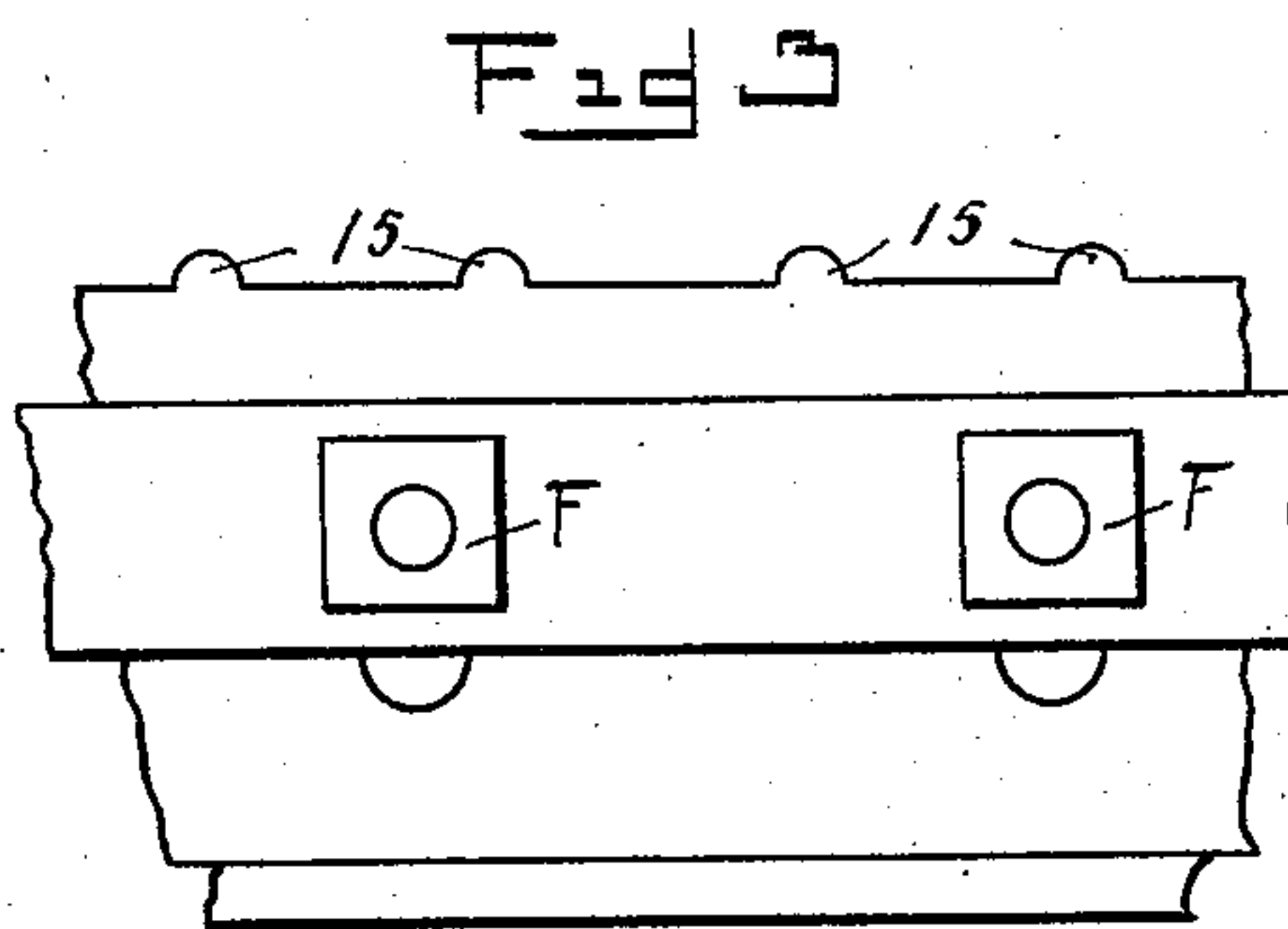
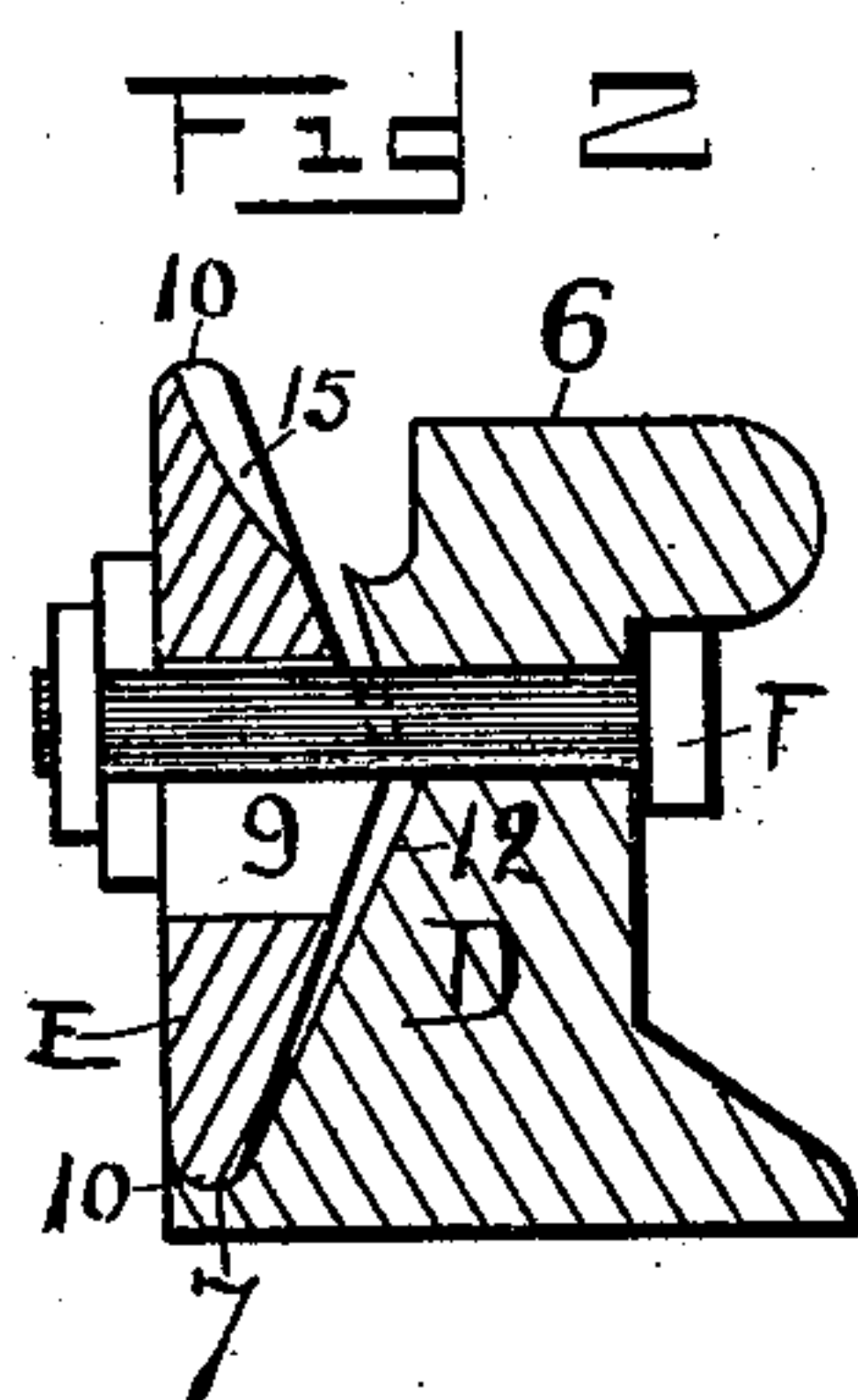
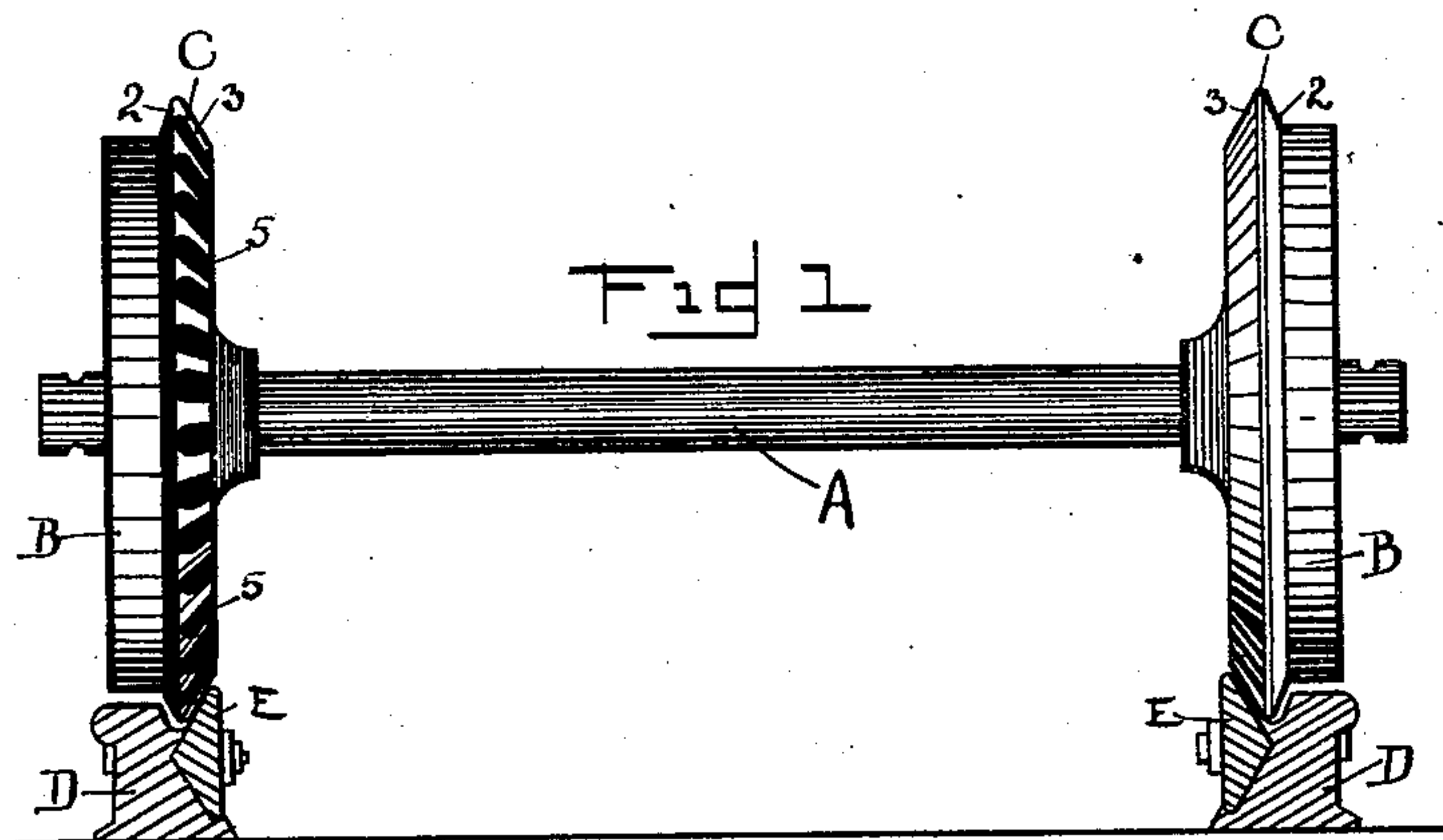


(No Model.)

J. PRINTZ.
RAILWAY CAR WHEEL.

No. 542,310.

Patented July 9, 1895.



WITNESSES:

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JONAS PRINTZ, OF OMAHA, NEBRASKA.

RAILWAY-CAR WHEEL.

SPECIFICATION forming part of Letters Patent No. 542,310, dated July 9, 1895.

Application filed March 2, 1894. Serial No. 502,158. (No model.)

To all whom it may concern:

Be it known that I, JONAS PRINTZ, of Omaha, in the county of Douglas and State of Nebraska, have invented certain useful Improvements in Railway-Car Wheels and Tracks; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention has relation to a new and novel improvement in railway-car wheels and tracks, the object being to provide a simple means whereby the cars can be more readily propelled up an incline.

In a great many cities where car-line grades are of necessity very steep much time is lost and power expended in carrying cars up the incline. During moist or icy weather a great many cars almost become stalled by the wheels revolving upon the track without moving forward. This slipping of the wheels is of course prevented in a degree by scattering sand on the rails; but as the riding-surface of the rail is narrow the sand soon works off. To provide a means whereby the cars can be more readily propelled up an incline is the object of my device.

In the accompanying drawings, Figure 1 shows a view, with the rails partly in section, of car wheels and trucks embodying my invention. Fig. 2 shows an enlarged detail of one of the trucks, while Fig. 3 shows a side view thereof.

A represents an axle of the usual size and conformation with the two wheels B B, which are as usual fixed to the axle A. These wheels are provided with the usual driving and guiding flanges. The guiding-flange C in this instance, however, extends at an angle to the wheel A proper, and comprises the guide-flange 2 and the friction-flange proper 3. This flange 3 of course forms an integral part of the wheel proper. To further insure the efficiency of this flange 3, I provide the same with a number of corrugations or depressions 5, distributed about this flange 3. The track upon which this wheel is adapted to run comprises the main portion D, having the usual

riding-surface 6 and being provided below with the approximately circular seating 7. Within this seating 7 the detachable friction-rail E is removably held by means of the connecting-bolts F. The flange C is provided with the central opening 9, through which the bolt F passes. This detachable friction-rail is in the shape of a flattened pyramid and is provided with the two rounded edges 10 10. The rail D is also provided upon the inside with the angular seating 12, adapted to accommodate the angular portion of the friction-rail E. This friction-rail is also corrugated or scalloped, having the depressions 15, within which those of the wheel readily work. Now these two-part rails E D are supposed to be placed within the system at all points where grades are encountered. As soon as a car equipped with my truck strikes this track, the trucks leave the riding-surface of this rail D and are guided upon the friction-rails E, as shown in Fig. 1, so that these flanges support the whole weight of the car. By means of the bolts F these flanges may be given adjustment. As the upper edge of the friction-rail E wears off and out, the flange-section C is simply reversed, so as to present the lower surface of this flange, so as to make the same reversible and interchangeable. It is of course understood that this flange C could be without the corrugations or scallops, as shown in Fig. 1, where the friction-flange of one of the wheels has been left perfectly smooth, as has also the friction-rail. It is also understood that, if desired, the rail D could be cast with an upwardly-extending friction-rail E.

Now, having thus described my said invention, what I claim as new, and desire to secure by United States Letters Patent, is—

1. The combination with a car axle having suitable wheels, said wheels being provided with outwardly extending friction flanges, said friction flanges being scalloped, of a two part rail comprising a main supporting section in combination with a friction rail, transversely in the shape of an isosceles triangle, the base of said friction rail being positioned vertically, and being reversibly and adjustably secured to the main part of said rail the angular sides of said friction rail being

adapted to engage the friction flanges of said wheels, to support the same, all substantially as and for the purpose set forth.

2. The combination with the car axle, A, provided with the wheels, G, having the friction flanges, C, provided with the corrugations, 3, of the two part rail comprising the section, D, having the angular seating, 12, and the lower circular seating 7, of the friction rail, E, provided with the two circular edges, 10, 10, said friction rail being in cross

section in the form of an isosceles triangle, and provided with the transverse opening, 9, and the connecting bolts, F, all arranged to operate substantially as and for the purpose set forth.

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

JONAS PRINTZ.

Witnesses:

A. M. ERIXON,
FRANK PLANCK.