

No. 897,751.

PATENTED SEPT. 1, 1908.

M. LACHANCE.
RAIL JOINT, CHAIR AND FASTENING.
APPLICATION FILED JUNE 6, 1907.

FIG. 1.

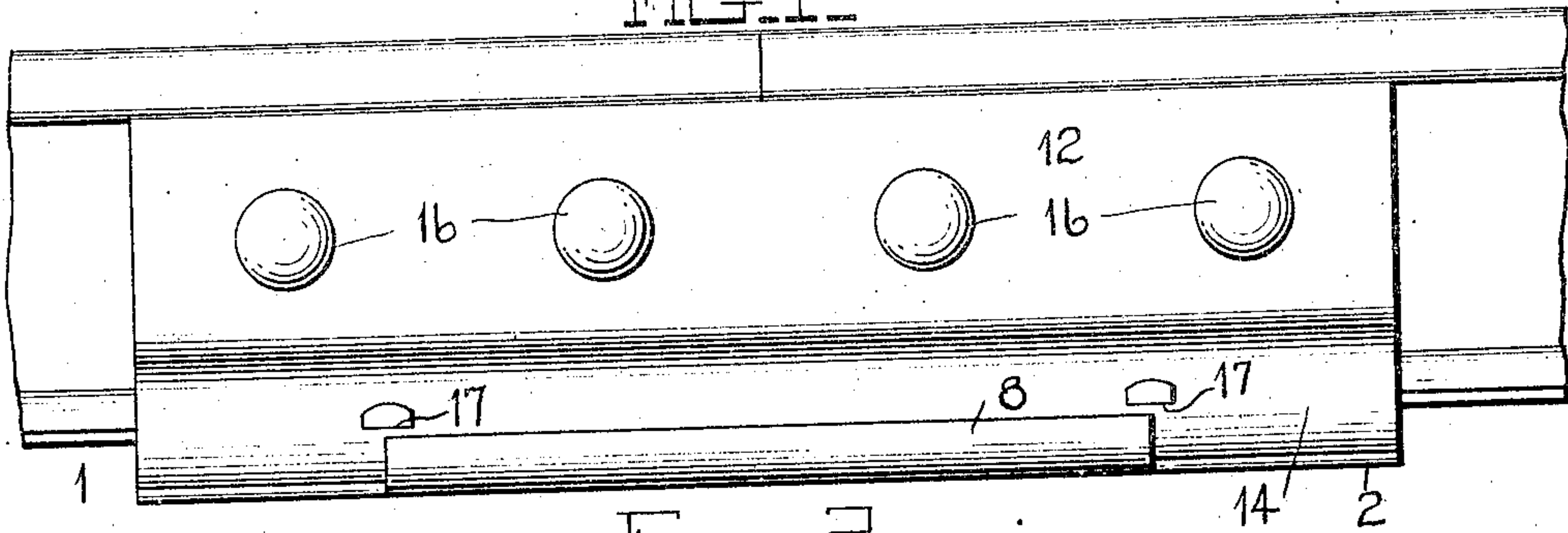


FIG. 2.

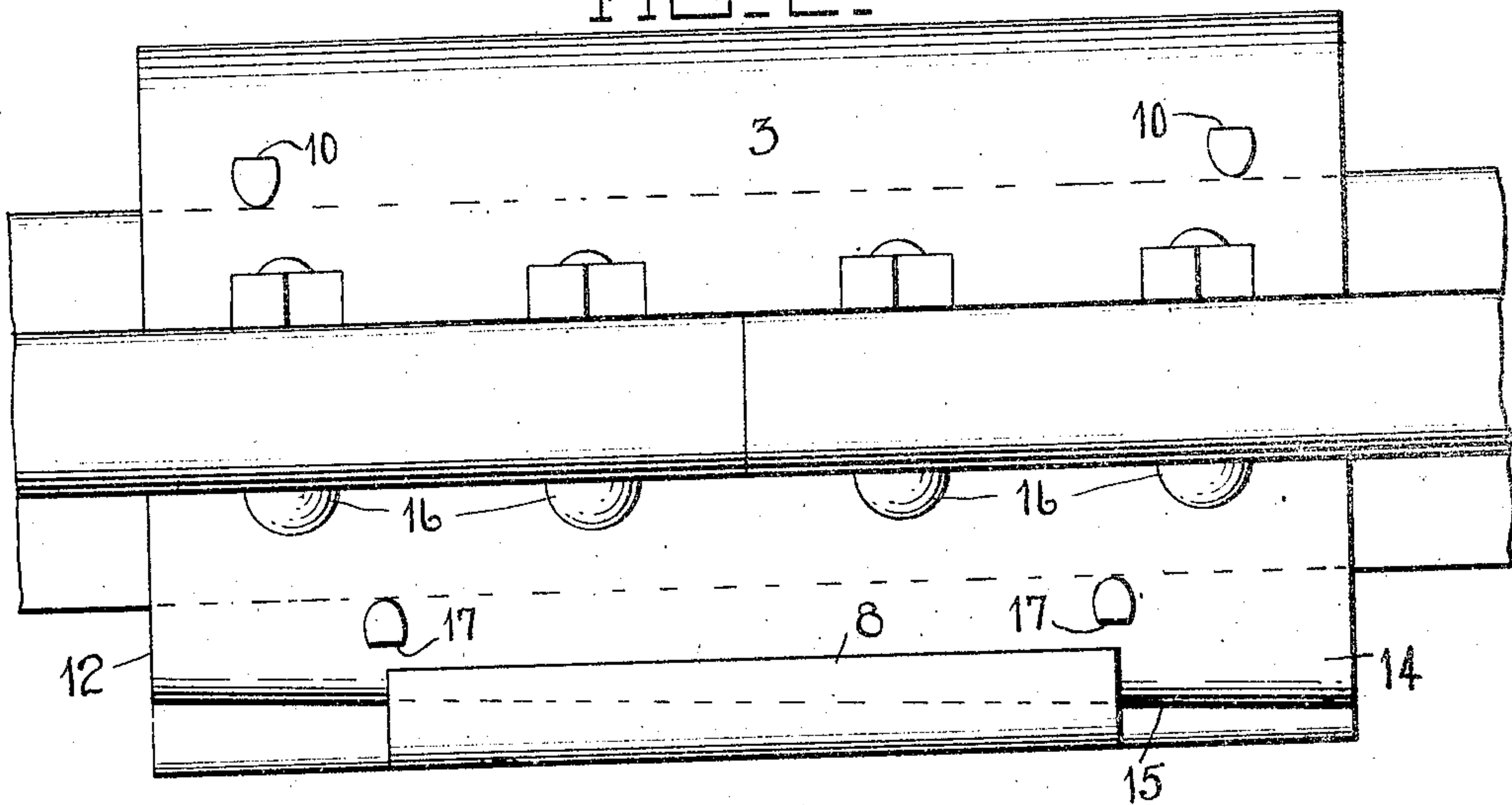


FIG. 4.

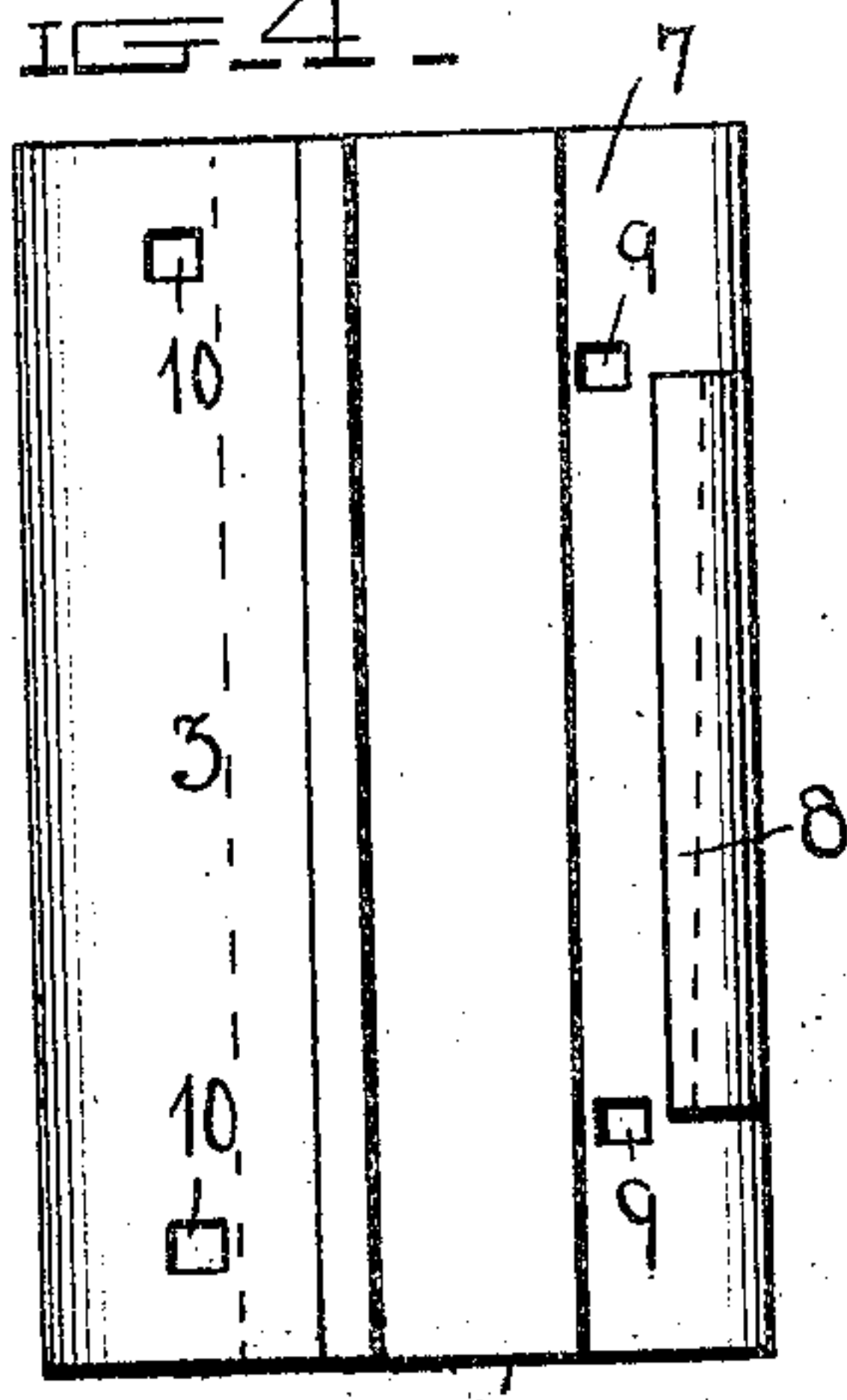


FIG. 5.

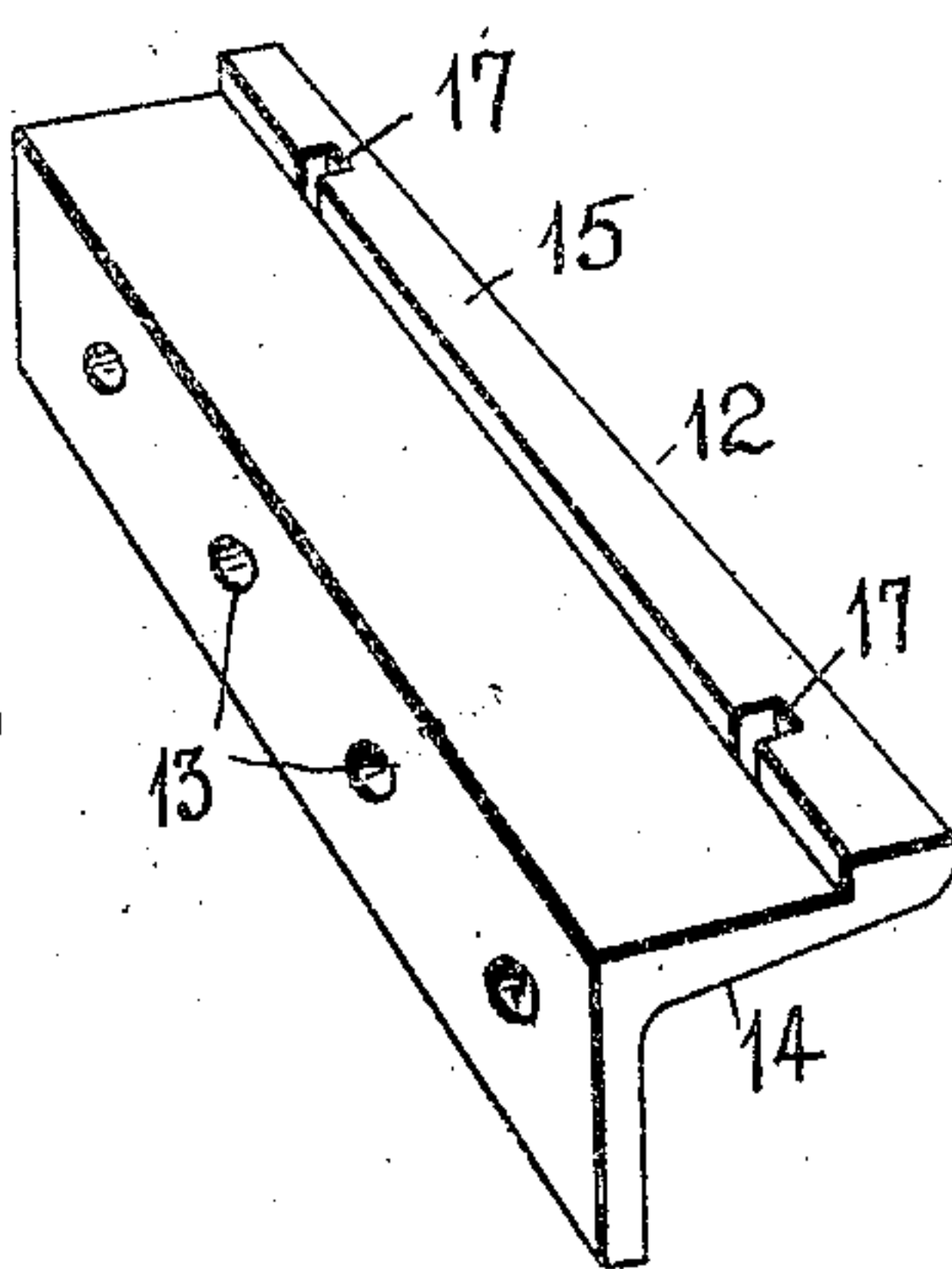
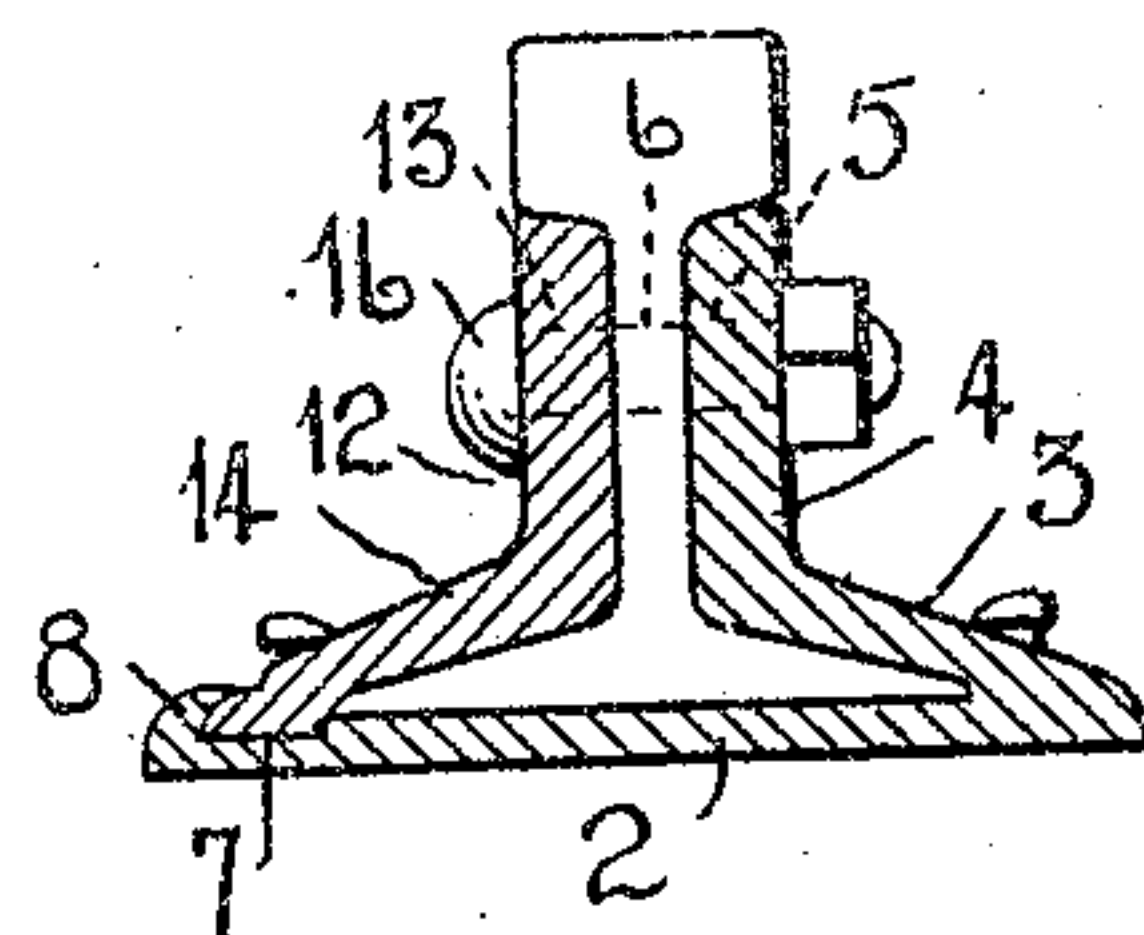


FIG. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

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RAIL-JOINT CHAIR AND FASTENING.

No. 897,751.

Specification of Letters Patent.

Patented Sept. 1, 1908.

Application filed June 6, 1907. Serial No. 377,563.

To all whom it may concern:

Be it known that I, MODESTE LACHANCE, a citizen of the United States, residing at St. Johnsbury, in the county of Caledonia and State of Vermont, have invented certain new and useful Improvements in Rail-Joint Chairs and Fastenings; 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.

This invention relates to improvements in rail joint chairs and fastening devices.

The object of the invention is to provide a rail joint chair and means adapted to be applied thereto to securely fasten the ends of the rail sections.

A further object is to provide a rail chair having a rail fastening mechanism which may be quickly and easily released to permit the removal of a rail section without disturbing the chairs which support the same.

With the foregoing and other objects in view which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a view of the meeting ends of two rail sections showing the application of the invention; Fig. 2 is a top plan view of the same; Fig. 3 is a vertical cross sectional view through the end of a rail section, the chair and fastening plate; Fig. 4 is a plan view of the chair with the rail ends and fastening plate removed; and Fig. 5 is a detail perspective view of the fastening plate.

Referring more particularly to the drawings, 1 denotes the chair which consists of a base plate 2 on one edge of which is an integrally formed inwardly projecting flange 3 which is adapted to be engaged with the upper side of the rail flange on one side of the sections of the rails. On the inner edge of the flange 3 is an integrally formed upwardly projecting fish plate 4 which is adapted to engage the webs of the rail sections, the upper edge of said fish plate being adapted to engage the under side of the head of the rail thereby forming a brace for the same. In the fish plate 4 is formed a series of bolt holes 5 which are adapted to aline with similar holes 6 formed in the web of the rail sections, as shown. In the plate 2 adjacent to the oppo-

site edge of the same is formed a longitudinally-disposed dovetailed recess 7 along the outer edge of the central portion of which is formed an upwardly and inwardly projecting flange 8 the inner edge of which is tapered longitudinally from one end to the other of the same. In the base plate 2 adjacent to the inner edge of the recess 7 are formed spike holes 9, similar spike holes 10 being formed through the base plate 2 adjacent to its opposite edge.

In connection with the chair 1, I employ a rail fastening device comprising a fish plate 12 which is similar in construction to the fish plate 4 and is provided with a series of bolt-holes 13 which are adapted to aline with the bolt holes 5 and 6 in the plate 4 in the ends of the rail sections. Formed integrally with the lower edge of the fish plate 12 is a downwardly and outwardly projecting flange 14 which is adapted to be engaged with the upper side of the rail flange as shown. On the lower side of the flange 14 adjacent to its outer edge is formed a longitudinally tapered tongue 15 which is adapted to be engaged with the recess 7 and with the tapered inner edge of the flange 8 whereby when said fish plate 12 and flange 14 are engaged with the rail and the base of the chair 1, a wedging action will be imparted to the fish plate and flange to force the same into firm engagement with the ends of the rail sections, thus securely fastening the same. After the fastening device has been thus forced into position, the securing bolt 16 is passed through the holes 13 therein and through the alined holes 5 and 6 in the rail sections and fish plate 4, thus securely holding the parts in position. In the flange 14 is formed spike holes 17 which when the fastening device is in place will aline with the spike holes 9 in the base plate of the chair so that the spikes may be driven therethrough into the ties beneath the chair.

By providing a rail chair or fastening device constructed as herein shown and described, the ends of the rail sections may be securely fastened together and to the ties. The arrangement of the fastening device as herein shown provides for the quick and easy removal thereof to permit the removal and replacing of a rail section without disturbing the chairs.

By means of this device a broken rail may be temporarily repaired in cases of emergency to permit a train to safely pass over

the break. When used temporarily as above described the chair is secured to the broken rail ends by simply drawing in the wedge shaped or tapered tongue 15, thus obviating
5 the necessity of drilling the rail and applying lateral bolts.

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

10 A structure for the meeting ends of two rail sections comprising a fish plate for said ends having a flange to overlie the flanges on one side of the rails, a vertical portion serving to contact with the webs and under surfaces of the treads of the rails, said fish plate also
15 having a base plate to contact with the under face of the base of the rail and having its opposite edges projecting beyond the edges of said base, one of said projecting edges having a dovetail recess formed therein provided
20 with an overhanging tapering curved lip, a second fish plate applied to the webs and un-

der faces of the treads on other sides of the rails, and having a flange to overlie the flanged portions on said other sides of the rails, said flange of the second fish plate being mounted in said recess of the first mentioned plate and having its terminal curved so as to contact with the curvature of said recess, spike receiving openings provided in the flanges of the fish plates coincident with the
30 edges of the rail base, and spikes in said openings, openings in the fish plates and webs of the rails and bolts secured in said openings, substantially as specified.

In testimony whereof I have hereunto set
my hand in presence of two subscribing witnesses. 35

MODESTE LACHANCE.

Witnesses:

DAVID S. FRÉCHETTE,
EDWARD HEON.