without having to be turned to any particular position. For the purpose of holding the cap member 6 in place upon the base or socket member 1, and for holding both of said members in position upon a suitable support, an ordinary screw or other device 8 may extend downward through the cap member 6 and socket member 1 into a support such as 9.

The characteristics and operation of my device will be readily understood from the foregoing. The base, cap, and securing bolt are assembled as shown in Fig. 2 and the conductors disposed in the grooves provided. Upon screwing down the securing bolt the cap is drawn down upon the base section and the conductors forced laterally into the proper position in the grooves by means of the conical section of the cap. This grips them firmly and prevents any longitudinal motion thereof which would be apt to chafe or injure the conductor. The cap, as will be seen, is symmetrically faced and may be properly termed "universal fitting" in that it does not require to be placed in any particular position upon the base. The plug entering the recess in the base causes it to be self-centered and the symmetrical face of the cap enables it to grip the conductors if turned in any position. It is obvious, also, that the universal cap can be readily applied without any fitting being necessary, as it will automatically grip and hold firmly conductors of various sizes where properly proportioned grooves are provided in the base portion.

It will be apparent that my insulator is particularly strong and durable by reason of the fact that substantially all of the strain placed upon the members in gripping the conductors takes place in a lateral direction; that is, at right-angles to the bolt, and there is no tendency to split or crack the cap, as is

liable to occur in devices previously known, and this will be found a very advantageous feature in use.

It is obvious that modifications may be made without departing from the spirit of my invention, and I do not intend to limit myself to the precise construction shown.

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

1. An insulator comprising a pair of members, one of said members having a socket and a plurality of curved grooves, and the other of said members having an approximately bell-shaped expanding plug formed with a flared upper end, the lower end of said expanding plug being adapted to fit into said socket, and the upper flared end of said plug being adapted to engage the electrical conductors which are to be placed in said curved grooves.

2. An insulator comprising a pair of members, one of said members having an approximately-conical socket formed near the upper end thereof with curved grooves, and the other of said members having an approximately bell-shaped expanding plug adapted to fit into the socket of said first-mentioned member, and a fastening device extending through both of said members and projecting from the end of one of said members to engage a support.

3. An insulator comprising a pair of members, one of which is provided with a laterally curved conductor-receiving groove or grooves, and the other of which is adapted to force and hold securely the conductor or conductors in said grooves in such a way that the strain is produced substantially at right angles to the direction of movement between the members.

4. An insulator comprising a base portion having a conductor-receiving groove or grooves, a symmetrically-faced universal cap adapted to coöperate with said base so as to force the conductor or conductors laterally into the groove or grooves and hold the same securely in place.

5. An insulator comprising a pair of members, one of said members having a socket and a curved groove, the other of said members having a plug adapted to fit said socket and being symmetrically-faced so as to cooperate with said first member in any position and hold the conductor securely, and means for securing the members together.

6. An insulator comprising a base portion provided with a conductor-receiving groove or grooves, a tapering socket, a symmetrically-faced cap provided with a tapered centering plug, and means for holding said cap and base securely together.

In testimony whereof, I have hereunto set my hand in the presence of two subscribing witnesses.

FERDINAND SCHAUB.

Witnesses:
EDMUND T. OTTO,
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