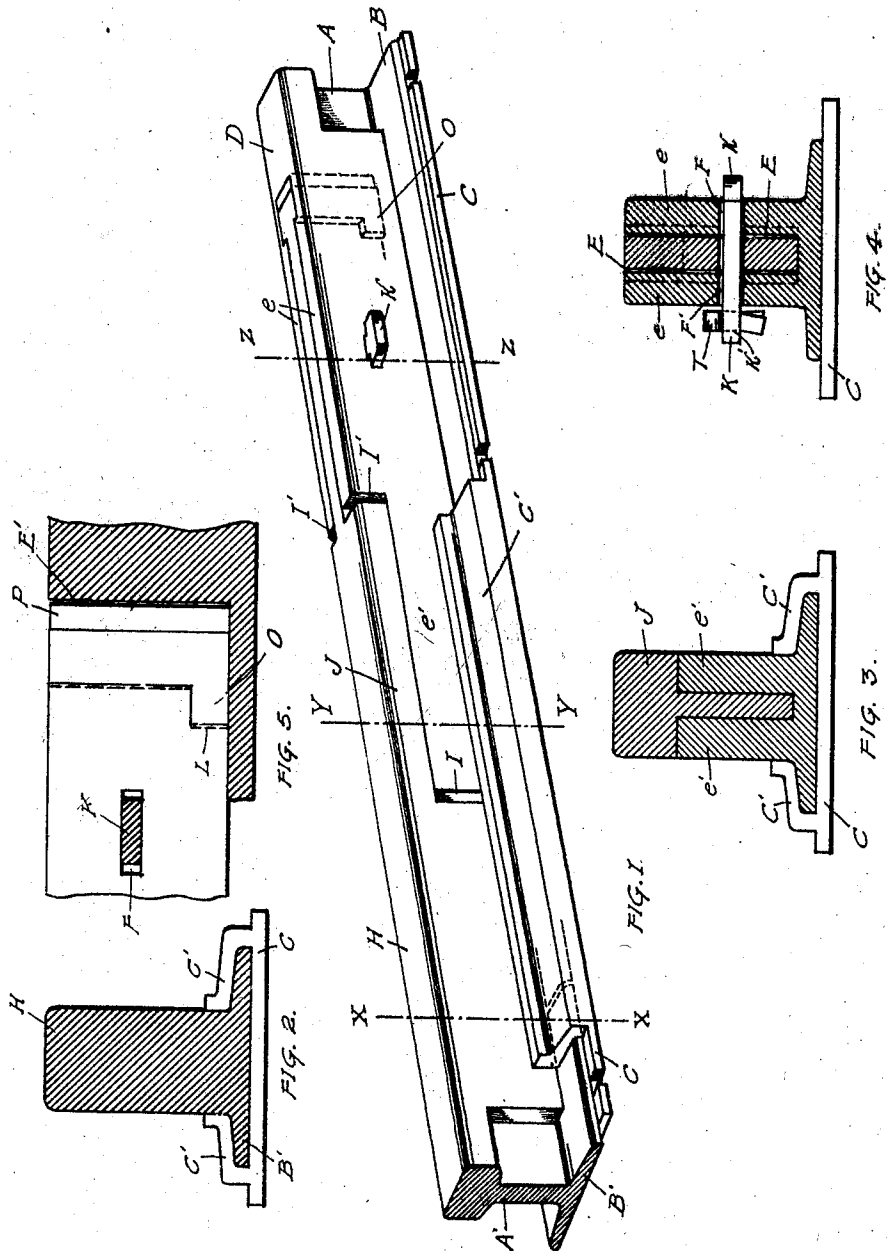


W. WISE.
 TRACK JOINT.
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1,027,682.

Patented May 28, 1912.



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TRACK-JOINT.

1,027,682.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM WISE, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Track-Joints, of which the following is a specification.

The objects sought by me in this invention are to prevent low joints in railway tracks, to obviate the consequent jolt and noise as each car travels over the same and also to provide joints of unusual strength.

I accomplish my objects by the construction shown in the accompanying drawings, in which—

Figure 1 is a perspective of the improved track joint; Fig. 2 is a cross section of the device shown cut on line $x-x$ of Fig. 1; Fig. 3 is a cross section of the same shown cut on line $y-y$ of Fig. 1; Fig. 4 is a cross section of the same, cut on line $z-z$ of Fig. 1, and Fig. 5 is an enlarged detail view showing the interior of a lock receptacle and the lock construction.

Similar letters refer to similar parts in the several views.

As shown in Fig. 1 A A' represent the abutting ends of two rails with which the track joint has connection. B and B' constitute the base of the rails and C is a supporting plate adapted to be spiked to the ties of a railway underneath each rail joint. C' C' are inwardly curved flanges on said plate by which the rail joint is braced. D is the receiving section of the joint the inner end of the center of the tread of which is channeled forming a groove or conduit E the bottom and sides of which are at right angles. Part way along said groove the walls $e e$ thereof remain the height and form a part of the tread of the rail; said walls are then reduced in height forming walls $e' e'$. The inner end of groove E, as shown in Fig. 1, is widened forming a lock receptacle E' each side incut forming a reversed L, as illustrated in Fig. 5 and by dotted lines in Fig. 1. Spaced therefrom in walls $e e$ there are horizontal slots F F set oppositely to each other. H is the interlocking end of the other rail A'; said interlocking end being adapted to fit snugly in said groove or conduit E, as shown in Figs. 1, 3 and 4. The sides of the central part of said interlocking rail joints are rabbeted beneath the tread forming a right angle

recess for walls $e' e'$ which walls serve as stops I I and also as supports for the projected tread J over said recess. The ends of the upper parts of walls $e e$ also serve as stops I' I' for the outer sides or flanges of said tread J.

The base of the rails consists of two sections B and B', the former cast integral with the receiving rail A and its walls and forming the floor of the groove between the walls; the latter section B' is cast integral with interlocking rail A' up to the point where said section B' contacts with said section B forming one part of the track joint, as shown by dotted lines in Fig. 1. The second point of division forming a part of the joint is where the lower walls $e' e'$ form stops I I and are fitted into the rabbeted sides underneath the tread, the remaining part of the joint being that where the flanges or sides of tread J abut against the ends of the top parts of walls $e e$, with end stops I' I'. The lower rabbeted portion of the interlocking rail below tread J and the central narrow projected part of said tread fit snugly in the entire length of said groove. To lock the parts securely together a locking plug K with head k and slot k' at the opposite end is inserted through slots F F and through a corresponding slot F' through the interlocking rail near its end, a split key T engaging with slot k' . O O are bosses on the sides of the interlocking joint adapted to fit into the reversed L shape incut in receptacle E'. In laying said rails the inner end of interlocking rail H is dropped into channel E its end in contact with the part of rail D that forms the closed end of said groove; it is then drawn slightly back until said bosses O O fit snugly in the reversed L incut. The space left thereby allows for expansion and contraction and also for the insertion, loosely, of a thin retaining block P, which assists in holding the joint in locked position.

It will be understood that either or both of the means described for holding the joint in locked position may be used.

From the foregoing description it will be seen that said track joint is constructed in sections being broken partly at three separate points in addition to the locked ends. All the joints are made precisely alike and each rail has a receiving end and an inter-

locking end by which the track rails can be connected at either end. By reason of this feature alone the lowering of joints from the pressure of passing trains is wholly obviated.

What I claim and desire to secure by Letters Patent, is—

1. A track joint comprising the ends of two abutting rails, bases and a flanged plate therefor, the abutting end of one rail end provided with a groove, a lock receptacle at the inner end of said groove, sections of walls of differing height forming stops, the other rail abutting against the stops formed by said lower walls, its tread resting on said walls and engaging with the stop formed by the higher walls, the narrowed part of said rail beneath the tread housed in said groove, a narrowed extension of the interlocking rail fitting into the inner end of said groove, a locking receptacle at the end of said interlocking joint, a widened bossed lock end of said interlocking rail engaging with said receptacle, a block to retain said locking part when drawn back into seats for the bosses and a plug block and key to engage with slots in said higher walls and the interlocking rail joint.

2. A track joint comprising a receiving rail provided with a groove between sections of opposite higher and lower walls the latter provided with corresponding slots, an interlocking rail having rabbeted sides, a base integral with each rail, the ends of the upper walls abutting and constituting a part of the track joint, the inner abutting ends of said lower walls of the receiving rail and the rabbeted sides of the interlocking rail constituting a second part of the track joint, the inner abutting end of the sides of the tread of the interlocking rail and the ends of the tops of said higher walls of the receiving rail constituting an additional division of said track joint, a lock receptacle at the end

of said groove, reversed L shape bosses on the sides of the inner end of the interlocking rail, seats in the sides of said receptacle, a loose block in said receptacle to assist in retaining said interlocking rail in its seated position and allow for expansion and contraction, and a plug and key to engage with said corresponding slots and serve as a lock complementary to said track joint divisions.

3. In a device of the kind described the combination with a receiving rail having a groove with a widened inner end forming a locking receptacle, and duplicate reverse L shaped bosses on the sides of the end of an interlocking rail adapted to engage with said recesses when the interlocking rail is drawn backward thereby locking the rails together, and a loose block inserted in said receptacle to prevent said bosses escaping from the same.

4. A track joint comprising a receiving rail having a central groove its outer wide end forming a locking receptacle with reversed L seats at the sides, an interlocking rail having bosses on the sides of its end to engage with said reverse L seats, sides of a section of the interlocking rail tread supported on said lower walls of the receiving rail the ends of said sides abutting with the ends of the top of said higher walls forming a partial track joint, the stops formed by the end of the receiving rail abutting with rabbeted right angles in the sides of the interlocking rail forming a second part of the track joint, the contacting bases of said receiving and interlocking rails constituting a third division of said track joint.

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

WILLIAM WISE.

Witnesses:

O. C. BURRI,
E. F. KARTZELL.