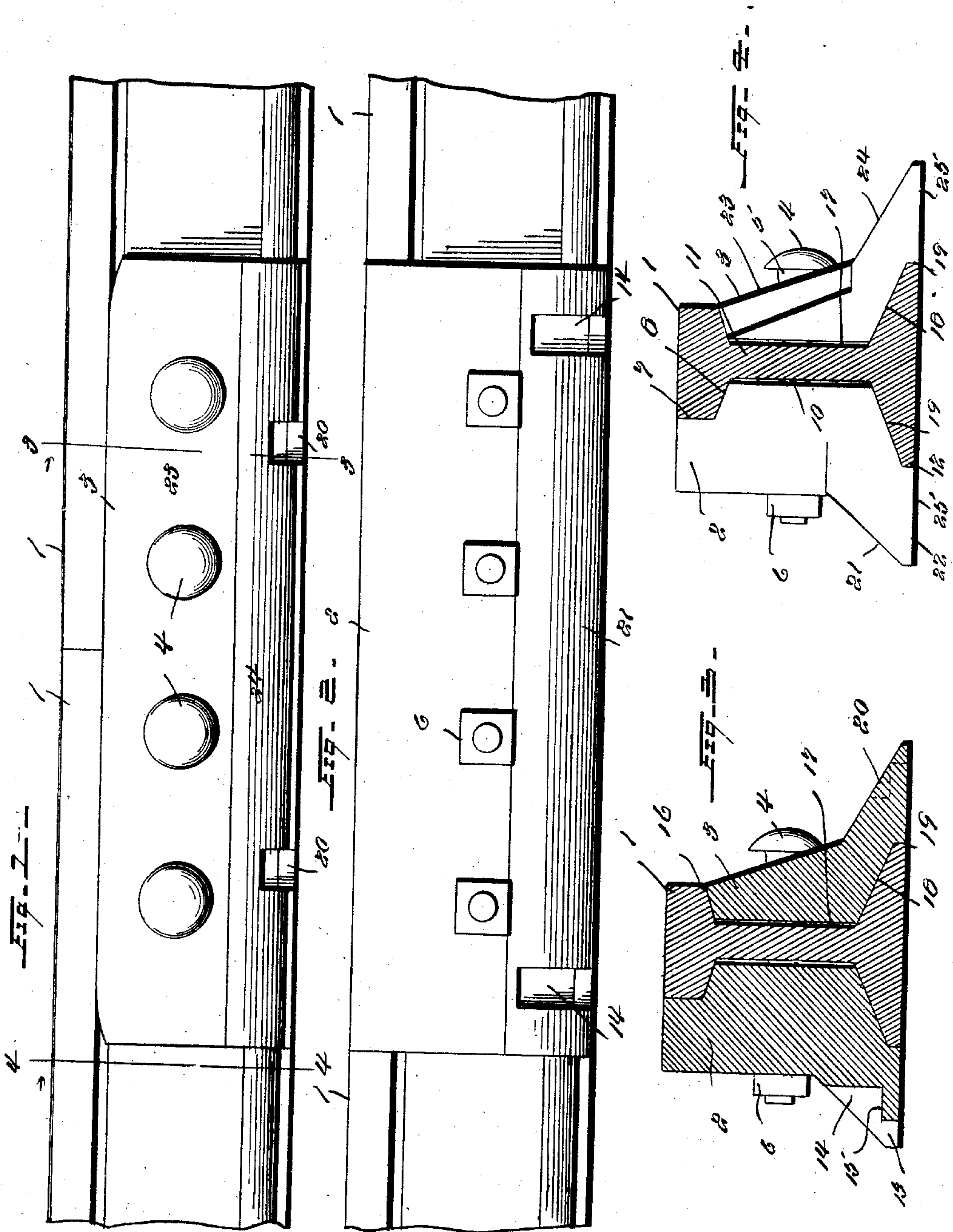


No. 866,692.

PATENTED SEPT. 24, 1907.

W. SLOSS, JR.
RAIL JOINT OR CHAIR.
APPLICATION FILED MAR. 11, 1907.



WITNESSES:
H. F. Hays
L. Q. Langworthy

INVENTOR
William Sloss, Jr.
By *Watson E. Coleman*
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM SLOSS, JR., OF SHREVEPORT, LOUISIANA.

RAIL JOINT OR CHAIR.

No. 866,692.

Specification of Letters Patent.

Patented Sept. 24, 1907.

Application filed March 11, 1907. Serial No. 361,745.

To all whom it may concern:

Be it known that I, WILLIAM SLOSS, Jr., a citizen of the United States, residing at #344 Walnut street, Shreveport, in the parish of Caddo and State of Louisiana, have invented certain new and useful Improvements in Rail Joints or Chairs, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to fish plates whereby railway rails are connected at the joint, one of the objects of the invention being to provide means for joining rails in such manner as to prevent the battering of the ends thereof as the wheels pass over the same, and also to prevent what is known as "pounding" of the wheels.

A further object of the invention is to provide means for connecting rails at their joints in such manner that the rails at the joint are as firm, strong, and even as elsewhere, and which will also prevent them from lateral deflection or sagging, and thus avoid low, uneven or swinging joints.

Other objects and advantages of my invention, as well as the structural features by means of which these objects are attained, will be made clear by an examination of the specification taken in connection with the accompanying drawing, in which the same reference numerals indicate corresponding portions throughout, and in which,

Figure 1 is a side elevation showing one side of my device connecting two rails at their joints, Fig. 2 is a view of the other side, Fig. 3 is a transverse section taken on lines 3—3 of Fig. 1, and Fig. 4 is a transverse section taken on lines 4—4 of Fig. 1.

1 designates a railway rail, 2 the outer joint-plate, 3 the inner joint-plate, 4 the rounded head on a bolt 5 provided with a nut 6 whereby the plates 2 and 3 are held in position, the bolts passing through holes in the plates and rails. The plate 2 is cut away, near the top thereof, to form a vertical wall 7 and also an inclined or slanting shoulder 8 conforming to, and upon which rests, the under side of the top of the rail. This plate is also cut away near its base to form another inclined or slanting shoulder 19 which rests upon, and conforms to, the top of the base of the rail, the portion 10 of the rail between said shoulders bearing against the web 11, and to also leave a vertical shoulder 12 which bears against the outer edge of the rail base. Near the bottom of this plate are parts cut away to form recesses for the reception of spikes. The recess 13 is adapted to receive the shank of the spike and the recess 14 the head thereof which rests on the shoulder 15. The plate 3 has an inclined or slanting top 16 to follow the contour of, and rest against, the under side of the rail, as shown, and is

of the same width as the distance from the web of the rail to its outer edge. This plate bears against the web of the rail, as shown at 17, and the bottom is cut away to form an inclined or slanting shoulder 18 conforming to, and resting upon, the top of the base of the rail, and to also leave a vertical shoulder 19 bearing against the outer edge of the rail base. Parts are cut away near the bottom of the plate to form recesses 20 for the reception of the spikes, which recesses are similar to those in plate 2 already described. The spike recesses in plate 2 are shown arranged between the spike recesses in plate 3 in order that the spikes on one side of the rail will not be driven in the sleeper or tie in line with the spikes on the opposite side, thus obviating the danger of splitting said sleeper. The top of plate 2 is flush with the top of the rail, and its outer edge is vertical somewhat more than halfway to the bottom where it deflects to form an inclined or slanting wall 21.

It will be observed that this shape of the plate affords a wide base 22. The outer wall of plate 3 is slightly inclined from the top to a point somewhat more than halfway to the bottom, as shown at 23, and thence inclined or slanted in a greater degree, as shown at 24. The peculiar form of each of these plates affords broad bases which effectually prevent the rails at the joints from wearing into the sleepers and thus making an uneven track.

By the use of the ordinary fish plate railway rails, at their joints by reason of the depression thereof by engines, or by heavily laden trains passing thereover, cut or wear into the wooden ties or sleepers, causing uneven joints and the battering of the ends of the rails and "pounding" of the wheels. By the use of my invention, this objectionable feature is avoided.

The joint-plates 2 and 3 may be made of any desired length, either short to form suspended joints between the sleepers, or long to permit the joint to rest on one sleeper and the ends of the plates on sleepers on both sides of the joint, and there may be any desired number of spike recesses in the plates so positioned that the recesses in one plate will not be opposite those in the other plate.

Having thus described my said invention, what I claim as new and desire to secure by Letters Patent of the United States, is

The herein described rail joint comprising the abutting ends of two track rails, inner and outer plates each having upright portions and laterally projecting base portions, the latter portions having their upper surfaces inclined downwardly and outwardly and formed in their edges with spiked receiving notches having seats or shoulders, said notches in one plate being arranged out of transverse alinement with those in the other plate,

both of said plates having their opposing inner faces
shaped to fit the bottom of the head, the web and the
tops of the base flanges of said track rails, the inner
plate having the outer face of its upright portion inclined
5 downwardly from the bottom of the head of the track
rails, the outer plate having the top of its upright portion
flat and lying flush with the tread of the track rails, said
upright portion of the outer plate having its outer face
disposed vertically, fastening bolts passed transversely
10 through said plates and said rails and nuts upon the

threaded ends of said bolts and engaged with the vertical
outer face of the outer plate, substantially as shown and
described.

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

WILLIAM SLOSS, JR.

Witnesses:

ED. SEAMAN,

W. C. AGURS.