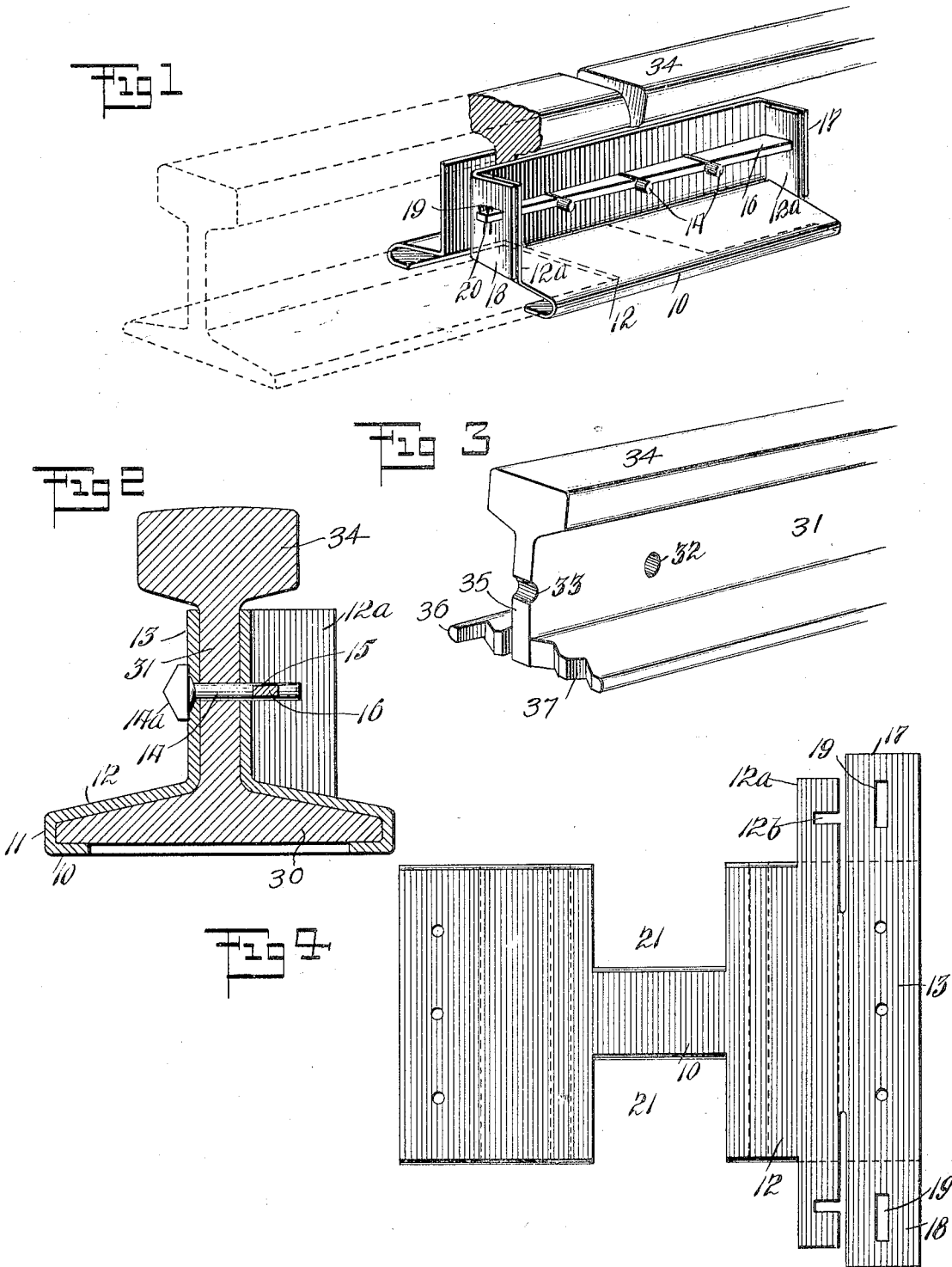


A. W. STEBBINS.
RAIL JOINT.
APPLICATION FILED OCT. 8, 1912.

1,057,293.

Patented Mar. 25, 1913.



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RAIL-JOINT.

1,057,293.

Specification of Letters Patent.

Patented Mar. 25, 1913.

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To all whom it may concern:

Be it known that I, ANSON W. STEBBINS, a citizen of the United States, and a resident of Gueydan, in the parish of Vermilion and State of Louisiana, have invented a new and Improved Rail-Joint, of which the following is a full, clear, and exact description.

The object of my invention is to provide an improved rail joint of simple construction and involving few parts, by means of which the rails are firmly held in place while readily responsive to expansion and contraction.

The novel features of the invention will be particularly explained in the specific description hereinafter to be given.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a rail joint embodying my invention; Fig. 2 is a cross section; Fig. 3 is a perspective view of an end of a rail; and Fig. 4 is a plan view of the blank from which I form the improved shoe constituting part of my improved rail joint.

In constructing the improved joint a shoe 10 is provided, forming at its bottom part a seat for the rail, and extending transversely beneath the same. The sides of the shoe extend upwardly, as at 11, and from the members 11 the shoe extends inward and upward to provide the side members 12, receiving below the same the base flanges 30 of the rail. From the members 12 the shoe extends upward, providing the spaced side plates 13 constituting fish plates, and between which the web 31 of the rail is clamped. One or more pins 14 extend through the two clamp plates 13, said pins extending also through holes, as 32, in the rails, when rails are employed that are provided with said holes. It is to be understood, however, that I contemplate securing a sufficient holding action of the shoe on the rails without the necessity of employing more than one pin 14, in which case the pin will extend between the butting ends of a rail, or through mating semi-circular recesses 33 in the rail ends. When a plurality of pins are employed, however, all but the

pin between the rails will necessarily pass through the holes or slots as in the ordinary rails now employed. Each pin 14 is formed with a head 14^a at one end, and near the other end with a transverse hole 15 for receiving the fastening key 16. The key 16 is wedge-shape, and it passes through openings 19 in the outwardly extending end ears 17, 18, on one of the upright clamp plates 13. The larger end of the key 16 adjacent to one ear 17 may be of such a size as not to pass entirely through said opening. The smaller end of the key after being passed through the opening 19 of the ear 18, may receive any suitable fastening device, such as a cotter pin 20, Fig. 1, to prevent retrograde movement of the key.

In addition to the outwardly bent ears 17, 18, on the upright clamp plates 13, the inwardly extending portion 12 of the chair, at one side above the flange of the rail, is formed at its ends with ears 12^a which are bent upwardly adjacent to and parallel with the ears 17, 18, and said ears 12^a are formed at their inner vertical edges with slots 12^b (Fig. 3) which aline with the openings 19 and receive the key 16. The defined ears 17, 18 and 12^a with their mentioned openings and slots are best shown in the blank represented in Fig. 3, which illustrates the elements referred to before the ears mentioned are bent into the form shown in Fig. 1.

At the under side or chair portion of the shoe 10, beneath the base of the rail, said shoe is cut away at each end, as at 21, thereby giving the shoe greater flexibility in forcing the inwardly extending top members 12 and clamps 13 into clamping engagement with the rail.

The rail heads 34, I prefer to terminate slightly short of the ends of the base portion of the rail, as indicated in Fig. 3 in which it will be observed that the lower portion 35 of the web 31, and the end 36 of the base portion of the rail extend slightly beyond the end of the head 34, the idea being that as the base portions of the rail are not always subjected to as direct rays of the sun, as the head, the head may expand slightly more than the base portions. I prefer to provide in the flanges of the rails, at the ends, serrations 37 to interlock the correspondingly formed flanges of op-

posed rails, to allow for expansion without complete separation.

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

1. A rail joint comprising a shoe consisting of a bottom chair part forming a seat for the rail, upwardly and inwardly-extending side parts to overlie the rail flanges and vertically extending fish plates projecting from the inner edges of said side parts, a transverse pin fitting holes that are formed in the said plates and adapted to pass between the rail ends, the pin having a head at one end and a transverse key-receiving opening at the other end, a fish plate of the shoe having outwardly bent ears having holes through which the key passes, and fastening means preventing the withdrawal of the said key.

2. In a rail joint, the combination of rails having heads terminating at the ends short of the ends of the base portions of the rail, a shoe comprising a bottom chair member, inwardly extending side members and fish plate members; a pin extending through the

fish plate members between the rail ends, and means for fastening the pin.

3. A rail joint, comprising a shoe consisting of a bottom chair part forming a seat for the rail, upwardly and inwardly extending side portions to overlie the rail flanges and vertically extending fish plates projecting from the inner edges of said side parts, one of said fish plates having outwardly extending ears at the ends thereof and the mentioned overlying portion of the shoe having end ears projecting upwardly alongside the ears on the fish plate, a pin extending transversely through the fish plates, and a key adapted to extend longitudinally of the shoe outside of a fish plate, the said pin and the mentioned ears having openings for the passage of said key.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANSON WARNER STEBBINS.

Witnesses:

SIMONET LE BLANC,
JOHN NUGIER.