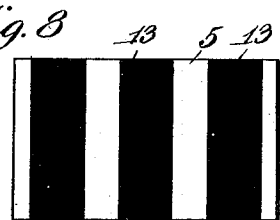
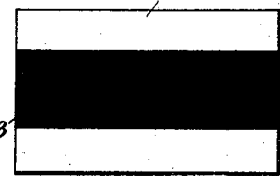
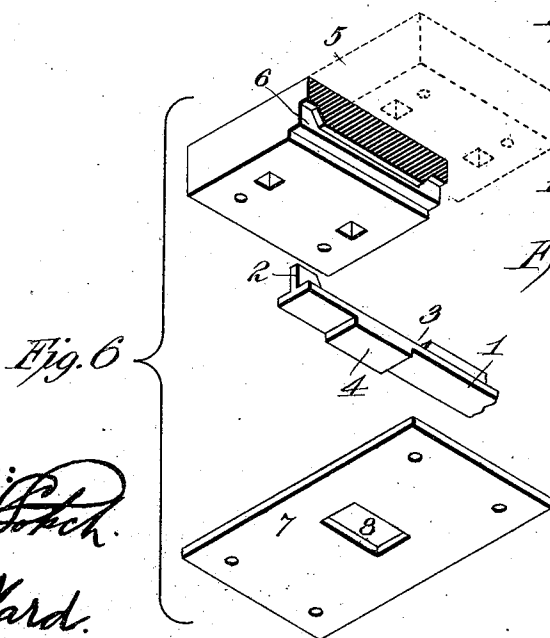
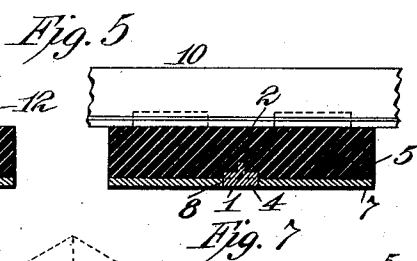
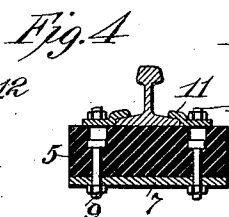
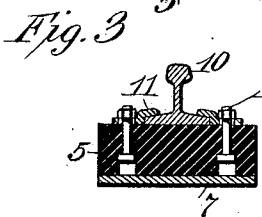
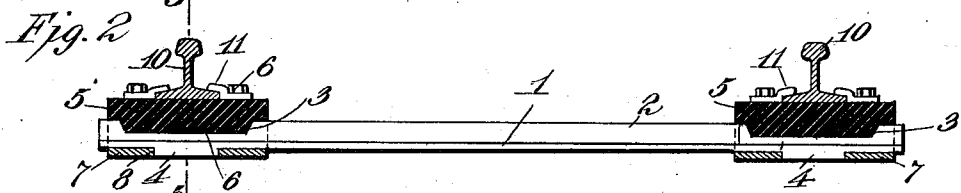
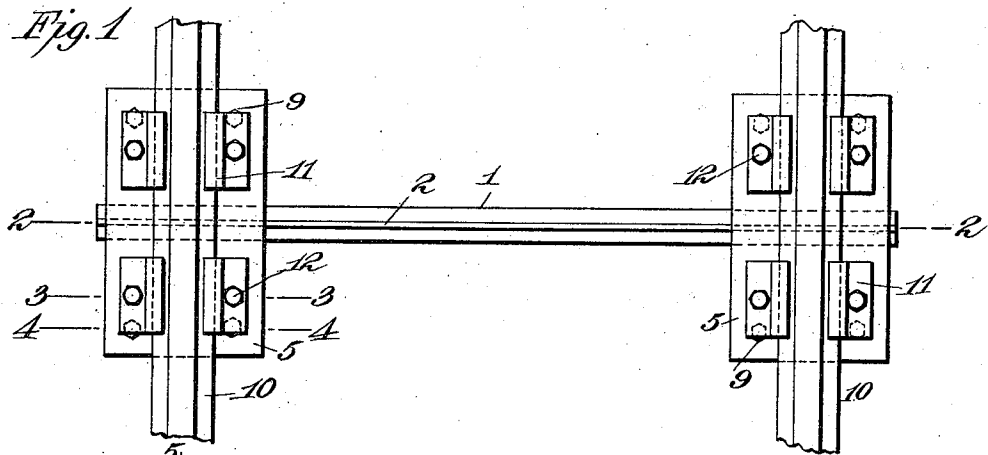


E. F. DAVIS.
 RAIL SUPPORT.
 APPLICATION FILED DEC. 7, 1909.

1,000,498.

Patented Aug. 15, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWIN F. DAVIS, OF CORNING, NEW YORK.

RAIL-SUPPORT.

1,000,498.

Specification of Letters Patent. Patented Aug. 15, 1911.

Application filed December 7, 1909. Serial No. 531,894.

To all whom it may concern:

Be it known that I, EDWIN F. DAVIS, a citizen of the United States, and a resident of the city of Corning, county of Steuben, and State of New York, have invented a new and useful Improvement in Rail-Supports, of which the following is a specification.

The object I have in view is to produce a device for supporting rails for railways, and in which the rails are insulated from each other and from the ground, for use in connection with signaling circuits and for uses which require insulated rails.

Further objects are to produce a device which will be cheap to manufacture and durable, and which may be cheaply and easily installed.

These and still further objects will appear from the following specification and accompanying drawings, considered together or separately.

In the drawings: Figure 1 is a plan view of a section of track, showing two rails, a cross tie and the appurtenant devices embodying my invention; Fig. 2 is a sectional view on the line 2—2 of Fig. 1; Fig. 3 is a sectional view on the line 3—3 of Fig. 1; Fig. 4 is a sectional view on the line 4—4 of Fig. 1; Fig. 5 is a sectional view on the line 5—5 of Fig. 2; Fig. 6 is an isometric projection, showing details of the tie and rail support; and Figs. 7 and 8 show modifications of one portion of the invention.

In all of the views like parts are designated by the same reference characters.

The particular embodiment of the invention chosen for illustration comprises the following: The tie 1 is best made of metal and of I section. The vertical flange 2 of the tie is interrupted adjacent to each end, forming a notch 3. Immediately below each notch is a rectangular projection 4. At each end of the tie is a block 5, which is best made rectangular in shape and also best made of insulating material, although such is not necessary, as will be described. This block has formed across its bottom a groove 6, said groove being substantially the same shape as the cross-section of the tie. The groove is also the shape of the notch 3, forming a projection which enters the notch, as shown in Fig. 2. This aligns the block and also serves to prevent it shifting from

side to side of the tie and maintains the proper gage between the rails. The blocks are secured to the ties by means of plates 7, preferably of substantially the same size and shape as the blocks, but not so thick as the latter. Each plate is provided with an opening 8 within which the projection 4 is adapted to lie. In order to have the plate and projection flush on the bottom, this projection is best made of a depth equal to the thickness of the plate. The plate is secured to the block by means of bolts 9, which pass through openings in the block and plate and the block is provided at its top with recesses, in which the heads of the bolts are shown as counter-sunk (see Fig. 4), so that they are removed from the top of the block.

The rail 10 is secured to the center of each block by clips 11, which are secured to the block by bolts 12. These bolts have heads which are counter-sunk so that the bolts do not come in contact with the plate 7. It will be apparent, therefore, that the rail is insulated from the tie by the insulating block. It is also apparent that the block is kept from moving along the tie by the notch 3 engaging within the projection in the groove 6, and also by the engagement of the projection 4 with the opening 8, which will keep the plate 7 from shifting, and which through the agency of the bolts 9 will also keep the block from shifting.

A modification of the invention consists in making the blocks out of material which is not of an insulating nature. This is shown in Figs. 7 and 8. Suitable blocks of insulating material are embedded in the material of which the block is made,—which may be concrete. These blocks project above the surface of the main block, so that the rail and clips and other fastenings do not come in contact with it.

In the following claims I use the term "insulating block", which I desire to have understood may be a block made entirely of insulating material, or only partly insulating material, provided that the block on the whole is of an insulating nature.

In accordance with the provisions of the patent statutes, I have described the principle of my invention, together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the apparatus

shown is merely illustrative and that the invention can be carried out in other ways.

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

1. The combination of a flanged metallic tie having a notch in the flange adjacent each end, and a block at each end of the tie, the said blocks having a groove corresponding to the flange of the tie, said groove containing a projection which enters and fills the notch.

2. The combination of rails, a flanged metal tie, the said flange being notched at points below the rails, grooved blocks on the tie having projections in the grooves lying within and filling the notches, a plate below

each block and below the tie, and bolts securing the plates, tie and blocks together.

3. A rail support which comprises flanged metal ties, blocks of insulating material upon which the rails are secured, the said blocks having grooves which engage with the flanges of the ties, plates below the blocks each plate having an opening, and a projection on the tie engaging with each opening, the whole being bolted together.

This specification signed and witnessed this twenty-second day of October, 1909.

EDWIN F. DAVIS.

Witnesses:

S. E. QUACKENBUSH,
LESLIE W. WELLINGTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."