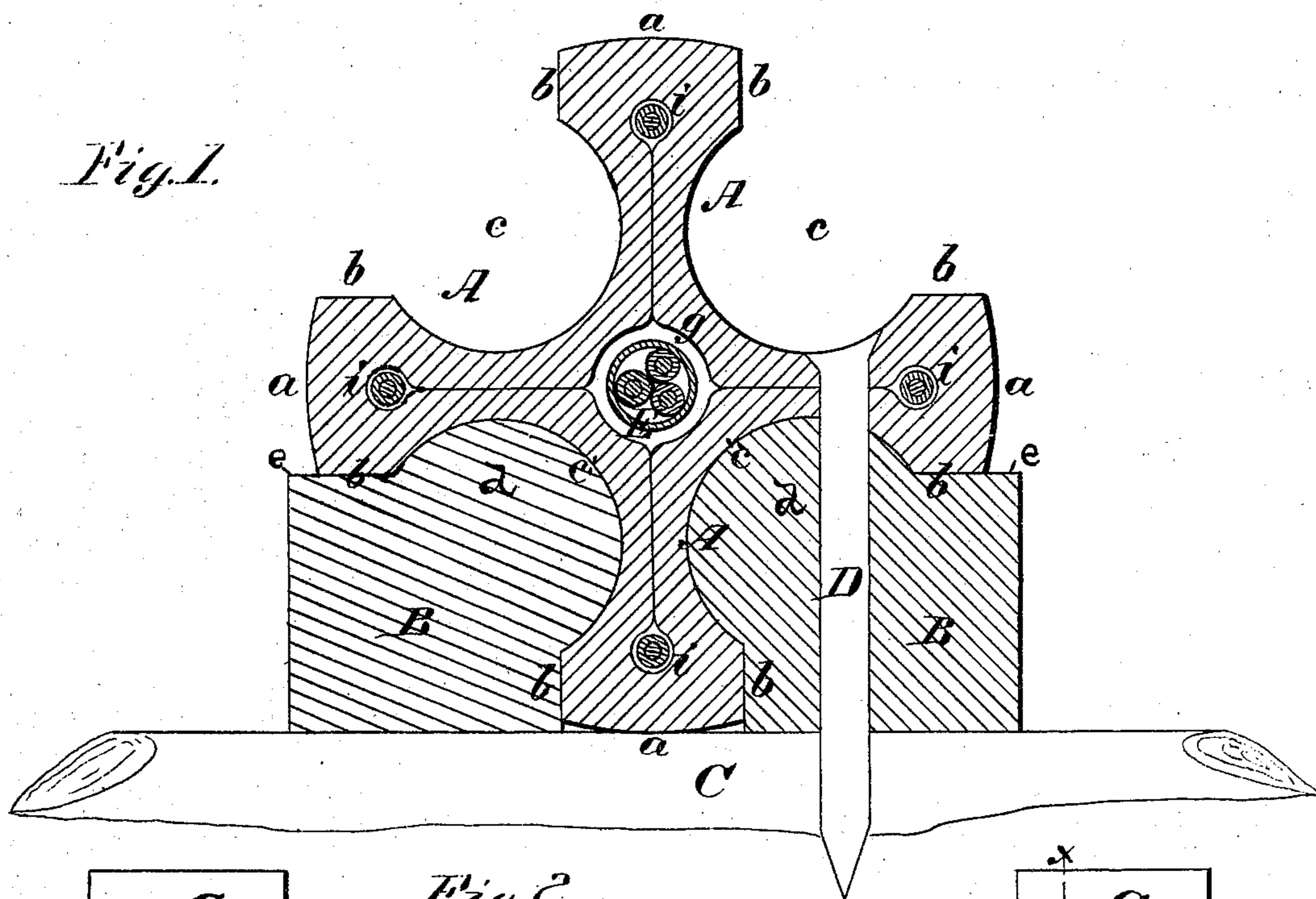


**B. MYERS.**  
**Railway Rails.**

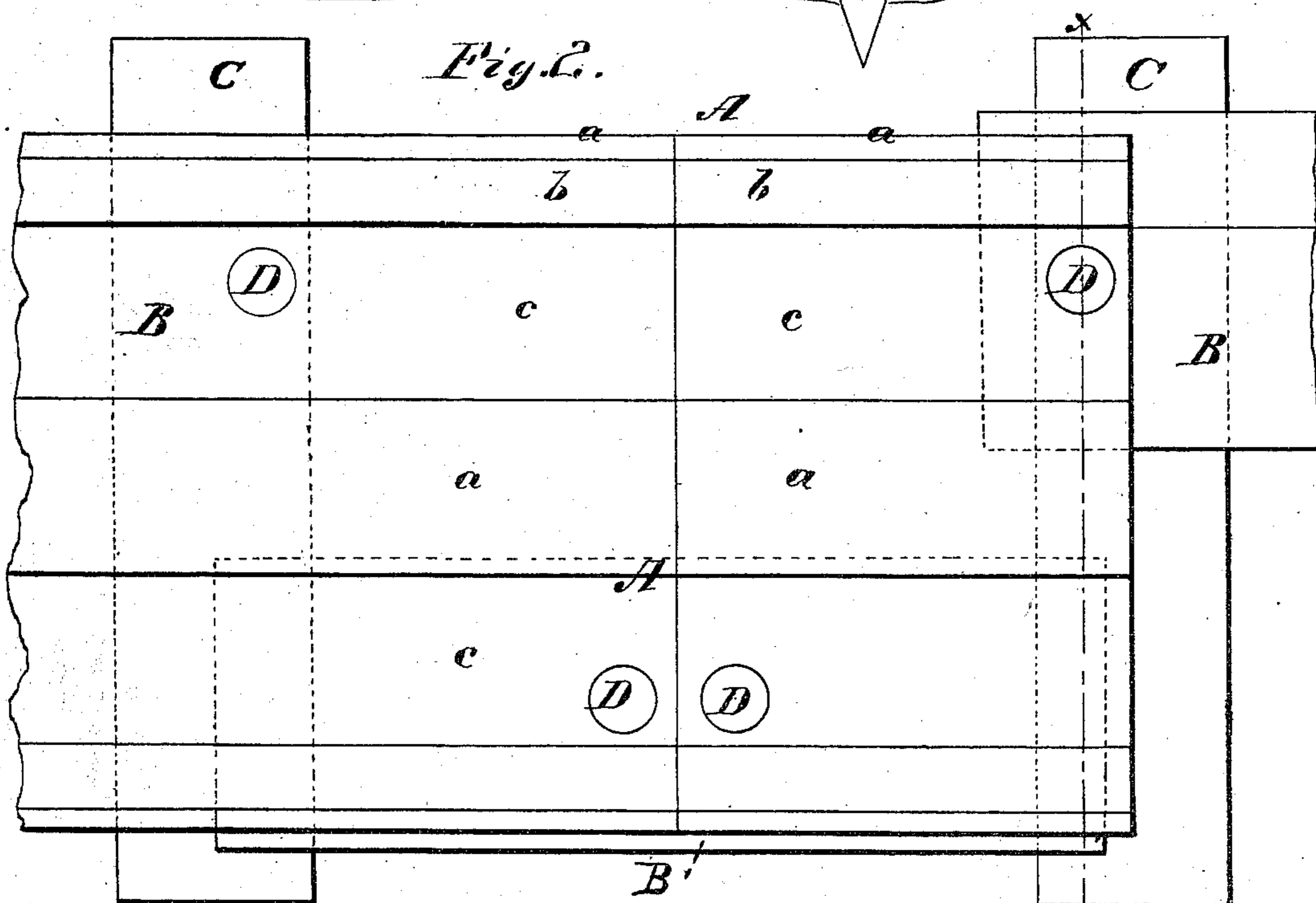
No. 143,708.

Patented Oct. 14, 1873.

*Fig. 1.*



*Fig. 2.*



*Witnesses.*  
*E. H. Bates.*  
*George E. Upham.*

*Inventor.*  
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# UNITED STATES PATENT OFFICE.

BENJAMIN MYERS, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN RAILWAY-RAILS.

Specification forming part of Letters Patent No. 143,708, dated October 14, 1873; application filed August 1, 1873.

*To all whom it may concern:*

Be it known that I, BENJAMIN MYERS, of Chicago, in the county of Cook and State of Illinois, have invented a new and valuable Improvement in Railroad-Rails and Bearings; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a sectional view of my invention. Fig. 2 is a plan view of the same.

This invention relates to that class of railroad-rails known as reversible rails. My objects are, first, to construct a reversible rail which shall present four rolling-surfaces on heads, either one of which can be adjusted into position for use where the other is worn out, which heads are flanged somewhat like the well-known T-shaped rail, so that, while the periphery of one head will serve as an elevated rolling-surface for a wide-gage track, the flange or lateral side of an adjacent head will, at the same time, serve as a rolling-surface for a narrow-gage track; second, to construct such rail to receive on both sides of its presented rolling-surface wooden bridge-bearings, which are adjusted into the concave spaces between its heads, and when so adjusted they not only afford side supports for balancing the rail upon its cross-ties, but they also enable me to use at least half the number of ties commonly employed with other rails; third, to construct such a rail of hollow wrought metal, pressed into shape so as to leave a central channel for the admission of an insulated telegraphic wire, which, owing to the peculiar shape of my rail, will not be broken or deranged when the rail is reversed, all of which I will more particularly describe.

In the accompanying drawings, Figure 1 clearly shows the shape of my rail in cross-section.

It consists of four separate and distinct heads, A A A A, which are separated by concave spaces *c*, and are equal distances apart around a common center. Each head presents a rolling-surface, *a*, and two side surfaces *b b*, which latter may also be utilized for

rolling-surfaces in constructing a wide and narrow gage track.

This rail is preferably made by taking a tube of wrought metal, of proper diameter for the height of rail desired, and of suitable thickness, and, by means of dies suitably adapted to the purpose, pressing together the walls of the tube, so as to leave the four heads A, the concave interspaces *c*, and a longitudinal center channel, *g*, in which latter an insulated telegraphic cable, E, is applied.

If desired, each head A may have a channel, *i*, through it for receiving a smaller telegraphic wire, as shown in Fig. 1.

The rail thus formed, with twelve rolling-surfaces, is supported upon its cross-ties C by means of two wooden bridges, B B, provided with angular convex surfaces *d* and flat bearing-faces *e*, as shown, which are shaped so as to fill up snugly two of the spaces *c c*, and afford a broad flat base, which maintains the rail in an upright position when secured down by spikes D, applied as shown in Fig. 1.

Owing to the shape of the spaces between the rail-heads, and the shape of the bridges, the latter cannot become displaced laterally, nor will they allow the rail to rock laterally. These bridges, as their name implies, sustain the rail between the cross-ties, and so straighten and stiffen it that the ties may be arranged at considerable distances apart, and fish-plates, chairs, and other like straightening devices dispensed with.

I do not claim, broadly, a four-headed railroad-rail; neither do I claim, broadly, a rail having a channel through it for receiving a telegraphic cable.

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

1. A reversible railroad-rail having twelve rolling-surfaces on heads A, flanged somewhat like the T-shaped rail, the periphery of one head serving as an elevated rolling-surface for a wide-gage track, and the flange or lateral side *b* of the adjacent rail serving as a rolling-surface for a narrow-gage track, substantially as shown and described.

2. The rail formed out of tubular metal, pressed into the shape shown, and having a channel, *g*, centrally through it for receiving a cable, E, substantially as described.

3. In combination with a rail having four heads, the wooden bridges B B, having the angular convex surfaces *d* and flat bearing-faces *e*, adapted to fit a concave space, *c*, and side surfaces *b* between the rail-heads and cross-ties, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

B. MYERS.

Witnesses:

GEORGE E. UPHAM,  
JOS. B. LOOMIS.