

No. 714,270.

Patented Nov. 25, 1902.

J. E. YORK.
RAILROAD TIE.

(Application filed Aug. 10, 1901.)

(No Model.)

Fig. 1,

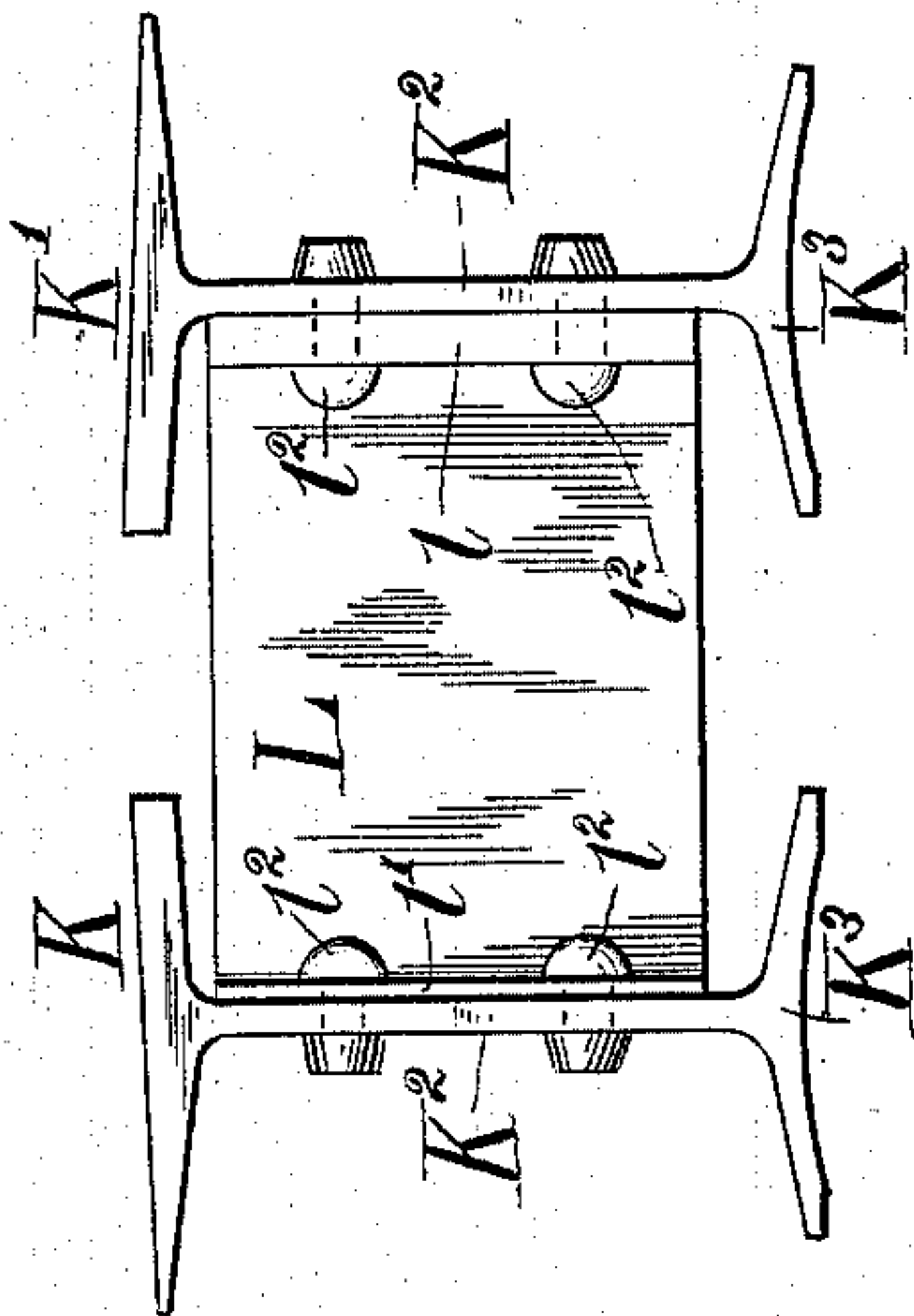


Fig. 4,

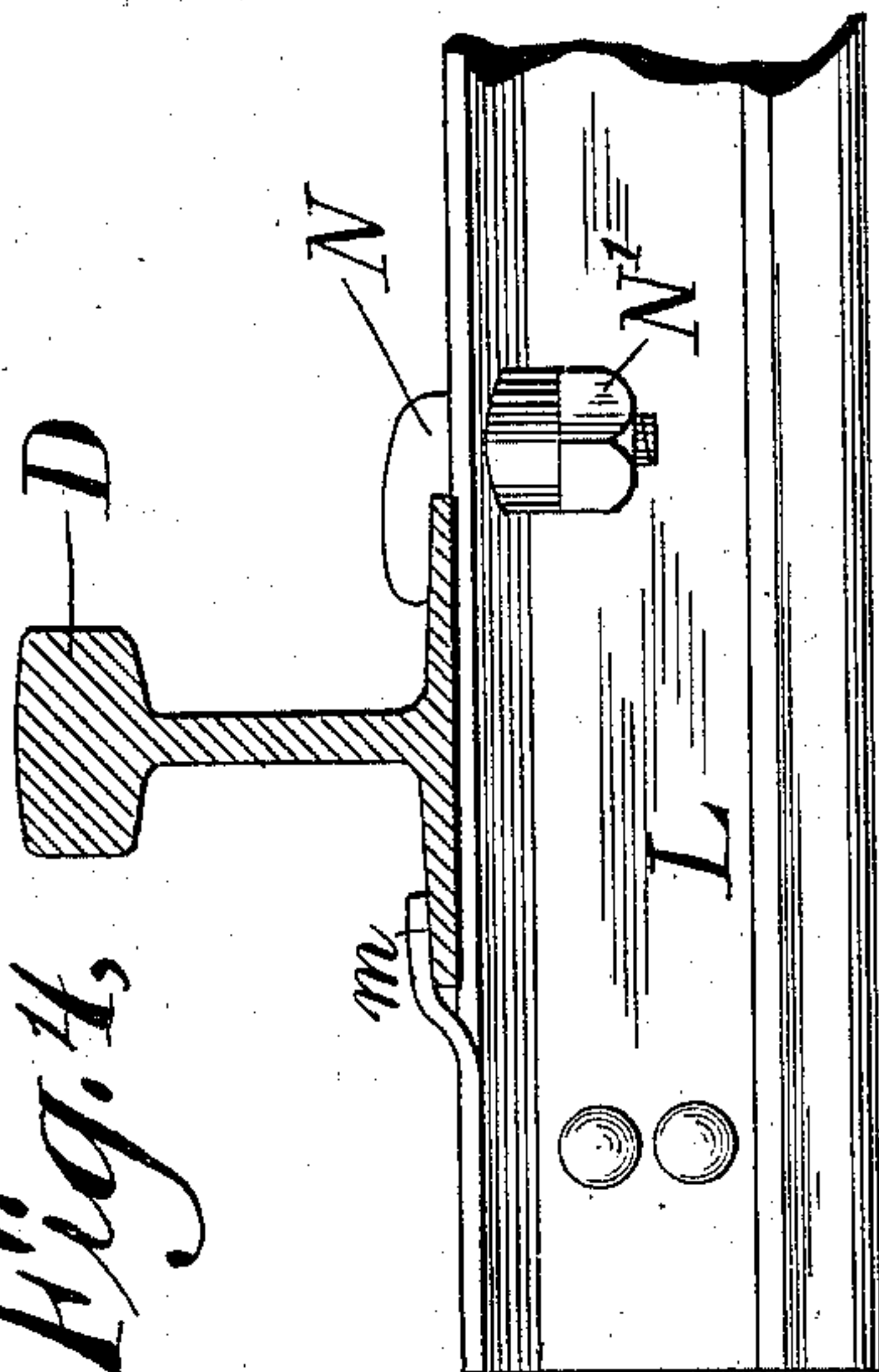


Fig. 2,

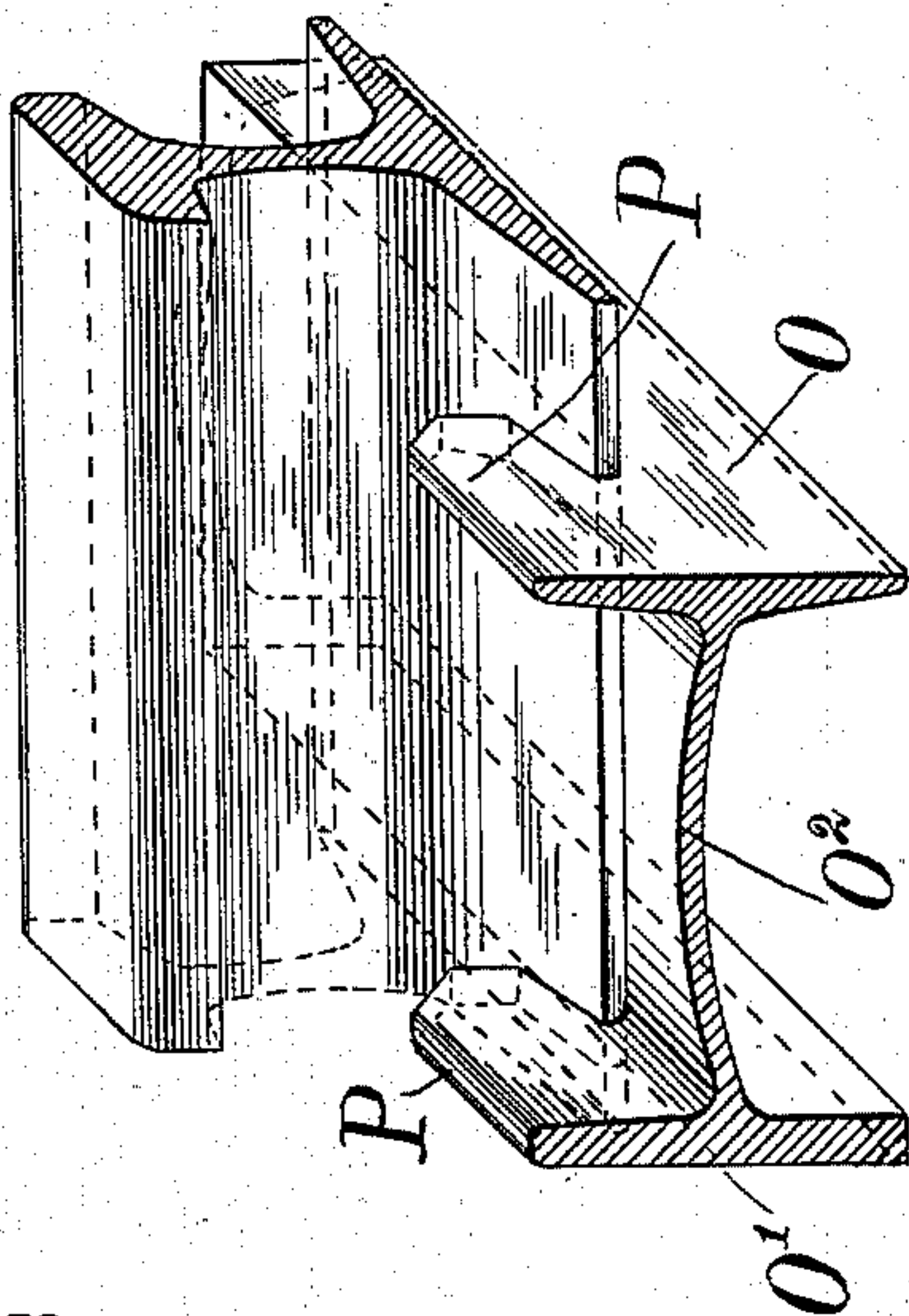
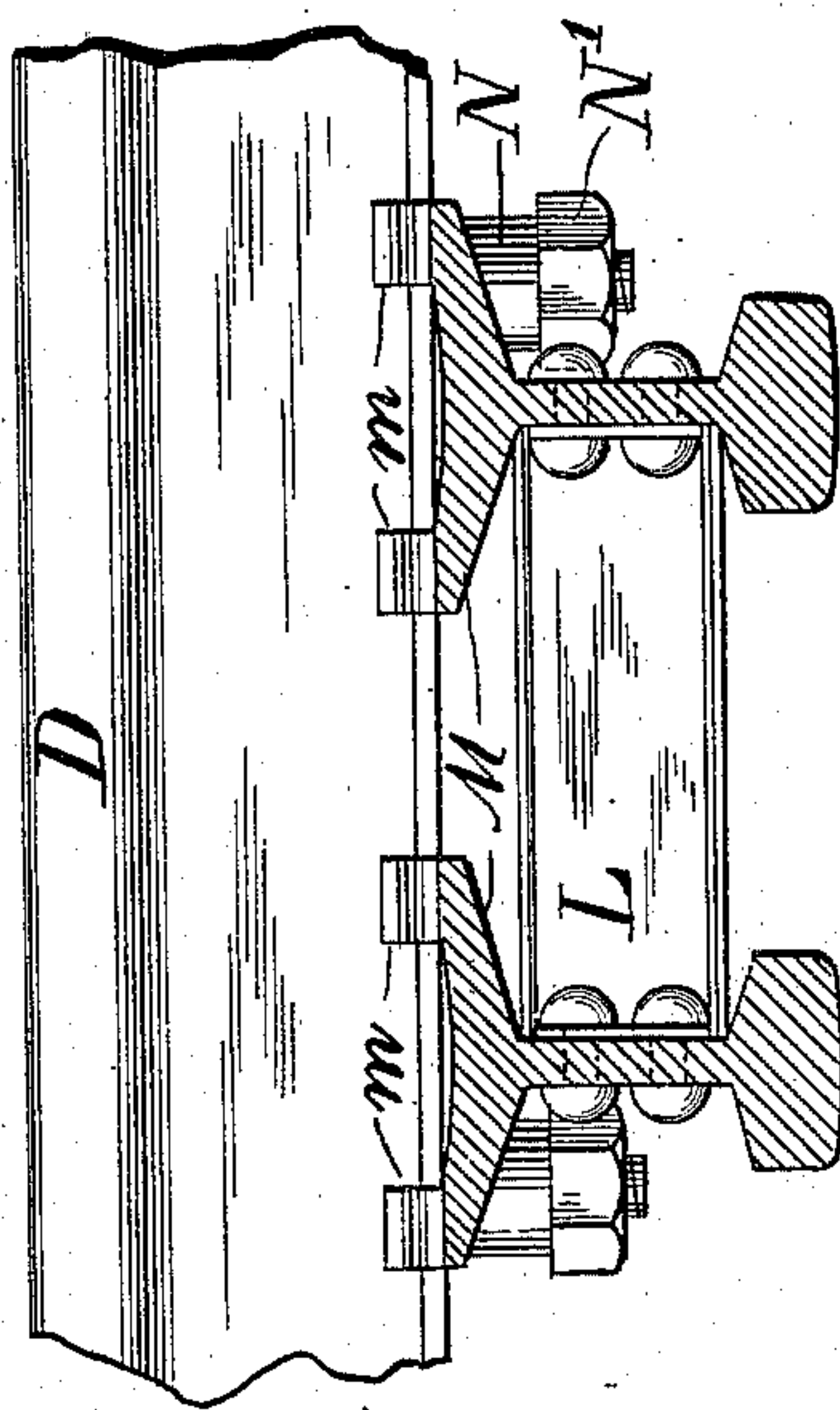


Fig. 3,



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JAMES EDWIN YORK, OF BROOKLYN, NEW YORK.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 714,270, dated November 25, 1902.

Application filed August 10, 1901. Serial No. 71,650. (No model.)

To all whom it may concern:

Be it known that I, JAMES EDWIN YORK, of the borough of Brooklyn, city, county, and State of New York, have invented a new and useful Railroad-Tie, of which the following is a specification.

In my application, Serial No. 52,769, filed March 25, 1901, I have described a railroad-tie in which the bearing-surface for the tie is made convexed or concaved, and I have described in said application the advantages of such form of tie. The railroad-tie devised by me may be rolled from a billet or ingot; but I have aimed to utilize in its production worn or scrap steel rails. The various forms may be rolled from any form of rail, and the head, web, or flange may serve as a seat for the rail, and said seat may be made convexed or concaved to suit the particular conditions of use of the tie.

In my present application I have shown other forms of my invention. These will be understood by reference to the accompanying drawings, in which—

Figure 1 is a view of a tie rolled from a girder-rail, showing also two of the ties connected. Fig. 2 is a perspective view of a tie rolled from a girder-rail, in which the web serves as the seat for the rail. Fig. 3 shows two of the ties in section with means for securing them together and supporting a rail, and Fig. 4 is a view at right angles to Fig. 3.

Instead of rolling the tie from a T-rail I may roll it from a girder-rail, as in Fig. 1. In this form the heads $K K'$ are shown as convexed and serving as the rail-bearing surface, while the flanges K^3 are shown as concaved. These ties may be secured together by a channel L or a section of the rerolled rail, having flanges $l l'$, which bear against the webs K^2 of the ties and are secured thereto by means of bolts or rivets l^2 . This connecting-piece is designed more particularly for use between ties which separate the joints of two rail-sections.

Fig. 2 illustrates a form of tie rolled from a girder-rail, the web serving as the seat for the rail. The head O' and the flange O are cut away, so as to leave portions P to form a wedge, under which the upper face of the flange of the rail bears. This means of securing the rail to the tie is very efficient, as

it is impossible for the rail under lateral thrust to be displaced. It also prevents any upward movement of the rail away from its seat. By rolling the tie so as to bow or arch the web O^2 , I secure sufficient elasticity to give all the benefits of the form in which the flange or head is arched.

In Figs. 3 and 4 the flange M of the tie is shown as provided with lips m , struck or sheared up from the flange of the tie, so as to embrace the flange of the rail D . This provides a simple and efficient means for securing the rail against lateral thrust, as the lips m secure a wedging action. These lips m bear against the outer side of the rail, the inner side being secured to the tie by means of a bolt N and a nut N' . The ties may be secured together when necessary by a channel L , as in the manner indicated in Fig. 1. When the rail is to be released, the nut N' is unscrewed, so as to release the inner flange of the rail, thus permitting the outer flange to be withdrawn from under the lips m .

I wish it to be distinctly understood that my improved form of tie may be rolled from any form of rail, and I do not limit myself to any particular kind of rail. I also wish it to be distinctly understood that the head, web, or flange of the rail may serve as the seat for the rail and that such seat may be made convex or concave in the manner heretofore described to suit the particular conditions of the use of the tie.

A distinct advantage of my tie is that when the seat has become worn or damaged it may be reversed, so as to bring in use the head, web, or flange by reversing the tie.

It will be observed that the ties above described, and illustrated in the drawings, are unsymmetrical—that is, the head and flange are different in width and thickness.

What I claim, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a railroad-tie having a head, web and flange, the web serving as a seat for the rail and the head and flange sheared out to form a recess to receive the flange of the rail, said web being curved or other than a plane surface.

2. A railroad-tie having a head, web and flange, the web being bowed or arched and serving as the bearing-surface for the rail.

3. A railroad-tie formed by rerolling a worn
girder-rail to an unsymmetrical section hav-
ing a head, web and flange, the web serving
as a seat for the rail and the head and flange
5 sheared out to receive the flange of the rail,
said web being bowed or arched.

4. The combination of two railroad-ties hav-
ing heads, webs and flanges, both ties being
unsymmetrical I-sections, and means to se-
10 cure said ties together consisting of a section

similar to the ties and adapted to be bolted
or riveted to the ties.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

JAMES EDWIN YORK.

Witnesses:

CHARLES S. JONES,
GEO. E. CRUSE.