

D. MAUCK.
ANTIFRICTION RAIL.
APPLICATION FILED AUG. 8, 1911.

1,012,093.

Patented Dec. 19, 1911.

Fig. 1.

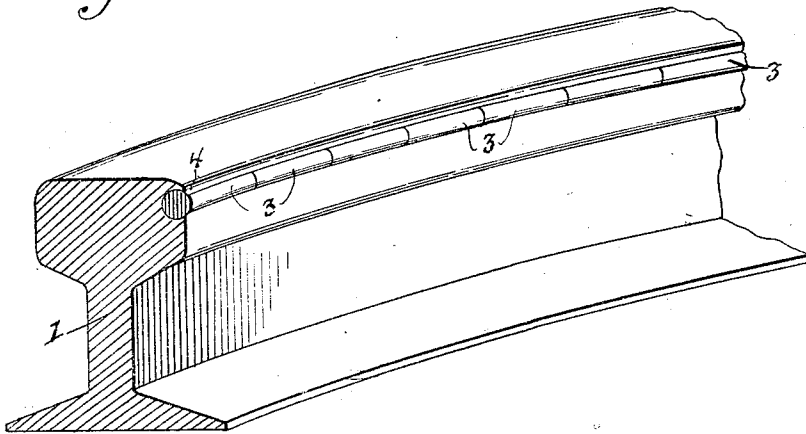


Fig. 2.

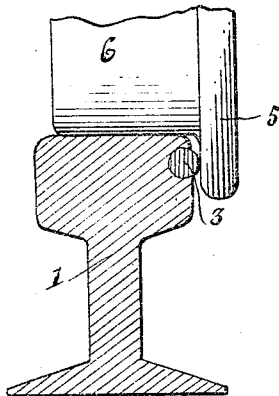


Fig. 3.

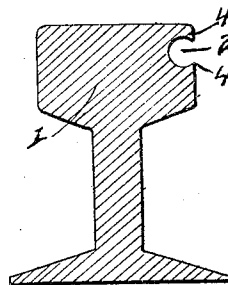
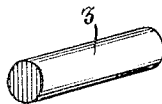


Fig. 4.



WITNESSES

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ANTIFRICTION-RAIL.

1,012,093.

Specification of Letters Patent.

Patented Dec. 19, 1911.

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To all whom it may concern:

Be it known that I, DAVID MAUCK, a citizen of the United States, residing at Greenville, in the county of Wayne and State of Missouri, have invented new and useful Improvements in Antifric-tion-Rails, of which the following is a specification.

My invention relates to friction preventing devices for rails.

10 An object of my invention is to provide means whereby the friction of the wheel flange against the rail in rounding curves is greatly reduced.

15 Another object of my invention is to provide a rail having rollers in an aperture therein, to prevent the friction of the wheel flange against the rail.

20 The advantages of these rollers may readily be seen. Under present conditions a train rounding a curve is thrown over toward the outside rail and nearly the full momentum of the train comes on the one rail and the flanges of the wheels on that side. With this great weight on the flanges 25 the wheels tend to bind, thereby reducing to a degree the speed of the train as well as causing heavy wear on the rails and flanges. This wear will eventually cause the flanges of the wheels to become so thin that 30 if they are neglected and new wheels not put in place a very serious accident is likely to occur, probably causing much loss of life, of property and also blocking the tracks, making it very expensive for the railroad 35 company. The wear on the rails and wheels necessitate the replacing of the same very often causing another great expense to the company.

40 With the foregoing and other objects in view my invention consists in such details of construction and in the arrangement and combination of parts as will be hereinafter more fully described and specifically pointed out.

45 In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts, throughout the several views, and in which:—

50 Figure 1 shows a section of a rail fitted with my device. Fig. 2 shows a wheel passing over a rail fitted with the same. Fig. 3 is a sectional view of the rail showing the aperture therein, and Fig. 4 is a perspective 55 view of one of the rollers.

For the straight road the ordinary type

of rail is used, my device being used only on the curves. The rail is of the usual type with the exception that it has a longitudinal slot 2 extending the length of the rail. This slot 2 is in the side of the rail 60 and near the top, and is round in cross section. The slot 2 is in such position that it forms an aperture in the side of the rail through which a portion of the roller 3, 65 which is adapted to fit into the slot 2, extends. This aperture in the side of the rail is less than the diameter of the slot 2, and the portion 4 of the rail 1 holds the roller 3 in the slot 2 preventing the roller from 70 falling out or being dislodged. The slot 2 makes a bearing for the roller 2 to rotate in, and the portion of the roller that extends from the side of the rail 1 is adapted to engage the flange 5 of the wheel 6. The 75 rails are laid in the usual way, the rollers 3 first being inserted in the end of the rail 1 through the aperture 2.

As it may be seen my invention prevents to a great extent the large expenditure 80 necessitated by accidents and by the replacing of the rails and wheels. With my device nearly all the wear comes on the rollers and as these revolve under the action of the car wheels there is less friction 85 between the rail and the wheels, and therefore less wear. The wear being mostly on the rollers and as these rollers may be manufactured very cheaply, it will cost very little to replace them.

90 I desire it to be understood that I may make slight changes in the construction, and in the arrangement and combination of the several parts without departing from the spirit of my invention, provided such 95 changes fall within the scope of the appended claims.

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

100 1. In a device of the character described a rail, having an aperture in the side thereof, and rollers adapted to be received in said aperture, said rollers being elongated.

105 2. In a device of the character described rollers, said rollers being elongated, and a rail, having an aperture in the side thereof, said aperture being adapted to receive said rollers and forming a bearing wherein said rollers may revolve.

110 3. In a device of the character described a rail having an aperture in the side there-

of, elongated rollers adapted to be received
in said aperture in such a manner that a
segment of said rollers will project beyond
the side of said rail, whereby the flange
5 on the wheel which travels on said rail will
engage said rollers, and whereby they will
rotate in the direction of the rotation of

said wheel thereby preventing the same
from leaving said rail.

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Witnesses:

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