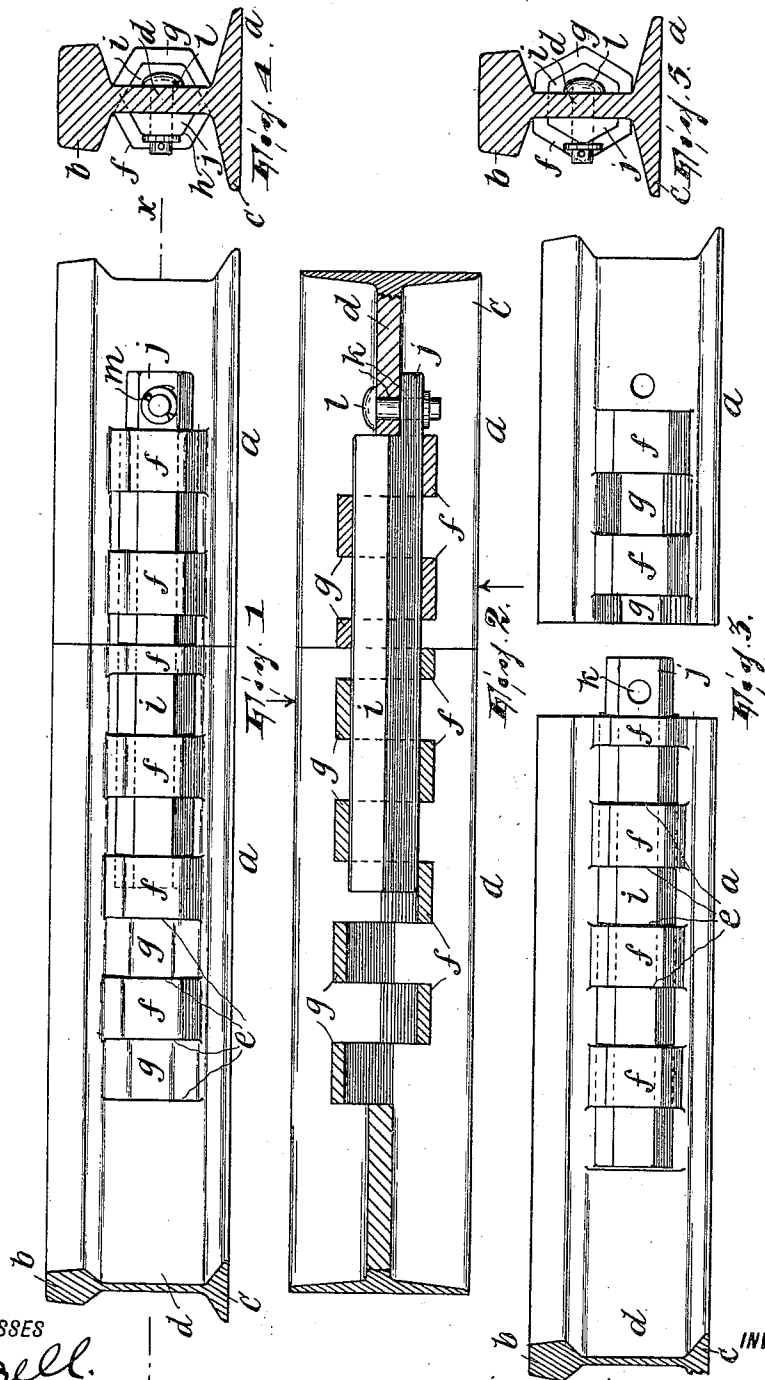


G. J. LEUVELINK.
RAIL JOINT.
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1,055,767.

Patented Mar. 11, 1913.



WITNESSES

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RAIL-JOINT.

1,055,767.

Specification of Letters Patent.

Patented Mar. 11, 1913.

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To all whom it may concern:

Be it known that I, GERRIT J. LEUVELINK, a subject of the Queen of the Netherlands, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention consists in an improved construction of rail joint whereby the meeting ends of the rails, by a simple expedient not adding to the cost of manufacture, are held positively in true alinement with each other notwithstanding influences tending to produce relative up and down or sidewise movements of the meeting ends of the rails; by my invention the further advantage is obtained that any rail, without disturbing the neighboring rails, may at any time be easily and expeditiously removed.

In the accompanying drawing, Figure 1 is a side elevation of the improved rail joint; Fig. 2 is a horizontal sectional view on the line $x-x$, Fig. 1; Fig. 3 is a side elevation of the several parts, the rails being somewhat separated; Fig. 4 is a vertical sectional view; and, Fig. 5 illustrates a modification.

In said drawing a designates the meeting ends of two rails of the type commonly used on steam railroads, each having the head b , base c and vertical web d . At suitable intervals the webs d of the rails a are formed with a longitudinal series of vertical slits e , whereupon the alternating portions f of metal are displaced laterally in one direction and the remaining portions g displaced laterally in the other direction. This leaves, extending longitudinally into each rail from its end, a horizontal housing or bore h , open on each side at intervals. The bores or housings thus formed receive a dowel pin or bolt i whose length is such that it may be slid back into the bore or housing of one rail sufficiently to clear the other rail, whereby to permit the introduction and removal of one rail without disturbing its neighbors. The pin or bolt i preferably snugly fits the bore or housing in each rail, the object of which is to insure against lateral movement of the joined rails. Since each housing is open at intervals (in the illustration on both sides) the ends of

the pin or bolt are exposed for the application of any suitable tool for effecting its longitudinal movement. The cross sectional shape of the bore or housing and of the bolt is preferably that shown in Figs. 2, 4 and 5, that is, hexagonal; it may either be arranged with two of the angles thereof in the vertical central plane of the rail, as shown in Fig. 4, or in a horizontal plane, as shown in Fig. 5.

In order to secure the pin or bolt against working back out of received relation to the rail into which it is entered for the purpose of interlocking the rails I prefer to provide said pin or bolt with an extension j which will overlap the web d of said rail, providing said rail and the extension with coinciding holes k to receive a bolt l provided with a cotter-pin m or other device for preventing its working out of position.

The widths of all the displaced portions f, g are preferably the same, excepting with respect to that at the extreme end of each rail. Each of these is made of less width than, say, one-half of that of the others, the object of which is to bring the series of displaced portions f, g , respectively, of the right and left hand rails in Fig. 2, for instance, that much nearer together and hence better adapt them to oppose relative sidewise pressure exerted in the directions of the arrows shown in Fig. 2.

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

1. The combination of the rail-ends to be joined having parts thereof at intervals lengthwise of the rail-ends displaced laterally of the rail ends relatively to the intervening parts and forming housings in the rails and a bolt fitted into and slidable lengthwise in said housings, substantially as described.

2. The combination of the rail-ends to be joined having parts thereof at intervals lengthwise of the rail-ends displaced laterally of the rail ends relatively to the intervening parts and forming housings in the rails, a bolt fitted into and slidable lengthwise in said housings, and means for holding the bolt against longitudinal movement, substantially as described.

3. The combination of the rail-ends to be

joined having parts thereof at intervals
lengthwise of the rail-ends displaced later-
ally of the rail ends relatively to the inter-
vening parts and forming housings in the
5 rails, a bolt fitted into and slidable length-
wise in said housings and having an exten-
sion overlapping a part of one rail, and a
removable bolt-securing device penetrating

said extension and the part of the rail over-
lapped thereby, substantially as described. 10

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

GERRIT J. LEUVELINK.

Witnesses:

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