

F. HALLEY.  
RAILWAY CROSSING.  
APPLICATION FILED MAY 21, 1908.

898,466.

Patented Sept. 15, 1908.

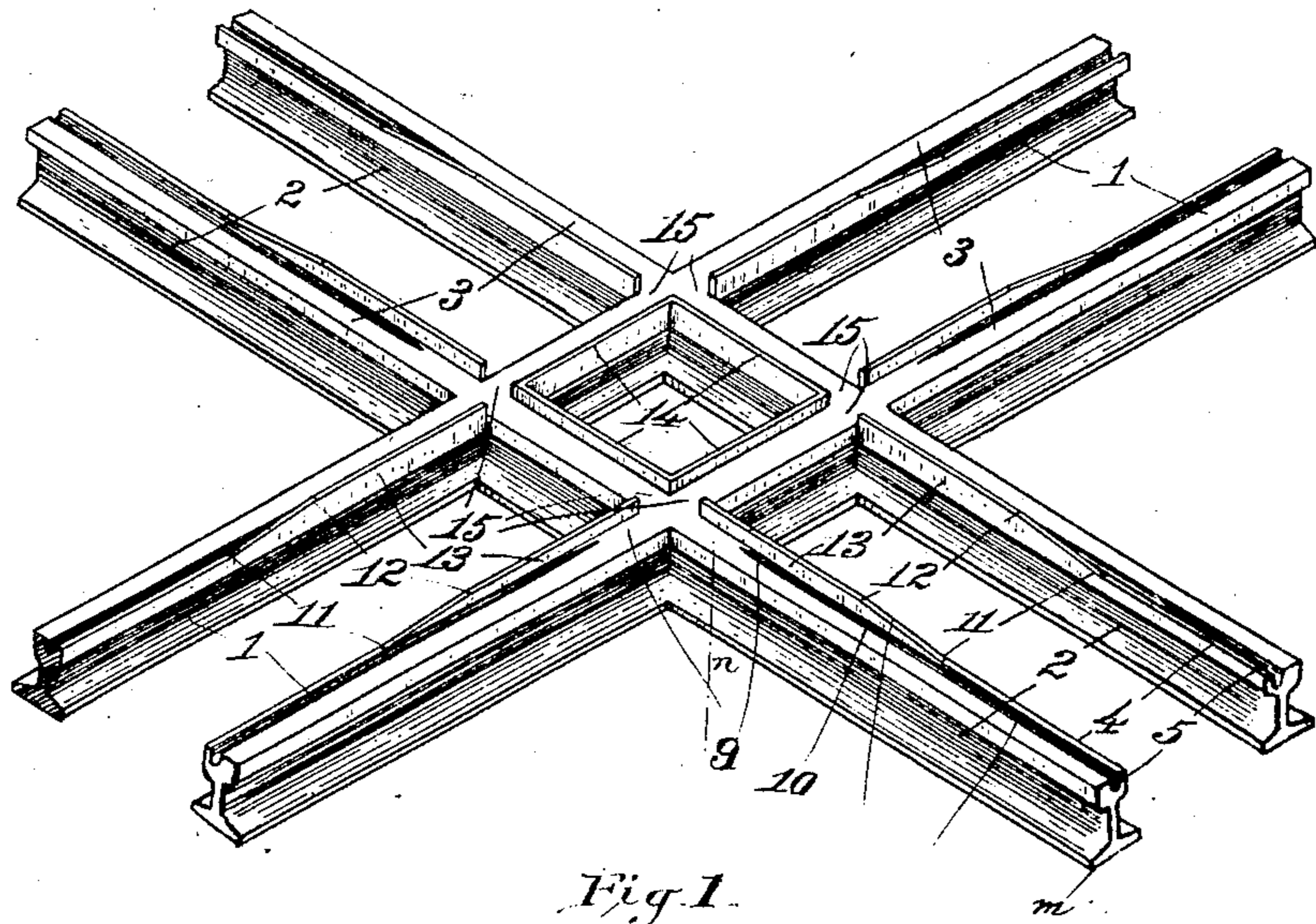


Fig. 1.

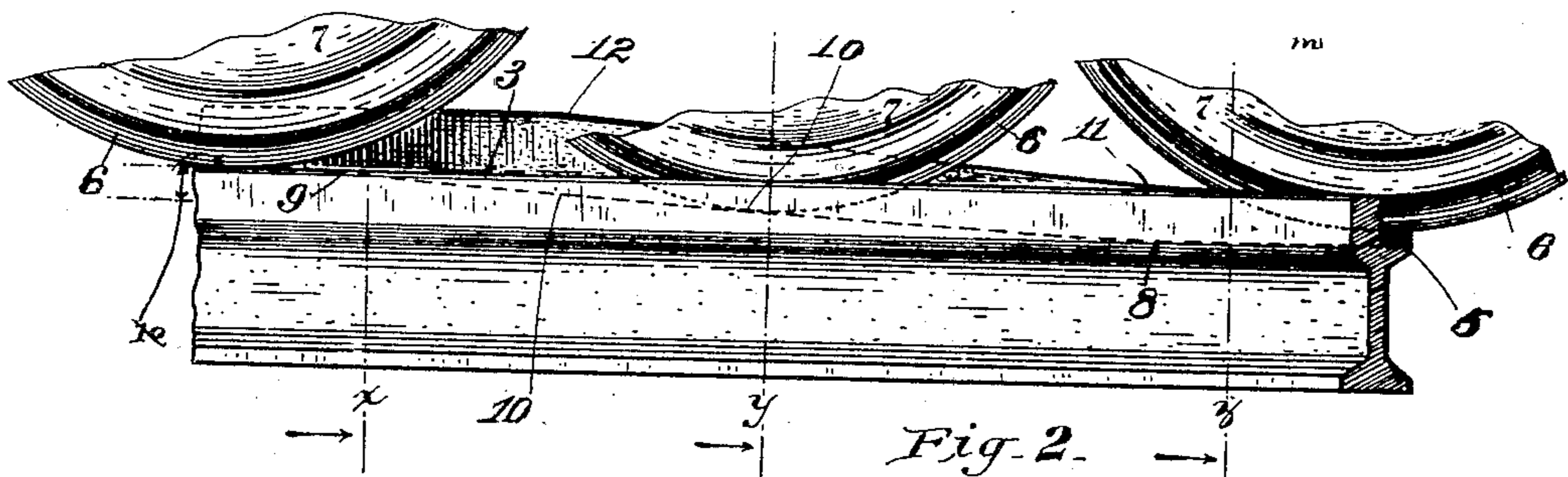


Fig. 2.

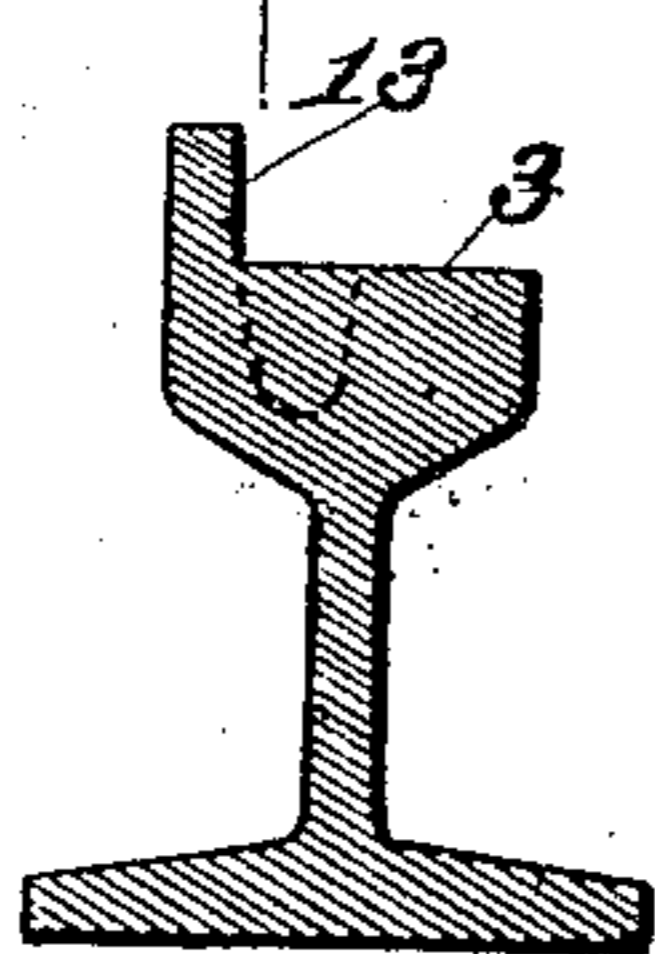


Fig. 3.

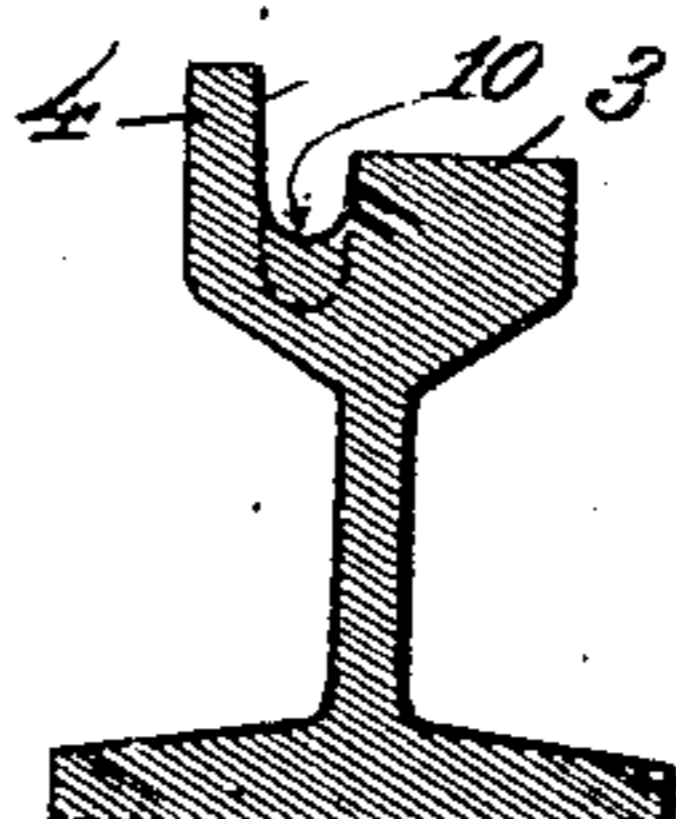


Fig. 4.

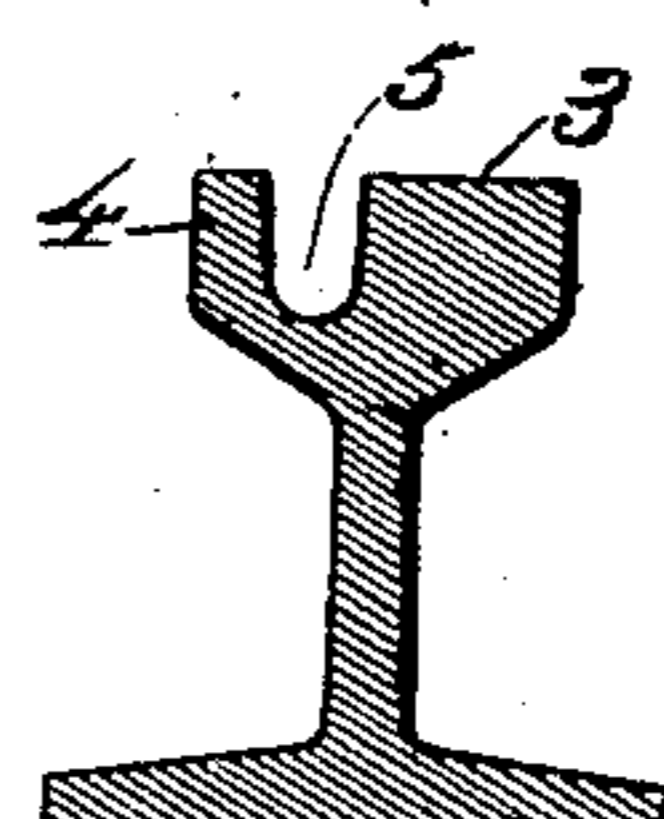


Fig. 5.

Witnesses.

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# UNITED STATES PATENT OFFICE.

FERDINAND HALLEY, OF CHICAGO, ILLINOIS.

## RAILWAY-CROSSING.

No. 898,466.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed May 21, 1908. Serial No. 434,041.

*To all whom it may concern:*

Be it known that I, FERDINAND HALLEY, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Railway-Crossings, of which the following is a specification.

My invention relates to railway crossings and the object of my invention is to provide an improved railway crossing whereby the noise and vibration incident to the usual crossings shall be obviated.

Other objects will appear hereinafter.

My invention will be more readily understood by reference to the accompanying drawings, forming a part of this specification and in which

Figure 1, is a perspective view of a railway crossing embodying my invention in its preferred form, Fig. 2, is a side elevation of one of the approached portions of the device taken between the points *m* and *n* of Fig. 1, and illustrated upon an enlarged scale, Figs. 3, 4 and 5 are cross sections on the lines *x*, *y* and *z* respectively of Fig. 2.

The crossing consists generally in the rails 1, 1 passing in one direction, and the rails 2, 2 passing at an angle to the rails 1, 1. In the drawings I have illustrated but a single track in each direction, but it is to be understood that my invention is applicable to crossings where two or more tracks pass in either or both directions. The crossing is preferably formed of a single piece of metal and the ends of the rail portions are shaped to conform to the cross section of the rail of which the track is formed, said cross section being preferably that shown in Fig. 5.

3 indicates the tread of the rail, for the inner flange and 5 the groove to receive the flange 6 of the wheel 7. The tread 3 of the several rails extends perfectly straight or horizontal from one end to the other of the device, and the several treads are formed in the same horizontal plane. The groove 5

begins to taper upwardly from a point 8 near the outer end of the approach to a point 9 near the point of intersection of the cross rail. As the car approaches the crossing the flanges 6 of the wheels will pass almost imperceptibly up the inclined bottom 10 of the groove until the flanges pass on to the tread 3. It is obvious that the car will pass over the crossing without any of the noise or vibration which is common to crossings in which the tread of the wheel remains in contact with the transversely grooved treads of the rails.

The flange 4 tapers upwardly from a point 11, adjacent to the point 8 to a point 12 where it reaches a height above the tread 3 equal to the greatest depth of the groove 5, forming the flange portion 13 which prevents displacement of the wheels from the rails as the flanges of the wheels pass from the grooves.

14 indicates flanges constituting continuations of the flanges 13, and between the crossing rails, the apertures 15 between the adjacent ends of the flanges 13 and 14 permit the wheels to pass without noise or vibration.

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

A rail crossing comprising the intersecting grooved rails, the treads of said rails being in the same horizontal plane and unbroken throughout their extent, and the grooves and inner flanges tapering gradually upwards from a point adjacent to the ends to a point adjacent to the crossing rail, substantially as described.

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

FERDINAND HALLEY.

Witnesses:

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HELEN F. LILLIS.