

T. G. MORRIS.
RAIL JOINT.
APPLICATION FILED JULY 2, 1915.

Patented Apr. 18, 1916.
2 SHEETS—SHEET 1.

1,179,745.

Fig. 1.

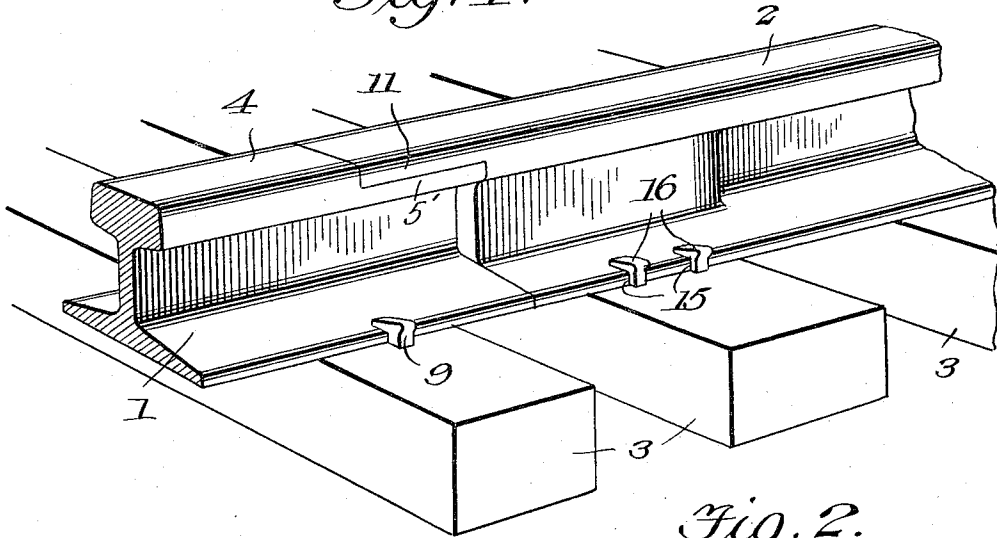


Fig. 2.

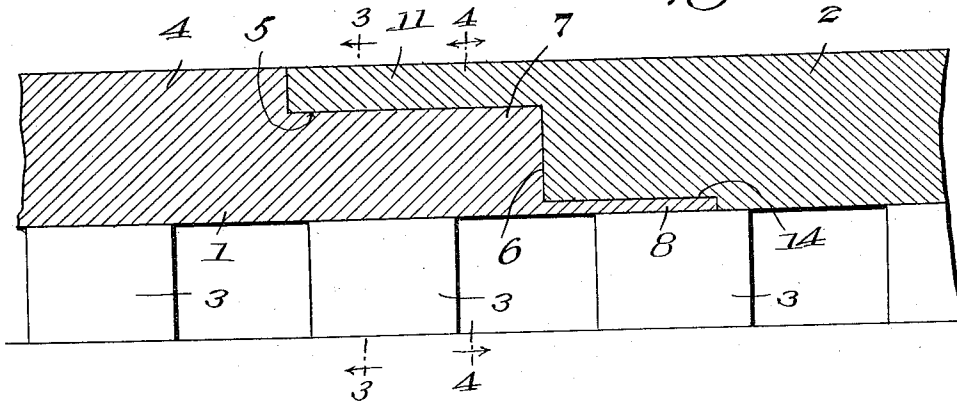
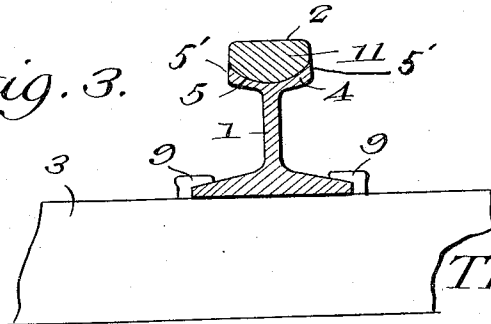


Fig. 3.



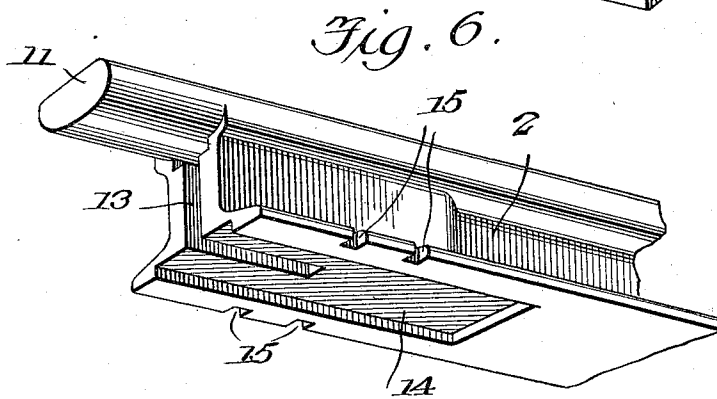
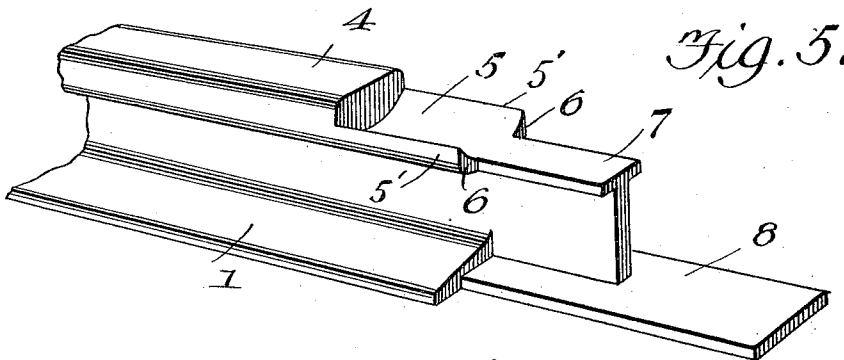
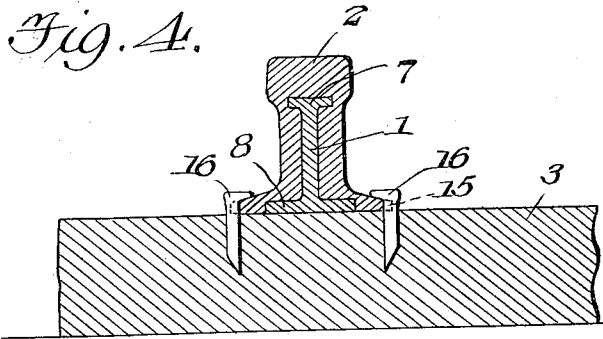
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UNITED STATES PATENT OFFICE.

THOMAS G. MORRIS, OF BRAY, OKLAHOMA.

RAIL-JOINT.

Specification of Letters Patent. Patented Apr. 18, 1916.

1,179,745.

Application filed July 2, 1915. Serial No. 37,730.

To all whom it may concern:

Be it known that I, THOMAS G. MORRIS, a citizen of the United States, residing at Bray, in the county of Stephens and State of Oklahoma, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

The present invention relates to improvements in means for connecting the ends of railway rails, and the primary object of the invention is to construct the meeting ends of two rails in such a manner that the same can be easily and quickly assembled without necessitating the employment of fish plates or similar devices.

Another object of the invention is to construct rails so that their meeting ends when assembled will provide a scarf joint, one of the said rails being secured upon a tie against longitudinal movement, the second rail end being susceptible of a certain amount of longitudinal movement, so that the expansion and contraction of the rails will be provided for.

With the above and other objects in view, the improvement resides in the construction, combination and arrangement of parts set forth in the following specification and falling within the scope of the appended claim.

In the drawings: Figure 1 is a perspective view of two rails connected in accordance with the present invention, Fig. 2 is a central vertical longitudinal sectional view through the same, Fig. 3 is a transverse sectional view approximately on the line 3-3 of Fig. 2, Fig. 4 is a similar transverse section approximately on the line 4-4 of Fig. 2, Fig. 5 is a perspective view of one of the rail ends, and Fig. 6 is a similar view of the co-acting rail end looking toward the bottom of the same.

Referring now to the drawings in detail, the numerals 1 and 2 designate two rails constructed in accordance with the present invention and 3 the ties upon which the rails rest.

The rail 1 has its head 4 channeled inwardly and longitudinally, as indicated by the numeral 5, the said channel providing the lower edges of the head 4 with longitudinally extending ribs 5'-5', and the inner faces of these ribs are preferably rounded inwardly. The flange of the rail 1, which, of course, terminates with the end 6 of the head of said rail is provided with a longitudinally extending plate 8, the said plate

being of a less width and of a less thickness than the flange proper. The web of the rail 1 extends a suitable distance beyond the end thereof and terminates a suitable distance short of the end of the plate 8, and this web has its upper edge formed with a laterally extending flange 7, the upper surface of which being in a line with the central portion of the depression 5, the ribs 5' being disposed to the opposite sides of the said head 7. This rail 1 is held to the ties 3 by spikes 9 which engage with the edges of the flange of said rail. The co-acting rail 2 is widened at its end and is provided with an extending head 11, the under face of said head being rounded to engage with the rounded wall provided by the depression 5 and also to contact with the opposite flanges provided by the said depression. The widened or thickened end of the rail 2 is formed with a longitudinally extending substantially T-shaped opening 13 which is adapted to receive the web extension as well as the lateral head 7 of the rail 1, and the inner face of the base of the rail 2 is provided with a longitudinal channel or depression 14 which receives therein the flange 8 of the rail 1. The base flange of the rail 2, adjacent its end is formed with a plurality of notches 15, each of said notches receiving spikes 16 which enter certain of the ties 3 and which serve as means for preventing the longitudinal movement of the said rail 2.

It is to be noted that the rail 1 does not have its base flanges formed with depressions and therefore the same may move upon the ties 3 in a longitudinal direction, such movement being occasioned by the expansion or contraction of said rails, but the spikes entering the depressions in the rail 2 will prevent the longitudinal movement of said rail, so that the expansion and contraction of the rails is provided for, and it will be noted that the employment of fish plates or analogous securing devices are entirely dispensed with.

From the above description, taken in connection with the accompanying drawings, the simplicity of the device, as well as the advantages thereof will, it is thought, be perfectly apparent to those skilled in the art to which such invention appertains without further detailed description.

Having thus described the invention, what I claim is:

In a means for connecting the ends of

rails, the combination with two rails, one of
said rails having its head, from its end,
channeled longitudinally providing the
lower edges of the said head with longitu-
5 dinally extending ribs, and the upper faces
of the ribs being curved downwardly to-
ward the center of the channel, the flange of
the rail which terminates in a line with the
end of the head thereof, being formed with
10 a longitudinally extending plate which is of
a less thickness and a less width than the
said flange, the web of the rail terminating
approximately central of the said plate and
having its upper edge formed with a later-
15 ally extending head which is joined with the
ribs provided by the channel, the other rail
having an extending head, the under-face of
which being shaped to be received in the

channel and to be engaged by the upper
faces of the ribs of the first mentioned rail, 20
said second rail from its end below its head
having a T-shaped slot disposed centrally of
its web to receive the web and the lateral
head of the web of the first mentioned rail,
and said second mentioned rail having the 25
underface of its flange channeled to receive
the plate of the first mentioned rail and to
be contacted by the edges of the said plate,
and means for securing both of the rails to
ties. 30

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

THOMAS G. MORRIS.

Witnesses:

L. A. EDWARDS,
O. R. MCKINNEY.

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