

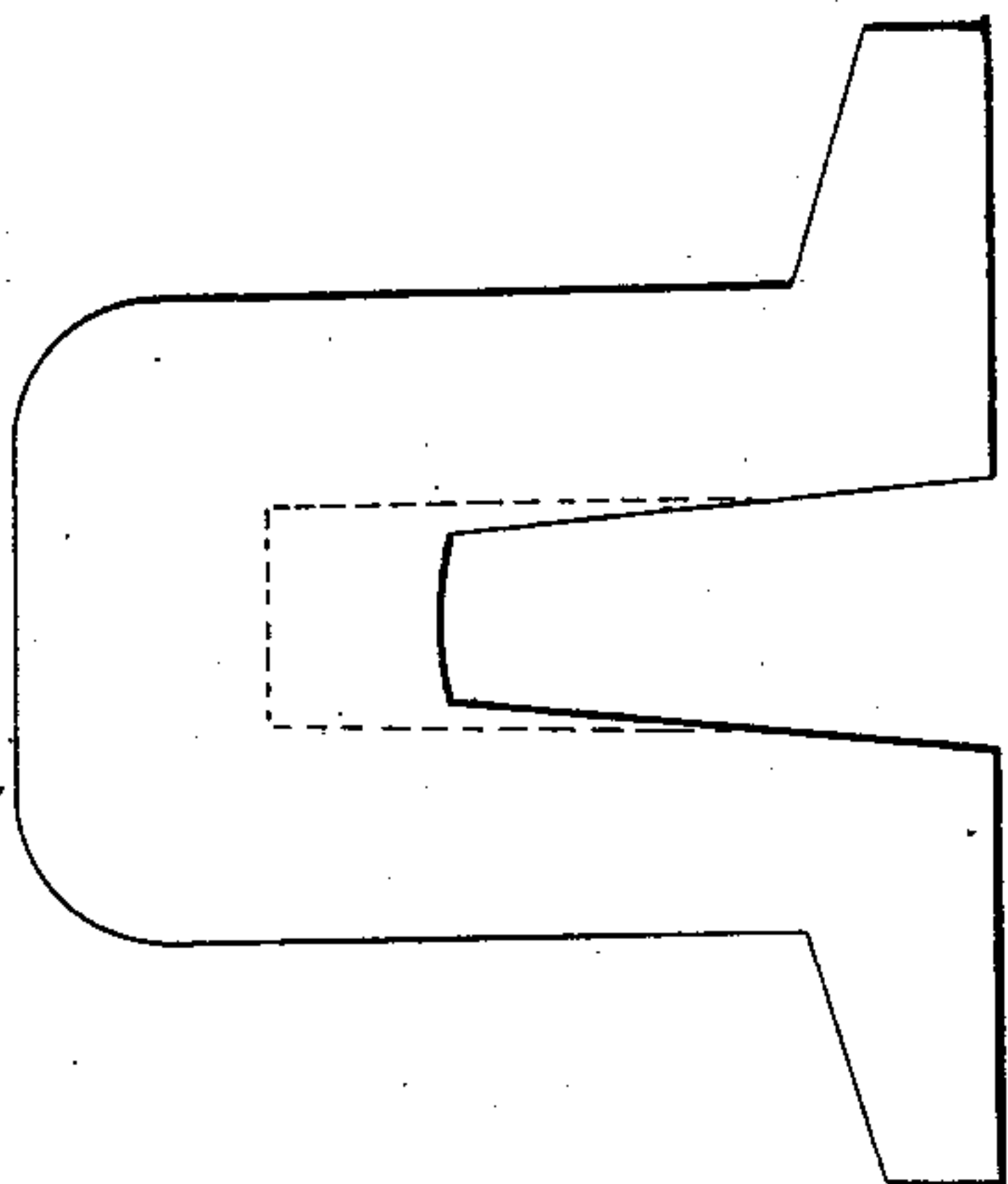
*H. Resley,*

*Railroad Rail,*

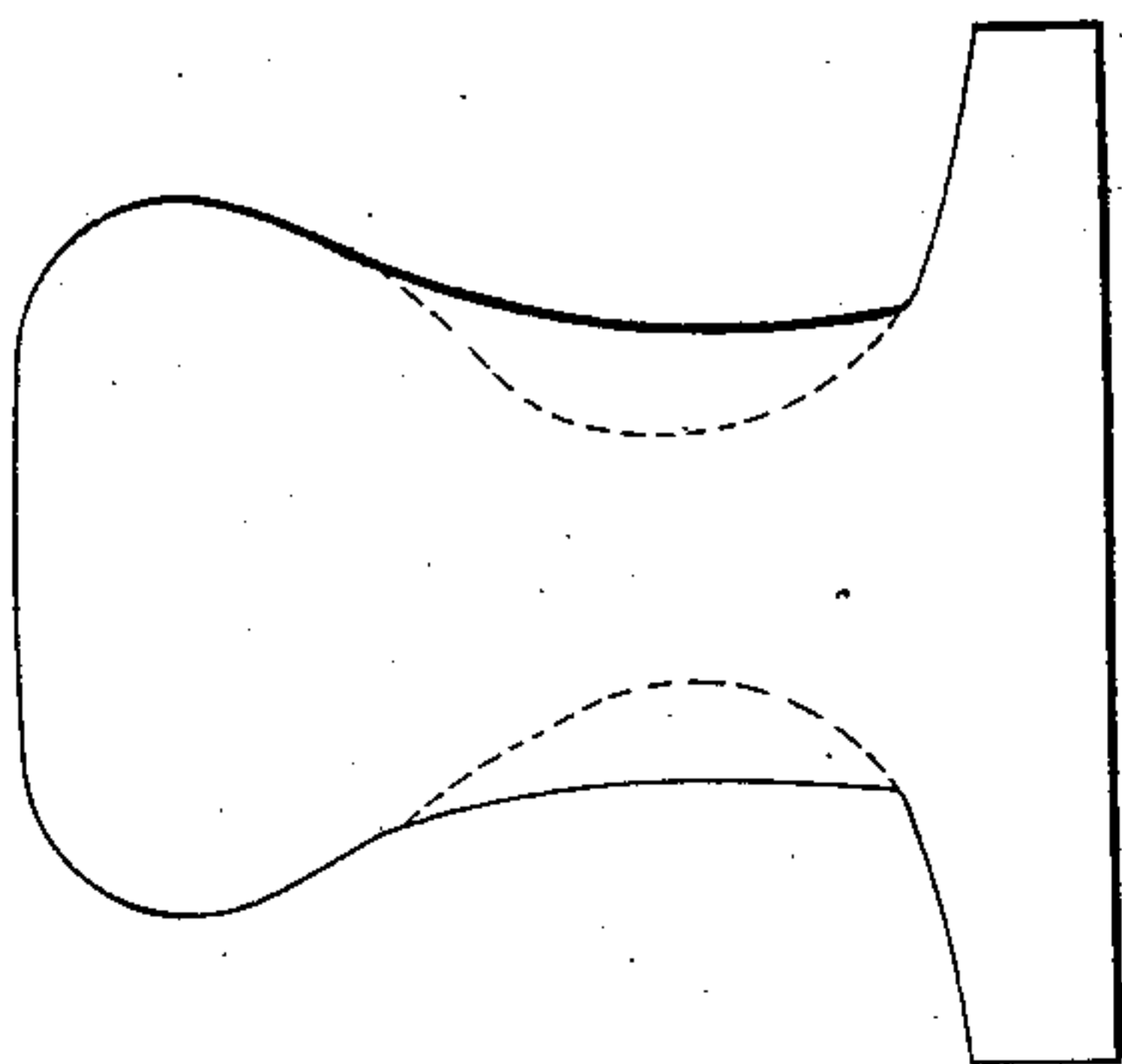
*No 42,875.*

*Patented May 24, 1864.*

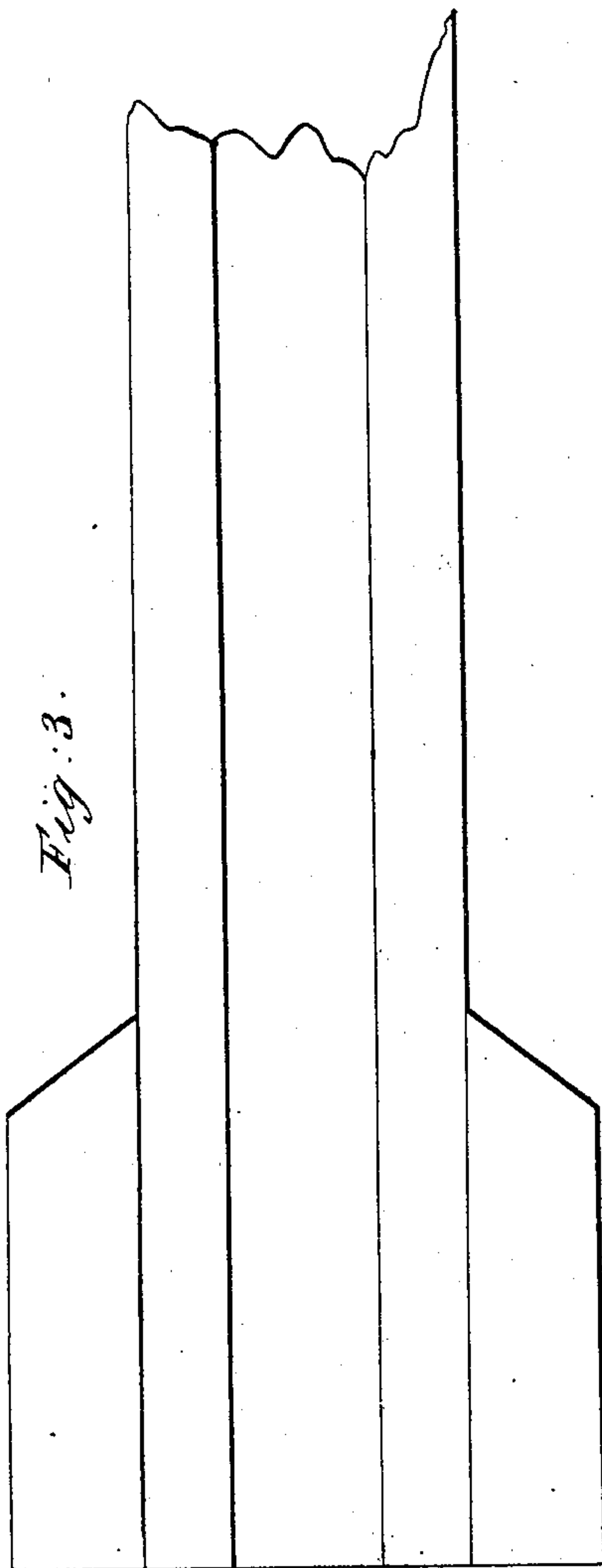
*Fig. 2.*



*Fig. 1.*



*Fig. 3.*



*Witnesses;*  
*C. M. Lammond*  
*S. Smith*

*Inventor;*  
*H. Resley*  
*Per D. T. Everett, Atty*

# UNITED STATES PATENT OFFICE.

HORACE RESLEY, OF CUMBERLAND, MARYLAND.

## IMPROVEMENT IN RAILS FOR RAILROADS.

Specification forming part of Letters Patent No. 42,875, dated May 24, 1864.

*To all whom it may concern:*

Be it known that I, HORACE RESLEY, of Cumberland, in the county of Alleghany and State of Maryland, have invented a certain new and useful Improvement on Rails for Railroads; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters and marks thereon.

My improvement relates to the **T** and **U** rails. As heretofore constructed, the flange of these rails extends throughout the length of the rail, an impression existing that such flanges are necessary to enable the rail to resist lateral pressure and bending.

My improvement consists in converting or divesting so much of the flanges of the rail as lies between the cross-ties from the sides of the bottom of the rail to and incorporating them with the body of the rail.

In carrying out my invention the rail may be formed, as it is now usual to make the **T** and **U** rails, by passing the bar out of which the rail is made through a succession of rollers, and, while the rail is in a heated state, cutting the flanges transversely near each end, leaving only so much flange as will give an end bearing, and then passing the rail through such other rollers as will swage the flange within the body of the **U**-rail or against the sides of the **T**-rail, as the one or the other rail may be the subject of the improvement; or the rails may be made by passing the bar through such series of rollers as will form the body of the rail as herein stated, with the flanges at the ends only for bearings. As this manner of forming rails is well-known,

it will readily be seen that such modifications of the rollers in use in any rail-making establishment only would be required as would give the rail the form desired.

This manner of forming the **T** and **U** rails is shown by the drawings forming part of this specification, Figure 1 thereof being a view by transverse section of the **T**-rail, and Fig. 2 a like view of the **U**-rail, the red lines in each of these figures indicating the usual form of those rails, while the black lines give the form of the rail with my improvement. Fig. 3 is a bottom or reversed view of one end and a small portion of the **U**-rail as made under my improvement.

By my improvement more strength will be given to the body of the rail without increasing its weight, or at least materially so, and lamination will be prevented. The rail, being strengthened by the change of the iron from the flanges, allows the cross-ties to be placed farther apart than as now placed with the usual rail, and thus a saving be effected. The cavity of the **U**-rail can be filled up with wood and iron or entirely with wood, or at such intervals or points as may be regarded useful.

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

Constructing rails for railroads substantially in the manner and for the purposes herein recited.

This specification signed this 2d day of December, 1863.

HORACE RESLEY.

Witnesses:

J. J. McHENRY,  
C. L. HOBLITZELL.