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2,808,995

REINFORCED END POSTS FOR RAILWAY TRACK

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FIG. 1.

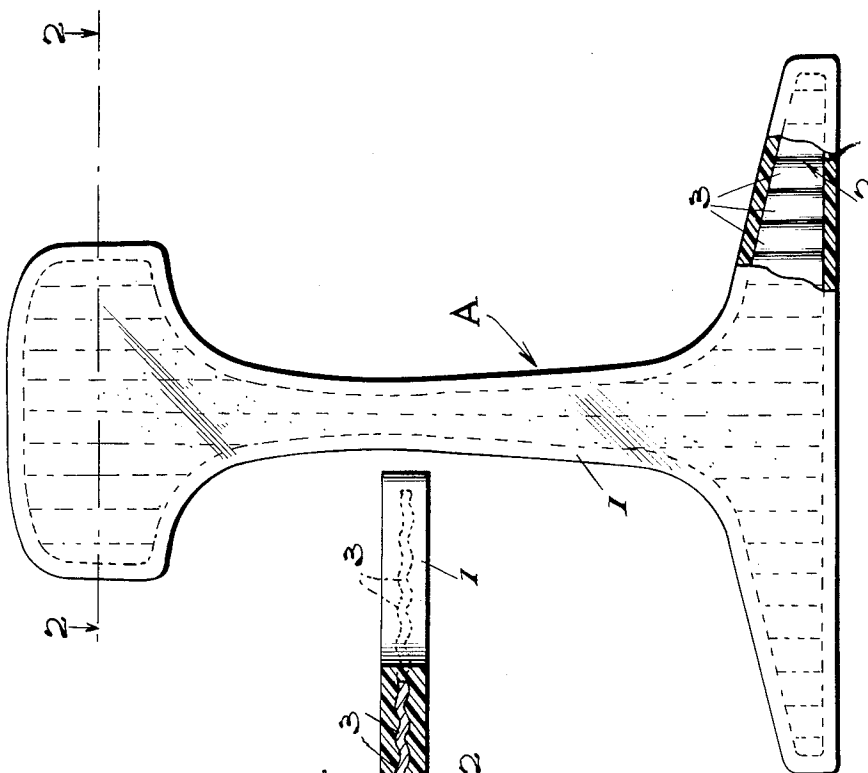


FIG. 2.

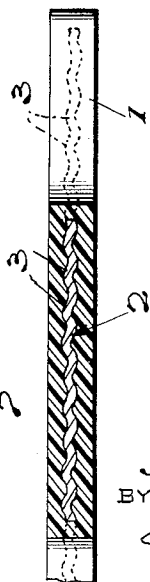
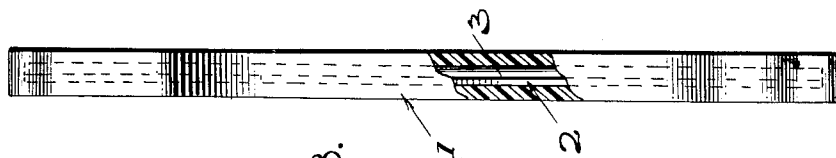


FIG. 3.



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REINFORCED END POSTS FOR RAILWAY TRACK

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1 Claim. (Cl. 238—153)

This invention relates to end posts for use between the meeting ends of railway rails to insulate one rail from another, in conjunction with insulated rail joints employed in block signal systems and the like.

Heretofore, it has been the universal practice and custom to use end posts made of vulcanized fibre. End posts of this type are very susceptible to moisture and, once exposed to weather, and under heavy traffic conditions, tend to delaminate vertically. This gives rain water, brine and other moisture a perfect passage to the base piece and even acts as a reservoir for holding moisture, particularly after the delaminated parts lose their stiffness. These weaknesses are of a progressive nature and lead to ultimate failure of all fibre parts of the joint, if not detected and corrected in time. Moreover, according to present practice, because of the relatively wide rail gaps, the thickness of fibre end posts is usually about $\frac{3}{8}$ ". This unnecessary thickness of end posts is a large factor in accelerating the undesirable conditions above-mentioned, and, furthermore, contributes to track noise and rail end batter.

Accordingly, one of the objects of the invention is to avoid the disadvantages of hard fiber by providing an end post made of a moldable material, such as rubber or plastic and having a reinforcing core to provide maximum strength and stiffness, and, at the same time, eliminate the undesirable delamination and retention of moisture.

Another object of the invention is to provide an end post which is of minimum thickness, as compared with present practices thereby reducing the gaps or space between rail ends to contribute to smoother riding track, reduction of rail end batter and longer insulated joint bar life.

A further object is to provide a molded end post having a reinforcing core for assuring proper stiffness.

A still further and general object is to provide an end post which will outlast and out-perform any end post commercially available today, and effectively resist deterioration while at the same time maintaining a high degree of electrical insulation.

With the above and other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the combination of features hereafter more fully described and illustrated in the accompanying drawings, in which:

Fig. 1 is a vertical elevation of the improved end post.

Fig. 2 is a detail cross sectional view on the line 2—2 of Fig. 1.

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Fig. 3 is a side elevation of the end post shown in Fig. 1.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

As will be observed from the several figures of the drawings, the molded end post is designated generally as A, and, as usual, has its profile conforming with the cross-sectional shape of the ends of the rails with which it is to be used.

The end post A includes a body 1 of moldable material, such as rubber or any suitable plastic material, which is molded about a reinforcing core 2. This core may be of any appropriate material which is adaptable to molding procedures, such for example as solid nylon, fibre glass, or even an appropriate metal.

In order to provide the entire molded portion of the end post with the desired vertical stiffness, it is preferred to corrugate the core as indicated at 3, and clearly shown in Fig. 2. Thus, the end post will have adequate stiffness and strength, even though the body 1 is made relatively thin, such for example as approximately $\frac{1}{16}$ " thick. This feature will, as previously indicated, eliminate wide rail gaps and contribute to smoother riding track while affording less play or movement between the rail ends which is the cause of rail batter.

It will of course be understood that the corrugated core 2 will be proportionately thin with respect to the overall thickness of the body of the post. For example, the reinforcing core may be of approximately $\frac{1}{64}$ " to $\frac{1}{32}$ ". As shown it takes the general shape of the body 1 but all marginal edges are embedded well within the outer edges of the body.

From the foregoing it will now be seen that the present invention eliminates many of the objections to present type end posts, and generally contributes to less maintenance costs and a more effective insulated joint.

I claim:

A moisture and fluid impervious nonfibrous insulated end post to be placed between meeting rail ends, comprising, a one piece non-conductive body of moisture resistant moldable, yieldable and compressible material formed to the profile of a given rail section, and a reinforcing core comprising a piece of sheet material provided with vertically disposed corrugations wholly embedded and concealed within said molded body to provide vertical stiffness, the lateral edges of said core lying inwardly of the exposed marginal edges of the body and protected thereby to seal the core against ingress of moisture.

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