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PATENTED FEB. 12, 1907.

J. C. WALLACE.  
RAILWAY RAIL JOINT.  
APPLICATION FILED JAN. 26, 1906.

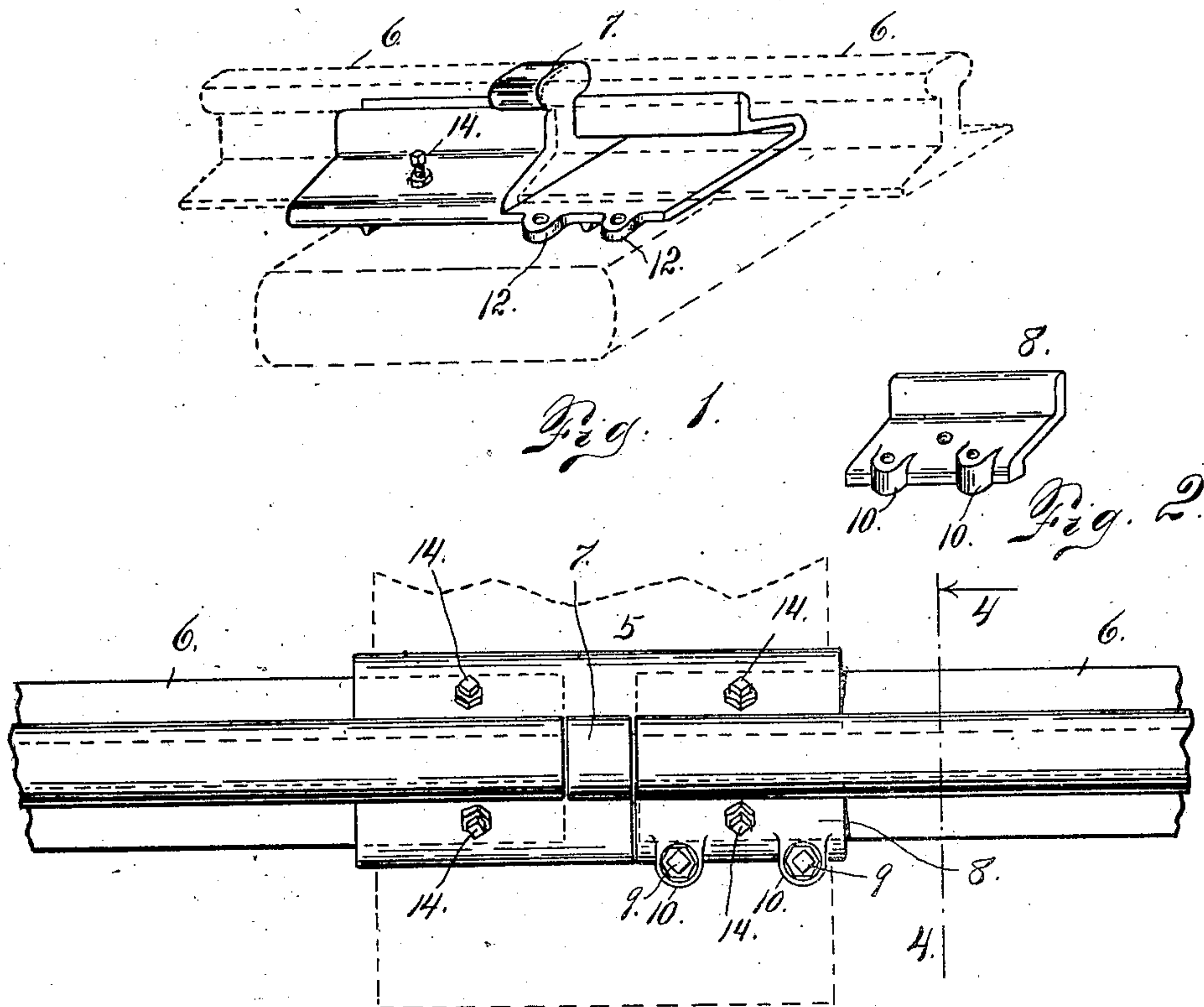
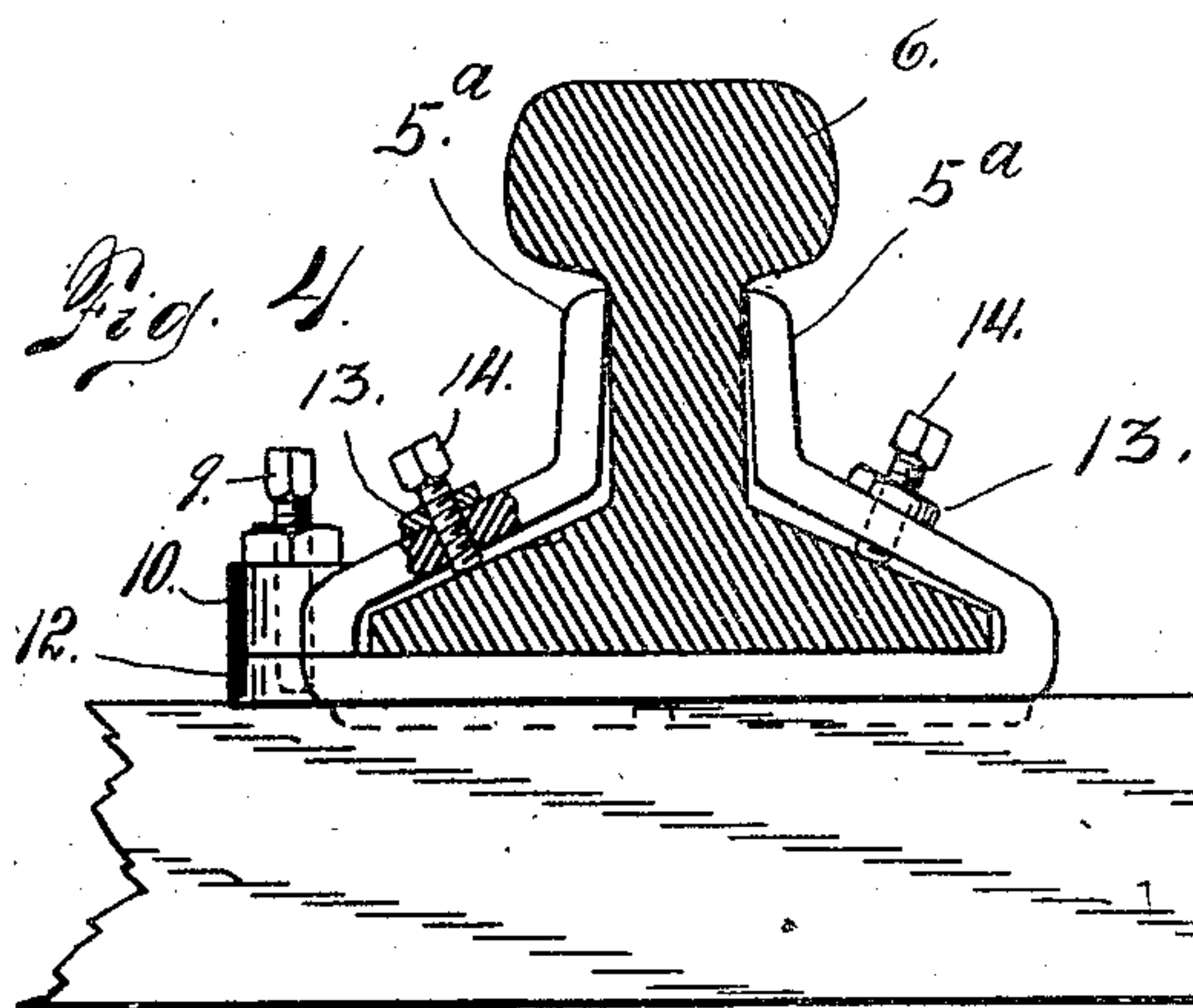


Fig. 3.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JAMES C. WALLACE, OF DENVER, COLORADO.

## RAILWAY-RAIL JOINT.

No. 843,918.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed January 26, 1906; Serial No. 297,969.

*To all whom it may concern:*

Be it known that I, JAMES C. WALLACE, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Railway-Rail Joints; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to railway-rail joints of the class set forth in Letters Patent No. 731,638, dated June 23, 1903.

My present invention is similar to the construction shown in the aforesaid patent, except that the device is provided with a removable member to facilitate the applying of the joint to rails already laid and also to facilitate the removal of one joint and the replacing of another.

In the construction in my aforesaid patent considerable difficulty has been experienced in applying the same to rails already laid, since the joint is an integral device. Another difficulty experienced by the use of the construction covered by the aforesaid patent is due to the fact that in order to make the joints tight upon the rails they would have to be constructed to fit so closely that some of the rails would not enter, owing to a slight difference in the size of different rails. Hence my present improvement provides means for doing away with this difficulty, and consists of the use of set-bolts or machine-screws in connection with lock-nuts, the said bolts being threaded in the joint and made to bear against the rails, whereby the latter may be held tightly within the joint, while the rails without the bolts would fit quite loosely.

Having briefly outlined my improvements, as well as the function they are intended to perform, I will proceed to describe the same in detail, reference being made to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a perspective view of my device shown in connection with two rails, the latter being shown in dotted lines. In this view the removable member of the rail-joint is detached. Fig. 2 is a perspective view of the removable member

shown in detail. Fig. 3 is a top view of the complete joint applied to a pair of rails. Fig. 4 is a section taken on the line 4-4, Fig. 3, viewed in the direction of the arrow.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate my improved device, which, as shown in the drawings, is open at its opposite ends to receive the rails 6, which abut against a stop 7, with which the rail-joints are provided. This stop is formed integral with the larger member of the device. The removable member, which I will designate by the numeral 8, coöperates with the larger member to complete the rail-joint on one side of the stop. It is connected with the base of the larger member by means of stud-bolts 9, which pass through lugs 10, formed on the member 8, and co-operating lugs 12, formed on the base of the larger member. If it is desired to apply one of these devices to the rails of a track already laid, it would only be necessary to remove the spikes of the rails sufficiently to allow one rail to be pushed in one direction and the other in the opposite direction sufficiently to apply the larger member to the end of one rail. The other rail could then be thrown into position. Then by applying the member 8 the joint will be complete.

The rail-joint is provided on opposite sides with threaded openings adapted to receive set-bolts 14, which when screwed to position engage the flanges of the rails 6 and press the latter downwardly against the base of the joint. Then by turning the lock-nuts 13, which are threaded on the bolts, to cause them to engage the joint on the outside the set-bolts will be held securely in the adjusted position.

From the foregoing description the use and operation of my improved device will be readily understood. In laying new track of course the body or larger member of the joint would be applied to one end of a rail, after which the other end is placed in position, the two adjacent ends abutting against the stop 7, while the flanges 5<sup>a</sup> of the device engage the web of the rail on opposite sides. In laying new track the removable member 8 may, if desired, be left in place, since the rail end may be inserted in the joint after the latter is applied to the other rail. However, when it is desired to remove the joints from tracks already laid it will be necessary to first remove the member 8, after which



the old joint may be removed and a new one supplied with very little difficulty. It will be understood that it will be quite easy after removing a number of the spikes (not shown) which hold two abutting rails in place to move these rails laterally sufficiently to make it entirely practicable to apply the joint, assuming that the removable member is detached. After the rail ends are in position the removable member may be quickly and easily applied.

Having thus described my invention, what I claim is—

1. A rail-joint comprising a device shaped to conform to the shape of the rails and open at both ends to receive the rail extremities to be joined, the device being open at the top to allow the top of the rail to project above, and closed at the bottom, which forms a support for the rail, the said device being provided with a removable angle-plate on one side, said plate being of a length equal to the length of one of the rail ends inclosed by the joint.

2. A rail-joint comprising a device shaped to conform to the shape of the rails and open at both ends to receive the rail extremities to

be joined, the joint including a removable angle-plate on one side, said plate being of a length equal to the length of one of the rail ends inclosed by the joint, and bolts threaded in the joint and whose inner extremities engage the flanges of the rails for the purpose set forth.

3. A rail-joint comprising a device open at both extremities to receive the rail ends, the said device being provided on one side with a removable angle-plate of a length equal to the length of one of the rail ends inclosed by the joint.

4. A rail-joint of the class described comprising a device open at both ends to receive the adjacent extremities of two rails, the said device having a central stop and provided with a removable angle-plate member extending on one side of the rail from the end of the joint to the stop for the purpose set forth.

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

JAMES C. WALLACE.

Witnesses:

DENA NELSON,

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