

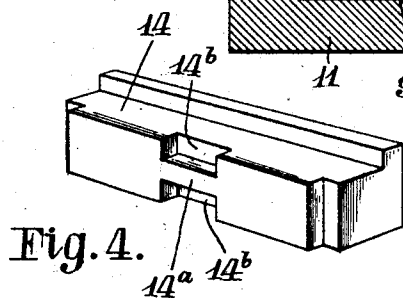
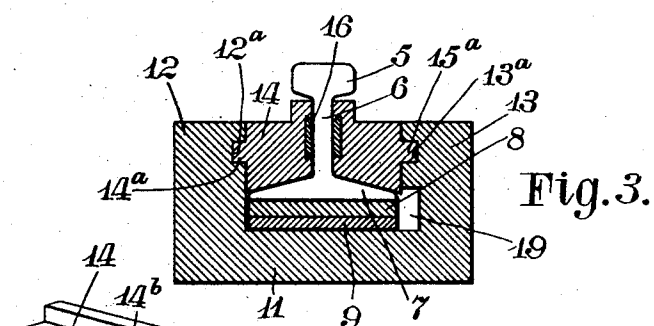
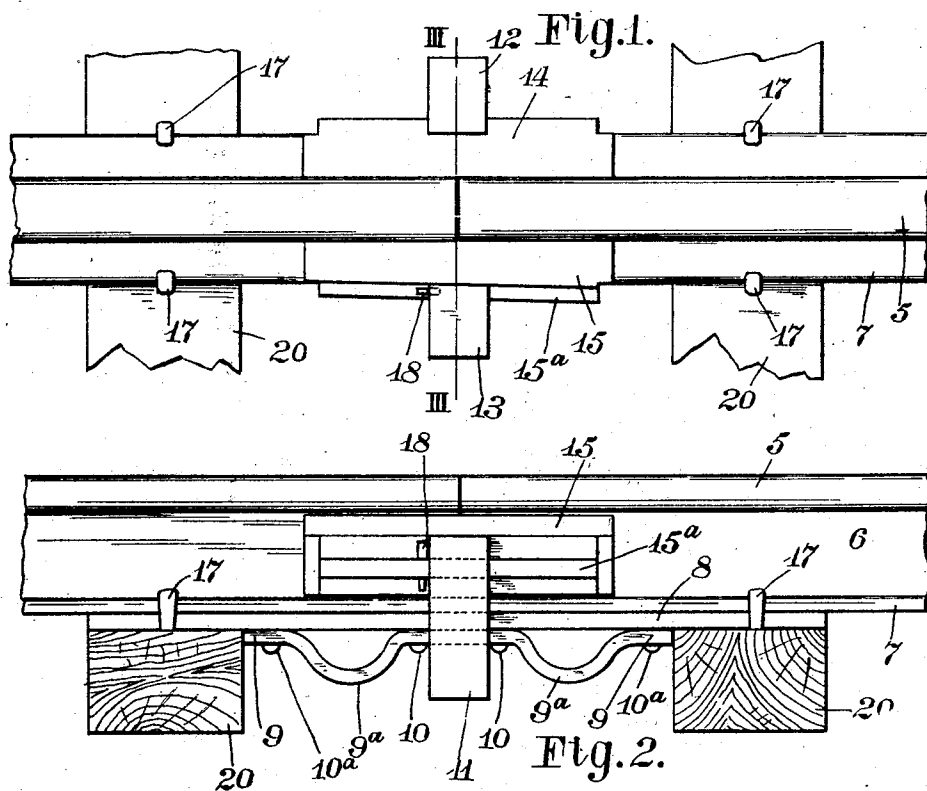
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D. O. NEWPORT

RAIL JOINT

Filed March 23, 1925



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UNITED STATES PATENT OFFICE.

DANIEL O. NEWPORT, OF COLUMBUS, OHIO.

RAIL JOINT.

Application filed March 23, 1925. Serial No. 17,479.

To all whom it may concern:

Be it known that I, DANIEL O. NEWPORT, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Rail Joints, of which the following is a specification.

The object of this invention is to provide an improved means of simple, economical and efficient construction that can be quickly applied for supporting and connecting the adjacent ends of railroad rails.

The invention is embodied in the example herein particularly shown and described, the features of novelty being finally claimed.

In the accompanying drawing—

Figure 1 is a top plan view of the invention as applied.

Fig. 2 is a view in side elevation of the same.

Fig. 3 is a sectional view on the line III—III Fig. 1 with the rail in end view.

Fig. 4 is a perspective view of the straight fish block.

In the views 5, 6 and 7 designate the ball, web and base or flange respectively of the rail. Supported between two of the usual railroad ties 20 where the rails meet is a bridge member composed of a plate 8 having at its lower side a trussing plate 9 bent downward at two portions 9^a and secured to the plate 8 by transverse rows of end rivets 10^a and corresponding rows of intermediate rivets 10. This construction provides a bridge of great resistance to an imposed load.

Straddling the bridging plate between the rivets 10 is a yoke 11 having its arms 12 and 13 reaching upward to points facing opposite sides of the web of the rails. The inner side of the arm 12 lies parallel to the rail while the inner face of the arm 13 is inclined and each face is provided with a groove as indicated at 12^a and 13^a respectively.

14 designates a fish block having generally parallel vertical faces and its outer face provided with a vertical recess 14^b to receive the arm 12 and a horizontal tongue 14^a between the walls of said recesses to fit in the groove 12^a, and 15 designates a taper fish block having its outer face provided with a tongue 15^a to engage the groove 13^a. The inner faces of the fish blocks adjacent the rail web are provided with suitable seats to contain pads of rubber, soft wood or other material as at 16

adapted to prevent possible creaking when the cars pass over the joint.

Before the yoke and fish blocks are applied, the rails together with the bridge are secured by spikes 17 to the ties, being properly alined in the spiking. The block 14 is then placed in position against the rail webs and the yoke raised into position with its bottom fitting between the rows of rivets 10, after which the yoke is drawn over transversely of the rails to cause the tongue 14^a to enter and engage the groove 12^a. Finally the taper fish block 15 is driven horizontally between the yoke arm 13 and the web of the rail with the tongue 15^a of said block engaging the groove 13^a thus binding the two blocks into intimate union with the rail. The tongue 15^a at the smaller end of the taper fish block is provided with a taper hole to receive a taper pin 18 after the block is driven firmly home to prevent the accidental dislocation of that block. In separating the parts the reverse operation is pursued it being noted that the space at 19 permits the yoke to be detached from the block 14 by horizontal endwise pressure in the direction opposite that taken when connecting the arm 12 with said block 14.

It will be noted that the yoke is held in position lengthwise of the rails by the rivets 10 and the block 14 held from movement in the corresponding direction by the yoke arm 12, that arm also being hung on said block by means of the rib 14^a.

With this improved construction also the parts as well as the ends of the rail are held securely in position and in line by the application of one wedging block and any appreciable depression or separation of the ends of the rails effectively prevented. It will also be noted that by reason of this construction the yoke arm is not supported on the ties but is hung on the fish blocks between ties, the yoke arm cooperating to hold the blocks in place.

The forms of the parts can be changed without departing from the gist of the invention as claimed.

What I claim is:

1. A rail joint including, in combination, a truss for the meeting ends of the rails consisting of a plate provided with a second plate bent at its end portions and providing a seat therebetween, a yoke seated in said seat and fish blocks held in said yoke.

2. A rail joint including, in combination, a yoke having arms reaching to the opposite sides of the rails, a non-wedging fish block in locking engagement with and supporting one of said arms, and a taper fish block having a tongue thereon engaging the other of said arms.
3. A rail joint including, in combination, a yoke having arms reaching to the opposite sides of the rails, a non-wedging fish block having a horizontal and vertical locking engagement with one of said arms and a taper fish block having a tongue thereon supportingly engaging the other of said arms.
4. A rail joint including, in combination, a yoke having arms reaching to the opposite sides of the rails, a non-wedging fish block lockingly engaged with and supporting one of said arms, and a taper fish block having a rib integral therewith engaging the other of said arms, said yoke being movable horizontally to effect engagement of its corresponding arm with said non-wedging fish block and the disengagement of said arm therefrom.
5. Means for joining and supporting the meeting ends of rails between ties including, in combination, a plate bridging the ties below and supporting the meeting ends of the rails, a yoke lying below said plate and having arms reaching upward to the opposite sides of the rails, a non-wedging fish block lockingly engaged by and supporting one of said yoke arms, and a taper fish block engaging and supporting the other of said yoke arms.

DANIEL O. NEWPORT.