

No. 875,203.

PATENTED DEC. 31, 1907

A. MORRISON.

GUARD RAIL.

APPLICATION FILED APR. 11, 1907.

Fig. 1.

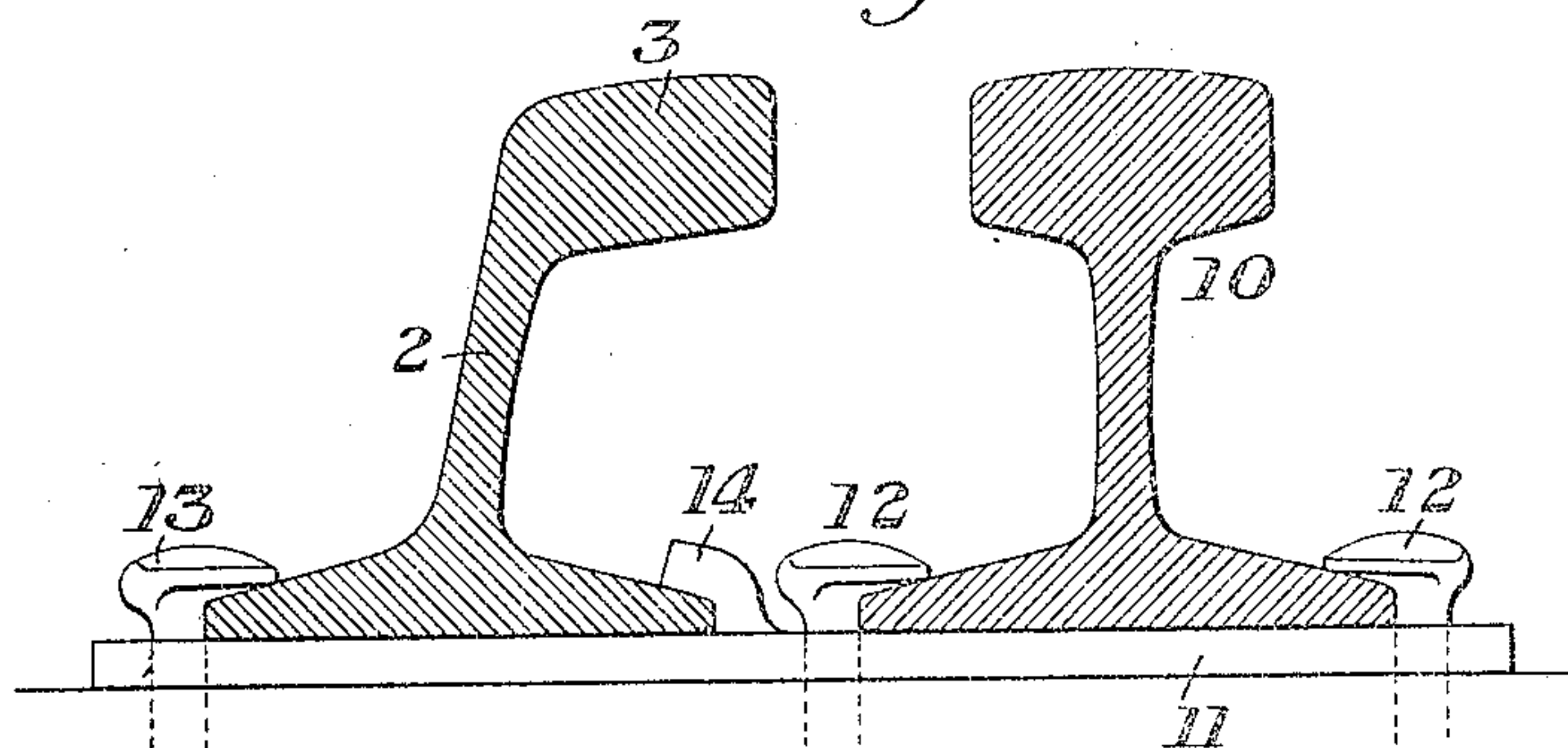


Fig. 2.

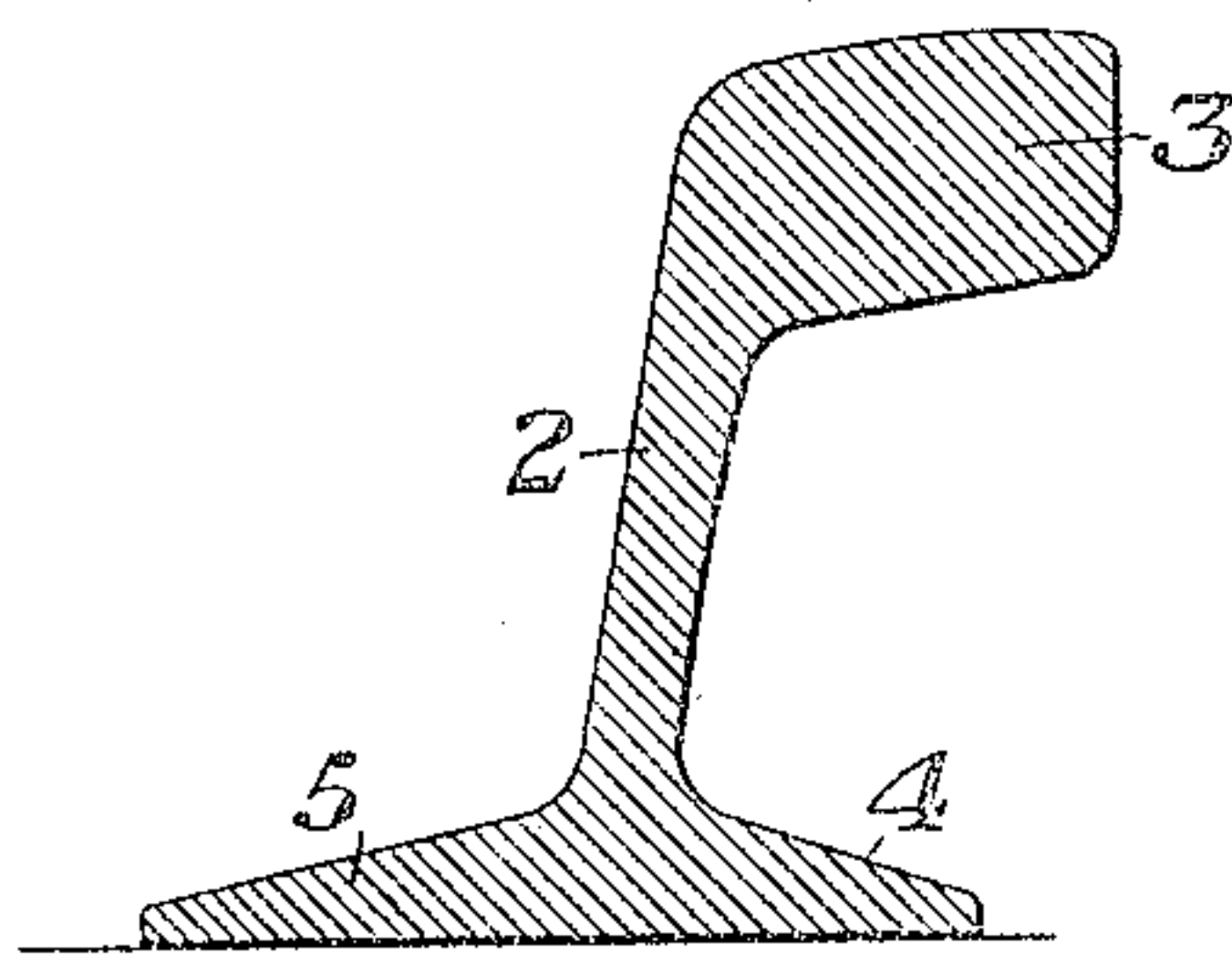


Fig. 3.

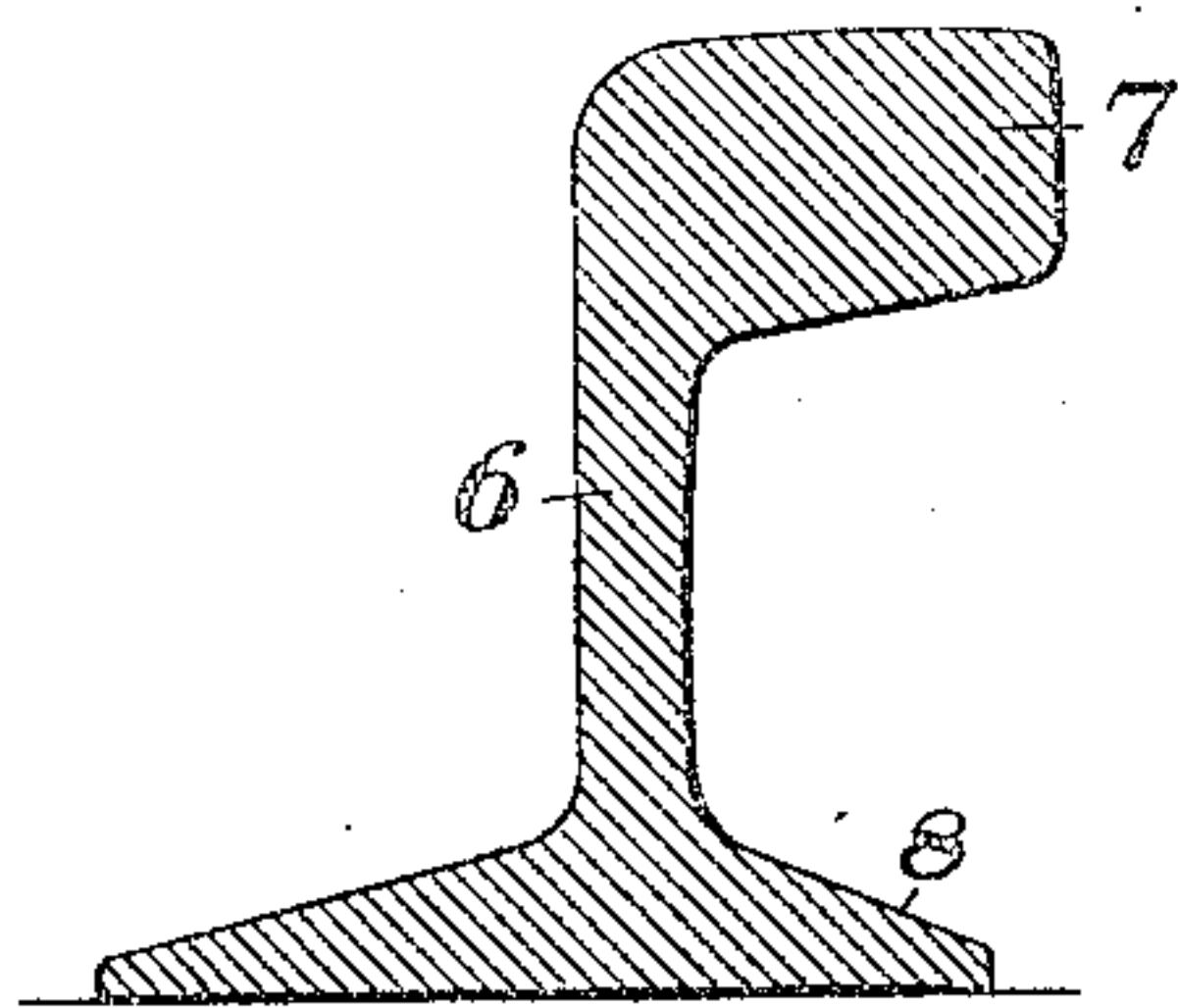
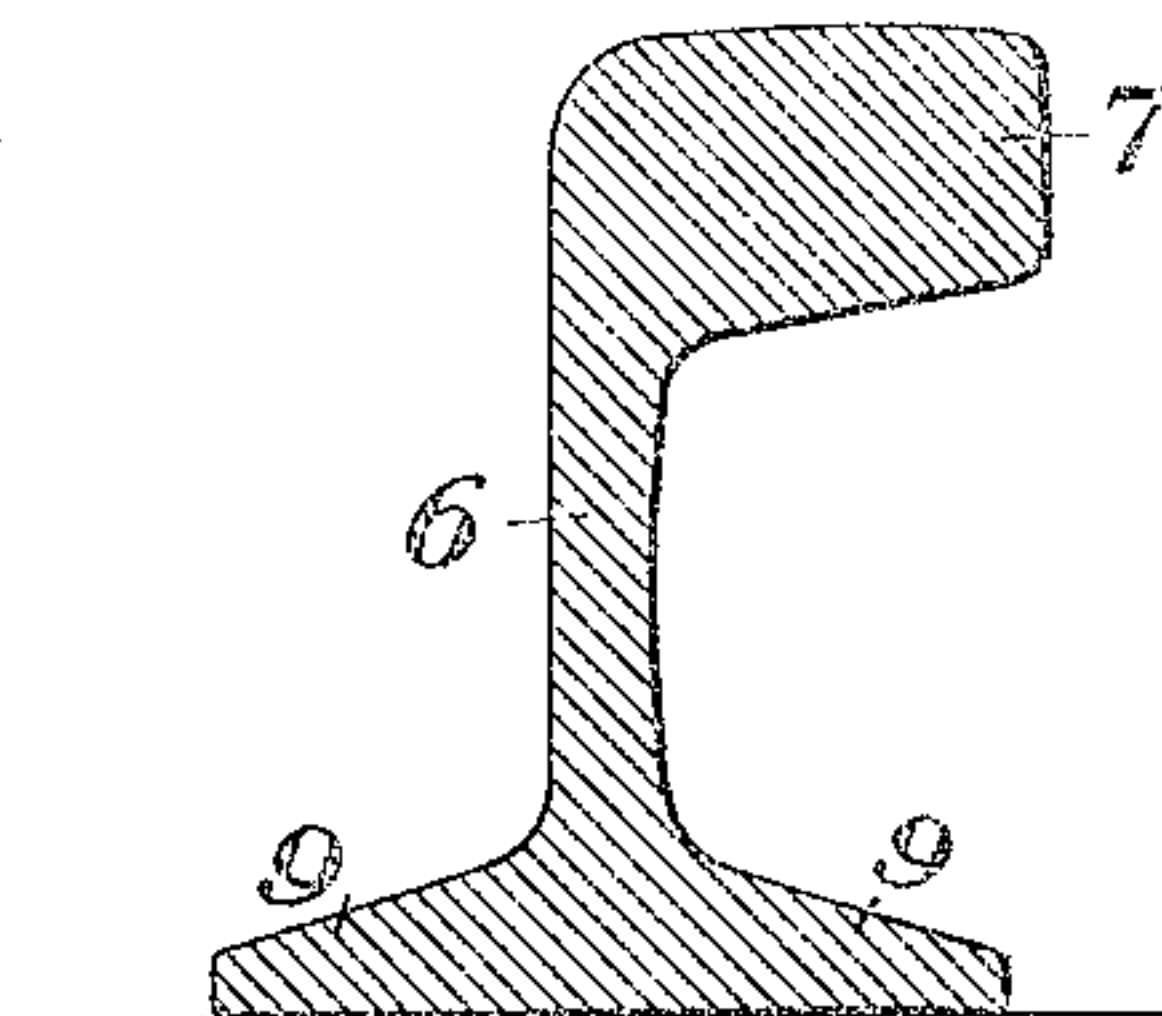


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

ANDREW MORRISON, OF PITTSBURG, PENNSYLVANIA.

GUARD-RAIL.

No. 875,203.

Specification of Letters Patent.

Patented Dec. 31, 1907.

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To all whom it may concern:

Be it known that I, ANDREW MORRISON, of Pittsburg, Allegheny county, Pennsylvania, have invented a new and useful Improvement in Guard-Rails, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a cross-sectional view showing one form of my improved guard rail as applied; and Figs. 2, 3 and 4 are cross-sections showing modified forms of the guard rail.

My invention is designed to provide a 15 guard rail which can be easily and cheaply rolled, and which is so constructed as to permit its head to be placed in proper relation to the head of the main rail, while the bases of the two rails can be separated to such an extent as to permit of adjustments and the use 20 of secure fastening devices.

To this end, my invention consists in a guard rail having its head lying entirely to one side of its web, the web being either vertical or inclined, and the base flanges being 25 of equal width, or one flange wider than the other, as may be preferred.

In the accompanying drawing, in Fig. 1 the guard rail is formed with an inclined web 30 2 having a head 3 which lies entirely to one side of the web, the two base flanges of the rail being shown as of substantially equal width.

In the form shown in Fig. 2, that flange 4 which is overhung by the head of the rail is made narrower than the opposite flange 5. This permits the use of a narrower head.

In the form shown in Figs. 3 and 4, the web 6 is vertical, and the head 7, which is 40 entirely to one side of this web, as in the other figures, is extended sufficiently to overhang the narrower base flange 8. The form shown in Fig. 4 is similar to that in Fig. 3, except that both base flanges 9 are of 45 equal width, but are preferably somewhat shorter than the standard width.

The guard rail, together with the main rail 10, may be secured to the ties in any suitable manner. In Fig. 1 I have shown it seated 50 upon the tie plate 11, the main rail being secured by the spikes 12, and the guard rail being secured by spikes 13 engaging its outer

edge, and by a clip or tongue 14 struck up in the plate 11 engaging its inner edge.

In all of the forms shown, the head of the 55 guard rail is extended laterally a sufficient distance to overhang the base flange, the vertical plane of the outer edge of such flange passing through the head at a point between its guard edge and the junction of the head 60 with the web.

The upper surface of the head may be horizontal, or it may be inclined somewhat as shown in Figs. 1 and 2. This form of rail may be readily and cheaply rolled, thus 65 avoiding the necessity for planing or machining the base flanges. The formation of the head entirely to one side of the web enables the latter to be extended into proper relation to the main rail, while leaving a substantial 70 separation between the bases of the main and guard rails, without using any more metal in the formation of the head than is necessary in the forms heretofore used, in which the head extends at both sides. 75

What I claim is:—

1. As a new article of manufacture, a rolled guard rail having a head lying entirely to one side of its web; substantially as 80 described.

2. As a new article of manufacture, a rolled guard rail having an inclined web, and a head lying entirely to one side of the web; substantially as described.

3. As a new article of manufacture, a 85 rolled guard rail having rolled base flanges of unequal width, a web, and a head portion lying entirely to one side of the web and overhanging the narrower base flange; substantially as described. 90

4. As a new article of manufacture, a rolled guard rail having base flanges, a web, a head lying entirely to one side of the web and overhanging one of the base flanges, the vertical plane of the edge of said flange pass- 95 ing through the head at a point beyond the juncture of the head and flange; substantially as described.

5. As a new article of manufacture, a rolled guard rail having one of its flanges 100 narrower than the other, an inclined web, and a head lying entirely to one side of the web and overhanging the narrower base flange, the vertical plane of the edge of said

flange passing through the head of the rail at a point beyond its juncture with the web; substantially as described.

6. As a new article of manufacture, a rolled guard rail having a head lying entirely to one side of the center of its base; substantially as described.

7. As a new article of manufacture, a rolled guard rail having an inclined web, and

a head lying entirely to one side of the web 10 in the direction towards which the web is inclined; substantially as described.

In testimony whereof, I have hereunto set my hand.

ANDREW MORRISON.

Witnesses:

LAURENCE H. LEE,
H. M. CORWIN.