No. 646,400. Patented Mar. 27, 1900.

M. V. GIPSON.

RAIL JOINT.

(No Model.) (Application filed Oct. 18, 1899.)

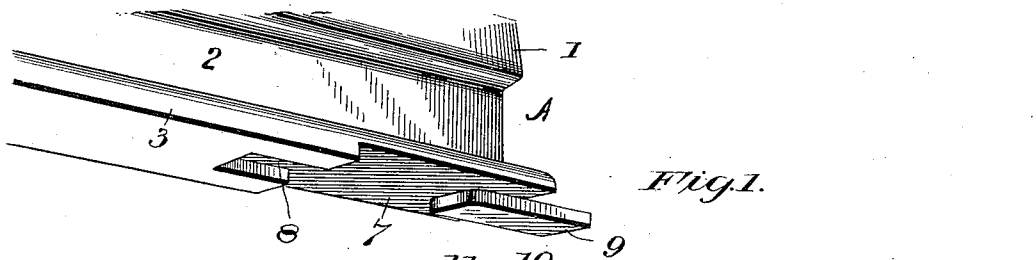


Fig. 1.

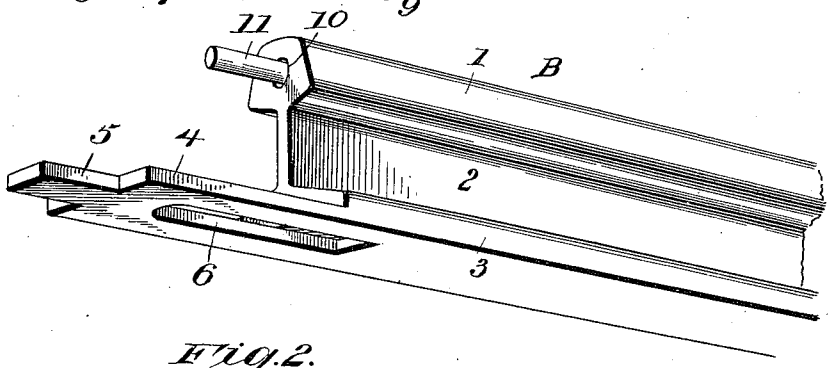
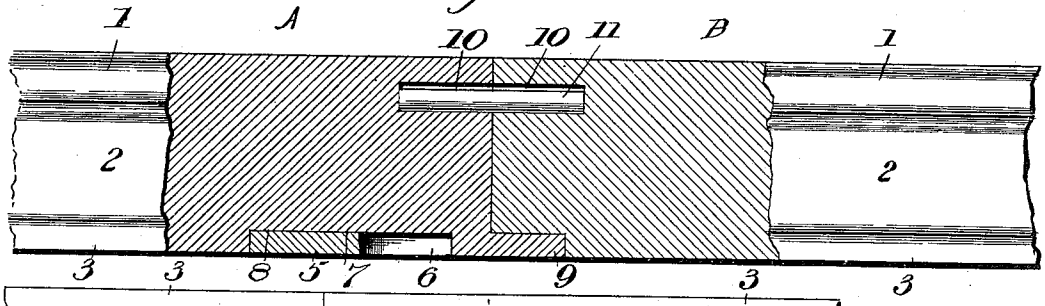


Fig. 2.



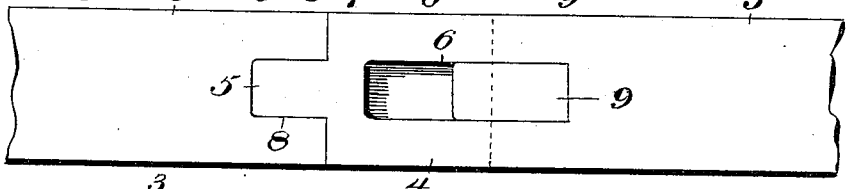


Fig. 3.

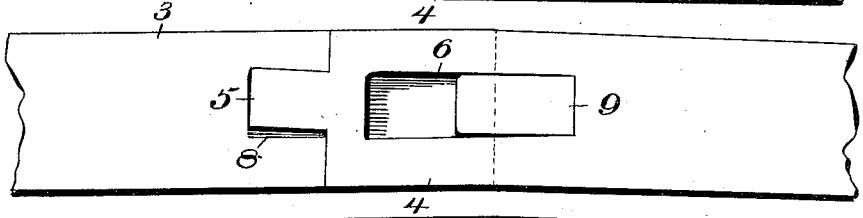


Fig. 4.

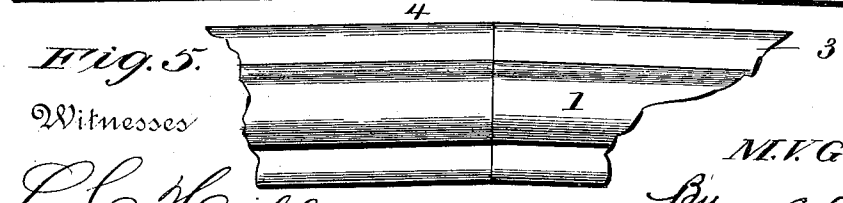


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

MARTIN V. GIPSON, OF OCOBLA, MISSISSIPPI.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 646,400, dated March 27, 1900.

Application filed October 18, 1899. Serial No. 733,975. (No model.)

To all whom it may concern:

Be it known that I, MARTIN V. GIPSON, a citizen of the United States of America, residing at Ocobla, in the county of Neshoba and State of Mississippi, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in rail-joints, and has for its object to provide novel and effective means for securely joining two rails together at their ends in such a manner as to permit the expansion and contraction of the rails and at the same time retain the perfect joint.

Briefly described, the invention consists in forming the ends of the rails in such a manner that the end of one rail will interlock with the end of the adjacent rail, the said end of one rail being constructed with an extension having a slot, the latter to receive a lug formed on the end of the adjacent rail, while this latter rail is provided in its base with a recess conforming in outline to the extension on the adjacent rail, which it receives. The ends of the rails are provided with apertures of greater diameter than a dowel-pin which fits loosely therein and engages the ends of the adjacent rails, this pin being adapted to act as a support to relieve the strain from the joint when weight is upon the rails at this point. All of these features of construction, together with such others as enter into my invention, will be hereinafter more specifically described and then particularly pointed out in the appended claims, and in describing the invention in detail reference will be had to the accompanying drawings, forming a part of this specification, and wherein like letters and numerals of reference will be employed to designate similar parts throughout the several views, in which—

Figure 1 is a detail perspective view of the ends of two abutting rails with the rails separated to show the construction of the interlocking ends. Fig. 2 is a side view of the joint, partly in section. Fig. 3 is an underneath plan view of the joint. Fig. 4 is an underneath plan view of the joint with the rails constructed for a curve. Fig. 5 is a top plan view of the same.

Referring now to the drawings by reference letters and numerals, 1 indicates the tread of the rail, 2 the web, and 3 the base, all of which may be of the ordinary construction of railroad-rail.

The base 3 of the rail, at one end thereof, is slightly reduced in thickness and carried beyond the end of the rail to form an extension 4, cut away at the two sides of its free end to form the tongue 5, and provided intermediate of this tongue and the end of the rail with an oblong slot 6, extending rearwardly some distance beyond the end of the rail, so that the said slot is closed at its top on that portion which extends into the base of the rail beyond the end thereof.

At its opposite end the rail is formed on the underneath face of the base 3 with a recess 7, which is adapted to receive the extension 4, and terminating at its rear end in the portion 8, of less dimensions, which receives the tongue 5 on the end of the extension of the adjacent rail. Formed integral with the base of this rail, which has the recess 7, is a lug 9, the thickness of which, added to the thickness of the base at the point where the latter is recessed at 7, is equal to the normal thickness of the base throughout the rail. This lug 9 is of a width adapted to fit neatly within the slot 6, which it is adapted to enter, and the upper face of the extending portion of said lug is adapted to engage against the base of the rail within that portion of the slot which is closed at the top.

The rails are provided in their ends with apertures 10, in which is loosely fitted a dowel-pin 11, engaging an equal distance into the ends of the two abutting rails in the manner shown in Fig. 2 of the drawings.

In Figs. 4 and 5 of the drawings I have shown the application of the joint to curve rails, the end of the one rail being cut at a slight incline, so as to conform to the curvature of the track, the construction of the joint being the same, with the exception that in some cases the recess 8 and the recess 6, or a portion of the latter, may be required of a slightly-greater width than the lugs which engage therein to allow of the fitting.

For illustrating the manner in which the ends of the rails are interlocked I designate one rail A and the other rail B. The rail B

is placed in position on the cross-ties and the rail A moved into alinement therewith. The end of the rail A which has the extension 4 thereof (this end not shown) is elevated, so as to permit the insertion of the lug 9 of rail A into the oblong slot 6 of the rail B. The dowel-pin 11 having been previously inserted in the end of rail B, it enters into the end of rail A as the lug 9 of the latter is inserted into the slot in extension 4 of rail B, and the lowering of the end of rail A that has been elevated brings the ends of the rails together. When the ends of the rails are thus interlocked, the lateral movement of the same at the joint is prevented, while at the same time the slot 6 is of sufficient length to allow of the operation therein of the lug 9 to permit any expansion and contraction of the rails. Should the joint be between two cross-ties, the dowel-pin will strengthen the treads of the rails at the joint when undue pressure is applied thereto, serving to relieve the application of all this pressure being brought upon the base of the rails.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. The combination of the interlocking ends of the rails, one of which is formed with a flat extension of less thickness than the base and provided with an oblong slot which extends underneath the base, and the other of which is provided in the base with a recess to receive said flat extension and carries a lug adapted to enter the oblong slot and engage with the base of the rail, substantially as described.

2. In a rail-joint, the combination, with the interlocking ends of the rails, one of which is formed with a flat extension provided with a slot extending into the base with the said extension terminating at its free end in a tongue of less width than the extension, and the other of said rail ends is formed with a recess to receive said extension and tongue and has a lug adapted to enter said slot in the extension and engage with the base of the abutting rail end, substantially as described.

3. In a rail-joint, the combination with the interlocking ends of the rails, one of which is formed on its base with an extension provided with an oblong slot and terminating at its free end in a tongue, and the other of said rail ends is formed with a recess to receive said extension and tongue and has a lug adapted to enter said slot and engage the base of the adjacent rail end, and a dowel-pin loosely engaging the interlocking ends of the rails, substantially as described.

4. In a rail-joint, the combination, with the interlocking ends of the rails one of which is provided with an extension having a slot therein and the other of said rail ends being formed with a lug adapted to enter said slot, of a dowel-pin loosely engaging the interlocking ends of the rails.

In testimony whereof I affix my signature in the presence of two witnesses.

MARTIN V. GIPSON.

Witnesses:
W. H. SHEDD,
J. V. WELSH.