G. Eaton.

Railroad Rail.

No. 28,067. Patented May 1, 1860.

Fig. 3.

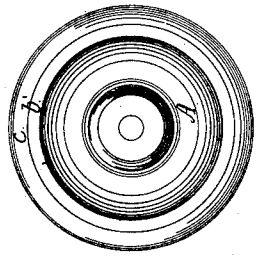


Fig. 4.

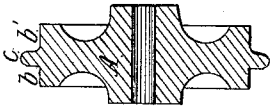


Fig. 1.

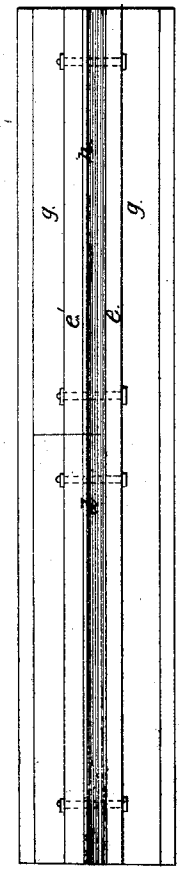


Fig. 2.

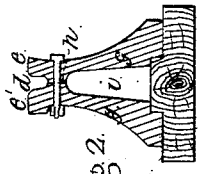
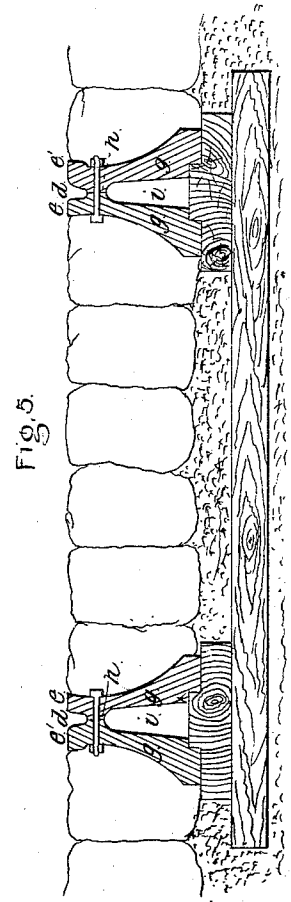


Fig. 5.



Witnesses:

R. H. Eddy

A. P. Hall Jr.

Inventor:

Geo. Eaton

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

GEO. EATON, OF BOSTON, MASSACHUSETTS.

RAIL FOR STREET-RAILWAYS.

Specification of Letters Patent No. 28,067, dated May 1, 1860.

To all whom it may concern:

Be it known that I, GEORGE EATON, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Rail for Street Railways; and I do hereby declare the same to be fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, is a top view and Fig. 2, a transverse section of such rail. Fig. 3, is a side view, and Fig. 4, a transverse section of the railway wheel to be employed with such a rail.

My improved rail is intended for streets, and to prevent the wheels of ordinary street vehicles from getting into its groove.

The rails of street railways as heretofore made, have had but one bearing surface for the railway carriage wheel to run upon, a deep and wide groove for reception of the wheel flanch being formed alongside of such surface. This groove as usually made, is exceedingly objectionable as owing to carriage wheels being caught within it, their axles are often twisted or the carriages are frequently overthrown. My improved rail is not liable to such as its groove is made so narrow that not even the wheels of the lightest street carriages drawn by horses or cattle are narrow enough to drop into it, and furthermore, the said rail has two bearing surfaces for the wheel to rest and roll on, the guiding flanch being arranged between its two treads as shown in Figs. 3 and 4, in which A, is the wheel, b, b' its treads, while c is the flanch.

In carrying out my invention, I make the rail with a grooved top and double bearing, that is to say, with not only a very narrow groove d, but with two wheel bearing surfaces e, e', disposed on opposite sides of the groove, as shown in Figs. 1 and 2. The groove I make rather less than one inch in width in order that the tires of the wheels of the lighter gigs or vehicles of the ordinary kind usually drawn by horses, cannot enter the same while running logitudinally along the rail. Furthermore, I construct the rail in two parts, g, g, having their line of separation or division h in it at the lower part of the groove. These two parts I bolt together and cause one to extend beyond the other and lap by its end so as to break joints with the latter part and that which would be placed end to it in continuing the rail. In this way, I cause each bearing of the rail to overlap the joints of the other, so as to make what is termed a "continuous bearing," the same serving not only to prevent the rails from being crushed or broken down at their ends but to render the railway smooth and even for the carriage wheels. Furthermore, below the plane of connection of the two parts g, g, and between them I form a continuous space i, as shown in Figs. 2, and 5.

The space, i, between the two parts of the rail and below their joint serves as a gutter or drain to carry off any water which may run down through the joint. The rail so made is to have the street pavement laid directly against its outer surfaces as shown in Fig. 5.

It is found that a very narrow flange, or one about one half an inch in width is sufficient under ordinary circumstances, to preserve the carriage from accidentally running off the track.

I claim the improved double bearing and grooved street rail as made in two parts, g, g, bolted and arranged together, and with a gutter, water space or conductor i, arranged between such parts and between their connections as specified.

GEO. EATON.

Witnesses:
R. H. EDDY,
F. P. HALE, Jr.