No. 877,455. PATENTED JAN. 21, 1908.

C. H. RAY.

RAIL JOINT.

APPLICATION FILED APR. 6, 1907.

Fig. 1.

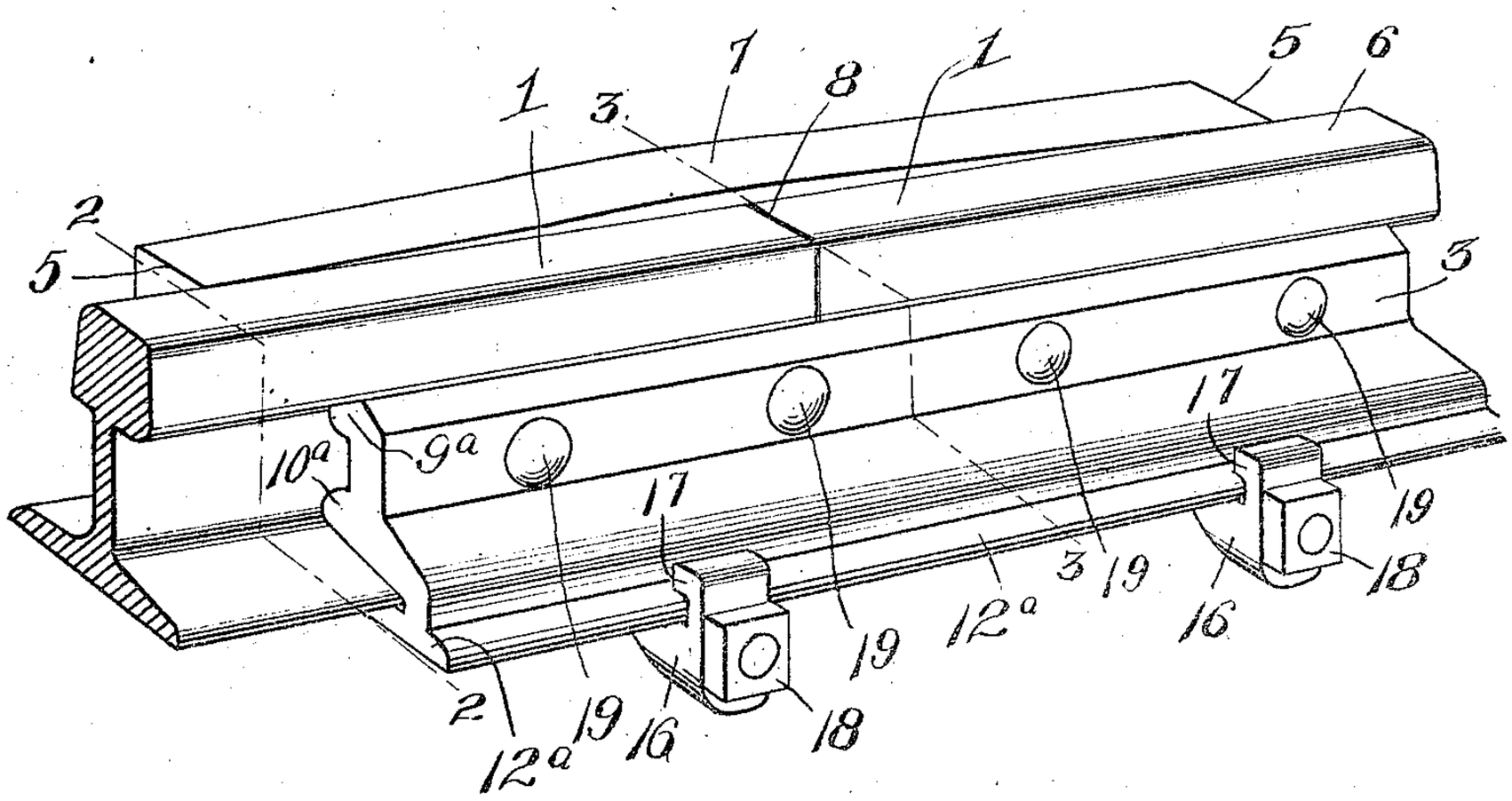


Fig. 2.

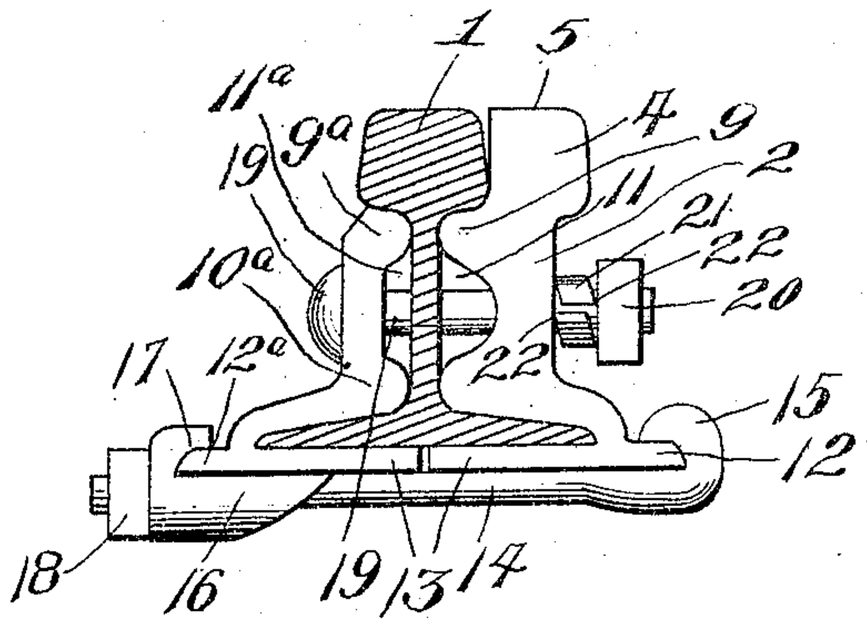
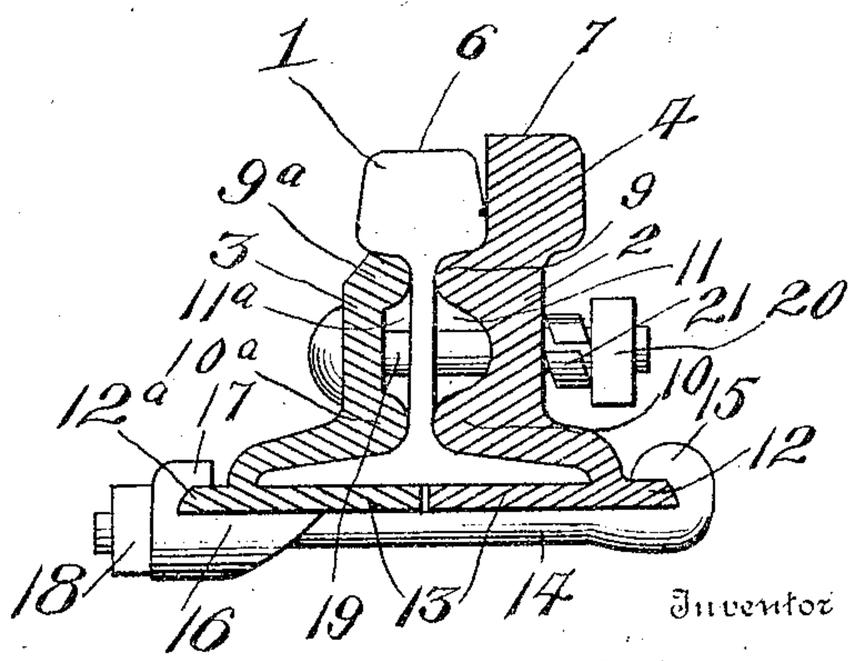


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES H. RAY, OF FAYETTEVILLE, ARKANSAS.

RAIL-JOINT.

No. 877,455. Specification of Letters Patent. Patented Jan. 21, 1908.

Application filed April 6, 1907. Serial No. 366,770.

To all whom it may concern:

Be it known that I, CHARLES H. RAY, a citizen of the United States of America, residing at Fayetteville, in the county of Washington and State of Arkansas, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail joints, and one of the principal objects of the same is to provide means for preventing the pounding of the wheels at the rail joints.

Another object of the invention is to provide means for firmly uniting the meeting ends of railway rails and at the same time to provide a splice bar having a curved upper surface to carry the wheels of the rolling stock over the joints of the rails.

Still another object of the invention is to provide a combined rail splice and rail chair which will prevent spreading or creeping of the rails, one member of said chair or splice having a curved upper surface which extends above the surface of the rail joint to support the wheels of the rolling stock above the joint, and thus to prevent pounding of the wheels against the meeting ends of the rails.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which:

Figure 1 is a perspective view of a rail joint made in accordance with my invention. Fig. 2 is a transverse sectional view on the line 2—2, Fig. 1. Fig. 3 is a sectional view on the line 3—3, Fig. 1.

Referring to the drawings for a more particular description of my invention, the numerals 1 designate the meeting ends of two ordinary railway rails, while 2 is one member of my rail splice and 3 is the other member thereof. The member 2 is provided with a head 4, the opposite ends 5 of which are disposed slightly below the tread surface 6 of the rails 1, while the central portion 7 of the member 2 is disposed slightly above the joint 8 of the rails, as shown more particularly in Figs. 1 and 3. The member 2 is provided with a longitudinal bead 9 which fits under the head of the rails 1, while a similar bead 10 fits against the web of the rail at a point immediately above the base flange of said rail, the space between the beads 9 and 10 forming a longitudinal groove 11. The member 2 fits over the base flange of the rail and is provided with an outwardly extending beveled flange 12 which extends from end to end of the member 2. The member 3 of the splice is provided with beads 9^a, 10^a, which fit against the web of the rails and provide a longitudinal groove 11^a, said member 3 also fitting the upper surface of the base flange of the rails and being provided with a longitudinal flange 12^a. Said members 2 and 3 are each provided with a base flange 13 which extend toward each other under the base flange of the rails, thus forming a rail chair.

Clamping bolts 14 are utilized for holding the two members of the splice together at the base flange thereof, said bolts each having a hook member 15 to engage the flange 12 of the member 2, the opposite end of the bolt 14 being provided with a hook member 16 mounted on the shank of the bolt and provided with a hook 17 to engage the flange member 12^a. A nut 18 is fitted to the bolt 14 and by turning said nut the hooks 15 and 17 engage the flanges 12 and 12^a to draw the two flanges 13 toward each other under the rail flange. Bolts 19 pass through the web portions of the rails 1 and through the members 2 and 3 of the splice, said bolts being provided with nuts 20 and nut locks 21, said nut locks comprising a split ring having oppositely disposed biting corners 22 which engage the nut and the face of the member 2 to prevent the nut from turning on the bolt when it has been turned thereon to draw the members 2 and 3 firmly against the web of the rails.

From the foregoing it will be obvious that a rail splice made in accordance with my invention will firmly hold the meeting ends of the rails against spreading, will prevent the pounding of the rolling stock against the joint of the rails, and will obviate the labor of tamping the joints for raising the same after they have become worn and sunken. Furthermore, other inventions of this character are said to be only about 53 per cent. as strong as the unbroken rail, owing to the fact that the splice bars are not as broad as the rail. In my invention it will be noticed that member 2 is even broader than the rail. This improvement will greatly strengthen the rails at joints.

Having thus described the invention, what I claim is:

A rail joint comprising a splice bar having a curved upper surface to carry the rolling stock over the rail joint, inwardly extending beads to bear against the web of the rails, an outwardly extending flange, and an inwardly

extending base flange, an oppositely disposed splice member, bolts extending through both members and through the web of the rails, hooks formed on bolts, and hook members adapted to slide on said bolts for uniting the two members of the splice, substantially as described.

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

CHARLES H. RAY.

Witnesses:
W. J. REYNOLDS,
H. F. REAGAN.