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W. DALEY ET AL

RAILWAY CROSSING

Filed Oct. 8, 1921

Fig. 1

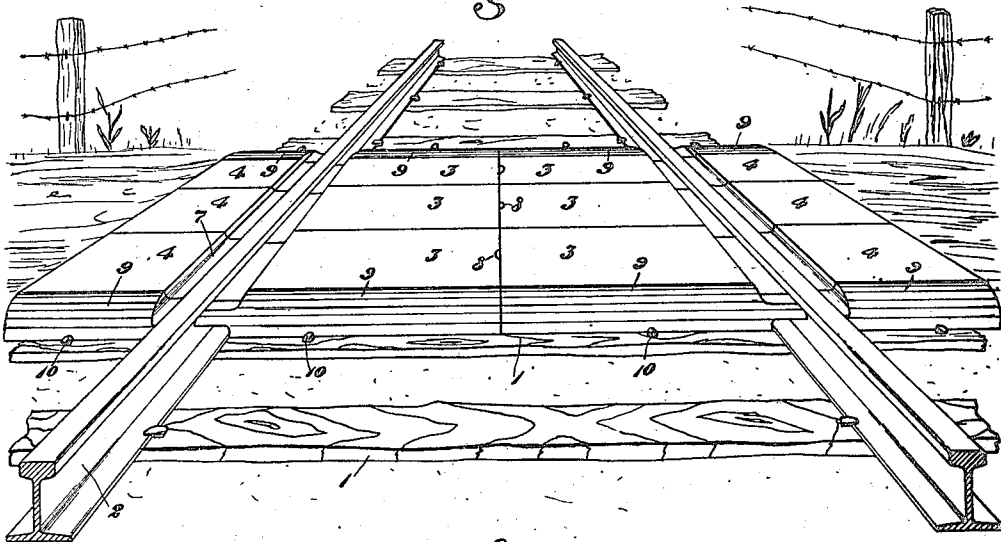


Fig. 2

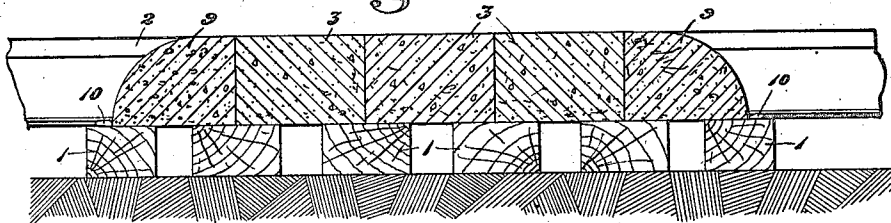


Fig. 3

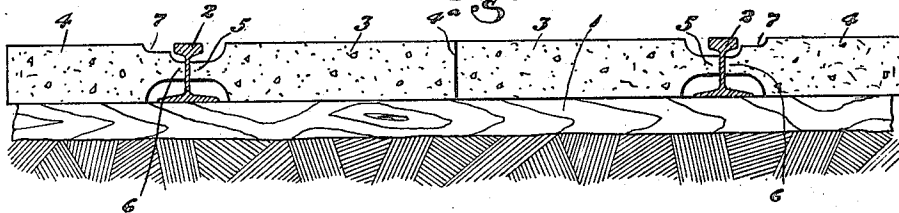
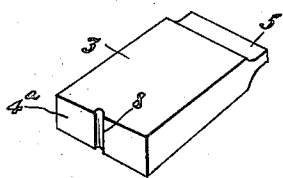


Fig. 4



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UNITED STATES PATENT OFFICE.

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RAILWAY CROSSING.

Application filed October 8, 1921. Serial No. 503,390.

To all whom it may concern:

Be it known that we, WILLIAM DALEY, JOHN DALEY, and JOSEPH DALEY, citizens of the United States, residing at Bolivar, in the county of Tuscarawas and State of Ohio, have invented a new and useful Railway Crossing, of which the following is a specification.

This invention relates to railway crossings and more particularly to a crossing formed of a plurality of cement or similar blocks.

The crossings now in general use through the country, are composed of heavy planks which are mounted upon the ties and fixed thereto by spikes.

Crossings of this character are always considerably damaged when it is necessary to tear up and re-lay the same, as the spikes which connect the planks to the ties cannot be withdrawn without splitting or otherwise damaging the planks, and as it is frequently necessary to tear up crossings in order to keep the track in repair, the cost of maintaining plank crossings is quite high. Considerable time and labor are also required to install and maintain plank crossings.

Solid cement or concrete crossings as well as brick crossings are sometimes used at the intersection of a railroad track and a paved street or road, but besides being expensive to install and maintain, crossings of this character have proven unsatisfactory, as they form a hard spot in the track, frequently causing the rails to break when they are subjected to a heavy load; while the passing of trains, as well as frost, cause the bricks to wear loose or break.

The objects of the present invention are to provide a railway crossing which is more durable than a plank crossing, and which overcomes the objections to a solid concrete or block crossing and which is so constructed that it can be torn up and re-laid easily and cheaply and without danger of injury to the crossing; the crossing being so constructed that it may be laid directly on the ties and will not interfere with the natural wave motion of the rails or be affected by movement in the bed of the track produced by excessive loads or frost.

With these objects in view, the invention consists in the construction and arrangement of parts, hereinafter described and illustrated in the accompanying drawing, it being

understood that various changes in the form and details of construction may be made within the scope of the appended claim.

A preferred embodiment of the invention is illustrated in the accompanying drawings; in which—

Figure 1 is a perspective view of a railway crossing embodying the invention;

Fig. 2, a longitudinal, sectional view through the crossing;

Fig. 3, a transverse, sectional view there-through; and

Fig. 4, a perspective view of one of the blocks.

Similar numerals indicate corresponding parts throughout the drawing.

The usual track ties are indicated in the drawing at 1, and the rails at 2, it being understood that both of these parts are of the usual construction. The crossing is composed of the inner blocks 3 and the outer blocks 4, all of which are formed of cement or the like and are of suitable height to register with the top of the rails.

Each of the inner blocks 3 is of a length substantially equal to one-half the distance between the rails, the abutting ends of said blocks being straight as shown at 4^a, while the outer ends are cut away at the top and bottom, forming the reduced extension 5 arranged to engage the web of the rail and being cut away sufficiently at the top and bottom to prevent the same from contacting with the ball of the rail or base flange as best shown at Fig. 3, thus allowing the rail to settle under a heavy weight without resting upon the block, and permitting the usual angle bars to be used at rail joints, allowing the rail to spring up and down without engaging the block.

Each of the outer blocks 4 is provided with a similar reduced portion 6 cut away below the ball of the rail and above the base flange of the rail and provided with a groove 7 which allows the outer edge of the wheel of an engine or car to extend outwardly beyond the ball of the rail without engaging the block.

Certain of the inner blocks 3 are provided at their inner ends with the vertical grooves 8 to permit the insertion of a hook in order that the block may be hoisted up when it is necessary to make repairs upon the crossing. Curved or tapered blocks, such as the quarter round blocks 9 are preferably provided

along each side of the crossing resting upon the adjacent ties into which spikes 10 are driven to prevent lateral movement of the blocks comprising the crossing.

5 It will thus be seen that a crossing may be easily and quickly built up from blocks such as above described, the crossing thus produced being free from the objections which are common to the usual forms of
10 crossings.

It will also be evident that this crossing may be easily torn down and repaired without danger of damaging the same, while no hard spots are formed in the rails and the
15 natural wave motion of the rails is not affected or interfered with either by movement in the bed produced by a passing train or by frost.

Although the drawings and above specification disclose the best mode in which we have contemplated embodying our invention,
20 we desire not to be limited to the details of such disclosure, for, in the further practical application of our invention, many changes
25 in form and construction may be made, as

circumstances require or experience suggests, without departing from the spirit of the invention, within the scope of the appended claim.

We claim:—

A railway crossing comprising in combination with ties and rails, a plurality of blocks loosely mounted upon the ties upon each side of the rails, the blocks being of a sufficient width to span two adjacent ties,
35 each of the blocks between the rails being of sufficient length to span half of the distance between the rails, each block being provided upon the end adjacent to the rails with a reduced extension of sufficient length
40 to permit contact with the webs only of the rails and vertical grooves upon the contacting edges of the blocks between the rails to permit the insertion of a tool for removing the blocks.

In testimony that we claim the above, we have hereunto subscribed our names.

WILLIAM DALEY.
JOHN DALEY.
JOSEPH DALEY.