No. 717,389. Patented Dec. 30, 1902.

E. GONZENBACH.

THIRD RAIL INSULATOR.

(Application filed Sept. 24, 1902.)

(No Model.)

Fig. 1.

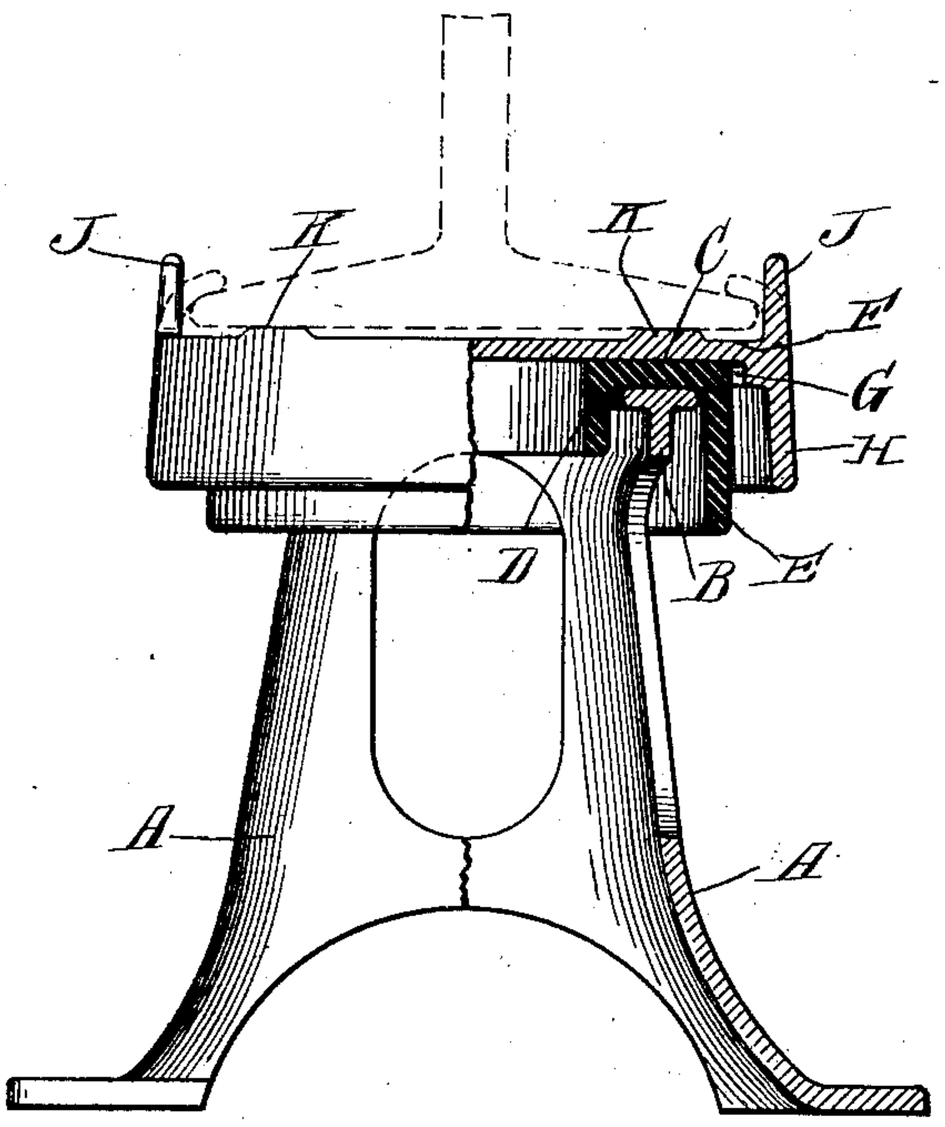
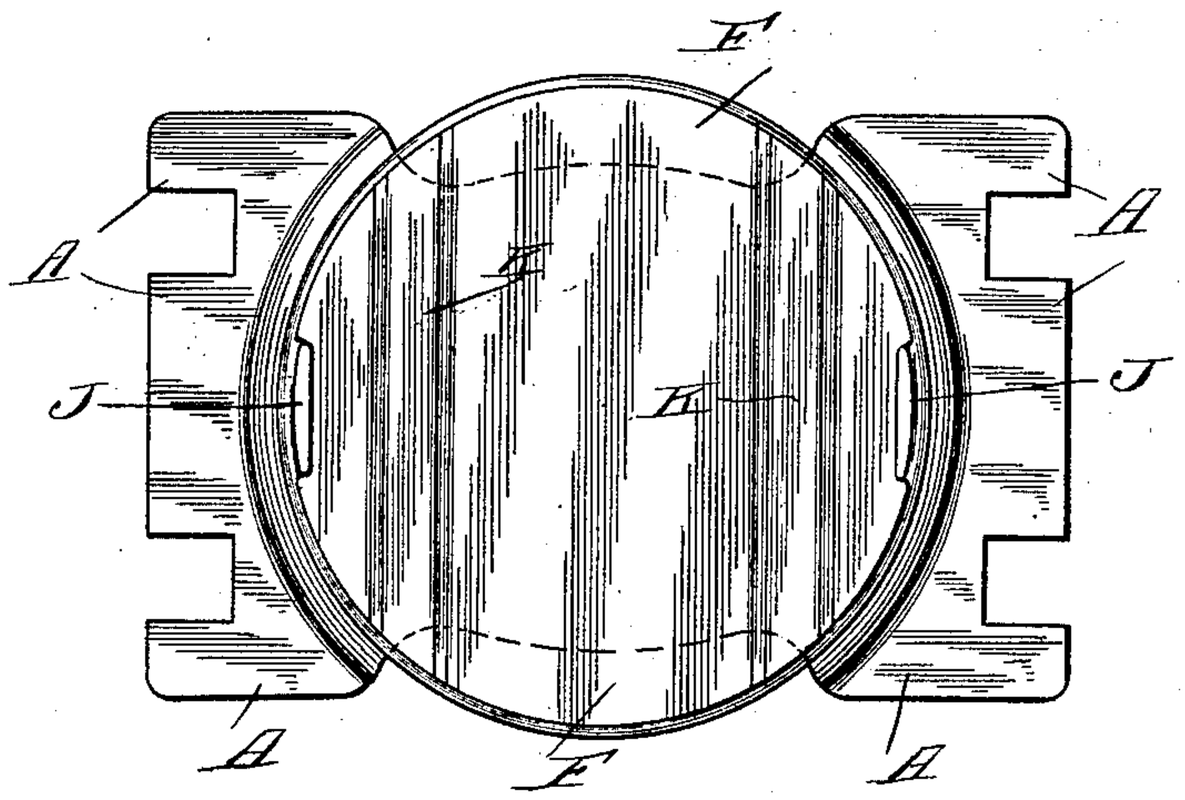


Fig. 2.



Witnesses:
Ray White.
Harry B. Durkee.

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By Brown & Darby Atty's.

UNITED STATES PATENT OFFICE.

ERNEST GONZENBACH, OF WHEATON, ILLINOIS.

THIRD-RAIL INSULATOR.

SPECIFICATION forming part of Letters Patent No. 717,389, dated December 30, 1902.

Application filed September 24, 1902. Serial No. 124,655. (No model.)

To all whom it may concern:

Be it known that I, ERNEST GONZENBACH, a citizen of the United States, residing at Wheaton, in the county of Dupage and State of Illinois, have invented a new and useful Improvement in Third-Rail Insulators, of which the following is a specification.

This invention relates to third-rail insulators.

The object of the invention is to simplify and improve the construction of third-rail insulators and to render the same more efficient.

The invention consists substantially in the construction, combination, location, and arrangement of parts, all as will be more fully hereinafter set forth, as shown in the accompanying drawings, and finally pointed out in the appended claims.

Referring to the accompanying drawings, and to the various views and reference-signs appearing thereon, Figure 1 is a view, partly in side elevation and partly in longitudinal central section, of a third-rail insulator embodying the principles of my invention. Fig. 2 is a top plan view of the same.

In the construction of electric railways employing a third rail for carrying the current it is desirable to provide means for efficiently supporting and insulating the rail, and to secure the most desirable results the insulating-support should be economical in manufacture, simple in the construction and assembling of the parts thereof, and should provide for efficient protection against moisture, dampness, and the like, so as to secure the most perfect insulation possible. The accomplishment of these results is the special aim and purpose of the present invention, and in carrying out my invention I employ a supporting base or standard A, adapted to be secured or bolted to the track-sleepers or otherwise in any suitable, convenient, or ordinary manner. This base or standard is provided or formed with a supporting-surface B at its top, preferably of T shape in cross-section, as clearly shown, thereby affording an extensive area of flat supporting-surface.

C designates a ring, of suitable insulating material, of substantially U shape in cross-section, and adapted to be placed in inverted position upon and over the flanged supporting-ring B of the base or stand, the parts or flanges D E forming petticoats to inclose the ring-support B. The flanges or petticoats D E extend downward over the ring-support B for a considerable distance. In this manner the ring-support is efficiently protected against the ingress of moisture or water, which would otherwise impair the efficiency of the insulation of the rail-support.

F designates a cap, preferably of cup shape, arranged to be placed in inverted position over and to inclose the insulating-ring C, as clearly shown. The bottom surface of the cap F is provided with a countersunk seat (indicated at G) which fits over and receives the insulating-ring C. The encircling flange H of the cap surrounds the insulating-ring C, the petticoat E of the latter, however, extending below the edge of the flange H.

The third rail is adapted to be seated upon the upturned bottom of the cap F, and, if desired, the cap F may be provided with vertical retaining or guide lugs J to engage the sides of the third or conductor rail. If desired, the rail-supporting surface of cap F may be provided with raised lugs or supporting-ribs K, upon which the rail rests.

The parts are assembled as follows: The base or standard A is placed and secured in position in any suitable or desired manner. The insulating-ring is then inverted and placed loosely upon the supporting-ring surface B, with the flanges D E extending downwardly on opposite sides of the supporting-ring surface B, thereby inclosing the same. The cap F is then inverted and placed over the insulating-ring, so as to inclose the same, and the device is then ready to receive the rail.

From the foregoing description it will be seen that I provide an exceedingly simple and inexpensive construction of third-rail insulator which is efficient and wherein the supporting-stand as well as the cap and rail serve to protect the insulating-ring from injury. It will also be seen that a wide area of supporting-surface is afforded the insulating-ring by the wide ring-surface B.

Having now set forth the object and nature of my invention and a construction embody-

ing the principles thereof, what I claim as new and useful and of my own invention, and desire to secure by Letters Patent, is—

1. In a third-rail insulator, a supporting base or standard, an insulating-ring having a laterally-extending flange forming a petticoat, said ring supported over said base or standard, and a cap arranged to inclose said ring, as and for the purpose set forth.

2. In a third-rail insulator, a supporting base or standard having a supporting-surface, an insulating-ring substantially U shape in cross-section supported in inverted relation upon said supporting-surface, and a cap inclosing said ring, as and for the purpose set forth.

3. In a third-rail insulator, a supporting base or standard formed with a flanged ring-shaped supporting-surface at its top, an insulating-ring substantially U shape in cross-section supported in inverted relation upon said supporting-surface and inclosing the latter, and a rail-supporting cup-shaped cap arranged to inclose and rest upon said insulating-ring, as and for the purpose set forth.

4. The combination with a base or standard having a supporting-ring surface of substantially T shape in cross-section, an insulating-ring of substantially U shape in cross-section adapted to rest loosely upon said supporting-ring in inverted relation so as to inclose the latter, and an inclosing-cap for said insulating-ring, as and for the purpose set forth.

5. The combination with a base or standard, a substantially U-shaped insulating-cap supported in inverted relation over the top edge of said base or standard to inclose the same, and a cup-shaped cap inverted over said ring and inclosing the same, as and for the purpose set forth.

6. The combination with a base or standard, an insulating-ring supported thereon, a cup-shaped cap arranged to be inverted over said ring and in inclosing relation with respect thereto and provided with a counterbore in the inverted bottom thereof to receive said ring, as and for the purpose set forth.

7. The combination with a base or standard, an insulating-ring supported thereon, a cup-shaped cap supported in inverted and inclosing relation over said ring and having guide-lugs and rail-supporting ribs, as and for the purpose set forth.

In witness whereof I have hereunto set my hand, this 12th day of September, 1902, in the presence of the subscribing witnesses.

ERNEST GONZENBACH.

Witnesses:

HELEN HAMMETT,

W. G. GORDON.