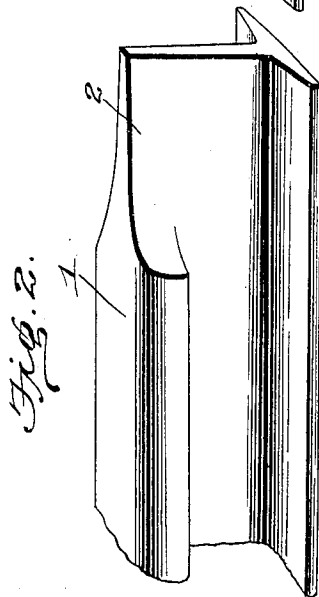
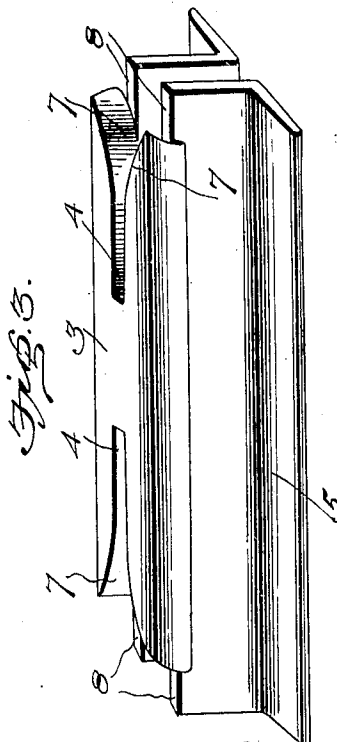
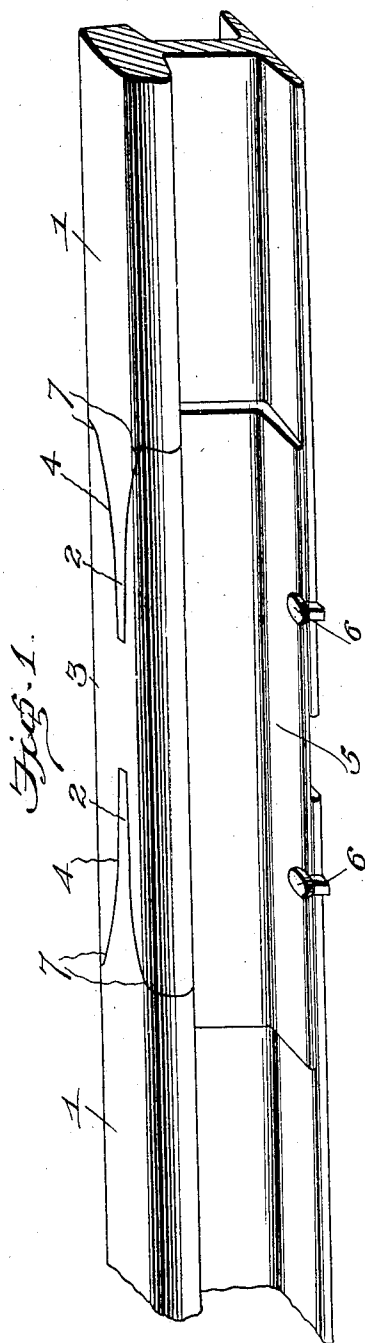


No. 876,107.

PATENTED JAN. 7, 1908.

J. M. STEELE.
RAILWAY RAIL JOINT.
APPLICATION FILED DEC. 10, 1906.

2 SHEETS—SHEET 1.



Witnesses
C. A. Hunt,
C. H. Giesbauer.

Inventor
J. M. Steele,
by *A. B. Wilson & Co.*
Attorneys

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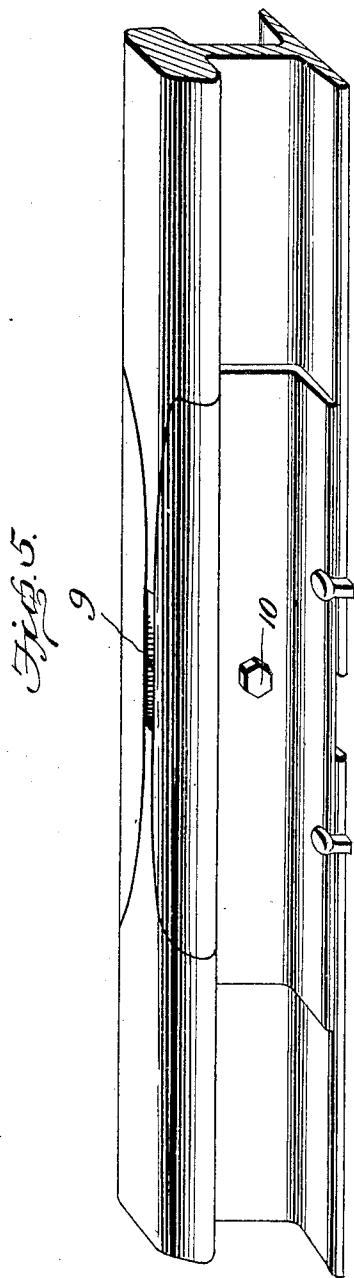


Fig. 6.

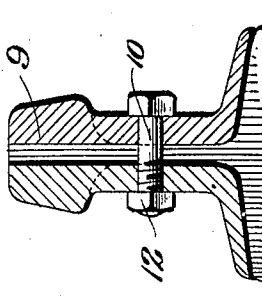
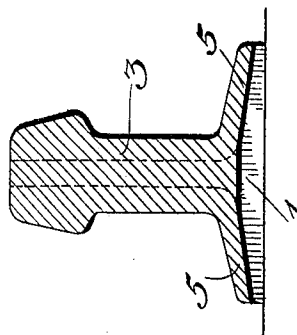


Fig. 4.



Witnesses
E. Hunt.
C. H. Griesbauer

Inventor
J. M. Steele
by *A. B. Wilson & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH M. STEELE, OF FAYETTE CITY, PENNSYLVANIA.

RAILWAY-RAIL JOINT.

No. 876,107.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed December 10, 1906. Serial No. 347,099.

To all whom it may concern:

Be it known that I, JOSEPH M. STEELE, a citizen of the United States, residing at Fayette City, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Rail Joints; and I do declare the following to be 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.

This invention relates to improvements in railway rail joints.

The object of the invention is to provide a device of this character by means of which the opposing ends of railway rail sections may be firmly connected without the use of chairs or fish-plates, thus providing for the quick assembling or connecting of the rails.

A further object is to provide a joint of this character by the use of which all clicking, caused by the passing of the wheels from one rail to the other, will be eliminated, and by the use of which the expansion and contraction of the rails will be permitted without detracting from the strength of the connecting features of the joint.

With the above and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a perspective view of the ends of two railway rails, showing the construction and arrangement of the joints; Fig. 2 is a similar view of one end of the rail, showing the formation of the same to fit the joint; Fig. 3 is a perspective view of the joint piece; Fig. 4 is a vertical cross sectional view through the same; Fig. 5 is a detail perspective view, showing a modified construction of the rail joint; and Fig. 6 is a central vertical cross sectional view of the same.

Referring more particularly to Figs. 1 to 4 of the drawings, 1—1 denotes the ends of two rail sections, the treads of which are tapered inwardly for a suitable distance to form a wedge-shaped construction, shown at 2. The joint 3 for connecting the ends of two rail sections conforms somewhat to the shape of a rail, and is provided near its opposite ends with substantially V-shaped recesses 4 adapted to receive the inner ends of the webs and tapered treads of the opposing ends of the rail sections. The joint 3 is

provided on its lower edges with outwardly-projecting flanges 5, which when the joint is in place are adapted to rest upon and project over the flanges of the rail sections, said rail flanges forming a support for the joint piece. The joint, after being thus engaged with the opposing ends of the rail sections is firmly held in place by means of spikes 6, which are driven into the ties in such position that the heads of the spikes project over and engage the flanges 5 of the joint piece and the ends of the flanges of the rail sections, as shown. The body portion of the joint piece is substantially in the form of a rectangular block, the upper outer edges or corners of which are slightly rounded and conform somewhat to the shape of the treads of the rail sections, thus forming an even unbroken surface against which the flanges of the car wheels may travel. In forming the V-shaped recesses 4 in the ends of the joint piece, the upper or tread portions of the same are rounded or curved outwardly, as shown at 7, thus forming shoulders 8 at the upper ends of the webs or side members joint-piece adapted to fit under the adjacent overlapping portions of the treads of the rail ends, thus forming a substantially interlocking connection between the ends of the rails and the joint piece.

In Figs. 5 and 6 of the drawings is shown a slightly modified construction of the rail joint 9, the same being shown in these figures as formed in two pieces, which when placed together upon opposite sides of the meeting ends of the rail form substantially the same construction as shown in the one piece joint. The parts of the joint piece 9 when placed together into engagement with the tapered ends of the rail sections, are held by means of a centrally-disposed clamping bolt 10, on one end of which is screwed a nut 12, thus firmly holding the piece of the joint into firm engagement with the ends of the rail.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as defined by the appended claims.

Having thus described my invention, what

I claim as new and desire to secure by Letters-Patent, is:—

A railway rail joint comprising an approximately rectangular block having oppositely-disposed V-shaped longitudinally arranged
5 recesses formed in the ends thereof, the outer end walls of said recesses being curved outwardly in opposite directions and with the tread portion thereof cut away to form
10 shoulders, laterally extending flanges on the lower edges of said blocks, the height of the block corresponding to the height of the rail above its flanges and adapted to fit

on said rail flanges with the shoulders extending under and engaging the lower face
15 of the rail tread at opposite sides of each rail end, the tread of the rail ends being tapered to fit in the V-shaped recesses of the blocks.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.
20

JOSEPH M. STEELE.

Witnesses:

ROBERT HARNER,
LEONARD A. WEAVER.