

A. B. DEAN & T. C. COLEMAN.

Railroad Rails.

No. 136,043.

Patented Feb. 18, 1873.

Fig. 1.

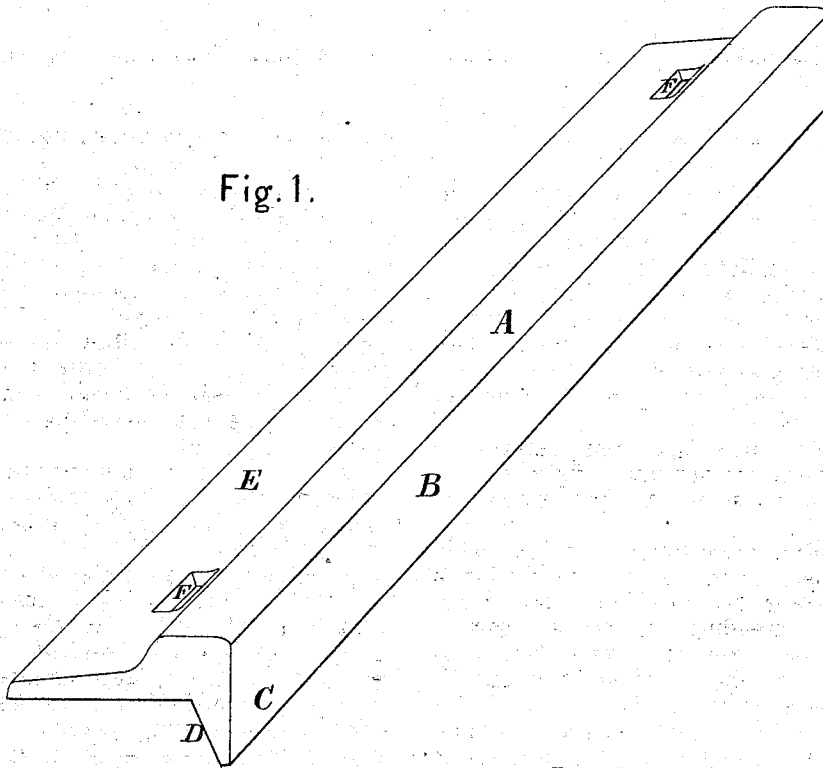
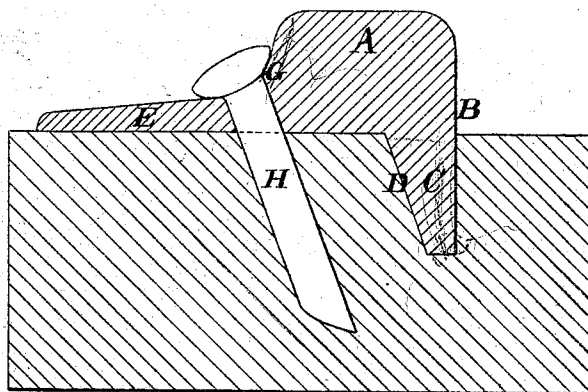


Fig. 2.



WITNESSES.

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INVENTORS

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# UNITED STATES PATENT OFFICE.

ANDREW B. DEAN AND THOMAS C. COLEMAN, OF LOUISVILLE, KENTUCKY.

## IMPROVEMENT IN RAILROAD RAILS.

Specification forming part of Letters Patent No. 136,043, dated February 18, 1873.

*To all whom it may concern:*

Be it known that we, A. B. DEAN and THOMAS C. COLEMAN, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and valuable Improvement in Railroad Rails; and we 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 drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a perspective view of our rail. Fig. 2 is a sectional view of the same, showing attachment to sleeper.

This invention has relation to railroad rails; and it consists in the novel construction of the rail, whereby it is provided with an inner downwardly-extending or vertical bearing-flange, and an outer horizontal fastening-flange, the tread being above and between the flanges, as hereinafter described.

The object of the present invention is to provide a rail with an extension bearing-surface which will resist the tendency to curl upward in the vertical direction, the weight of metal being economized to compare favorably with rails of other form now in use.

The general form of this rail may be described as T-shaped. It consists of rib or body A of considerable thickness, somewhat rectangular in cross-section, extending upward, and rounded suitably at its upper edges to form the tread of the rail. The inner face B of the rail is vertical, or nearly so, and is continuous with the inner face of the vertical flange C, which extends downward from the inner portion of the body A throughout the length of the rail. The outer face D of this flange extends obliquely upward and outward to the middle portion of the base of the body of the rail. The base of the rail is extended outward by the broad horizontal flange E, which extends outward from the lower portion of the body of the rail. This flange is perforated obliquely at suitable points F for

the passage of the fastening-spikes H. These perforations are situated in the curved angular surface G of the outer face of the rail-body, where it joins the horizontal flange, so that the head of the spike will be in close contact with the metal of the rail on both sides when driven obliquely and inwardly, in the manner indicated in the drawing.

The rails above described may be laid upon stringers for street railroads, or immediately on the cross-ties, the latter being properly notched for the reception of the vertical flange or stem of each rail.

The advantages of this rail are as follows: Its form is such that it is not liable to spread. It has a very large bearing-surface compared with the weight of the rail. The vertical flange keeps the tread in its position, preventing lateral deviation, and at the same time strengthens the rail to resist the upward curling or the formation of "snake-heads." There are no obstructions on the inner side of the rail in the shape of spike-heads or other fastening devices, the rails being secured by the spikes passing through the outer or horizontal flange. The fastening-spike acts in connection with the vertical flange or stem of the rail as a clamp, securing the rail to the stringer or tie in a very durable manner. The position of the stem immediately under the inner or tread portion of the body of the rail gives it great strength and firmness to resist the weight of the heaviest rolling-stock.

What we claim as our invention, and desire to secure by Letters Patent, is—

The railroad rail, consisting of the body A forming the tread, the inner vertical tapering flange C, and the outer horizontal flange E, all constructed and arranged as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

ANDREW B. DEAN.  
THOMAS C. COLEMAN.

Witnesses:

E. R. COLEMAN,  
R. M. SNYDER.