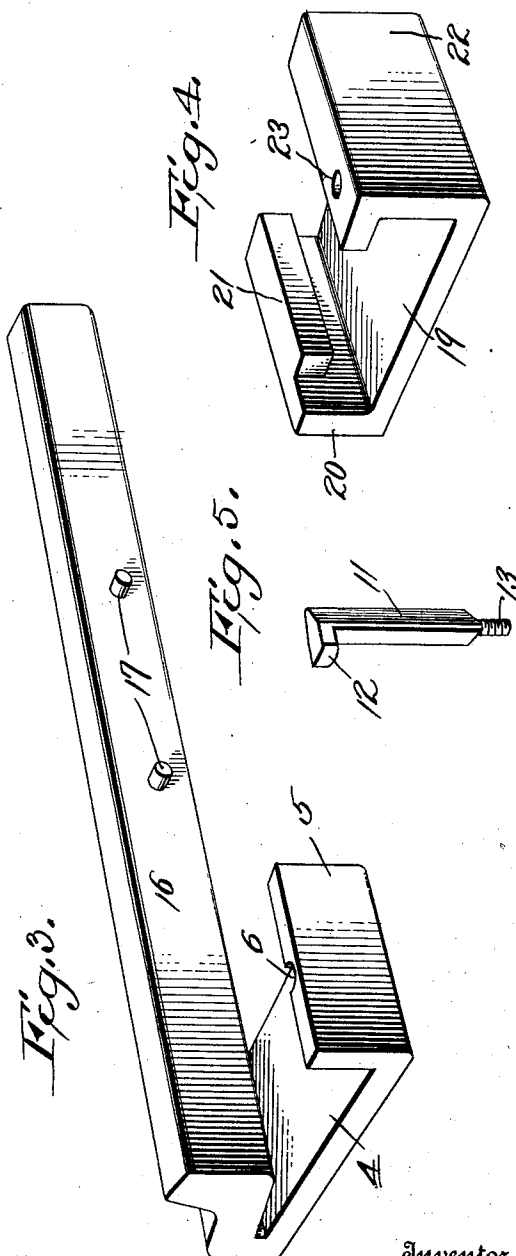


**1,037,483.**

Fig. 1. Fig. 2. Technical drawings of a mechanical assembly. Fig. 1 is a side view showing a shaft (15) with a pulley (6) and a gear (12) mounted on it. The shaft is supported by bearings (20, 21) and has a key (7) and a pin (10) visible. Fig. 2 is a cross-sectional view of the assembly, showing the shaft (15) passing through a housing (16) with a key (7) and a pin (10). The housing has a flange (11) and a bolt (13) securing it. The shaft is supported by bearings (20, 21) and has a key (7) and a pin (10) visible. The drawings are labeled with various numbers (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23) indicating different components and parts of the assembly.

Chas. H. Holmes  
E. B. McBath



Inventor  
*John Isbell*

384 *Chas E Brock*  
Attorney

# UNITED STATES PATENT OFFICE.

JOHN ISBELL, OF WASHINGTON, MISSOURI.

RAILROAD CHAIR AND PLATE.

1,037,483.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed November 21, 1911. Serial No. 661,500.

*To all whom it may concern:*

Be it known that I, JOHN ISBELL, a citizen of the United States, residing at Washington, in the county of Franklin and State of Missouri, have invented a new and useful Improvement in Railroad Chairs and Plates, of which the following is a specification.

This invention relates to a railroad chair and plate, and the object of the invention is to provide a strong and durable means of securing together the meeting ends of rails, and especially to prevent lateral displacement or spreading of the rails.

The device is also designed as an improvement upon the device shown in Patent Number 987,498, dated March 21, 1911, in which patent an interest has been assigned to the applicant.

The invention consists in the novel features of construction, hereinafter described, pointed out in the claims and shown in the accompanying drawings, in which,

Figure 1 is a plan view, parts being broken away and shown in section. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of one of the plates. Fig. 4 is a perspective view of a chair detached. Fig. 5 is a perspective view of a locking pin.

In the drawings, 1 represents the meeting ends of rails of the ordinary construction, with one exception which will be hereinafter pointed out. A plate 15 is adapted to overlap the meeting ends of the rails and to bear against the web and upon the base of the rail. This plate also forms a brace for the underside of the tread portion or ball of the rail. A second plate 16 is also employed and fits the opposite sides of the rails, and the plate 16 carries upon its inner face pins 17 which are adapted to pass through suitable elongated openings formed in the rail web, said openings allowing for expansion and contraction while at the same time the pins serve to lock the plate 16 against longitudinal or creeping movement along the rails. The plate 16 carries at one end an inwardly extending chair 4 having a plate base adapted to extend beneath and support the rail, and the end of the chair is provided with a vertical flange 5 provided on its inner face with a vertical groove or notch 6. This flange 5 is parallel to the rail and the chair 4 is of sufficient length to space

said flange such a distance from the rail as to permit an end of the plate 15 to rest upon the chair, said plate being held between the flange 5 and the rail 1, as shown in Fig. 1. The plate 15 is provided upon its outer face with a number of grooves or vertically arranged notches 10 any one of which is adapted to be brought into alinement with the corresponding notch 6 of the flange 5, thereby forming a circular opening into which a suitable locking pin 11 may be inserted. Preferably I employ locking pins triangular in cross section and provided with laterally extending heads 12 and provided at their lower ends with reduced threaded portions 13 adapted to extend downwardly through the chair base, the groove 6 extending through said base and a suitable nut 14 is adapted to be placed upon the projecting threaded portion of the locking pin. The plate 15 is formed separate from the chair carried by it and in this respect differs from the plate 16. Adjacent the end opposite the notches 10 the plate 15 is notched or cut out as indicated at 18 and a chair 19 provided at one end with a vertical flange 20 is provided throughout a portion of its length with an overhanging portion 18. The opposite end of the chair 19 is provided with a vertical, inwardly angled flange 22, also vertically notched, a circular opening 23 being formed in the overhanging portion of the flange 22 and registering with said notch. The plate 16 fits in the chair 19 resting between the flange 22 and the rail being overhung by said flange as shown in Fig. 2.

In assembling the device, the chair 19 is first fitted to the plate 15 and the parts can then readily be slipped into position upon the rails.

What I claim is:

1. A device of the kind described comprising parallel plates adapted to fit opposite sides of a rail, chairs carried by opposite ends of said plates, one of said chairs being removably connected to its plate, each of said chairs receiving one of the rails and the free end of one of the plates and means for locking said chairs to the free ends of the plates.

2. In a device of the kind described, a plate adapted to overlap the meeting ends of a rail, said plate having an integral chair

carried thereby and adapted to extend under and receive a rail, a second plate having one end portion cut out, a detachable chair provided with a flange adapted to enter said cut-out portion, said last mentioned chair receiving the other rail and the first mentioned plate and the first mentioned chair receiving the last mentioned plate, as and for the purpose set forth.

JOHN ISBELL.

Witnesses:

AUGUST LAUMANN,  
FRED HEIDLAGE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."