

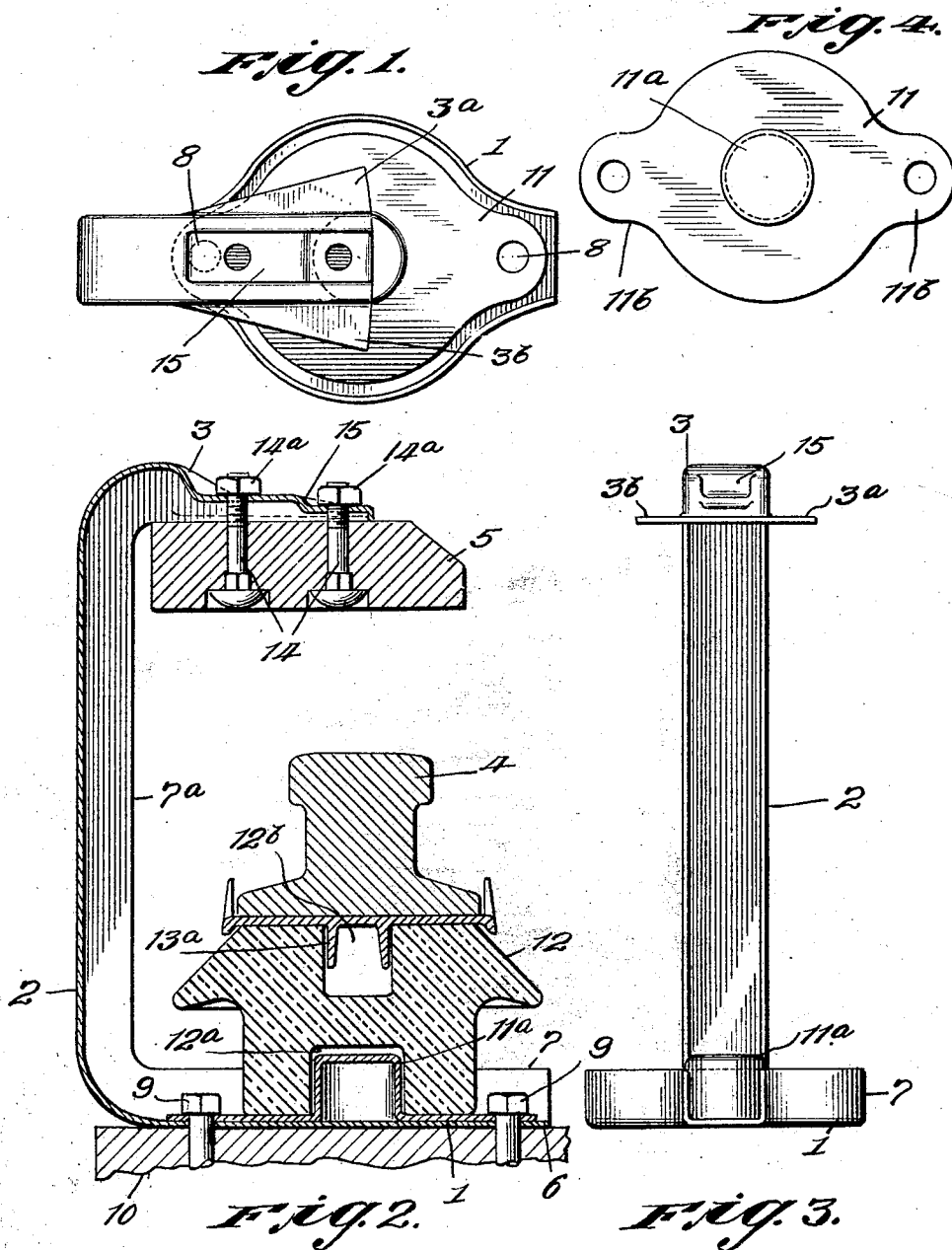
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E. E. SCHMID ET AL

THIRD RAIL SUPPORT AND PROTECTION BOARD BRACKET

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INVENTORS.
ERNEST E. SCHMID &
WILLIAM H. SCHNEIDER
BY *William P. Hammond*
ATTORNEY

UNITED STATES PATENT OFFICE.

ERNEST E. SCHMID, OF HOLLIS, AND WILLIAM H. SCHNEIDER, OF FREEPORT, NEW YORK.

THIRD-RAIL SUPPORT AND PROTECTION-BOARD BRACKET.

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To all whom it may concern:

Be it known that we, ERNEST E. SCHMID and WILLIAM H. SCHNEIDER, citizens of the United States, residing at Hollis, county of Queens, State of New York, and Freeport, county of Nassau, State of New York, respectively, have invented certain new and useful Improvements in Third-Rail Supports and Protection-Board Brackets, of which the following is a specification.

This invention relates to an improvement in means for supporting the third rail and protection board of electric railways and the like.

It is an object of the invention to provide a third rail support which will properly insulate the rail and hold the same firmly in the desired position without subjecting the insulator stool to breaking or splitting strains.

Another object of the invention is to provide a combined third rail support and protection board bracket which is adapted to rest directly upon the railway tie and to support both the third rail and the protection board in operative position thereon.

Another object of the invention is to provide a combined third rail support and protection board bracket which will hold the third rail insulator stool in proper position and provide a large bearing surface for the stool without putting the insulator under a splitting or clamping strain as many of the present insulator supports do.

A further object of the invention is to provide a combined third rail support and protection board bracket of the above mentioned type which is of unitary construction, consisting preferably of a sheet metal stamping, which is of light weight easy and cheap to manufacture, easy to transport and easy to apply to the designed purpose.

Various other objects and advantages of the invention will appear as the description proceeds.

Referring now to the drawings which illustrate a preferred form of embodiment of the invention,

Figure 1 is a plan view of the combined third rail support and protection board bracket.

Figure 2 is a part sectional view, illus-

trating the support in position upon a railway tie and illustrating the insulator stool, third rail and protection board supported therefrom.

Figure 3 is an end view of the construction of the combined third rail support and protection board bracket looking toward the left in Figure 1.

Figure 4 is a plan view of the cup plate for supporting the insulator stool and third rail.

In the embodiment illustrated, the combined third rail support and protection board bracket is composed of a substantially circular supporting base 1 from which extends an integral channel member 2, provided with an overhanging bracket 3, above the third rail 4, which is adapted to support the protection board 5. The base 1 consists of a flat bottom portion 6 surrounded by an upstanding flange 7 which forms a continuation of the wings 7^a of the vertically extending channel member 2. Holes 8 in the base 1 are adapted to receive the spikes or lag screws 9 for attaching the support to the tie 10 and if desired a cup plate 11 of substantially the same shape as the base and provided with an inverted cup 11^a and perforated ears 11^b may be secured to the base and retained thereon by the spikes 9. Supported on the base 1 or cup plate 11 is the insulator stool 12 provided with a depression 12^a to fit over the inverted cup portion 11^a and with a depression 12^b adapted to receive the annular flange 13^a of the third rail plate 13. It is to be noted that the base of the insulator stool 12 is supported upon the oval plate 11 between the flange 7 and cup 11^a, and that the flat contact faces at the top and the bottom of the insulator stool bear all the weight which is on the insulator so that there is no tendency to split the insulator stool as in cases where a wedge or cone shaped cup member projects into the recess 12^a or in cases where the third rail is held upon the stool by clamping means or the like, at the same time the flange 7 on the outside and cup 11^a on the inside prevents the stool from shifting and prevents the stool from moving off the support. The protection board 5 is supported from the overhanging bracket 3 by means of the bolts

14 so that sufficient space intervenes between the bottom of the protection board and the top of the third rail to receive the contact shoe of the locomotive.

5 The base 1, vertical extension 2 and overhanging bracket 3 with the flange portions 7 and 7^a are formed of one piece of sheet metal preferably by stamping, which gives a strong and light support which can be
10 cheaply formed, easily carried from place to place, quickly attached to the tie and upon which the third rail and protection can be easily mounted.

The bracket 3 is formed with a stepped
15 groove 15, adapted to receive the nuts 14^a of the bolts 14, and is widened out to a fan shape as illustrated at 3^a and 3^b so as to provide a broad flat contact surface between the underneath portion of the bracket 3 and the
20 protection board so that the bolts 14 can be secured tightly without forcing the projection 3 into the protection board and weakening the same. For easy transportation the cup plate 11 may be attached to the base
25 1 by welding, riveting or the like, or the inverted cup member 11^a may be formed integral with the base member 1 by displacing the center of the base member upward so as to form a cup member from the material of the base.

If desired the cup plate 11 may be used alone to support the third rail and insulator stool and a separate bracket may be used to support the protection board. When used
35 alone for this purpose the cup plate has considerable advantage over the centering cups now used because the cup portion 11^a is shaped so that there is no tendency to split the insulator stool, the portion 11 provides
40 a broad flat surface for the stool to rest upon and the perforated ears 11^b project beyond the sides of the third rail and insulator stool so that the cup plate may be easily installed and secured to the tie by
45 the spikes or lag screws 9 with the third rail in place.

In accordance with the patent statutes, I have illustrated and described a preferred form of embodiment of my invention but it
50 is to be understood that persons skilled in the art may make various modifications and changes therein and that parts of the invention may be used without others without departing from the spirit of the invention
55 or the scope of the appended claims.

We claim:

1. A third rail support formed from sheet metal comprising a base, an integral upstanding flange at the edge of said base substantially surrounding the same, an upstanding projection approximately at the center of said base, a third rail insulator stool resting on said base between said flange and said projection and means outside the circumference of the base of said insulator stool and inside said flange for securing said support to a railway tie.

2. A third rail support formed from sheet metal comprising a flat base, adapted to rest upon a railway tie and support the third rail insulator stool, a single flat portion on which said insulator stool rests, means at the center and integral means at the edges of said base for retaining the stool on said flat portion and an integral projection extending upward from said base and formed into an overhanging bracket to support the third rail protection board.

3. A third rail support and protection board bracket formed from sheet metal comprising a base adapted to rest upon the railway tie and support the third rail insulator stool an integral upstanding flange at the edge of said base, an integral channeled projection extending upward from said base and a bracket integral with said projection overhanging said base and adapted to support the third rail protection board.

4. An integral sheet metal third rail support and protection board bracket, comprising a base, a channel shaped projection extending upward therefrom and a fan shaped bracket at the top of said projection, overhanging said base.

5. A third rail support and protection board bracket formed from sheet metal comprising a base adapted to rest upon the railway tie and support the third rail insulator stool, an integral upstanding flange at the edge of said base, an integral channeled projection extending upward from said base, the wings of said channeled projections forming continuations of said upstanding flange, and a fan shaped bracket integral with said projection overhanging said base.

In testimony whereof we have affixed our signatures to this specification.

ERNEST E. SCHMID.
WILLIAM H. SCHNEIDER.