M. F. HELMER.

RAILWAY.

APPLICATION FILED NOV. 27, 1911.

1,041,078. Patented Oct. 15, 1912.

Fig. 1.

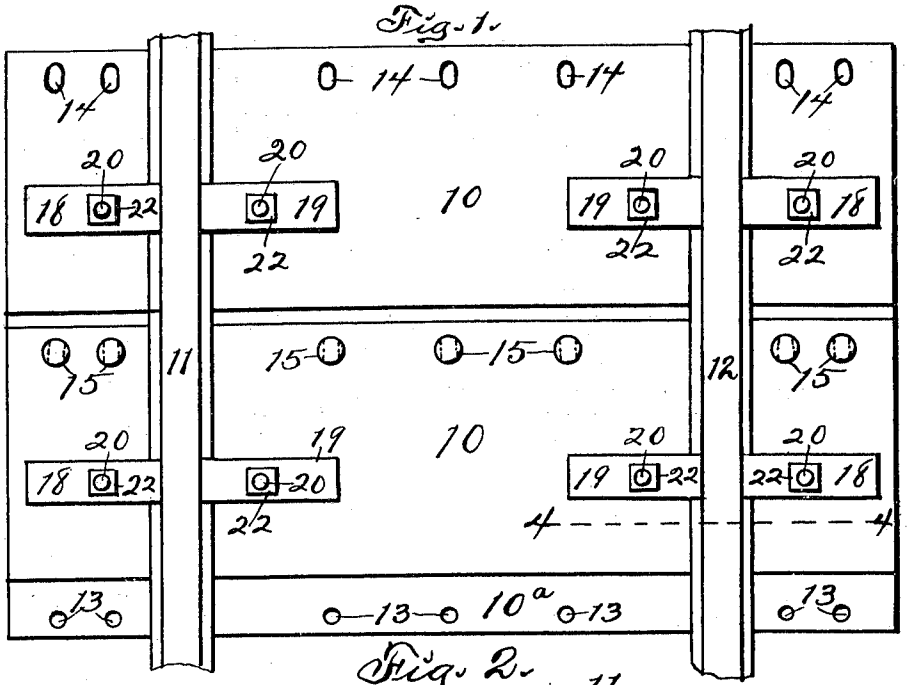


Fig. 2.

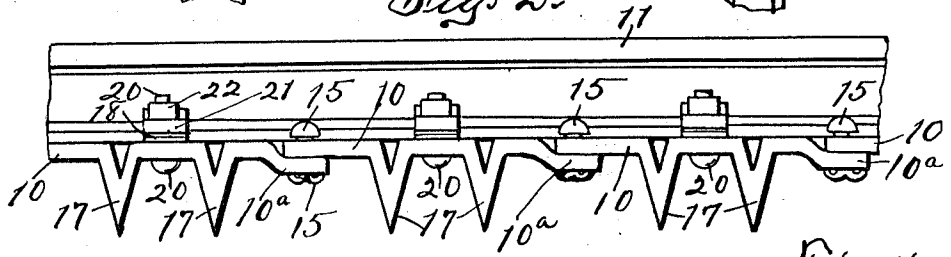


Fig. 3.

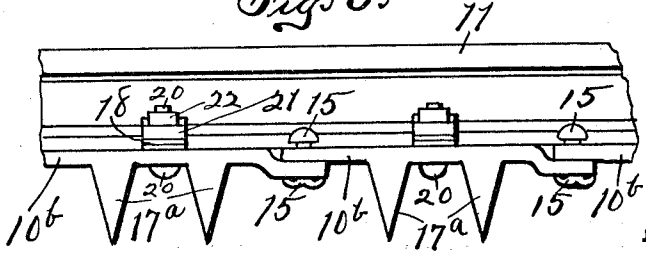
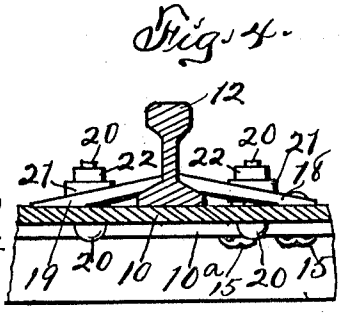


Fig. 4.



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RAILWAY.

1,041,078. Specification of Letters Patent. Patented Oct. 15, 1912.

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To all whom it may concern:

Be it known that I, MELCHERT F. HELMER, a citizen of the United States of America, and resident of 5071 Raleigh street, Denver, Colorado, (post-office address same place,) have invented a new and useful Improvement in Railways, of which the following is a specification.

The object of this invention is to provide improved means for supporting railway track rails.

A further object of this invention is to provide improved means for securing railway track rails to a support.

A further object of this invention is to provide a continuous cover for a railway road-bed.

A further object of this invention is to provide improved means to prevent creeping of railway track rails.

A further object of this invention is to provide a continuous and practically flush support for railway track rails.

My invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claim and illustrated by the accompanying drawing, in which—

Figure 1 is a plan of a portion of a railway track embodying my improvements, Fig. 2 is a side elevation of the same. Fig. 3 is a side elevation illustrating a slightly modified form of support. Fig. 4 is a transverse section on the indicated line 4—4 of Fig. 1.

In the construction of the track as shown a plurality of bed plates 10 extend transversely of the track and are of a length sufficient to project materially beyond the rails 11, 12 mounted thereon. The bed plates 10 may be of any convenient width and each bed plate is formed with a downward offset 10^a extending along one side margin. The offset 10^a of each bed plate is adapted to be overlaid by the plane margin of an adjacent plate to form a continuous and practically flush surface and also to provide an overlap for convenience in fastening adjacent plates together. Each plate 10 is provided with a longitudinal row of holes 13 in each margin. The holes and slots of adjacent plates 10 are adapted to register in use and rivets 15 are mounted therethrough. The rivets 15 preferably are forked at their lower ends and are adapted to be driven against a clenching tool (not shown) when seated in order to clench said rivets on the bottom sides of the offsets 10^a. The rivets 15 preferably are of slightly greater diameter than the holes 13 and the transverse diameter of the slots 14 and must be forced to their seats to hold the adjacent plates 10 firmly together. The heads of the rivets 15 preferably are allowed to remain slightly spaced above the top of the plates 10 to receive engagement of a claw (not shown) for withdrawal of the rivets on occasion. It is the function of the slots 14 to permit some adjustment of adjacent plates 10 relative to each other when placed in position and also to permit adjacent plates to be unequally spaced at different points throughout their lengths, which is desirable on curves of the track. I prefer to make the road-bed on which this track is to be laid of earth and to tamp the same thoroughly before the bed plates are laid to expel all moisture. The bed plates when laid and fastened together then form a continuous cover for the tamped road-bed and prevent the access of moisture thereto from above. This is desirable in order to keep the road-bed in good condition and prevent sinking and danger of washouts. The bed plates 10 are formed with integral longitudinal flanges or ribs 17 on their lower surfaces and extending transversely of the road-bed. The ribs or flanges 17 preferably are attenuated and are adapted to be driven into the tamped road-bed and to hold the bed plates 10 firmly in place relative thereto and prevent creeping of the track. The bed plates 10 and flanges preferably are made of steel, and in Fig. 2 I have shown them made from steel by pressing. The rails 11, 12 are secured to the bed plates 10 by means of clamp bars 18, 19 (preferably of wood) on opposite sides of each rail and overlapping the base flanges thereof. Bolts 20 are mounted through the bed plates 10 and clamp bars 18, 19 and are provided with leveling washers 21 and nuts 22 on their upper ends.

In Fig. 3 I have illustrated the bed plates 10^b and ribs or flanges 17^a as being made from steel by casting or molding. They may, however, be made in different ways and of different sizes and shapes, and I do not desire to be limited to the precise construction and arrangement here illustrated.

I claim as my invention—

An improvement in railways, comprising bed plates, one margin of each bed plate being offset and overlaid by a marginal portion of an adjacent bed plate, said offset margins formed with holes, slots in the overlying marginal portions registering with said holes, and forked rivets mounted through said slots and holes and clenched beneath said offsets.

Signed by me at Des Moines, Iowa, this eighth day of May, 1911.

MELCHERT F. HELMER.

Witnesses:

S. C. SWEET,

EARL M. SINCLAIR.

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