No. 619,069. Patented Feb. 7, 1899.

S. J. BUCKLAND.

APPLIANCE FOR TRACK RAILS OF STREET RAILWAYS.

(Application filed Nov. 5, 1898.)

(No Model.)

Fig. 1.

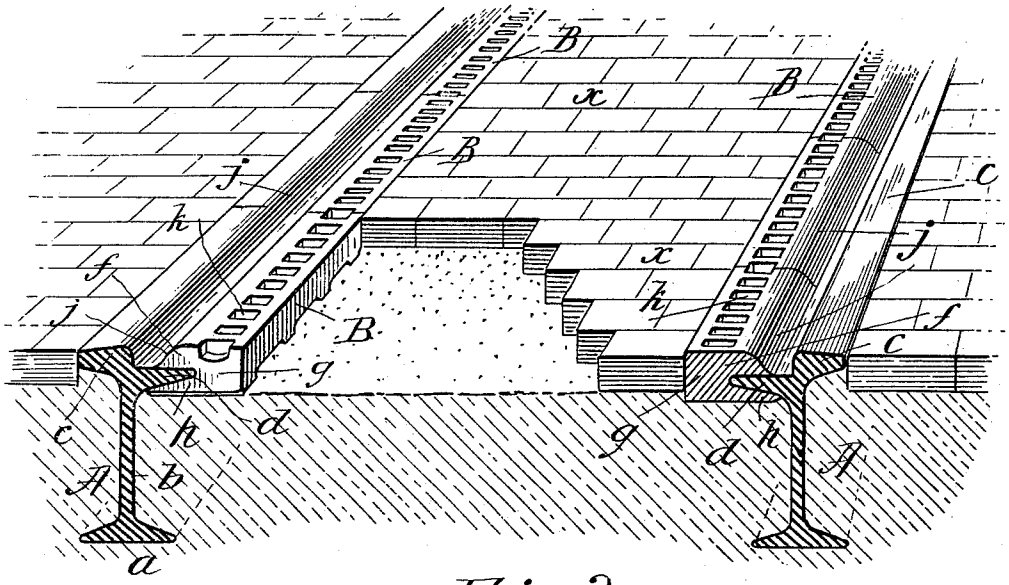


Fig. 2.

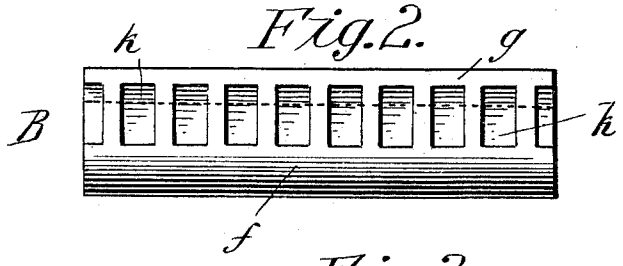


Fig. 3

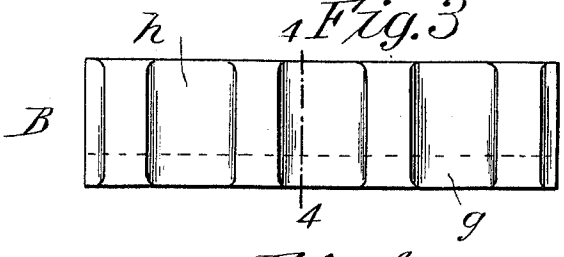
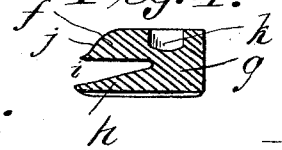


Fig. 4.



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UNITED STATES PATENT OFFICE.

SETH J. BUCKLAND, OF SPRINGFIELD, MASSACHUSETTS.

APPLIANCE FOR TRACK-RAILS OF STREET-RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 619,069, dated February 7, 1899.

Application filed November 5, 1898. Serial No. 695,527. (No model.)

To all whom it may concern:

Be it known that I, SETH J. BUCKLAND, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Appliances for the Track-Rails of Street-Railways, of which the following is a full, clear, and exact description.

In some cities and other places street-railways have been laid employing what is termed the "tram-head" rail, the same consisting of the ordinary widened base, the upstanding neck, the tread at one side at the top, and a comparatively wide flange at the other side near the top, but considerably lower than the tread portion, the pavement, consisting of blocks of stone or bricks, being laid between the rails, the paving blocks or bricks adjacent the rail having their edges abutted against the edge of the flange of the rail, their tops being above the upper side of such rail-flange, leaving a comparatively wide and deep groove the entire length of the railway next inside of the tread portion of each rail, which groove has been found very objectionable to the public as constituting a factor of danger to bicycle-riders and of injury to conveyances.

The object of this invention is to provide a simple and inexpensive appliance to be used in conjunction with the tram-head rail for the purpose of materially filling and rendering less wide the groove within the rail, such appliance, however, leaving full provision for the accommodation of the flanges of the car-wheel; and the invention consists, in a railway, in the combination, with the rail of the kind mentioned having a comparatively widely offset flange located below the tram-head or tread portion of the rail, of sections or lengths of suitable material, as cast-iron, wood, artificial stone, or other substance, having a portion adapted to overlie a part of the width of the said flange of the rail and having a thickness extending approximately to the level of the rail-top and having a portion to engage against the edge of the rail-flange, said appliance being adapted to be restrained against lateral displacement by suitable means, preferably and most simply by the abutment against the inner edge thereof of the paving which is provided between the rails.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a perspective and cross-sectional view showing a railway comprising the tram-head rails with the present improved appliances in place relative thereto. Fig. 2 is a plan view of the top of one of the rail appliances, Fig. 3 being a plan view of the under side of the appliance, and Fig. 4 is a cross-section thereof.

In the drawings, A represents a tram-head rail, of which *a* is the base, *b* the neck, *c* the tread or tram-head, and *d* the inwardly-extending substantially horizontal comparatively wide flange, the upper surface of which lies considerably below the surface of the tread of the rail.

B represents the appliance which constitutes this invention. The same, as considered in cross-section, comprises a portion *f* to overlie a part of the width of the rail-flange *d*, edgewise approaching but not extending to the inner edge of the tram-head *c*, and the portion *g* to engage against the edge of the rail-flange, the sectional appliance B being held against transverse displacement by the paving bricks or stones *x*. In addition I prefer to construct the sectional appliance with the underlying tongue or member *h*, separated from the aforementioned upper portion *f* by the space *i*, which extends from end to end of the casting or part B.

In practice I have constructed these attachments in lengths or sections of about one foot each, having found it a convenient length and satisfactory in point of convenience and availability; but they may be made very much longer, if desired.

The rail-flange *d* being transversely tapered or beveled, substantially as shown, the inner surfaces of the portions *f* and *h* of the sectional casting B are correspondingly convergent, so that they may be applied in engagement on the rail-flange with a crowding fit, which will aid in maintaining their retention thereon.

The outwardly-facing edge of the portion *f*, which partially fills the groove inside of the tram-head, is downwardly and outwardly bev-

eled, as shown at *j*, so that the groove which must necessarily be left for the running of the wheel-flange has a sloping inner margin, the groove of this form being more desirable than one having vertical sides for obvious reasons.

The top of the sections B are constructed with pits or depressions *k* to impart a character of surface to the tops of these parts which will lessen the liability of horses slipping or the slipping of vehicle-wheels. The bottoms of the sections B are formed with alternating shallow recesses and ribs to engage the road-bed gravel or other material and serve to prevent what slight tendency there may be of endwise displacement of the sections.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An appliance for a track-rail having a head or tread portion and a flange extending horizontally at one side of and below the top of the rail-head, which consists of a supplemental section having a portion adapted to overlie a part of the width of said rail-flange of a height to extend approximately to the level of the rail-top, and means for confining it in place on the rail-flange.

2. An appliance for a flanged rail of the character described consisting of a section or length of suitable material as cast-iron comprising a portion adapted to overlie a part of the width of the rail-flange, of a height to extend substantially to the level of the rail-top, and having a portion which depends at the edge of such flange, for the purpose set forth.

3. The combination with a track-rail of the character described having the inner side flange of a supplemental section or appliance comprising a portion to overlie a part of the width of the flange with its edge which is toward but separated from the rail-head downwardly and outwardly beveled, and furthermore comprising a depending inner edge portion which projects downwardly across the edge of the rail-flange, for the purposes set forth.

4. An appliance for a track-rail of the character described, comprising the upper portion *f* to overlie a portion of the width of the rail-flange, a depending portion *g* to project downwardly across the edge of such flange and the portion *h* projecting outwardly under and separated from said portion *f* and adapted to engage under the rail-flange, substantially as described.

5. An appliance or supplement for the tram-head rail of the form specified comprising the portion *f* to overlie a part of the width of the rail-flange having the beveled outer edge *j* and having depressions *k* in its top, the depending portion *g* and the portion *h* projecting outwardly under and separated from said part *f*, all integrally formed, substantially as described.

6. In a street-railway, the combination with the parallel tram-head rails having the inwardly-extending flanges *d* projecting substantially horizontally below the top of the rail-head, combined with the sections B each comprising the flange-overlying part *f*, the part *g* depending downwardly across the inner edge of the rail-flange, and the outwardly-projecting portion *h* engaging under the said flange, and the paving blocks or bricks laid and filling the space between the inner edges of said sections which hold the latter against lateral displacement from their engagements with the rail, substantially as described.

Signed by me, at Springfield, Massachusetts, this 2d day of November, 1898.

SETH J. BUCKLAND.

Witnesses:
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