

J. F. KERSTETER.
RAIL CHAIR.
APPLICATION FILED NOV. 8, 1910.

987,578.

Patented Mar. 21, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

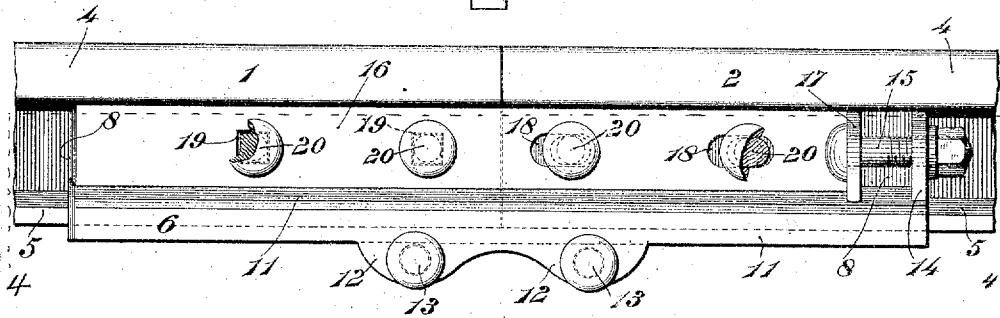


Fig. 2.

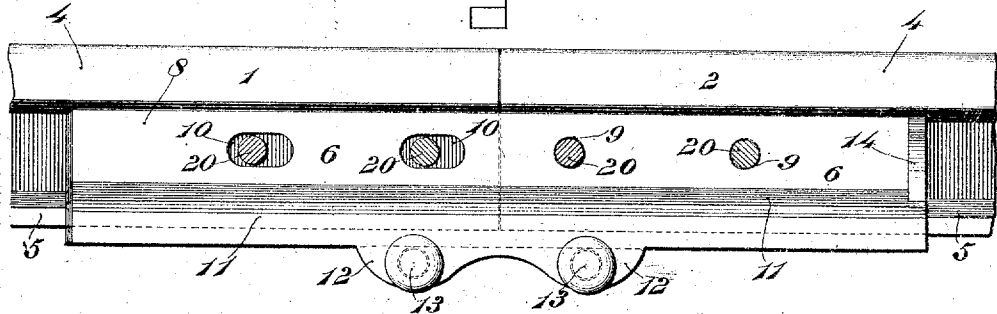
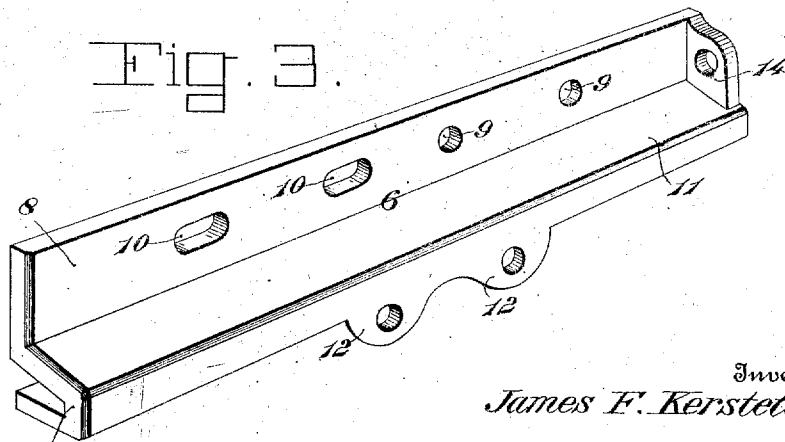


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

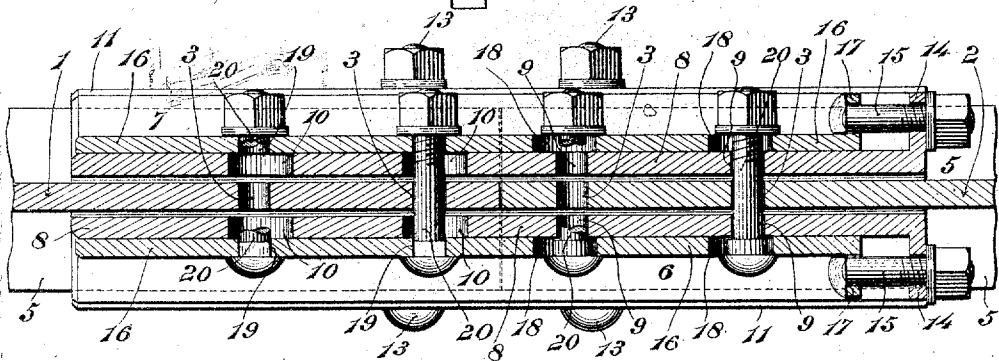


Fig. 5.

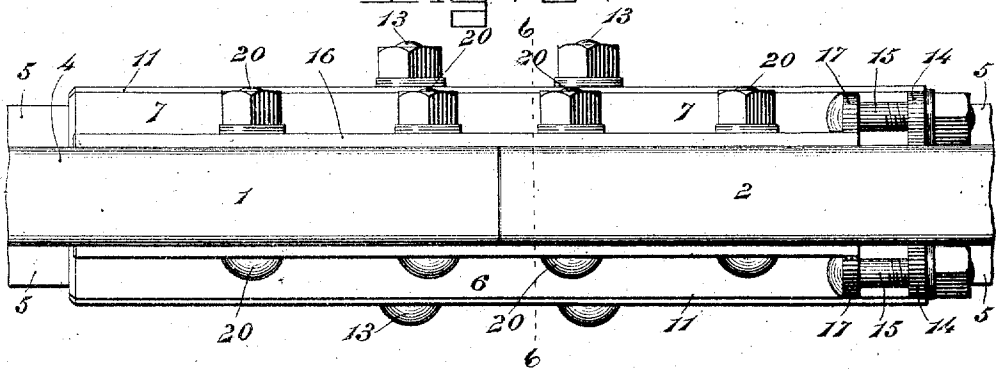
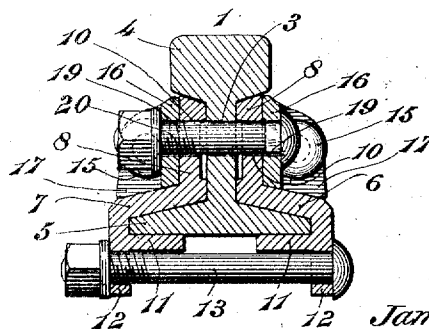


Fig. 6.



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UNITED STATES PATENT OFFICE.

JAMES F. KERSTETER, OF SUNBURY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO W. H. MERTZ AND ONE-FOURTH TO W. E. BLOOM, BOTH OF SUNBURY, PENNSYLVANIA.

RAIL-CHAIR.

987,578.

Specification of Letters Patent.

Patented Mar. 21, 1911.

Application filed November 8, 1910. Serial No. 591,229.

To all whom it may concern:

Be it known that I, JAMES F. KERSTETER, a citizen of the United States, residing at Sunbury, in the county of Northumberland and State of Pennsylvania, have invented new and useful Improvements in Rail-Chairs, of which the following is a specification.

This invention relates to rail chairs and particularly to that type which are adapted to support the ends of the rails when they meet between ties.

The object of the invention is the provision of a rail joint having means to draw the ends of the rails together whereby a tight joint is formed and bumping thereby eliminated.

A further object of the invention is the provision of a joint chair having means for keeping the connecting bolt in tight engagement with the walls of the holes in the webs of the rails and thereby eliminate the consequent vibration of each bolt and their subsequent loosening.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which:

Figure 1 is a side elevation. Fig. 2 is a similar view with the adjusting plate removed. Fig. 3 is a detail perspective view of one of the fish plate sections. Fig. 4 is a horizontal section taken on the line 4-4 of Fig. 1. Fig. 5 is a top plan view. Fig. 6 is a transverse sectional view on the line 6-6 of Fig. 5.

Referring more particularly to the drawings 1 and 2 represent the separate ends of the rails to be connected each of which is provided with bolt apertures 3 adjacent their ends and both of which have the usual heads 4 and bases 5. The chair comprises separate members 6 and 7 each of which is provided with a vertical flange 8 adapted to lie between the head and base of the rails and which is provided with apertures 9 and slots 10. Extending outwardly from the flange 8 of the chair sections, are U-shaped flanges 11 which are adapted to receive the base of the rails and which are provided with downwardly extending lugs 12 adapted to receive connecting bolts 13. Bridged between the vertical flange and the U-shaped

flange at one end of each section 6 and 7 is a web 14 adapted to receive an adjusting bolt 15 the purpose of which will be hereinafter described. Slidably mounted upon the U-shaped flanges and lying against the vertical flanges of the chair sections are adjusting plates 16 having webs 17 formed at their ends to receive the adjusting bolt 15. These plates are provided with slots 18 which lie adjacent the apertures 9 in the vertical flange and with openings or holes 19 which register with the apertures 10 in the vertical flanges. The apertures 19 on one plate are round while upon the opposite plate they are square to receive the squared heads of connecting bolts 20 which pass through the apertures 19, the slots 10 and holes 3 in the rails and also through the slots 18 and holes 3 and 9. When the bolts 20 are tightened up on the rails and the bolts 15 operated to adjust the plates, it will be readily seen that the slots 18 permit the plates to pass over the bolts and the bolts which extend through the holes 3 and 9 hold the sections 6 and 7 of the chair stationary with the rail 1, while the slots 10 permit the bolts 20 which fit the holes 19 and holes 3 to have movement relative to the sections 6 and 7. This causes the drawing of the section 2 toward the section 1. When the ends of the rails are brought together, a smooth tread surface is formed and bumping thereby eliminated. The lugs 12 reinforce the chair sections and thereby prevent sagging of the ends of the rails under pressure.

Having thus described the invention, what is claimed is—

1. The combination with rail ends having bolt apertures therein, of a rail chair therefor comprising a pair of fish plate sections having apertures and slots therein, a pair of adjusting plates slidably mounted upon the fish plate sections, said adjusting plates having slots registering with the apertures in the fish plate sections and apertures registering with the slots in the fish plate sections, the apertures in the fish plate sections registering with the apertures in one of the rails, the apertures in the adjusting plates registering with the apertures in the other rail, bolts passing through the rails, fish plate sections and adjusting sections, certain of said bolts being free to move in the slots in the adjusting plate, and certain of said bolts

being free to move in the slots in the fish plate sections, and means to adjust the adjusting plates over the fish plate sections.

2. The combination with apertured rail ends, of fish plate sections mounted thereon and having slots and apertures therein, adjusting plates mounted to slide upon the fish plate sections and having slots and apertures therein, bolts passing through the adjusting and fish plates and through one of the rails, said bolts holding the fish plate sections and the rail from relative end-wise movement and adapted to have relative movement in the slots of the adjusting

plate, bolts passing through the adjusting plate and fish plate sections and through the other rail, said last named bolts holding the adjusting plates and rail from relative end-wise movement and adapted to slide in the slots of the fish plate sections, and means to move the adjusting plates over the fish plate sections. 15 20

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

JAMES F. KERSTETER.

Witnesses:

W. E. BLOOM,
B. F. KELLEY.