

No. 826,364.

PATEN

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C. J. SCHAEFER.
RAIL JOINT.
APPLICATION FILED DEC. 20, 1905.

Fig. 1.

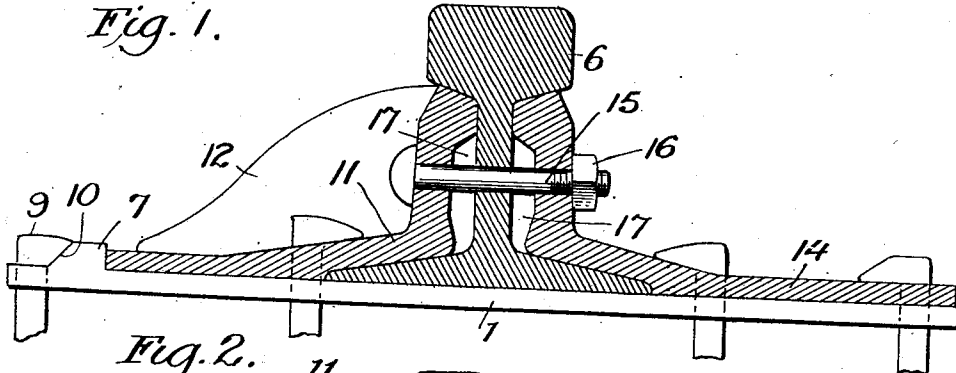


Fig. 2.

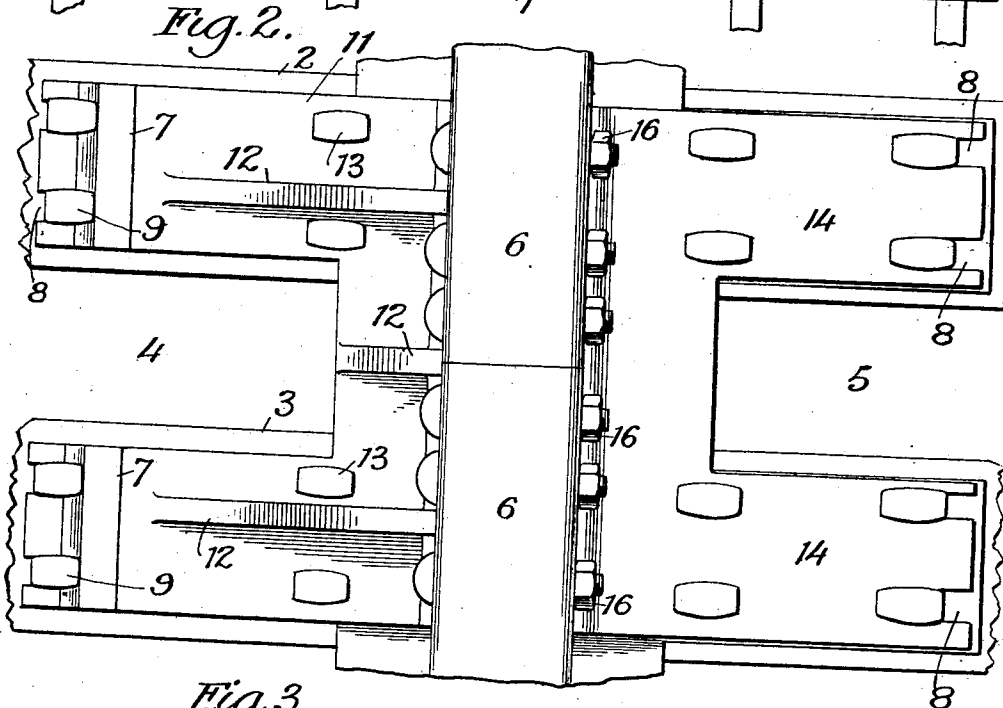
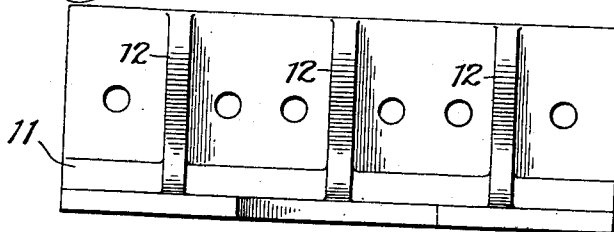


Fig. 3.



WITNESSES:

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RAIL-JOINT.

No. 826,364.

Specification of Letters Patent.

Patented July 17, 1906.

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To all whom it may concern:

Be it known that I, CHARLES J. SCHAEFER, a citizen of the United States, residing at Deposit, in the county of Broome and State of New York, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to splice-bars such as are used for connecting the adjacent ends of steel rails.

The principal objects of the invention are to prevent the rails from spreading, especially in winter and on high curves; furthermore, to prevent the longitudinal creeping of the rails in the direction in which trains are moving.

Further objects of the invention are generally to improve and strengthen the construction of devices of the character indicated.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed as a practical embodiment thereof.

In the accompanying drawings, forming part of this specification, Figure 1 is a transverse section, partly in elevation, through a rail equipped with a splice-bar constructed in accordance with the present invention. Fig. 2 is a plan view thereof. Fig. 3 is a side view of the clamping-plate used on the outside of the rail.

Like reference-numerals indicate corresponding parts in the different figures of the drawings.

The reference-numeral 1 indicates a base-plate which is adapted to rest upon two adjacent ties 2 and 3 of a road-bed. The plate 1 is cut away or recessed from its opposite sides, as indicated at 4 5, so as to leave only a connecting portion or web, which extends along under the rail 6 between two ties, it being understood that the cut-away portions 4 and 5 are located over the space between two adjacent ties. The cut-away portions 4 and 5 are merely formed to save material. The side of the plate 1 which is intended to be placed on the outside of the steel rail is formed with a pair of upstanding shoulders or lugs 7, one of said lugs being formed on each side of the cut-away portion 4, as shown in Fig. 2. Adjacent to each of the lugs or shoulders 7 the plate 1 is formed with a pair

of open-ended slots 8, which extend inward from the edge thereof and are adapted to receive spikes 9 for holding the base-plate 1 upon the ties, each of the spikes 9 being formed with a head having one of its faces inclined to fit against the adjacent inclined wall 10 of the lugs 7.

Resting at one end against the lugs 7 and at the other end against the base portion and head portion of the rail 6 is a clamping-plate 11, which is angular in cross-section and is provided with a plurality of integral braces 12. Extending through the clamping-plate 11 adjacent to the edge of the rail-base is a plurality of spikes 13. As shown in Fig. 1, the spikes 13 not only extend through the clamping-plate 11, but also through the base 1 and into the rail-ties. The inside of the rail 6 is secured in position by a clamping-plate 14, which is similar in shape to the clamping-plate 11, but is not provided with any integral braces, such as 12. Extending through the clamping-plates 11 and 14 are a plurality of bolts 15, having nuts 16, arranged on the inside of the rail. By reason of the fact that the braces 12 are dispensed with on the inside of the rail the nuts 16 can be readily applied without any interference from the braces. The clamping-plates 11 and 14 are so bent or formed as to leave spaces, such as 17, adjacent to the web portion of the rail, whereby when the nuts 16 are tightened the upper ends of the clamping-plates are forced tightly against the under surface of the rail-heads and the lower portions of said plates are forced securely against the base portion of the rail.

As shown in Fig. 2, each of the clamping-plates is formed with two oppositely-recessed or cut-away portions which are located over the space between the ties. By shaping the clamping-plates in the manner shown I am able to use eight spikes on each side of the rail, whereby any liability of the rail spreading is avoided. Furthermore, the braces 12, which are placed on the outside of the rail, serve further to prevent any spreading of the rails. Moreover, by reason of the fact that eight spikes are used on each clamping-plate and, further, by reason of the fact that each rail 6 is securely clamped to the plates 11 and 14 by means of the bolts 15 any longitudinal creeping of the rails in the direction in which the trains are moving is effectually prevented.

The improved rail-splice of this invention

is strong, simple, durable, and inexpensive in construction, as well as thoroughly efficient in operation.

Having thus described the invention, what
5 is claimed as new is—

The combination with a rail-joint, of a base-plate resting upon two adjacent ties, said base-plate being cut away on its opposite sides above the space between the ties,
10 and having a pair of upstanding lugs on the outside thereof, a clamping-plate resting at its outer portion against said upstanding lugs and at its inner portion against the base and head of the rail, said clamping-plate being

formed with a plurality of integral braces, a
15 second clamping-plate resting on the inner side of the base-plate and bearing against the rail, bolts extending through the two clamping-plates and the rail-web, and spikes extending through the clamping-plates and
20 base-plate substantially as described.

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

CHAS. J. SCHAEFER.

Witnesses:

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