

S. BELANGER.
RAIL SPLICE.
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1,006,899.

Patented Oct. 24, 1911.

Fig. 1.

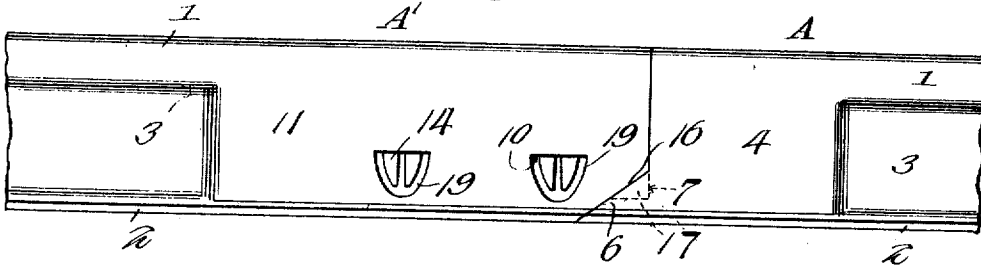


Fig. 2.

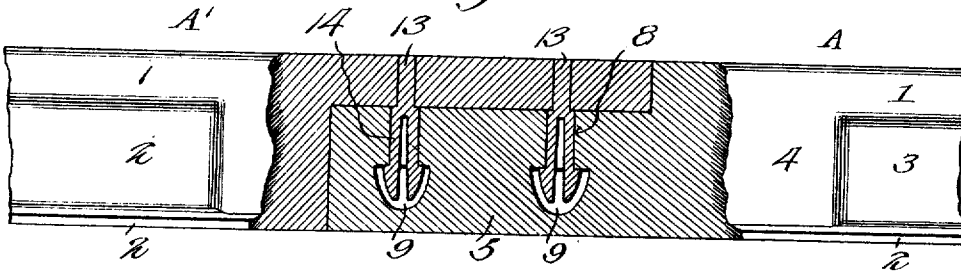


Fig. 3.

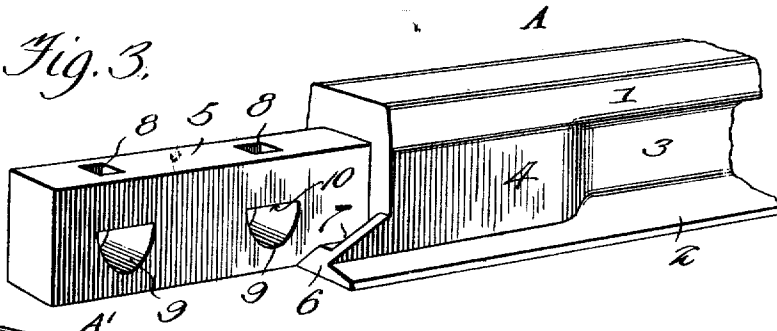
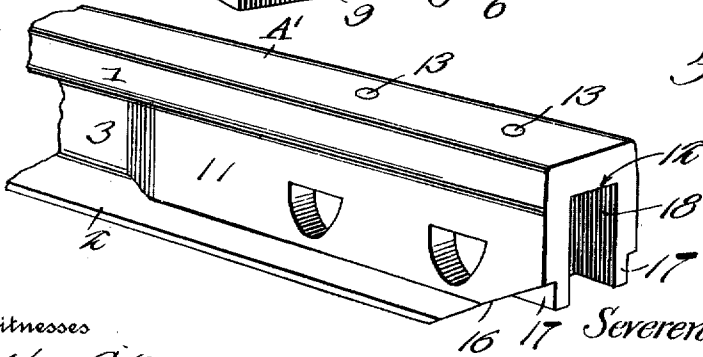


Fig. 4.



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UNITED STATES PATENT OFFICE.

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RAIL-SPLICE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SEVEREN BELANGER, a citizen of the United States, residing at Provemont, in the county of Leelanau and State of Michigan, have invented new and useful Improvements in Rail-Splices, of which the following is a specification.

This invention relates to improvements in railway joints, and the primary object of the invention is the provision of simple and effective means for securing the contiguous meeting ends of a pair of rails without the employment of bolts or analogous devices.

With the above, and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a pair of railway rails constructed in accordance with the present invention and showing the same in their connected position. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a detail perspective view of one of the ends of the rail. Fig. 4 is a similar view of the opposite or coacting end of the rail.

In the accompanying drawings A and A' designate the meeting ends of a pair of railway rails. Both of the rails have their body portions constructed in the ordinary manner and comprise a head 1, base flange 2 and a connecting web 3. The rail A has an enlargement 4 formed adjacent one end, the sides of the said enlargement being substantially flush with the sides of the head 1. The rail A is further provided with a centrally arranged longitudinally extending web or tongue 5, the same being of a greater thickness than the web 3 of the said rail. The tongue 5 is, however, of a lesser width than the enlargement 4 and projects from the base a suitable distance below the head 1. The vertically straight walls between the sides of the tongue and the sides of the enlargement have their lower extremities beveled or inclined outwardly as designated by the numeral 6, the said inclined walls being formed integrally with the enlargement 4 and the tongue 5, and the said inclined walls adjacent the sides of the tongue 5 are recessed to provide pockets 7. The tongue 5 is centrally provided with a plurality of vertical openings 8 which communicate with transversely arranged enlarged openings 9. The openings 8 are preferably of a squared

or rectangular form and the upper wall 10 provided by the opening 9 is horizontally straight, the purpose of which will presently be set forth.

The rail member A' has its end formed with an enlargement 11, the same being of a width equaling the enlargement 4 of the rail section A, and with which it is adapted to cooperate. This enlargement 11 is centrally provided with a longitudinally extending recess 12, the latter terminating a suitable distance away from the top of the rail section, and the said recess is of a size equaling that of the tongue 5 of the rail member A. The upper wall of the recess is provided with a plurality of centrally arranged downwardly extending bifurcated key members 13. These key members are either formed integrally with the said rail section or may be detachably connected therewith, and the said keys are constructed of some yieldable material having a substantially rectangular body portion formed with offset head members 14 which are arranged adjacent the lower edges thereof. The outer faces provided by the heads 14 are curved or rounded so as to allow the said heads to freely enter within the openings 8 of the tongue 5 when the rail sections are to be assembled. By this arrangement it will be apparent that when the section A' is to be positioned upon the tongue of the section A the rounded faces of the heads of the keys will be readily compressed by the walls of the openings 8 and as the section A' is forced downwardly until the shoulders of the keys are free of the openings 8 the said bifurcated keys will open or spread apart so that their offset heads engage the horizontally straight walls 10 provided by the enlarged opening 9. The ends of the side walls adjacent the opening 12 of the rail section A' are beveled as at 16 and are further provided with tongues 17. These beveled ends 16 are adapted to cooperate with the inclined or beveled portion 6 of the rail section A and the tongues 17 which are arranged adjacent the inner side walls 18 formed by the recess 12 are adapted to be received within the pockets 7 of the rail section A.

In order to remove or separate the rail sections without injury to the same, I have provided the side wall of the enlargement 11 with a plurality of enlarged openings 19, the same registering with the openings 9. By this arrangement, it will be noted that

the bifurcated key members may be forced together so as to allow the said keys to be freely drawn through the openings 8.

Having thus fully described the invention, what I claim as new is:—

5 1. The combination with the meeting ends of a pair of rails, one of said rails being formed with an extending tongue provided with vertical holes and transverse enlarged openings intersecting the holes, the second 10 rail section being formed with a longitudinally extending recess adjacent its end, bifurcated spring key members having enlarged heads positioned within the recess and projecting downwardly therefrom, all 15 substantially as and for the purpose set forth.

2. The combination with the meeting ends of a pair of rails, each of said rails being enlarged adjacent its end, one of said rail sections being formed with a longitudinally 20 extending tongue, the space between the tongue and the enlarged portion of the rail being formed with an inclined portion ad-

jacent the sides of the enlargement and 25 the sides of the tongue, said inclined portions being formed with pockets, the tongue being centrally provided with vertical holes, the tongue being further provided with enlarged transverse openings in- 30 tersecting the holes, the enlarged portion of the second rail being formed with a longitudinally extending recess, key members depending from the upper wall formed by said recess, said key members being bifur- 35 cated and provided with enlarged heads, the end walls of the sides formed by the recess being inclined and being further provided with tongues, and the said sides being further provided with openings adjacent the 40 heads of the keys, substantially as and for the purpose set forth.

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

SEVEREN BELANGER.

Witnesses:

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C. H. McLEAN.

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