

M. MOSES.
RAIL JOINT.
APPLICATION FILED MAR. 13, 1911.

1,009,087.

Patented Nov. 21, 1911.

Fig. 1.

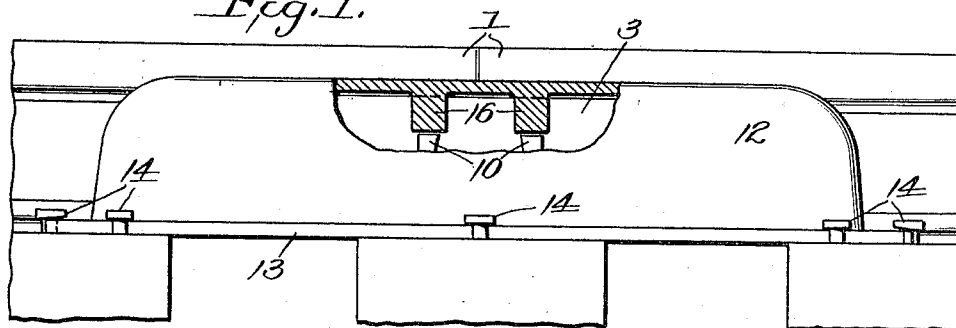


Fig. 2.

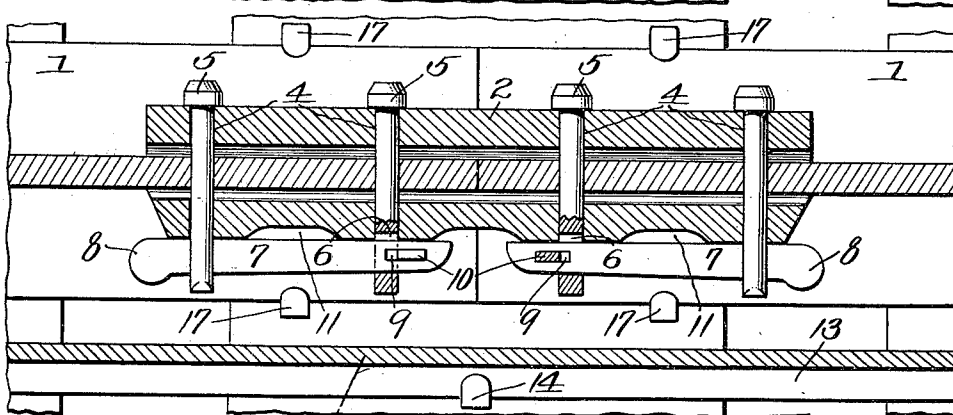
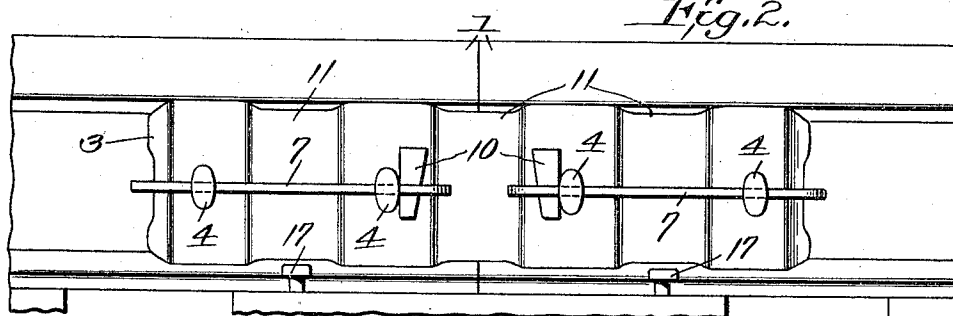


Fig. 3.

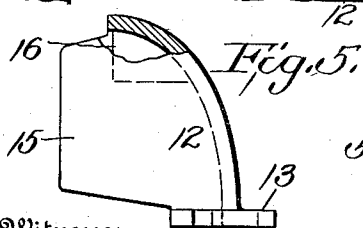


Fig. 5.

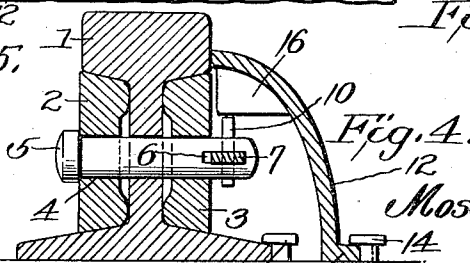


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

MOSE MOSES, OF JACKSON, MISSISSIPPI, ASSIGNOR OF THREE-EIGHTHS TO JACOB C. KLEIN AND FIVE-EIGHTHS TO CHARLES H. SPENGLER, OF JACKSON, MISSISSIPPI.

RAIL-JOINT.

1,009,087.

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To all whom it may concern:

Be it known that I, MOSE MOSES, citizen of the United States, residing at Jackson, in the county of Hinds and State of Mississippi, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

The present invention relates to certain new and useful improvements in rail joints, and has for its object to provide a device of this character embodying novel features of construction whereby the abutting rail ends are held securely against both vertical and lateral displacement.

A further object of the invention is the provision of a rail joint which is comparatively simple and inexpensive in its construction, which can be readily placed in position by unskilled labor, and which will not work loose under the constant vibration of the rails as the rolling stock passes thereover.

With these and other objects in view, the invention consists in certain novel combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a side elevation of a rail joint constructed in accordance with the invention, a portion of the guard housing being broken away. Fig. 2 is an enlarged side elevation of the rail joint with the guard housing removed. Fig. 3 is a horizontal sectional view through the rail joint. Fig. 4 is a transverse sectional view through the joint, and Fig. 5 is an end view of the guard housing, a portion thereof being broken away.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Specifically describing the present embodiment of the invention, the numerals 1 designate the abutting ends of a pair of rails which it is desired to connect, the said rails being of the usual cross section. A splice bar 2 is fitted in the fishing space of the rails upon the inner side of the joint, while a second splice bar 3 is fitted in the

fishing space of the rails on the outer side of the joint, the said splice bars bearing against the lower faces of the heads of the rails and also against the inclined upper faces of the basal flanges of the rails so as to hold the rails against vertical displacement relative to each other. Joint bolts 4 are fitted through corresponding openings in the splice bars and the webs of the rails, two of the said bolts being employed in the present instance for each of the rails. These bolts are formed with heads 5 which engage the inner splice bar 2, and the said bolts are flattened in a vertical direction and provided toward their outer ends with the transversely and horizontally disposed slots 6.

A locking key 7 extends through the slots 6 of the joint bolts for each of the rails, the outer ends of the locking keys being formed with the heads 8, while the inner ends thereof are provided with the slots 9 which receive the vertical keys 10. These vertical keys are inserted through the slots 9 from the top thereof and are wedged in position between the outer ends of the slots and the joint bolts 4 so as to hold the locking keys securely in position. Attention is also directed to the fact that the outer splice bar 3 is provided between the various bolt receiving openings with the vertical depressions 11 which extend from the top to the bottom of the splice bar. These vertical depressions 11 are spanned by the locking keys 7 and provide seats surrounding the bolt receiving openings against which the locking keys can be tightly drawn.

A guard housing 12 is applied to the outer side of the joint so as to completely incase the outer splice bar 3, the locking keys 7 and the vertical keys 10, the upper edge of the said guard housing bearing against one side of the rail heads, while the lower edge thereof is spaced from the basal flanges of the rails and formed with an outwardly extending flange 13 by means of which it can be secured to the ties in some suitable manner as by means of the spikes 14. The ends of the guard housing 12 are extended inwardly at 15 so as to fit accurately within the fishing space of the rails and cooperate with the joint bars in holding the rails against vertical displacement. It will also be observed that a pair of lugs 16 project inwardly from the top of the guard housing and fit over the

upper ends of the vertical keys 10 so as to hold the said keys in position and render it impossible for the same to work loose. The rails themselves may be secured to the ties by means of the usual spikes 17 on each side thereof, sufficient space being provided between the basal flanges of the rails and the bottom of the guard housing to receive the said spikes. It will thus be obvious that a rail joint is provided which obviates the use of screw threaded members, which can not possibly work loose under the vibration of the rails, and which is completely housed so as to be prevented from injury by contact with exterior objects and also protected against tampering by unauthorized parties.

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

1. In a rail joint, the combination of the abutting ends of a pair of rails, a splice bar fitted in the finishing space upon one side of the rails, a second splice bar fitted in the fishing space upon the opposite side of the rails, bolts extending through the splice bars and the webs of the rails and provided with slots, locking keys extending through the slots, vertical keys engaging the ends of the locking keys to hold the said locking keys in position, and a guard housing applied to one side of the rails and constructed to engage the vertical keys to hold them against displacement.

2. In a rail joint, the combination of the abutting ends of a pair of rails, a splice bar fitted in the fishing space upon one side of

the rails, a second splice bar fitted in the fishing space on the opposite side of the rails, bolts extending through the splice bars and the webs of the rails and formed with slotted ends, longitudinally disposed locking keys engaging the slotted ends of the bolts, vertical keys engaging the locking keys, and a guard housing applied to one side of the rails, the said guard housing being formed with inwardly projecting lugs, which fit over the vertical keys to hold the said vertical keys against displacement.

3. In a rail joint, the combination of the abutting ends of a pair of rails, a splice bar fitted in the fishing space on one side of the rails, a second splice bar fitted in the fishing space on the opposite side of the rails, bolts extending through the splice bars and the webs of the rails, longitudinally disposed locking keys engaging the ends of the bolts, vertical keys engaging the locking keys, and a guard housing applied to one side of the rails, the ends of the guard housing being extended inwardly so as to fit accurately within the fishing space of the rails and the said guard housing being formed with inwardly projecting lugs which fit over the vertical keys to hold the said vertical keys against displacement.

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

MOSE MOSES.

Witnesses:

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JACOB E. KLEIN.