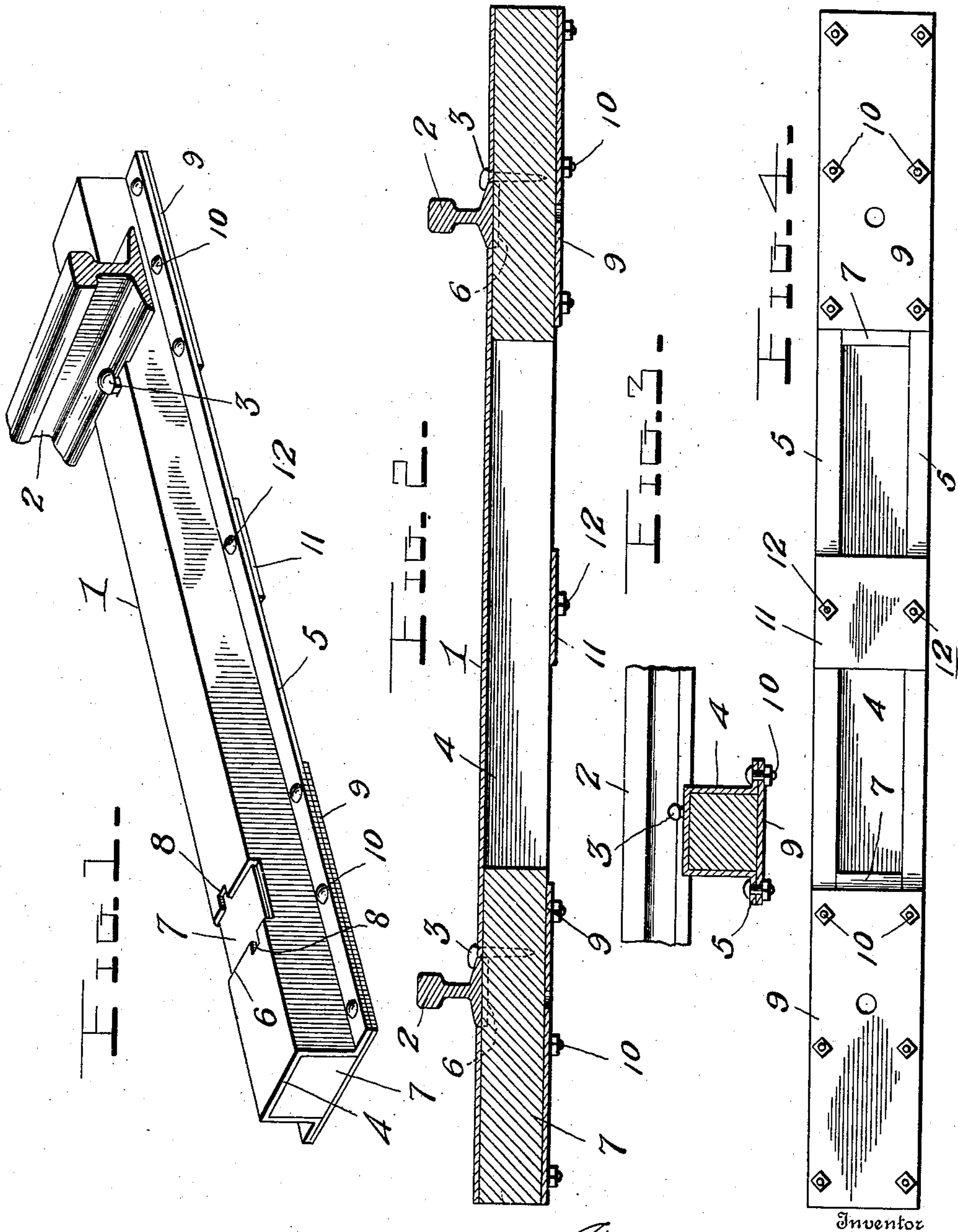


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CROSS TIE.
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914,967.

Patented Mar. 9, 1909.



Witnesses

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SAMUEL MICHAELS, OF MOUNT PULASKI, ILLINOIS.

CROSS-TIE.

No. 914,967.

Specification of Letters Patent.

Patented March 9, 1909.

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To all whom it may concern:

Be it known that I, SAMUEL MICHAELS, a citizen of the United States, residing at Mount Pulaski, in the county of Logan and State of Illinois, have invented certain new and useful Improvements in Cross-Ties, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in railway cross-ties of that class composed of metal and wood.

The object of the invention is to provide a cross tie of this character which will be simple and comparatively inexpensive in construction, strong and durable in use and which will have all the advantages of the wooden cross tie and to which the track rails may be secured in the ordinary manner by spikes.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved cross tie showing one of the track rails applied thereto; Fig. 2 is a longitudinal section; Fig. 3 is a transverse section; and Fig. 4 is a bottom plan view.

In the drawings 1 denotes the improved metallic cross tie on which ordinary track rails 2 are secured by spikes 3 in the ordinary manner. The tie 1 comprises a metal body 4 of inverted U-shape in cross section, its depending side walls being bent outwardly to provide oppositely projecting horizontal flanges 5. Its top and the adjacent portions of its sides are cut away to provide transverse seats 6 to receive the base flanges of the track rails 2, which latter rest upon supporting and cushioning blocks 7 of wood or other suitable material. In the edges of the transverse seats 6 are formed notches 8 to receive the spikes 3 which fasten the ties to the blocks 7. The latter are arranged in the channeled or U-shaped body 4 of the tie at its ends, as shown more clearly in Figs. 2 and 4 of the drawings, and they are retained in the tie by means of base plates 9 which ex-

tend beneath them and are secured to the flanges 5 by bolts 10 or similar removable fastenings. The latter permit the removal of the base plates 9, and hence the blocks 7, so that when said blocks are decayed or worn out they may be readily replaced. If desired, however, rivets may be employed instead of the bolts 10 so that the bottom plates 9 will be permanently secured to the bottom of the channeled body 4 of the tie, the blocks 7 being, nevertheless, removable through the open ends of said body, as will be readily understood. To strengthen the central portion of the channeled body 4 of the tie, an intermediate base plate 11 is arranged across said body and secured by bolts 12 to the flanges 5.

From the foregoing it will be seen that the invention provides an exceedingly simple cross tie, the metal parts of which may be constructed at a small expense from metal sheets or plates and which will be exceedingly strong and durable. Furthermore, the provision of the supporting and cushioning blocks 7 retain in my improved tie all the advantageous features of the ordinary wooden tie and permit the rails to be secured in the ordinary manner by spikes.

Having thus described the invention what is claimed is:

The combination with track rails, of a cross tie having an inverted channeled metal body formed with outwardly projecting base flanges and also formed in its top with transverse rail receiving seats, the edges of the latter having notches, supporting and cushioning blocks arranged in the ends of the channeled body to support the rails in said seats, spikes driven through said notches into said blocks to retain the rails thereon, block retaining base plates arranged beneath the blocks and the base flanges of the body, fastenings uniting said plates to said flanges and a centrally arranged reinforcing base plate united to the base flanges of the body.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

SAMUEL MICHAELS.

Witnesses:

NELSON DOWNING,
R. D. ATCHESON.