

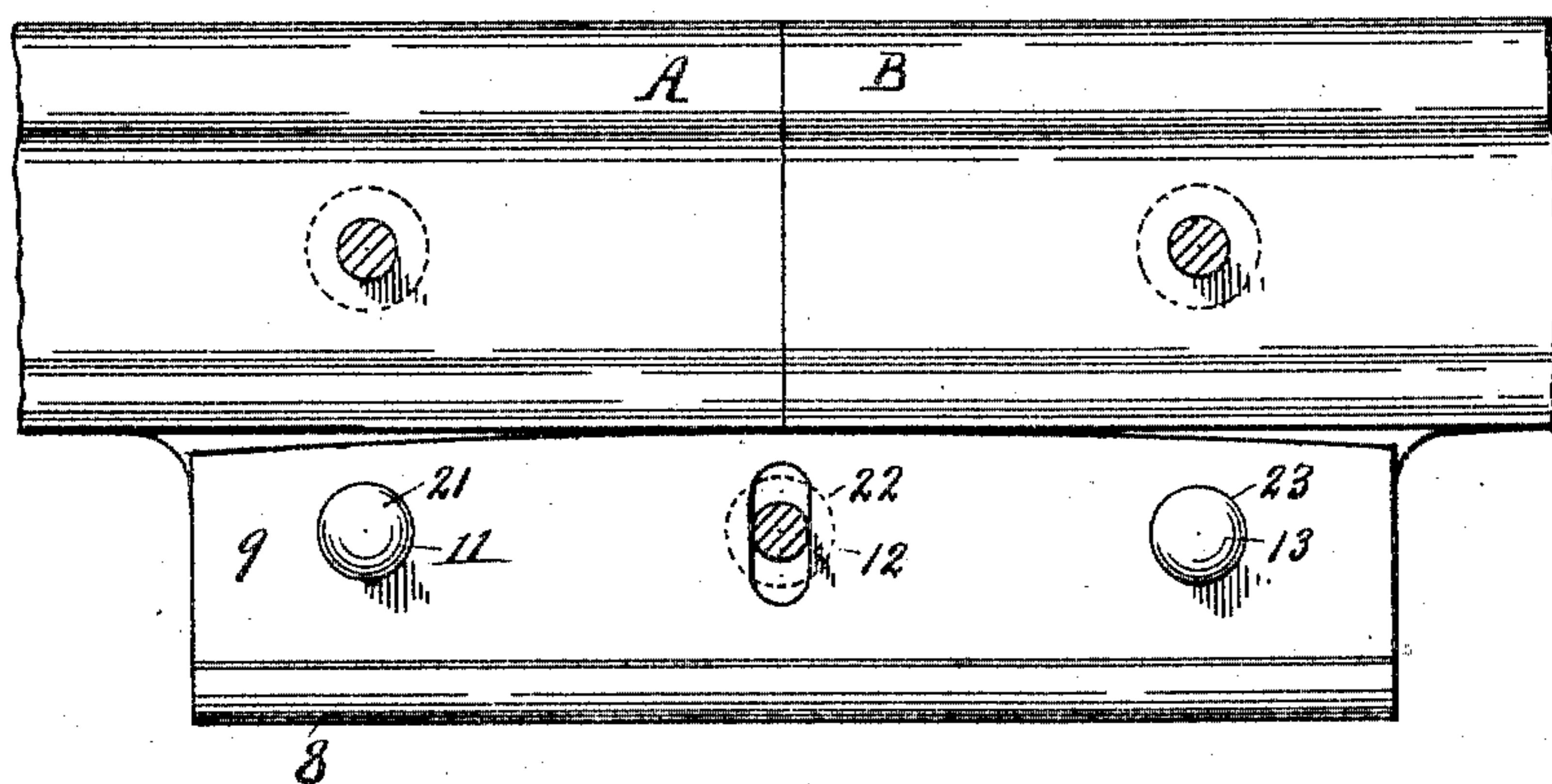
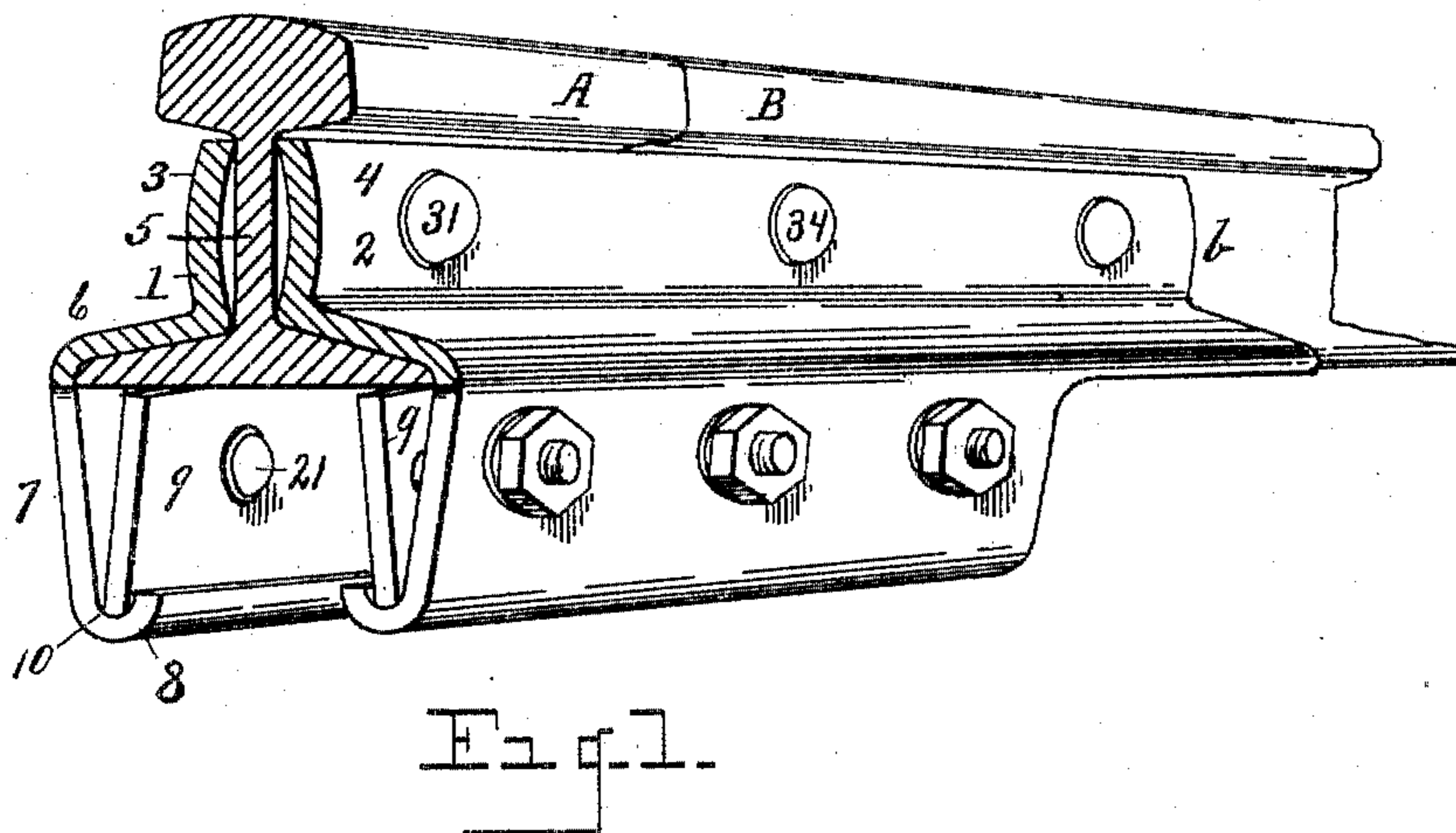
No. 777,649.

PATENTED DEC. 13, 1904.

A. BARNES.  
RAIL COUPLING.

APPLICATION FILED MAR. 30, 1904.

NO MODEL.



Amos. Barnes  
Inventor

Witnesses

Witnesses  
May E. Kott.  
Lotta Lee Hayton.

By his Attorneys. Parker & Burton.

# UNITED STATES PATENT OFFICE.

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## RAIL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 777,649, dated December 13, 1904.

Application filed March 30, 1904. Serial No. 200,665. (No model.)

*To all whom it may concern:*

Be it known that I, AMOS BARNES, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented  
5 a certain new and useful Improvement in Rail-Couplings; and I 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 pertains to make and use the  
10 same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to railroad fish-plates, and has for its object an improved fish-plate  
15 or railroad-rail coupling adapted to hold the two ends of two consecutive rails firmly and securely and to prevent the yielding or dropping of one of said rails under the weight of the car as the wheel reaches the end and just  
20 before it passes from the end onto the following rail.

In the drawings, Figure 1 is a perspective of the coupling. Fig. 2 is a side elevation of the rails and an elevation of one of the couplings, showing that side which lies toward the  
25 middle of the rail. In Fig. 2 the curvature of the upper face of a wedge-plate, which will be described, is exaggerated.

A and B indicate the two ends of two ordinary T-rails.  
30

1 and 2 indicate two of the plates, which are provided with webs 3 and 4, which engage against the webs 5 and 6 of the two rails A and B. Each of the plates is constructed  
35 with the web part 3 similar in shape and form to an ordinary fish-plate, with a foot-bearing plate 6 to engage over and bear upon the foot-flange of the rail, and with a hanger part 7, that hangs below the foot-flange of the rail and is inclined somewhat inward and under-  
40 neath the rail. The hanger part 7 at its bottom edge is turned inward and upward, with a grooved or hooked part 8, that furnishes a groove for the engagement of a wedge-plate  
45 9. The wedge-plate 9 has a width slightly greater than the distance between the bottom surface of the foot-flange of the rail and the surface 10 of the bottom of the groove, and

its upper face is curved slightly, with the widest part at the middle along the length  
50 of the wedge-plate. The hanging part 7 and the wedge-plate are provided with registering holes 11, 12, and 13, through which are passed bolts 21 and 23, and by means of the bolts the wedge-plate is drawn toward the hang-  
55 ing part 7 until the wedge-plate binds firmly between the grooved bearing at the bottom of the hanger and the bottom surface of the foot-flange. The curve along the upper edge of the wedge-plate should be only enough of a  
60 curve to insure clearance at the ends between the wedge and the rail and to insure that there will be an engagement at the middle part of the wedge notwithstanding any slight irregu-  
65 larities of construction that there may be either in the wedge or in the rail. The middle bolt 22 preferably passes through the hangers of both fish-plates and prevents the hangers from spreading. The holes through which this bolt 22 passes are slightly oval. (The  
70 drawings exaggerate this feature.)

The plate 2, with its wedge 9, is symmetrical in all respects with the plate 1 and the wedge 9. The plates themselves are secured together  
75 with the web of the rail held between them by bolts 31, 32, 33, and 34, similar in all respects to those in ordinary and common use.

What I claim is—

1. A railway-rail coupling, having in combination a plate provided with a bearing to en-  
80 gage against the web of a rail, a bearing to engage over the foot-flange of the rail, a hanging part provided with an intumed flange forming a bearing on the upper side of said flange, a wedge-plate engaging between said  
85 bearing and the foot-flange of the rail and adapted to oscillate on said bearing, bolts adapted to draw the top of the wedge-plate toward the hanger, substantially as described.

2. In a railway-rail coupling, in combina-  
90 tion with a plate adapted to be bolted to the rail and provided with a hanger extending below the flange of the rail and terminating with means to engage under a wedging-plate, a wedging-plate engaging the bearing of the  
95 coupling-plate and the foot-flange, and adapt-

ed to be drawn sidewise, and means for so drawing itsidewise, substantially as described.

3. In a coupling for railway-rails, in combination with a plate provided with means for  
5 securing it to a rail, and with means for supporting a wedge-plate, a wedge-plate bearing at its middle point and provided with means for clearance at its ends, and means for draw-

ing the wedge-plate sidewise, substantially as described. 10

In testimony whereof I sign this specification in the presence of two witnesses.

AMOS BARNES.

Witnesses:

MAY E. KOTT,

CHARLES F. BURTON.