H. W. BEST.

RAIL JOINT.

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1,067,162.

Patented July 8, 1913.

Fig. 1.

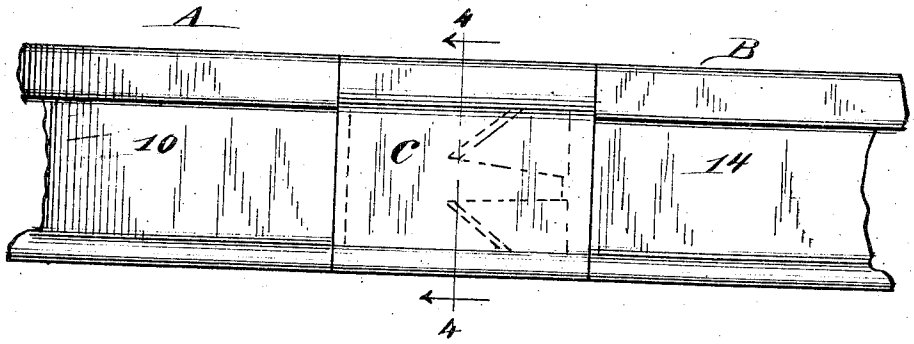


Fig. 2.

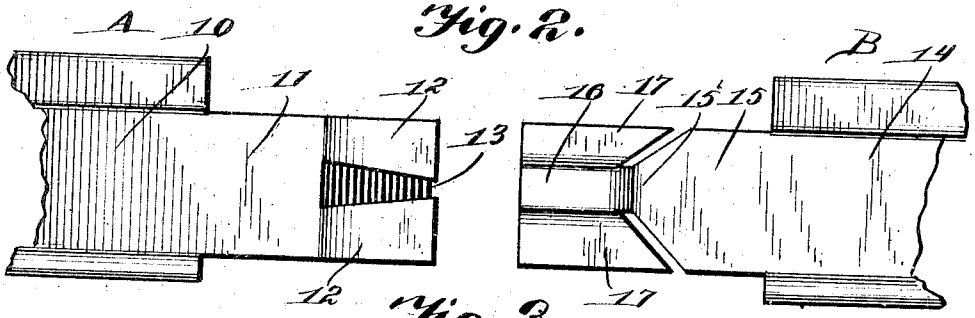


Fig. 3.

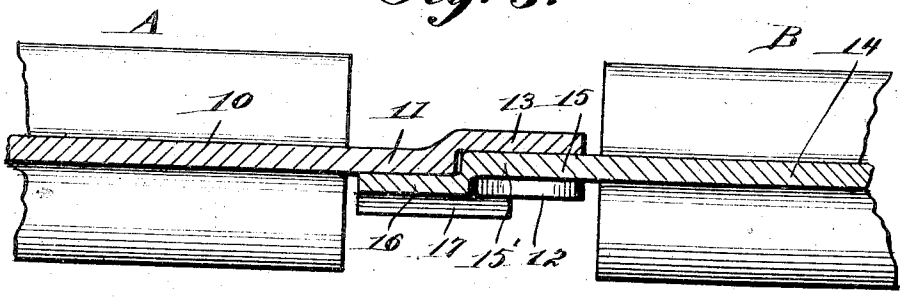
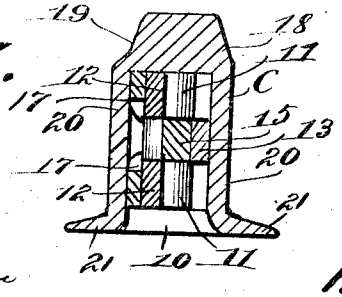


Fig. 4.



WITNESSES

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RAIL-JOINT.

1,067,162. Specification of Letters Patent. Patented July 8, 1913.

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To all whom it may concern:

Be it known that I, HENRY W. BEST, a citizen of the United States, residing at Quitman, in the county of Brooks and State of Georgia, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail joints and is designed to provide a means whereby the abutting ends of rails may be secured together in such a manner that the expansion and contraction thereof by the heat and cold may readily be taken up, and at the same time provide a substantially smooth surface for the tread of the wheels to operate upon.

Heretofore in the construction of rail joints it has been customary to cut the abutting terminals of the rails in such a manner that as the wheels pass thereover, a constant "clicking" is audible.

It is the object of the present invention to overcome this objectionable feature, and at the same time to provide a simple, durable and inexpensive joint, which may readily be attached or detached, as desired.

With the above and other objects in view, this invention consists in the construction, combination and arrangement of parts all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of the abutting terminals of two rails, illustrating the same as connected by a rail joint forming the subject matter of the present invention, and also illustrating the means whereby said joint is completely covered; Fig. 2 is a similar view illustrating the coöperative elements of the rail joint or lock, the same being shown disconnected; Fig. 3 is a horizontal section taken through the web of the two abutting rails, illustrating the joint cooperating in locked engagement; and Fig. 4 is a central, vertical section taken along line 4—4 of Fig. 1.

The rail joint forming the subject matter of the present invention comprises extensions formed from the web of the abutting terminals of two rails, said extensions being provided with arms or tongues formed thereon which are adapted to interlock. When the arms or tongues are in interlocking engagement, a space is provided in the base of the rails and also in the tread thereof. To eliminate this space and provide a smooth tread and base, an angle bar is mounted over said joint in such a manner that a smooth surface of the tread is provided, said angle bar being provided with outwardly extending flanges at its base which provide for the continuation of the bases of the rails and present a smooth surface.

Reference being had more particularly to the drawings, A and B indicate the abutting terminals of a pair of rails of a standard construction. The rail A has its web 10 provided with an extension 11, said extension having its outer terminal cut in divergent directions, forming the tongues 12 and the central bar 13. The central bar 13 is offset to one side of the web of the extension 11, while the tongues 12 are offset to the opposite side of said extension, as is clearly illustrated in Fig. 3. The opposite rail likewise has its web 14 provided with an extension 15.

The web of the rail B is cut in convergent directions, as illustrated in Fig. 2, forming a projection 16, said projection having on each side thereof the tongues or arms 17. The projection 16 is offset from the web in the direction of the tongue 12 of the extension 11, and the tongues 17 carried by said projection are bent in a similar direction, as clearly illustrated in Fig. 3.

In connecting the two extensions 11 and 15, the portion 15′ of the extension 15 is inserted between the tongues 12 of the extension 11 (as illustrated in Fig. 3), thus causing the projection 16 of said extension to bear against the body of the extension 11 of the web 10 and the tongues 17 carried by said projection to interlock with the tongues 12 of the extension 11, thereby causing an absolute locking engagement between the webs of the rails A and B. This engagement naturally causes a break in the tread of the rails and also in the base. In order to eliminate this break an angle bar indicated generally as C, illustrated in detail in Figs. 1 and 4, is superposed above the joint and completely surrounds the same. This angle bar constitutes a tread bar 18 which is adapted to bear upon the joint heretofore described, and constitute an extension of the treads of the rails A and B, said tread bar 18 being provided with a depression 19 for the reception of the flange

of the wheel. Said bar 18 is likewise provided with the dependent arms 20 which are located upon each side of the joint heretofore described and which completely cover the same, forming a housing whereby the elements of said joint are not subjected to the weather. The lower terminals of the dependent arms 20 of the angle bars C are provided with outwardly extending flanges 21 which form a continuation of the bases of the rails A and B, and provide a means whereby the angle bar may be spiked, if so desired, to the adjacent tie.

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

1. A rail joint comprising the combination with a rail having a longitudinally extended web portion, said web portion being slit longitudinally and the intermediate portion formed by said slits offset; of a meeting rail having a longitudinally extended web portion formed with end opening slots through which portions of said first mentioned web are adapted to project, said slots forming locking tongues for engagement with the last mentioned portions, whereby the rails are locked together.

2. A rail joint comprising a rail having its web portion extended longitudinally, said extended portion being slit longitudinally for a portion of its length into three sections, the intermediate section being offset and having inwardly diverging side edges, and a meeting rail having a longitudinally extended web portion, said last mentioned web portion being formed with outwardly converging end opening slots through which the outer portions formed by said first mentioned slits are adapted to project, said slots forming locking tongues for engagement with said last mentioned portions.

3. A rail joint comprising a pair of rails having their web portions adjacent their meeting ends extended longitudinally, one of said web portions being slit longitudinally for a portion of its length to form a central outwardly converging portion and inwardly converging side portions, the central portion and side portions being offset in opposite directions; the other extended web portion being formed intermediate its ends with inclined slots converging toward the free end of the web, said slots extending transversely through said web and opening upon the longitudinal edges thereof, the portion of said last mentioned web disposed between the slots and the free end of said web forming locking tongues and being offset, the portion of the web between said tongues being similarly offset, said locking tongues being adapted to engage the outer portions of said first mentioned web formed by said slits, the portion of the second mentioned web which is disposed between the slots and the rail end being adapted to fit between the offset portions of said first mentioned rail web.

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

HENRY W. BEST.

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