

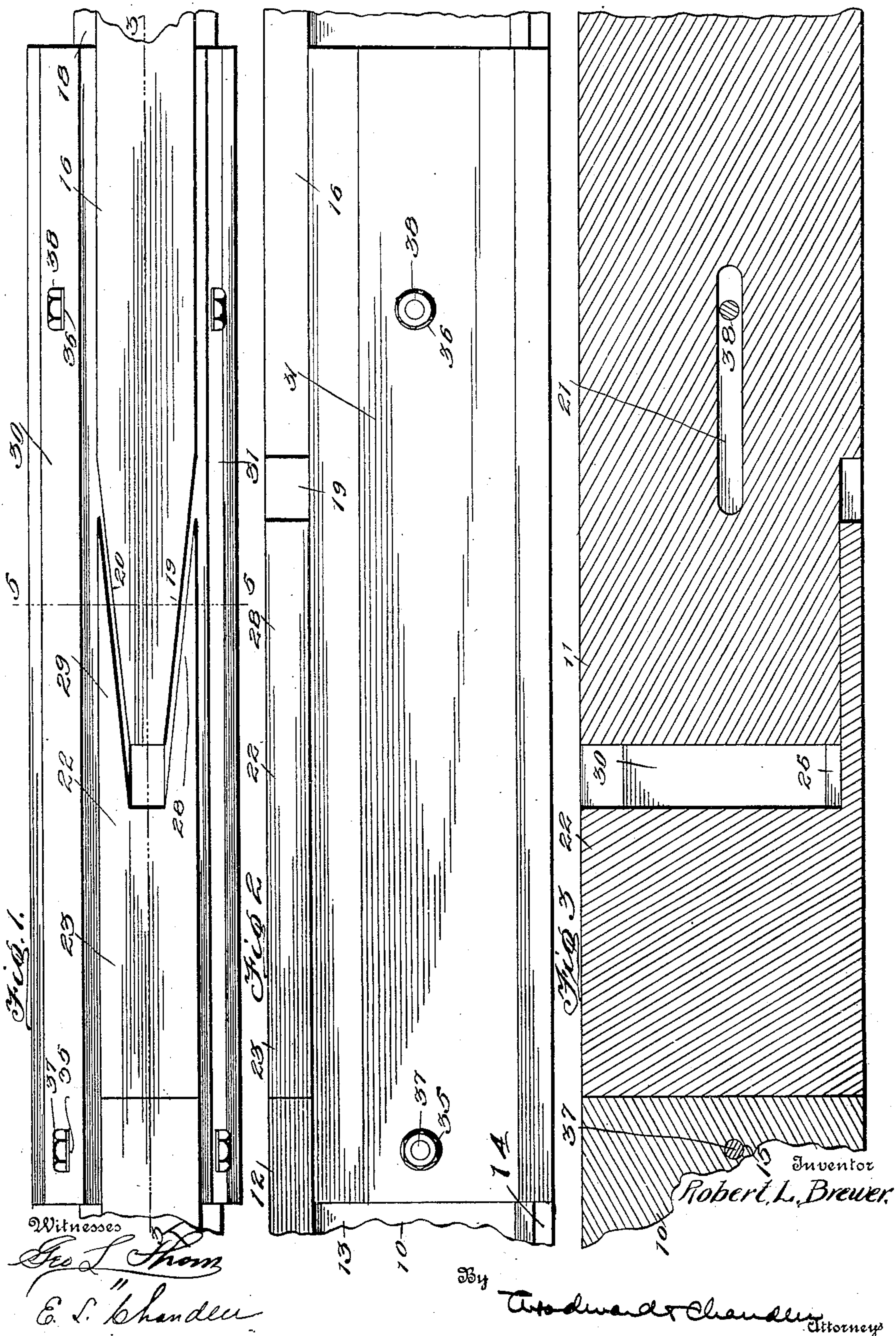
R. L. BREWER.
EXPANSION JOINT.

APPLICATION FILED NOV. 19, 1907.

Patented Dec. 29, 1908.

2 SHEETS—SHEET 1.

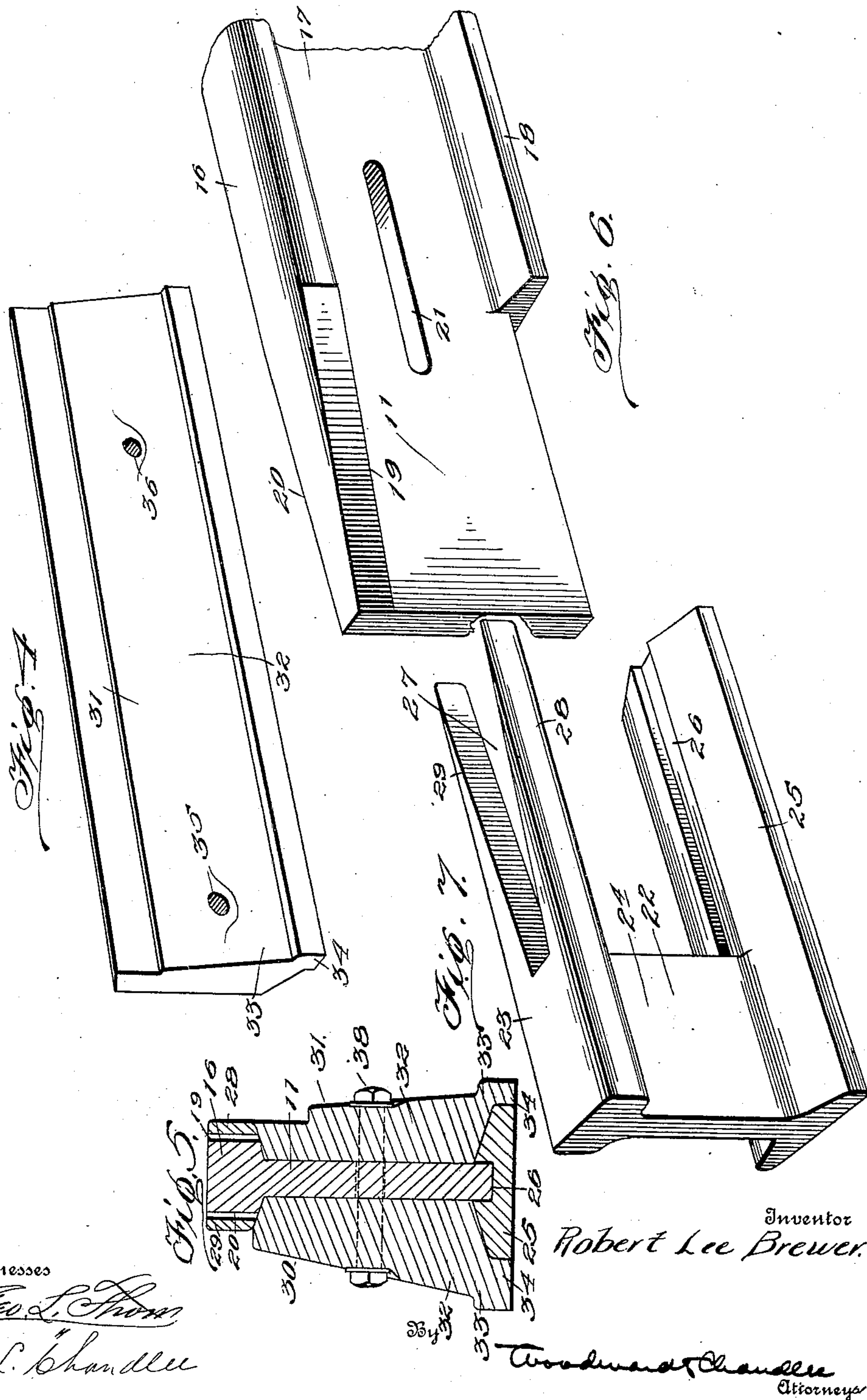
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Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT LEE BREWER, OF CAMDEN, ARKANSAS.

EXPANSION-JOINT.

No. 907,727.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed November 19, 1907. Serial No. 402,859.

To all whom it may concern:

Be it known that I, ROBERT L. BREWER, a citizen of the United States, residing at Camden, in the county of Ouachita and State of Arkansas, have invented certain new and useful Improvements in Expansion-Joints, of which the following is a specification.

This invention relates to railway rails, and more particularly to joints therefor, and has for its object to provide a simple and effective joint which will expand with the rails at the change of temperature and thus prevent the usual gap between the rails incident to such change.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of a portion of two railway rails showing the application of my invention thereto, Fig. 2 is a side elevational view, Fig. 3 is a vertical longitudinal sectional view on the line 3—3 of Fig. 1, Fig. 4 is a perspective view of one of the fish plates, Fig. 5 is a vertical sectional view on the line 5—5 of Fig. 1, Fig. 6 is a detail perspective view of the meeting end of one rail, Fig. 7 is a perspective view of the web block.

Referring now more particularly to the drawings, there are shown two rail sections 10 and 11 which are arranged with their ends in spaced relation, as shown. The rail 10 is of ordinary construction and comprises the tread portion 12, the connecting web portion 13, and a base flange 14. The section 10 is provided with a transverse passage 15. The rail 11 comprises a tread portion 16, a web portion 17, and a base flange 18. The web portion 17 is arranged to extend beyond the inner end of the flange 18, for a purpose to be hereinafter described. The tread portion 16 is beveled as shown at 19 and 20, and this beveled portion of the tread is thus arranged to lie directly above the inner portion of the web 17 which projects beyond a portion of its connecting flange 18. The web portion 17 of the rail 11 is provided with a longitudinally disposed slot 21.

A web expansion block 22 is disposed between the ends of the rails 10 and 11, and

this block comprises a tread portion 23, a web portion 24, and a connecting flange 25. The flange 25 is projected beyond the web 24, and in the upper face of this portion there is formed a longitudinally disposed passage 26. The passage 26 is thus arranged to receive a portion of the web 17 of the rail 11. The block 22 has its tread 23 arranged to extend above the passage 26, and this portion of the tread is forked as shown at 27 and this fork is thus arranged to provide fingers 28 and 29 which are thus arranged to extend at either side of the beveled portions 19 and 20 of the tread 16.

Fish plates 30 and 31 respectively are arranged at either side of the rails 10 and 11 and the connecting web block 22, and these plates have portions 32 which are disposed between the lower edges of treads and their connecting flanges, and these portions are somewhat wider at their lower ends as shown at 33, and these fish plates are arranged with portions 34 which lie outwardly of the base flanges 14, 18 and 25. The fish plates 31 are each provided with horizontal passages 35, and 36, and disposed in the passages 35 and in the passage 15 of the rail 10 there is shown a clamping bolt 37. The passages 36 are arranged to receive bolts 38, and these bolts are disposed with a portion in the slot 21.

What is claimed is:

1. The combination with two rail sections one of which is provided with a tapered end and a cut away base flange, of an expansible member located between the rail sections and comprising a forked tread portion arranged to receive the tapered end of one of the rail sections, said expansible member having a flange located beneath the forked portion, said flange having a longitudinally extending passage for the reception of the web of its adjacent rail section, and fastening plates engaged at the sides of said rail sections.

2. The combination with two rail sections one of which is provided with a tapered tread portion, said section having a portion of its base flange cut away, of an expansible member located between the rail sections and having a forked tread portion for the reception of the tapered end of its adjacent rail section, said expansible member having a slotted base flange arranged to receive the web of the adjacent rail section, and plates secured at each side of said rail sections.

3. The combination with two rail sections

one of which is provided with a tapered end
and a cut away base flange, of an expansible
member located between the rail sections
and comprising an outwardly directed base
5 flange having a longitudinally extending
groove for receiving the lower edge of the ta-
pered portion, said expansible member hav-
ing a forked tread portion disposed above
and in parallel relation to the base flange and
10 receiving said tapered end, the first named
section having a longitudinal slot, plates lo-
cated at the sides of the rail sections and at

the sides of the expansible member, a clamp-
ing bolt engaged with the plates and disposed
in the slot, and a second clamping bolt en- 15
gaged with the plates and with the other rail
section.

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

ROBERT LEE BREWER.

Witnesses:

C. D. GEE,

W. H. HALL.