

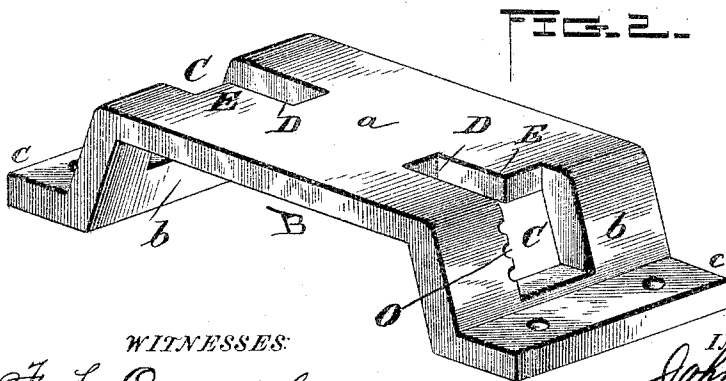
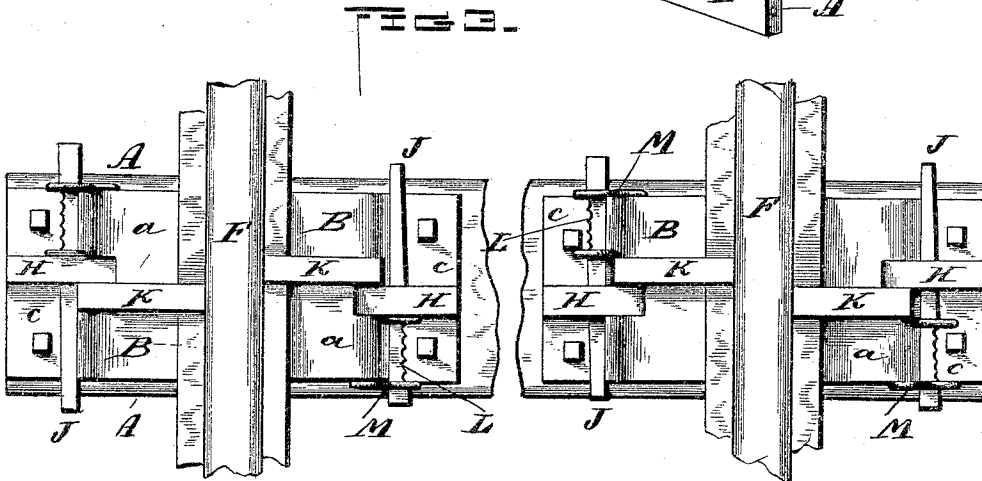
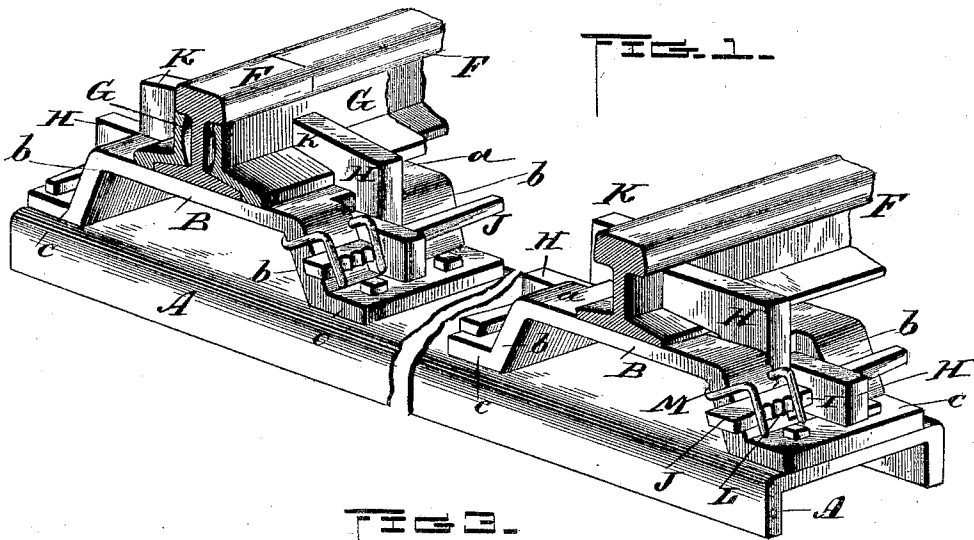
(No Model.)

2 Sheets—Sheet 1.

J. P. LANCASTER. RAIL CHAIR.

No. 460,206.

Patented Sept. 29, 1891.



WITNESSES:

F. L. Ourand
Wm. F. Ficker

INVENTOR:

John P. Lancaster
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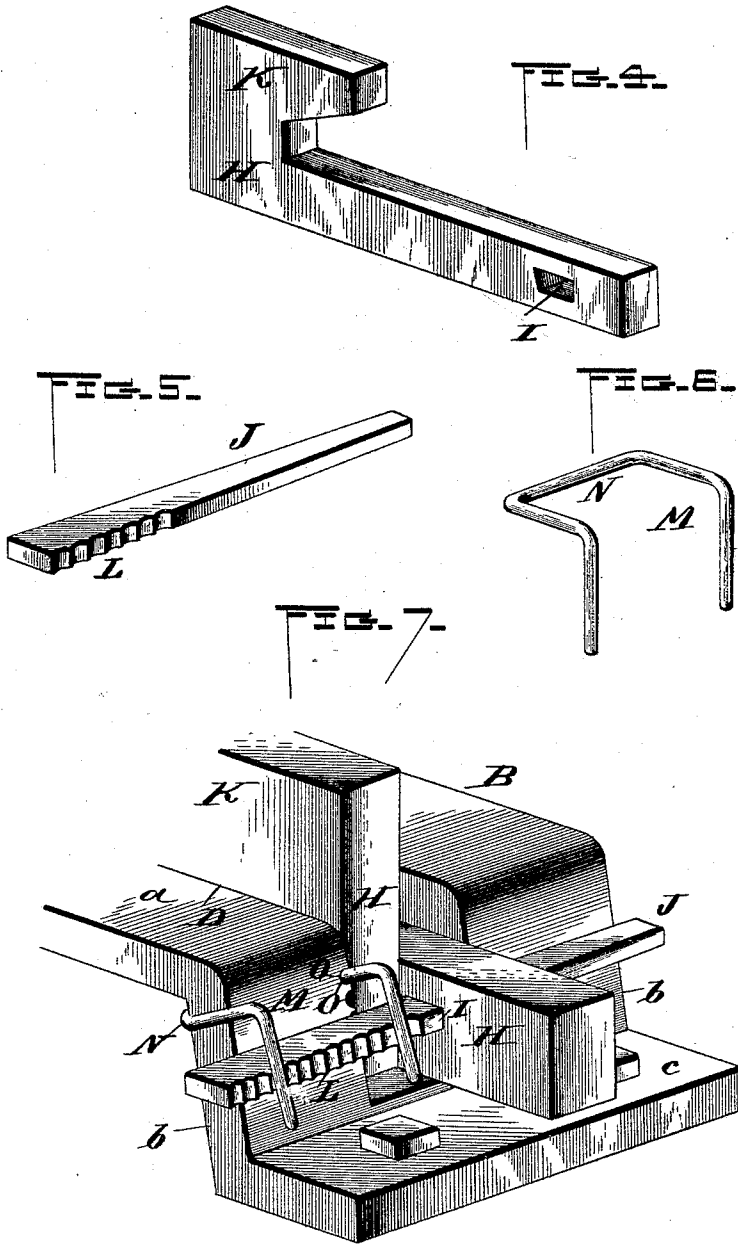
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2 Sheets—Sheet 2.

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No. 460,206.

Patented Sept. 29, 1891.



WITNESSES:
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INVENTOR:
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UNITED STATES PATENT OFFICE.

JOHN P. LANCASTER, OF GOSHEN, INDIANA.

RAIL-CHAIR.

SPECIFICATION forming part of Letters Patent No. 460,206, dated September 29, 1891.

Application filed December 3, 1890. Serial No. 373,453. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. LANCASTER, a citizen of the United States, and a resident of Goshen, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Rail-Chairs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a railroad-tie provided with a pair of my improved chairs, showing the rails, clamping-plates, and other appurtenances, all in their proper or operative position. Fig. 2 is a perspective view of my improved chair removed from the tie and with the rails, clamping-plates, and other appurtenances removed. Fig. 3 is a top or plan view of the tie with its chairs, rails, clamping-plates, and other adjuncts in operative position. Fig. 4 is a detail view of one of the clamping-plates detached from the chair. Fig. 5 is a detail view of one of the keys or wedges for locking the clamping-plates. Fig. 6 is a detail view of the locking-spring for holding said key or wedge in place; and Fig. 7 is a perspective view, on an enlarged scale, of one end of the chair, showing the key and its locking-spring in their operative position.

Like letters of reference denote corresponding parts in all the figures.

My invention relates to chairs for railway-rails adapted to be used either for rail-joints or for the solid rails; and it consists in certain improvements upon the device for which Letters Patent of the United States No. 397,008 were granted to me on the 29th of January, 1889. In this patent the top of the chair is made solid, the rail being held in place upon the chair by means of hooked clamping-plates overlapping the top part of the chairs and bearing against the fish-plates between which the rail is inserted. I have found in practice, however, that that construction is somewhat objectionable for the reason that these hooked clamping-plates, bearing, as they necessarily do, against the

sides of the chair, cannot always be forced up against the fish-plates sufficiently tight to bind the same firmly in place without the interposition of packing; and the object of my present improvement is to overcome this drawback by so constructing the body of the chair that the hooked ends of the clamping-plates may be forced into the body of the chair and up against the sides of the fish-plate or the sides of the naked rail, as the case may be, without the interposition of any packing and without the necessity of a very careful finish of the locking-plates. With this object in view I provide the top, as well as the sides, of my improved chair with parallel slots extending into the top part of the chair from opposite sides thereof, parallel to each other, so as to permit the hooked ends of the clamping-plates to work into these slots up against the fish-plates or rail and bind tightly against the same.

Reference being had to the figures on the accompanying two sheets of drawings, the letter A denotes a metallic tie of any approved construction. To opposite ends of this tie the chairs B B are bolted, said chairs consisting of hollow bench-shaped castings comprising the flat tops *a*, diverging sides *b b*, and foot-flanges *c c*, through which the chairs are bolted to the body of the tie.

The sides *b* of the chairs are cut away midway to form apertures C, and these side apertures are continued into the top *a* of the chair by slots D, extending some distance into the flat top, from opposite sides thereof, and leaving square shoulders or abutments E at each corner, the side apertures C being twice the width of the slots D in the top part of the chair, a solid portion being left in the top of the chair between the inner ends of the two slots D D. Upon this solid top part of the chair the rail (shown at F) is placed, and if the chair is to be used for a rail-joint fish-plates G G are placed on opposite sides of the joint, as usual. If, however, the chair receives the solid portion of the rail, these fish-plates may be dispensed with, as shown in the right-hand chair of Fig. 1 and in Fig. 3. As usually arranged the rails will break joint on opposite sides, and under such conditions one of the chairs will therefore be provided with

fish-plates, while the other will not, the fish-plates alternating on opposite sides of the track.

The rails and fish-plates, when used, are locked removably upon the chairs by means of the hooked clamping-plates H, the long arms of which are inserted through the slots C C from opposite sides of the chair, overlapping each other at their projecting outer ends, and through the slots I the wedge-shaped keys J are inserted, so that by driving these keys in the hooked ends K of plates H will be brought to bind firmly against the fish-plates G, when used, or against the bottom flange and web of the rail itself when no fish-plates are used, the slots D in the top part of the chairs permitting the hooks K to be brought up tightly against the fish-plates or the naked rail, as the case may be.

To prevent the keys or wedges J from working loose I provide the larger end of each key with a series of notches L, adapted to engage the two arms of the bifurcated locking-spring M, the shape of which is illustrated in Fig.

6. This device consists of a piece of spring-wire, bent to form a bail or loop N, which straddles one of the legs of the chair, as shown in Figs. 1 and 7, being held in place by a notch or slot D on the inner side of said leg, while its outwardly-projecting ends engage two of the notches L in the key, thereby preventing the same from becoming accidentally disengaged. If desired, other means or methods for locking these keys in place may, however, be adopted.

From the foregoing description, taken in connection with the drawings, the operation

of my improved rail-chair will readily be understood without requiring further explanation.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of the rail-chair having its sides and top slotted, the meeting ends of the rails, the fish-plates arranged on opposite sides of the joint, the hooked clamping-plates adapted to be inserted through the side slots and with their hooked ends through the top slots in the chair, and the keys for locking said clamping-plates in place, substantially as and for the purpose shown and set forth.

2. The combination of the rail-chair having its sides and top slotted, the rail, the hooked clamping-plates adapted to be inserted through the side slots and with their hooked ends through the top slots in the chair, and the keys for locking said clamping-plates in place, substantially as and for the purpose shown and set forth.

3. The combination of the slotted chair, the hooked clamping-plates, the holding keys or wedges notched at one end, and the bifurcated spring for locking said keys in place, substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN P. LANCASTER.

Witnesses:

H. C. WILSON,

M. L. BUTTERFIELD.