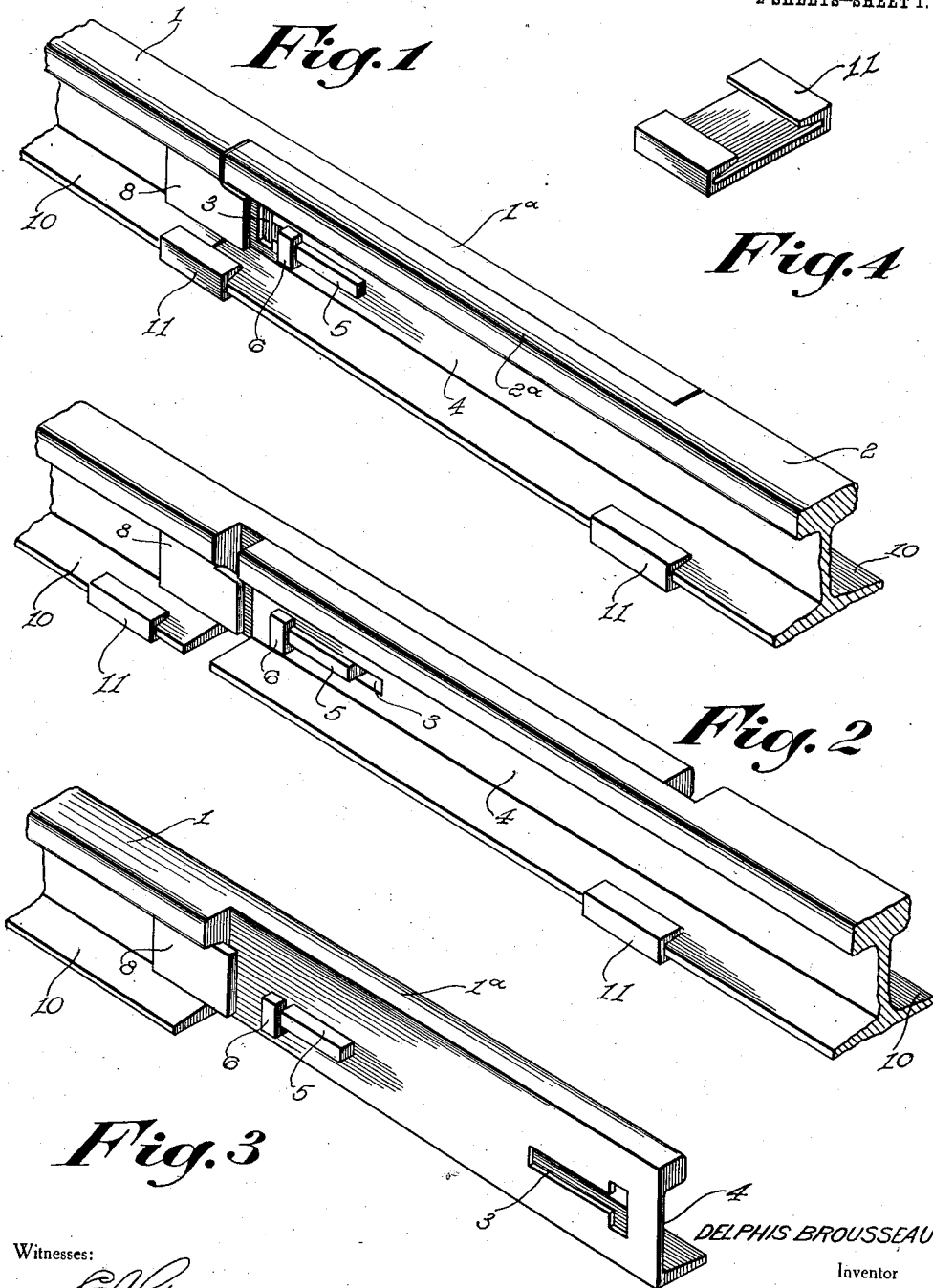


D. BROUSSEAU.
RAIL JOINT.
APPLICATION FILED FEB. 7, 1913.

1,062,881.

Patented May 27, 1913.

2 SHEETS—SHEET 1.



Witnesses:

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2 SHEETS—SHEET 2.

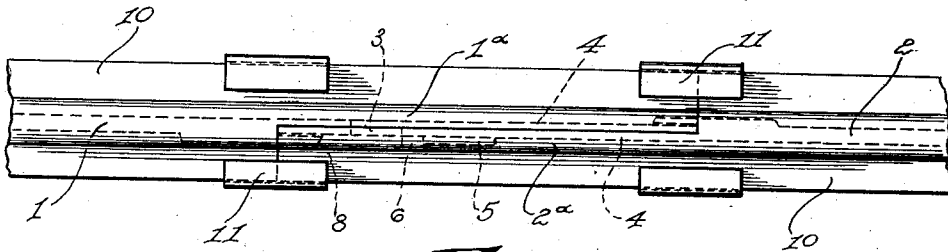


Fig. 5

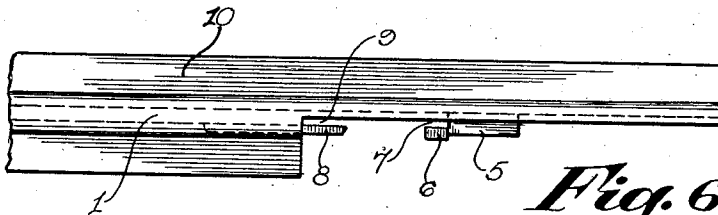


Fig. 6

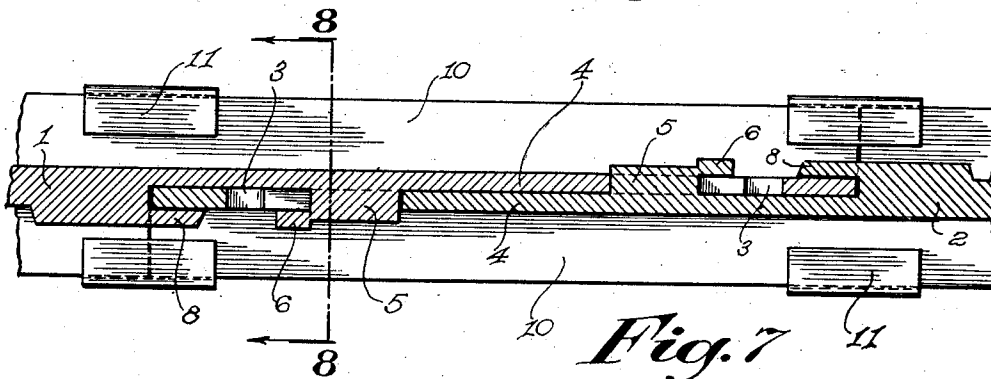


Fig. 7

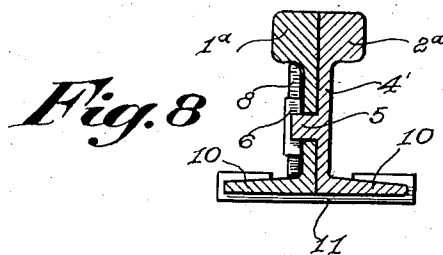


Fig. 8

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UNITED STATES PATENT OFFICE.

DELPHIS BROUSSEAU, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR OF ONE-EIGHTH TO EMERY DUFOUR AND ONE-EIGHTH TO PHILIAS BEAUSEJOUR, BOTH OF MONTREAL, CANADA.

RAIL-JOINT.

1,062,881.

Specification of Letters Patent.

Patented May 27, 1913.

Application filed February 7, 1913. Serial No. 746,744.

To all whom it may concern:

Be it known that I, DELPHIS BROUSSEAU, a subject of the King of Great Britain, residing at 43 Beaubien street east, in the city of Montreal, Province of Quebec, Canada, 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, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention to be hereinafter described relates to rail joints.

In order to more clearly disclose the construction, operation, and use of the invention, reference should be had to the accompanying drawings forming part of the present application.

Throughout the several figures of the drawings like reference characters designate the same parts.

In the drawings: Figure 1 is a side perspective view of a rail joint embodying my invention, in closed position; Fig. 2 is the same, partly opened; Fig. 3 is a side perspective view of one of the rail ends used in my joint; Fig. 4 is a perspective view of one of the tie flange clasp; Fig. 5 is a top plan view of a rail joint embodying my invention, in closed position; Fig. 6 is a top plan view of one of the rail ends used in my joint; Fig. 7 is a horizontal sectional view, taken on a line just below the tread portion, looking down; and Fig. 8 is a sectional view taken on line 8—8 of Fig. 7, looking in the direction of the arrows.

In this joint the contiguous ends of the rails 1 and 2 are cut away vertically to the center of each rail and on the opposite sides of the rails; for a short distance back from the ends; thus forming projecting members 1^a and 2^a, each being equal transversely to half of a rail. By reason of the cut away portions of the rails being on the opposite sides of the rails the inner vertical faces of the members 1^a and 2^a will be oppositely opposed. The members 1^a and 2^a are provided with T shaped openings 3 through the outer end of the web portion 4 of each member and with T shaped keys 5 near the inner end of the inner face of the web portion 4 of the members 1^a and 2^a and integral therewith. The T shaped keys 5 are in the same horizontal plane as the T shaped openings 3

but headed in the opposite direction. The head 6 of T shaped key 5 is spaced from the face of the web portion 4 so as to leave a slot 7 equal in width to the thickness of the web portions 4 of the members 1^a and 2^a. A block 8 is secured to the web portion of each rail, at the inner end of the cut away portion, so as to project in front of the vertical faces of the members 1 and 2, a short distance, so as to form an inner end slot 9 equal in width to the thickness of the web portion 4.

On the base flanges 10 of each rail is slidably mounted a rigid clasp member 11, for purposes to be explained.

The T shaped openings 3 and the T shaped keys 5 correspond in size and shape, with the exception that the stems of the T shaped openings 3 are much longer than the stems of the T shaped keys 5. These openings are equally spaced on the members 1^a and 2^a and oppositely opposed, and adapted to be interlocked.

The operation is as follows: The members 1^a and 2^a are placed with their inner vertical faces together, so that the T shaped keys 5 project through the T shaped openings 3 of the respective members, as in Fig. 2. The rails 1 and 2 are then slid toward each other. The members 1^a and 2^a operate slidably on each other, in opposite directions, so as to bring the shoulders of the head 6 of the T shaped keys 5 into overlapping position over the sides of the stem portion of the T shaped openings 3, as in Fig. 1. When the joint is closed as in Fig. 1, the outer end web portion of each of the members 1^a and 2^a is received in the inner end slot 9 of its abutting member, so as to prevent any lateral movement of the members. Each of the members 1^a and 2^a being equal transversely to half of a rail, when the joint is made a continuous rail is formed. If desired a rigid clasp member 11 is slidably mounted on the base flanges 10 of the rails 1 and 2, so that after the joint is made the clasps may be moved to a position overlapping the base part of each end of the joint and secured there by means of spikes or other suitable means, for strengthening purposes.

The advantages of this rail joint are: its simplicity of construction and operation, its cheapness of manufacture, its great strength and that, as will be obvious, the

joint can be adjusted to allow for expansion and contraction of the rails, thus eliminating the danger of twisted rails. This joint also does away with the fish plates, bolts, washers, &c., used in the ordinary rail joint, and the attendant cost of such elements.

It is thought that the construction, operation, and use of the invention will be clear from the preceding detailed description.

10 Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a rail joint, reversely disposed members transversely equal to half of a rail, interlocking keys and openings carried by the web portions of the members, blocks integral with the web portion of the rail and so disposed at the base of each of the reversely disposed members as to form a slot for the reception of the web portion of the outer end of its abutting member, and rigid clamp members disposed over the base portion of each end of the joint for strengthening purposes, in combination.

25 2. In a rail joint, reversely disposed members each transversely equal to half of a rail and slidably operative one on the other, oppositely headed T shaped openings and keys carried by the web portions of the members and adapted to be interlocked,

blocks integral with the web portion of the rail and projecting over the inner end of each member so as to form a slot for the reception of the web portion of the outer end of its abutting member, and a rigid clasp member slidably mounted on the base flanges of the joints and adapted to brace each end of the joint, in combination.

3. In a rail joint, reversely disposed members each transversely equal to half of a rail and slidably operative on each other, T shaped keys carried at the inner end on the inner face of the web portion of each member, T shaped openings through the web portion of each member near the outer end thereof and adapted to interlock with the T shaped keys, blocks integral with the web portion of the rail at the base of each member and adapted to brace the web portion of the outer end of the abutting member, and slidably mounted bracing base clasps, in combination.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

DELPHIS ^{his} X BROUSSEAU.
mark

Witnesses:

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E. J. GAUVIN.

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