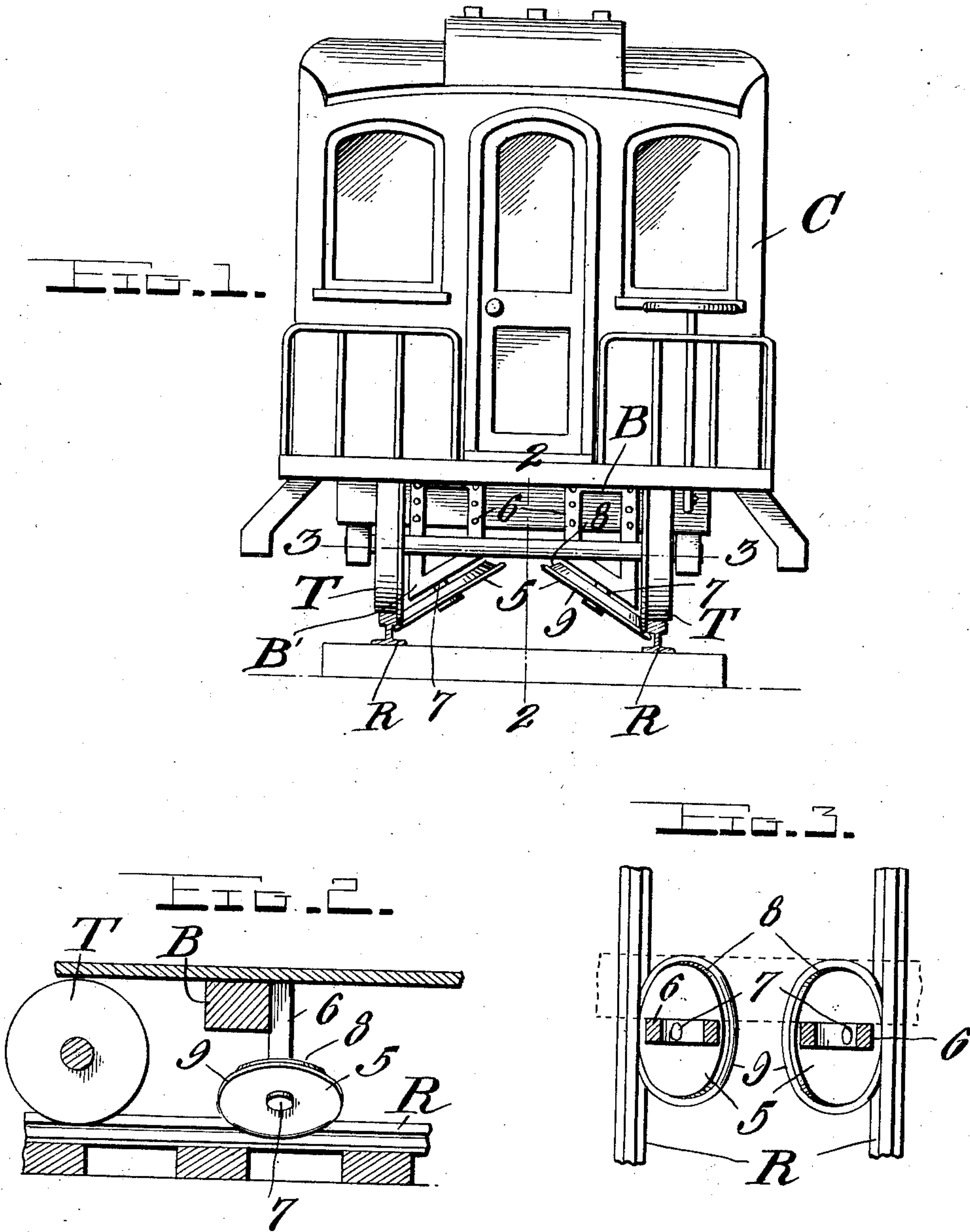


W. G. MOOFLEY.  
SAFETY APPLIANCE FOR CARS.  
APPLICATION FILED DEC. 29, 1910.

997,148.

Patented July 4, 1911.



Witnesses

Chas. L. Griesbauer.

J. H. Pender

Inventor  
W. G. Moofley,

By Watson E. Coleman.  
Attorney



# UNITED STATES PATENT OFFICE.

WILLIAM G. MOOFLEY, OF WILLIAMSPORT, PENNSYLVANIA.

SAFETY APPLIANCE FOR CARS.

997,148.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed December 29, 1910. Serial No. 599,837.

*To all whom it may concern:*

Be it known that I, WILLIAM G. MOOFLEY, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Safety Appliances for Cars, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to safety appliances for cars and has for its object to provide a very simple, inexpensive and efficient device for eliminating the possibility of a train coach leaving the track rails when rounding  
15 a curve or moving upon other dangerous stretches of the track.

A further object of the invention resides in the provision of a supplementary pair of rail engaging wheels which are disposed between the main truck wheels of the coach and are positioned at an angle thereto, said wheels engaging under the heads of the rails and thereby preventing the coach lifting from the rails or turning over upon its  
25 side.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is an end elevation of a train coach, illustrating the application of my appliance thereto; Fig. 2 is a section taken on the line 2—2 of Fig. 1; and Fig. 3 is a section taken on the line 3—3 of Fig. 1.

Referring in detail to the drawing C designates the train coach, T the truck wheels which are mounted beneath the coach in any approved manner, and R the track rails upon which the truck wheels move.

My improved safety appliance comprises the supplementary rail engaging wheels 5 which are rotatably mounted upon the lower ends of the hanger frames 6 which are rigidly secured to one of the beams B of the coach C. The lower ends of these hanger frames are formed with the angularly and upwardly disposed portions B' which are extended inwardly toward the center of the coach. Upon these angularly disposed portions of the hanger frames the supplementary wheels 5 are rotatably mounted upon the stud axles 7 which are suitably fixed  
55 therein. The wheels 5 are formed with the

beveled surface tread portions 8 for engagement with the inner sides of the heads of the rails R. The rail heads have vertical sides with which the beveled treads of the wheels 5 correspond. These wheels are also each provided with an annular peripheral flange 9 which extends beneath the rail head and effectually overcomes any tendency of the coach to lift off of the main rails owing to obstructions on the track or defects in the construction thereof. The tread portions 8 of the wheels overcome all possibility of lateral movement of the coach upon the rails and also serve to prevent undue friction upon the rail engaging flanges of the main track rails T when rounding a curve in the track.

From the foregoing it is believed that the construction and manner of operation of my improved safety appliance for railway cars or coaches will be readily understood without requiring any further description. The device is extremely simple and may be easily and quickly arranged upon coaches of the present construction, no change whatever being required therein. The wheels may also be utilized as guards or fenders for street railway cars, and in such case would be placed in advance of the front trucks. The device may also be constructed at a comparatively low cost and is very durable and highly efficient in practical use.

While I have shown and described the preferred construction and arrangement of the various parts, it will be understood that the device is susceptible of considerable modification without departing from the essential feature or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

The combination with a coach having a transverse beam secured to its under side and supporting trucks for said coach movable upon spaced rails, the rail heads having perpendicular sides, of hangers rigidly secured to said beam and depending therefrom adjacent to the truck wheels, each of said hangers having their lower ends outwardly and downwardly inclined, guard wheels rotatably mounted upon the inclined ends of said hangers and disposed in parallel relation thereto, said guard wheels being located wholly below the truck axles and disposed between said rails at an incli-

nation of less than  $45^{\circ}$  with relation to the transverse plane of the rails, said guard wheels having beveled tread portions engaging with the inner vertical sides of the  
5 rail heads and annular peripheral flanges extending beneath the rail heads, substantially as and for the purpose specified.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

WILLIAM G. MOOFLEY.

Witnesses:

O. L. NICHOLS,  
HARRY K. RILEY.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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