

(No Model.)

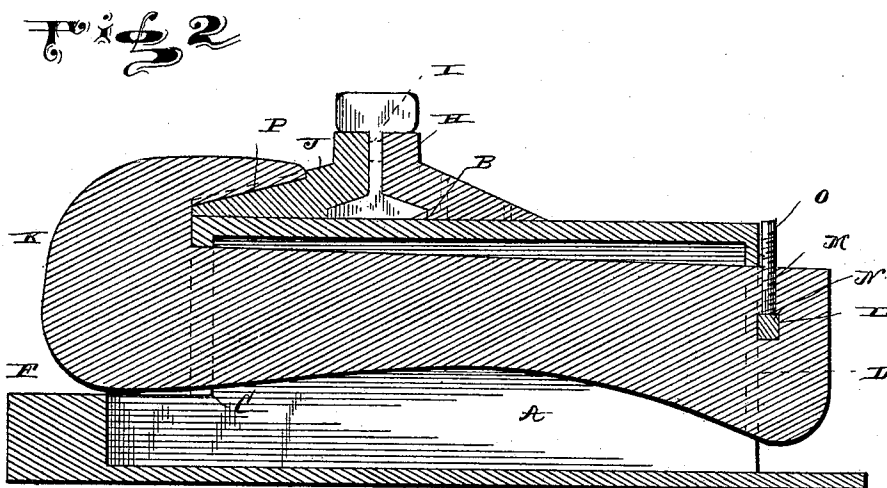
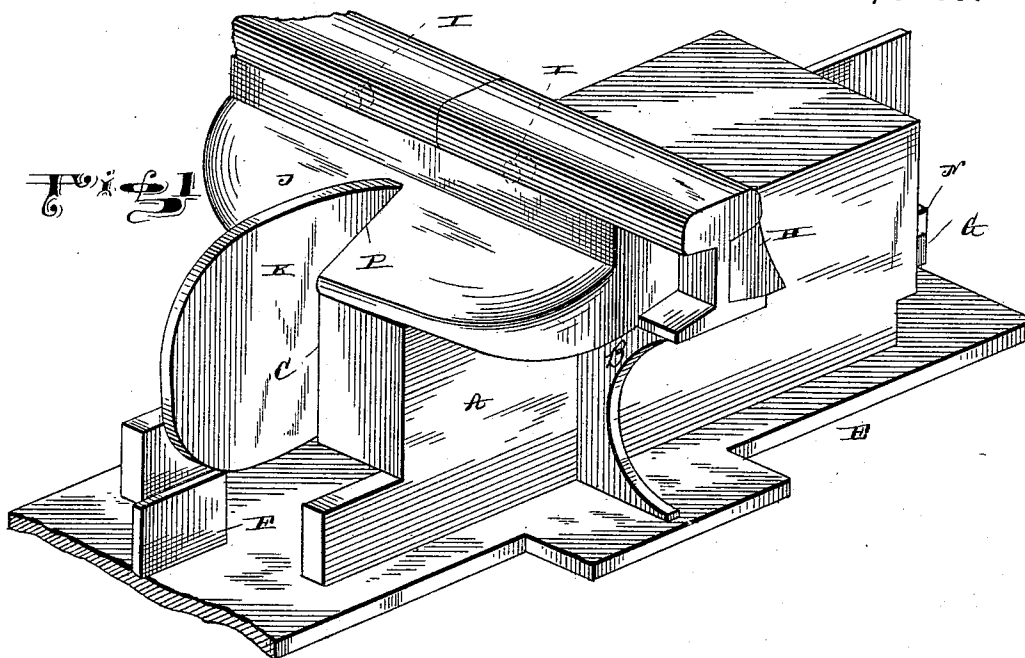
2 Sheets—Sheet 1.

J. P. LANCASTER.

RAIL JOINT.

No. 397,008.

Patented Jan. 29, 1889.



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UNITED STATES PATENT OFFICE.

JOHN P. LANCASTER, OF GOSHEN, INDIANA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 397,008, dated January 29, 1889.

Application filed April 23, 1888. Serial No. 271,514. (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-Joints; 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 my improved rail-joint. Fig. 2 is a transverse sectional view taken through the clamp-hook while secured in operative position. Fig. 3 is a similar view showing a slight modification. Fig. 4 is a detail perspective view of the clamp-hooks shown in Fig. 3 removed from the tie and separated from each other, and Fig. 5 is an end view taken from the outer end of the tie.

Similar letters of reference denote corresponding parts in the several figures.

My invention has relation to rail-joints for railroads; and it has for its object to obviate the vibratory motion incident to the jar of a passing train; and it has further for its object to secure the meeting ends of the rails in such a manner that bolts, nuts, and nut-locks are entirely dispensed with.

With these objects in view my invention consists in the improved construction and combination of parts of the same, as will be hereinafter more fully set forth.

In the accompanying drawings, the letter A denotes one end of a metallic tie provided at each end with the hollow rail-chair B. The portion of the chair between the rails is closed by a slotted end piece, C, while its opposite portion is provided with a similar end piece, D.

H indicates a fish-plate formed upon or secured to the top of the tie or chair, and is provided upon its meeting face with dowels or laterally-projecting pins I, which project through holes formed in the web of the meeting rails, as shown in dotted lines in Fig. 1.

A second fish-plate, J, is placed upon the chair against the inner sides of the meeting

rails, and is held firmly in place by a hook, K, inserted through the slot in the end piece, C, and extending through the hollow portion of the tie and projecting with its shank end through the opposite slot in the end piece, D, and through which shank end is formed a transverse aperture, L, intersected by a vertical aperture, M. While in this position a key, N, is inserted through the transverse opening or aperture, and is supported by lugs G upon the end piece, D, and is retained against lateral displacement by a set-screw, O, working in the vertical intersecting aperture and bearing with its lower end against the key, while the other end of the hook is supported by a standard, F, formed or secured upon the tie near the end piece, C, and its upper hooked end engages with or is seated in a seat, P, formed in the laterally-projecting or base portion of the inner fish-plate, J, and prevents the same from sliding laterally out of place.

If preferred, the outer fish-plate may be removable and the inner one fixed to the tie without departing from the spirit of my invention, as the result produced is exactly the same.

In Figs. 3 and 4 I have shown a slight modification, which I will now proceed to describe. The fish-plates, which are constructed the same as shown in the preceding views, are removably placed upon the tie and hooks, each of which is constructed the same as the other hook before described, with the exception that an aperture is formed near its hooked end, and are inserted through the end pieces of the tie in opposite directions, so that the aperture at the hooked end of each will register with the aperture at the shank end of the other, through which registering apertures a key is inserted and retained by means of set-screws, in the manner substantially the same as previously set forth. It will be seen that when the parts are thus arranged each of the fish-plates will be formed with seats for the hooks, and that each hook will be secured and supported in the same manner as if but one hook were employed.

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

the operation and advantages of my invention will be readily understood without requiring an extended explanation.

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

10 1. In a railroad-rail joint, the combination, with the hollow chair, of a clamp-hook extending through said tie and fish-plates, one of which is formed with a seat for the end of the hook.

15 2. In a railroad-rail joint, the combination, with the hollow chair provided with slotted end pieces, a standard secured to the tie, and projections or lugs secured to one of the said end pieces, of the fish-plates, one of which is fixed to said chair, a clamp-hook extending through said tie and formed with a trans-

verse slot or aperture, and a key, all of which are arranged in the manner herein set forth. 20

3. In a railroad-rail joint, the combination, with the hollow chair and the fish-plates, one of which is provided with dowels or laterally-projecting pins adapted to engage the apertures in the web of two meeting rails, of a 25 clamp-hook extending through said tie and having means, substantially as described, for locking it in position.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature 30 in presence of two witnesses.

JOHN P. LANCASTER.

Witnesses:

H. D. WILSON,
HARRY C. WILSON.