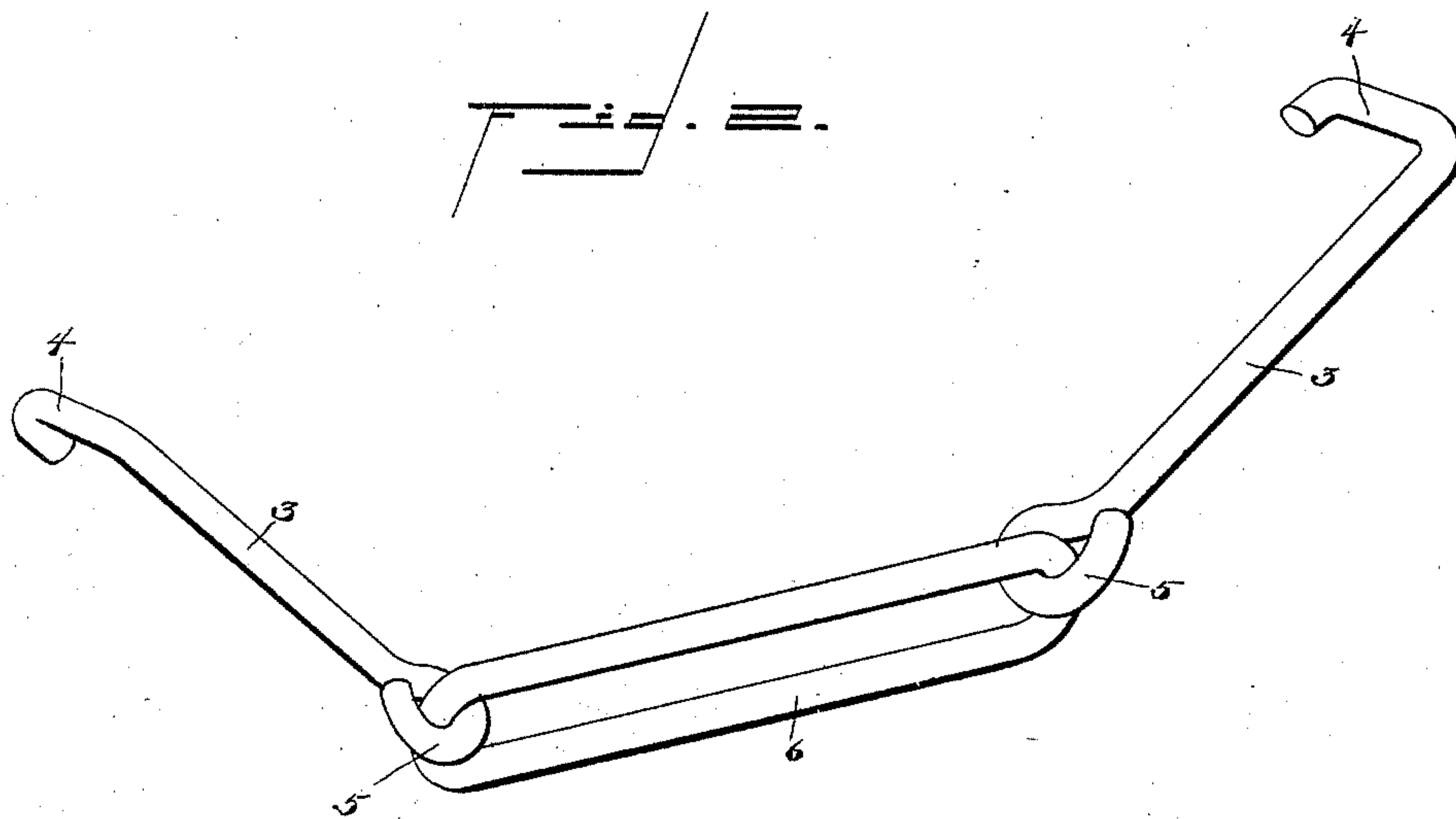
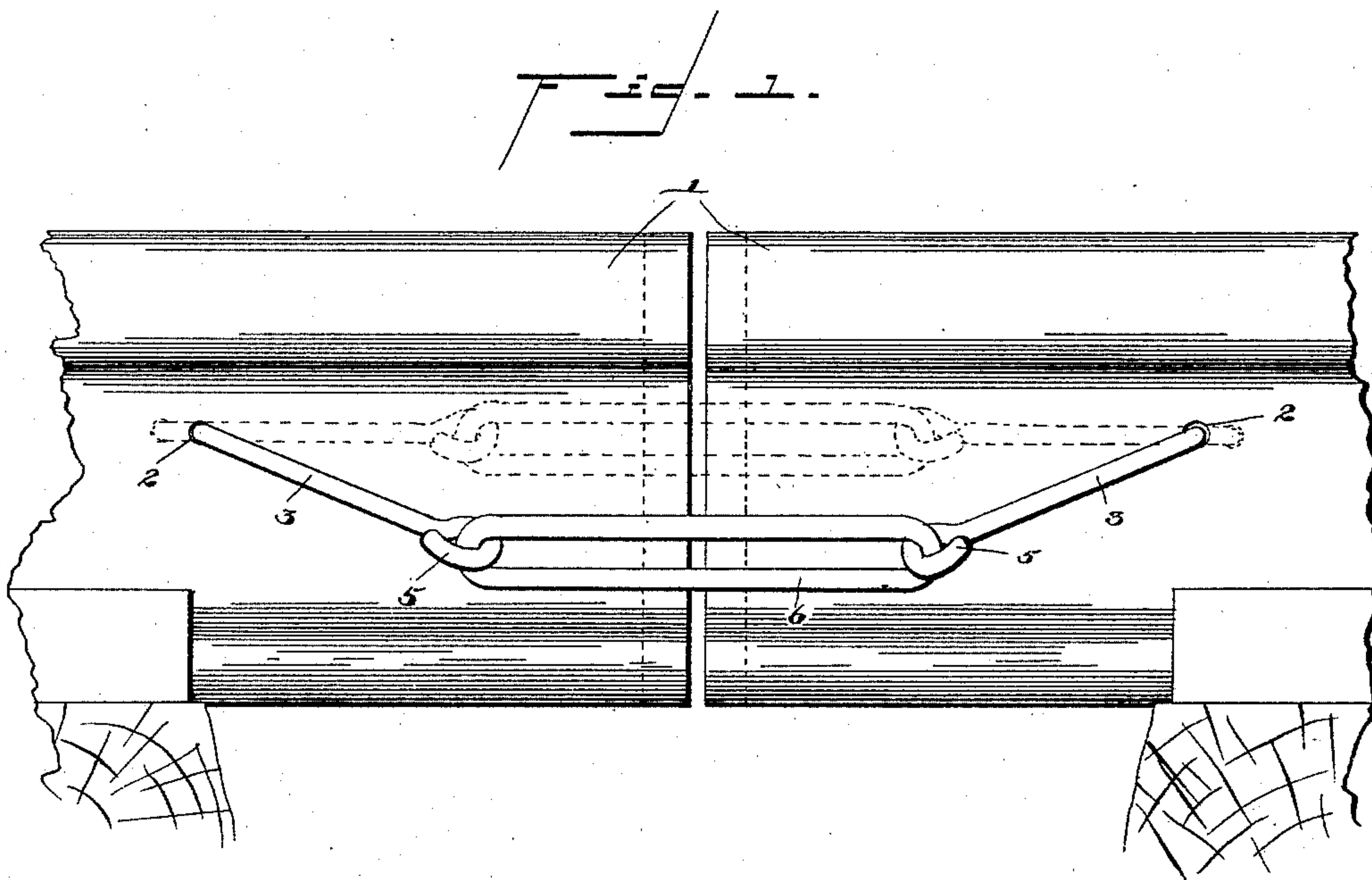


(No Model.)

H. D. AVERA.
RAILROAD JOINT.

No. 442,004.

Patented Dec. 2, 1890.



Witnesses:

Samuel Ker.
W. S. Duwall

Inventor

Harlow D. Avera

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

HARLOW D. AVERA, OF ROCKY MOUNT, NORTH CAROLINA.

RAILROAD-JOINT.

SPECIFICATION forming part of Letters Patent No. 442,004, dated December 2, 1890.

Application filed April 16, 1890. Serial No. 348,204. (No model.)

To all whom it may concern:

Be it known that I, HARLOW D. AVERA, a citizen of the United States, residing at Rocky Mount, in the county of Edgecombe and State of North Carolina, have invented a new and useful Railroad-Joint, of which the following is a specification.

This invention has relation to improvements in railroad-joints; and among the objects in view are to provide a device for limiting the separation of the rail-sections at their ends as caused by the running of the metal and the contraction of the same.

A further object of the invention is to permit of what contraction is absolutely necessary, but prevent such undue separation as is liable to destroy the joints between the rail-sections or render the condition of the rails dangerous to travel.

With these objects in view the invention consists, broadly, in linking or loosely connecting the adjacent ends of two rail-sections by means of any loose link or chain connection, all as will hereinafter appear in the following description, reference being had to the accompanying drawings.

Figure 1 represents a side elevation of two adjacent rail-sections, the ends of which are linked as in accordance with my invention. Fig. 2 represents a detail in perspective of the link or tie.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the opposite rail-sections, the ends of which abut and may be secured or joined together by any ordinary railway-joint. Near their ends the sections are provided with opposite transverse perforations or openings 2, in each of which is mounted one end of the tie or spread limiting device hereinafter described.

Any ordinary construction of tie may be employed, and I do not limit my invention to the one herein shown and described, and it will be obvious that numerous efficient devices similarly constructed to my own will readily suggest themselves to those conversant with this class of inventions.

3 represents an L-shaped bolt, the L end 4 of which is loosely pivoted in the opening 2 of the rail. A pair of these bolts is employed, so that each rail is provided with one, as shown. The free ends of the bolts are provided with eyes 5, and the two eyes 5 of each pair of bolts thus constructed are connected by either a single link 6 or a series of such links.

The tie thus constructed, it will be observed, is flexible and has a combined width somewhat greater than the distance between the pairs of openings 2 when the ends of two adjacent rail-sections abut. The difference in length is such as to permit of a proper and reasonable separation of the rail-sections when they contract and to act as a limiting device to any degree of contraction and consequent separation as will endanger the efficiency of the road.

Having thus described my invention, what I claim is—

1. The combination, with two rail-sections, of a flexible tie loosely connected at its ends to and suspended from the sections and of a length greater than the distance between the points of connection to the rail-sections when the ends of said sections abut, substantially as specified.

2. The combination, with opposite rail-sections, each of which is provided with a perforation in rear of its end, of opposite bolts pivotally mounted in the perforations and terminating at their free ends in eyes, and a link or other connection connected to the eyes and combining with the bolts to form a tie the length of which is greater than the distance between the openings or perforations in the rail-sections when the ends of said sections abut, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HARLOW D. AVERA.

Witnesses:

R. W. DAYTON,
J. H. SIGGERS.