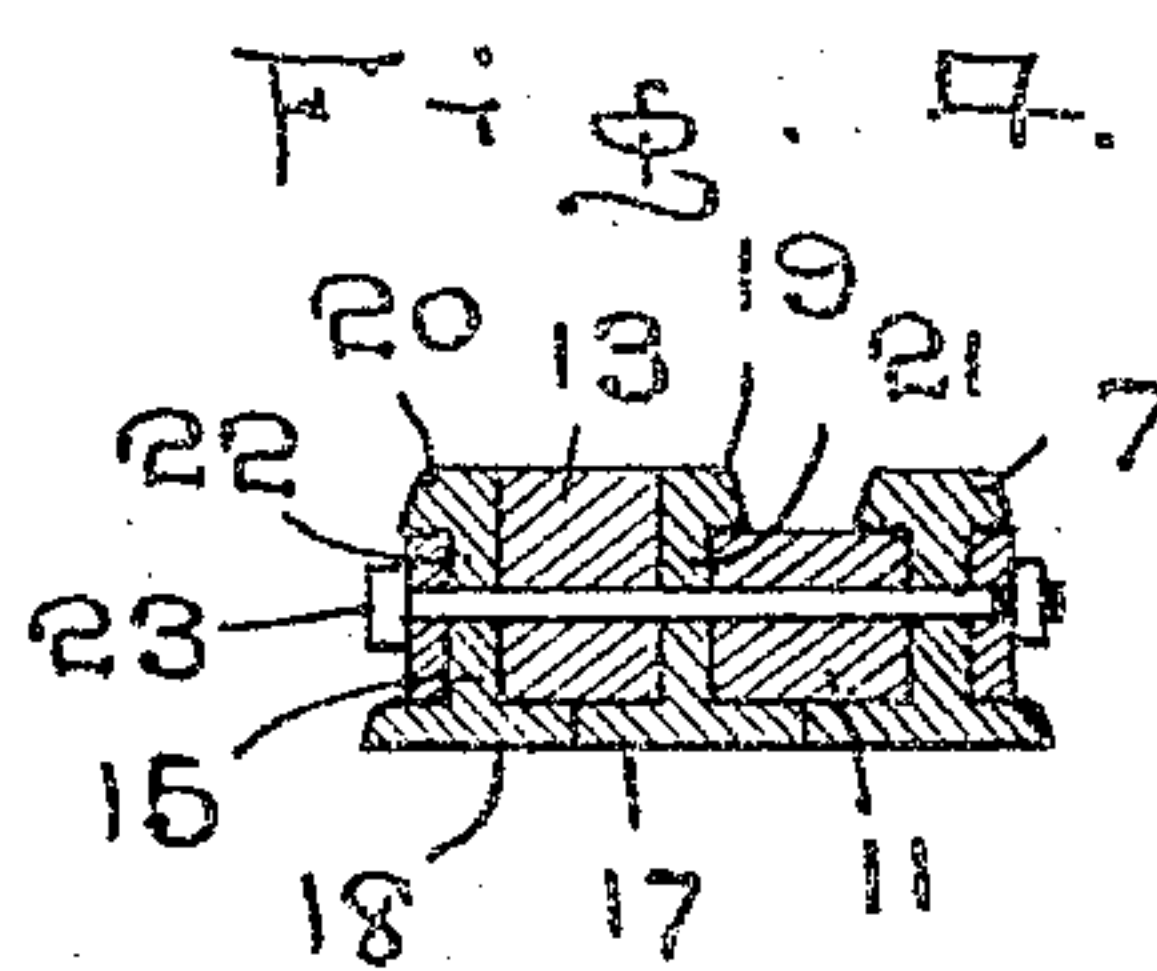
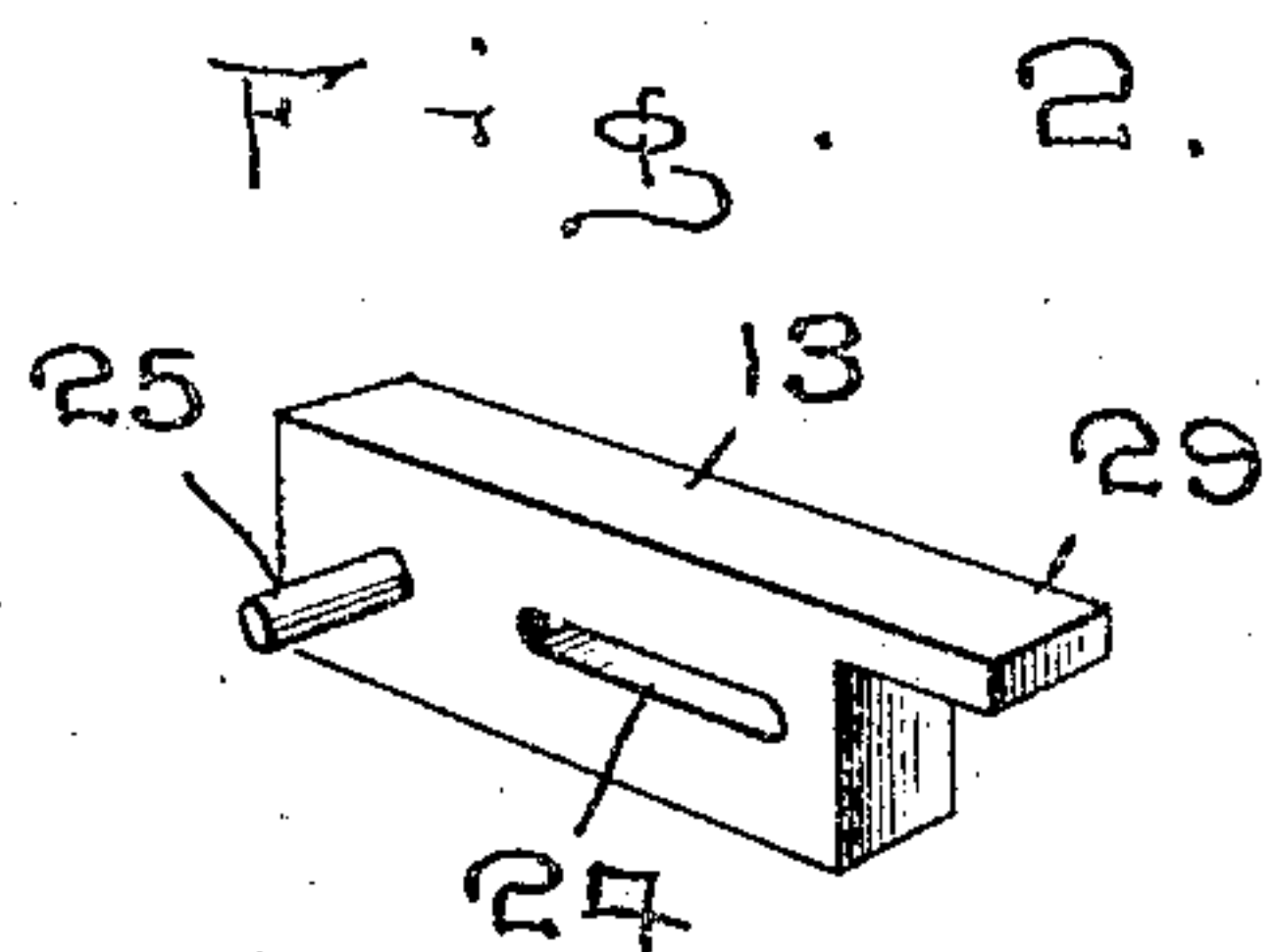
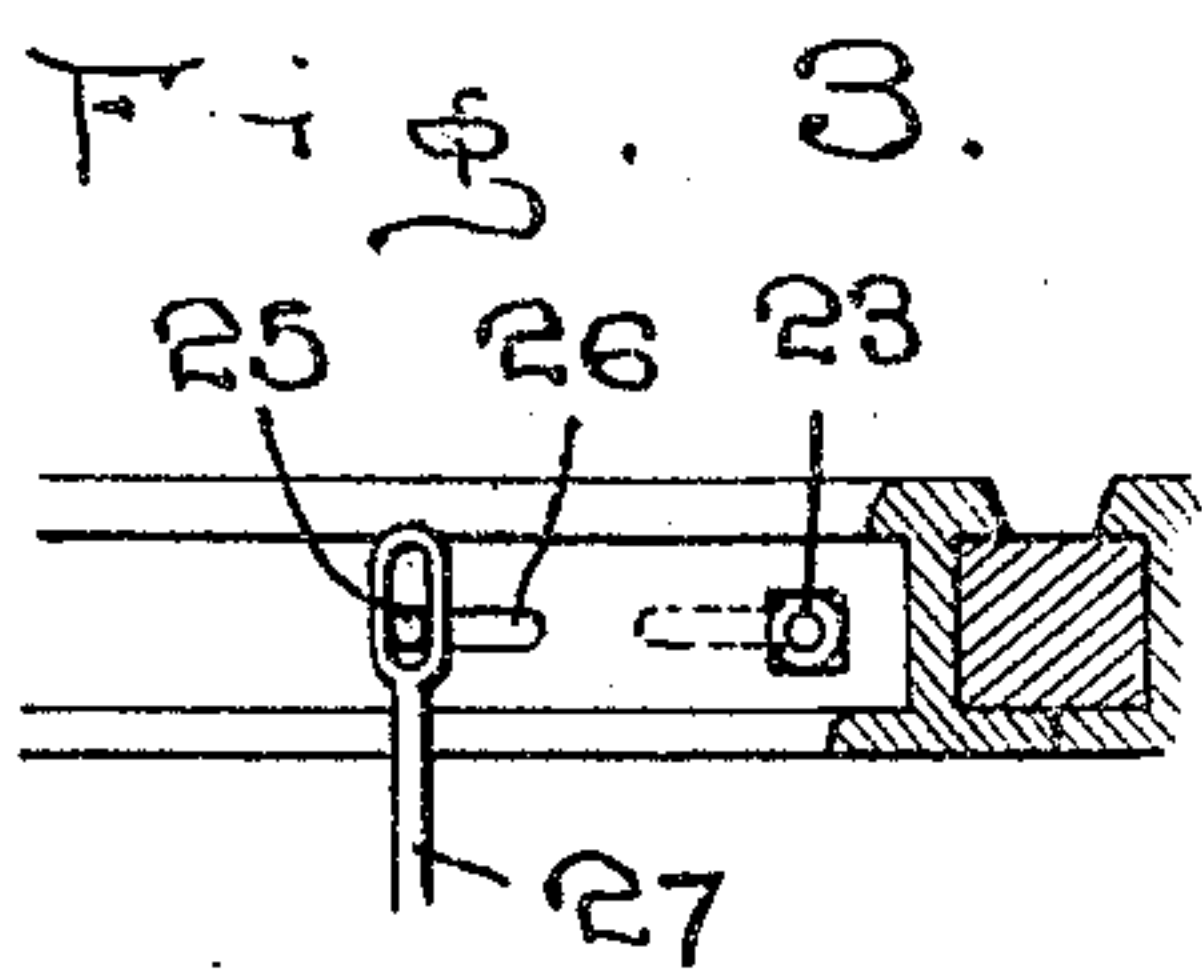
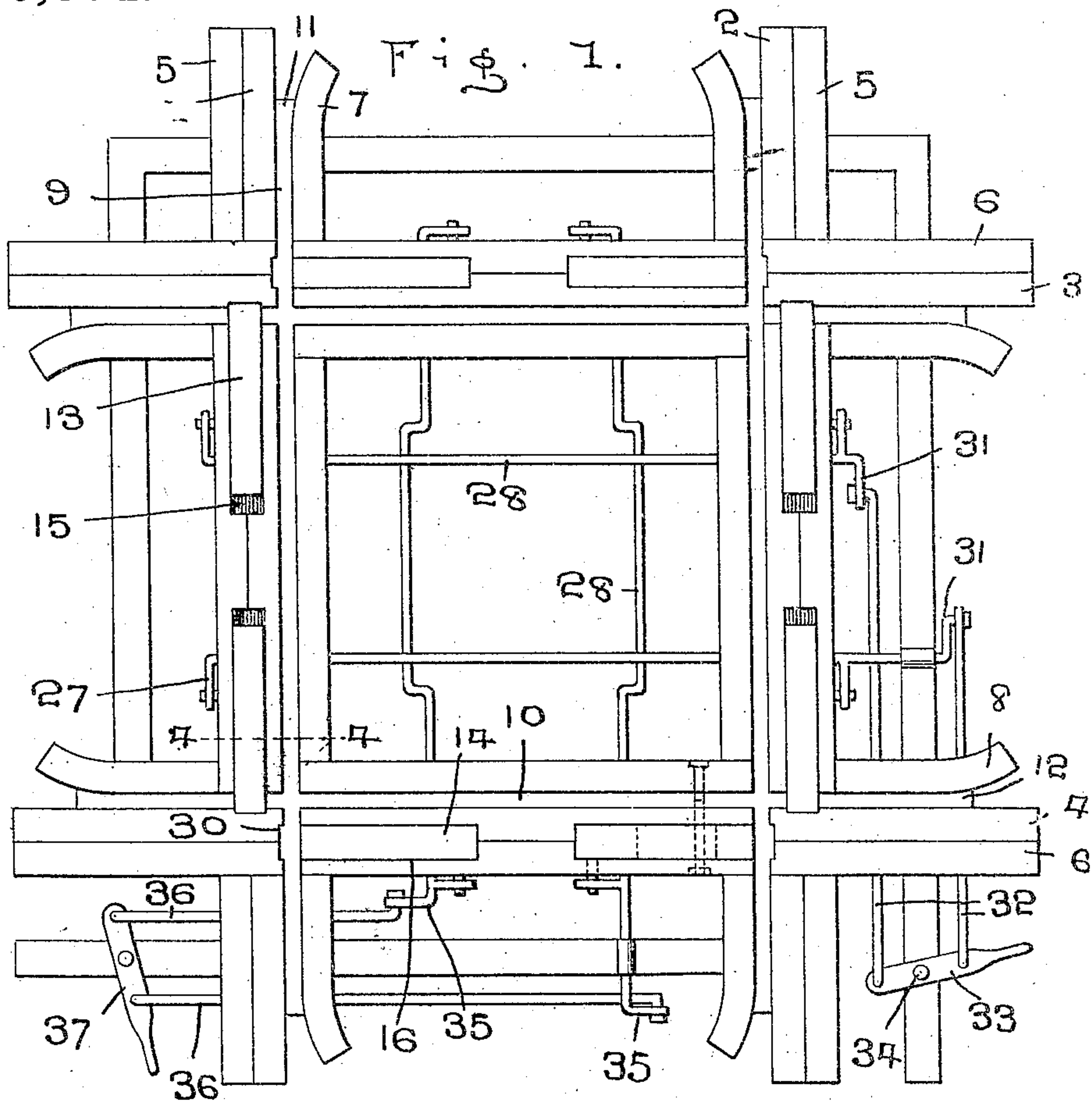


F. WASHAM.  
RAILWAY CROSSING.  
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930,004.

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WITNESSES:

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# UNITED STATES PATENT OFFICE.

FERNANDES WASHAM, OF HUME, ILLINOIS.

## RAILWAY-CROSSING.

No. 930,004.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed May 11, 1909. Serial No. 495,346.

*To all whom it may concern:*

Be it known that I, FERNANDES WASHAM, a citizen of the United States, residing at Hume, in the county of Edgar and State of Illinois, have invented certain new and useful Improvements in Railway-Crossings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in railway crossings and more particularly to that class wherein one road crosses another and my object is to provide auxiliary rails which are adapted to cooperate with the main rail to form a continuous rail.

A further object is to provide means to move the auxiliary rails in position to form continuous rails and return them to their initial positions to permit a train to pass in the opposite direction.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings forming part of this application, Figure 1 is a top plan view of my improved form of crossing showing one set of the auxiliary rails to form continuous rails. Fig. 2 is a detail perspective view of one of the auxiliary rails removed from the crossing. Fig. 3 is a side elevation of a portion of the crossing, and Fig. 4 is a sectional view as seen on line 4-4, Fig. 1.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 and 2 indicate the rails of one track way and 3 and 4 the rails of the other track-way, said rails crossing each other at right angles, each set of rails being provided with brace rails 5 and 6, respectively, which brace rails are arranged on the outside of their respective track rail.

Positioned between the pairs of track rails are guard rails 7 and 8, respectively, which guard rails are placed a distance from their respective track rails to form channels 9 and 10, respectively, for the passage of the flanges of the car wheels, filler blocks 11 and 12 being introduced, respectively, between the guard rails 7 and 8 and their respective track rails. As the channels 9 and 10 necessarily cross each other, the jar or pounding

incident to the car wheels passing over said channels, soon wrecks and destroys the crossing and prevents trains from passing over the crossing at any great speed and to overcome this objectionable feature, I provide auxiliary rails 13 and 14 for the track ways, composed of the rails 1 and 2 and 3 and 4, respectively, there being two of the auxiliary rails for each track rail, said auxiliary rails being seated in recesses 15 and 16 in the two track-ways. The recesses 15 and 16 are formed by removing the meeting edges of the bases of the track rails and their respective brace rails, so that the heads of said rails will meet, the bases 17 and 18 of the track rails and brace rails, respectively, forming a rest for the auxiliary rails, while the inner faces of the heads 19 and 20 of the track and brace rails are cut away even with the flanges 21 and 22 of said rails and in the recesses thus formed the auxiliary rails are seated.

The auxiliary rails are held in their respective recesses by introducing a bolt 23 through the webs of the various rails and through elongated slots 24 in the auxiliary rails, the recesses being of such length as to permit of longitudinal movement of the auxiliary rails, and the auxiliary rails are moved longitudinally in the recesses by attaching pins 25 to the auxiliary rails, which pins extend through slots 26 in the flanges of the brace rails and are engaged by cranks 27 on operating rods 28, whereby when said rods are rotated, the auxiliary rails will be moved back and forth in their respective recesses.

The outer ends of the auxiliary rails are provided at their upper edges with extensions 29, which extensions are adapted to extend across the channels between the main and guard rails and enter notches 30 formed in the main and brace rails and as the tops of the auxiliary rails are in line with the tops of the other rails over which the train passes, a continuous surface for the tread of the wheels will be provided while passing over the crossing and the introduction of the ends of the extensions in the notches will securely brace the auxiliary rails and prevent twisting movement thereof when the trains are passing thereover.

The operating rods 28 are arranged in pairs to operate the auxiliary rails of each track way, the pair of rods employed for operating the auxiliary rail 13, each having



a crank arm 31 thereon, with each of which engages a pitman 32, the opposite ends of the pitmen being in turn attached to a lever 33 and at opposite sides of its pivot point 34, so that when the lever is swung on its pivot, one pair of the auxiliary rails 13 will be moved in one direction and the opposite pair in the opposite direction, or, in other words, one pair of the auxiliary rails 13 will be moved to bridge over the channel adjacent the rail 3 and the opposite pair in position to bridge over the channel adjacent the rail 4, thereby forming a continuous bearing surface for the wheel passing over the track way composed of the rails 1 and 2. The rods 28 employed for operating the auxiliary rails 14 are likewise provided with crank arms 35, which are engaged by pitmen 36, the opposite ends of said pitmen being attached to a lever 37, which operates similar to the lever 33.

In view of the fact that the pounding or jarring incident to the trains passing over the crossing, is entirely eliminated, it will be seen that the crossing can be constructed of lighter material and at the same time require less bracing and a less number of bolts for holding the parts together. It will further be seen that the auxiliary rails can be quickly operated to bridge over the channels and form continuous rails for the passage of the train and that said auxiliary rails can be as quickly and readily returned to their initial positions to permit a train to pass in the opposite direction or on the track at right angles thereto and it will likewise be seen that in view of the simplicity of the device, it can be readily attached to any form of crossing and at a minimum expense and when once installed, is practically indestructible.

It will be clearly understood of course that instead of forming the crossing of rails in the manner shown and described, the parts of said crossing may be cast in the usual or any preferred manner, the channels being formed adjacent the inner edge of the track ways so constructed and the recesses being formed to receive the auxiliary rails.

What I claim is:

1. In a crossing of the class described, the combination with track rails arranged in pairs and each pair at right angles to the other, brace rails therefor and guard rails spaced from the first mentioned rails to form channels said track and brace rails having recesses formed in their meeting faces; of auxiliary rails in said recesses and means to move said auxiliary rails longitudinally to bridge over said channels, where-

by a continuous surface will be formed for the passage of car wheels.

2. The herein described crossing construction comprising the combination with pairs of track rails, brace rails for said track rails and guard rails said track and brace rails having recesses formed in their meeting faces spaced from the track rails to form channels; of auxiliary rails said recesses having extensions at their ends and means to move said auxiliary rails lengthwise to dispose the extensions over said channels and form continuous track rails.

3. In a crossing of the class described, the combination with pairs of track rails arranged at right angles to each other, brace rails at the outer faces of the track rails, portions of the track and brace rails being removed to form recesses and guard rails spaced from the inner faces of the track rails to form channels, of auxiliary rails adapted to enter said recesses, means to hold said auxiliary rails in the recesses, said auxiliary rails having extensions and means to move said auxiliary rails endwise and position the extensions over said channels, whereby continuous rails will be provided.

4. In a crossing of the class described, the combination with pairs of track rails arranged to cross each other, brace rails on the outer faces of said track rails, portions of said brace and track rails being cut away to form recesses and guard rails spaced from the track rails to form channels; of auxiliary rails having extensions thereon adapted to extend over said channels to form continuous rails, pins attached to said auxiliary rails, means engaging said pins adapted to move the auxiliary rails lengthwise and additional means to hold the auxiliary rails in said recesses.

5. In a crossing of the class described, the combination with crossed track ways brace rails therefor, said track ways having channels along their inner edges, said track ways and brace rails having recesses therebetween; of auxiliary rails in said recesses having extensions thereon adapted to extend over said channels and form continuous track ways and means to move said auxiliary rails longitudinally.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FERNANDES WASHAM.

Witnesses:

O. O. WILLIAMS,  
J. O. ROGERS.