

T. J. SHEEHAN.
RAILWAY.
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988,901.

Patented Apr. 4, 1911.

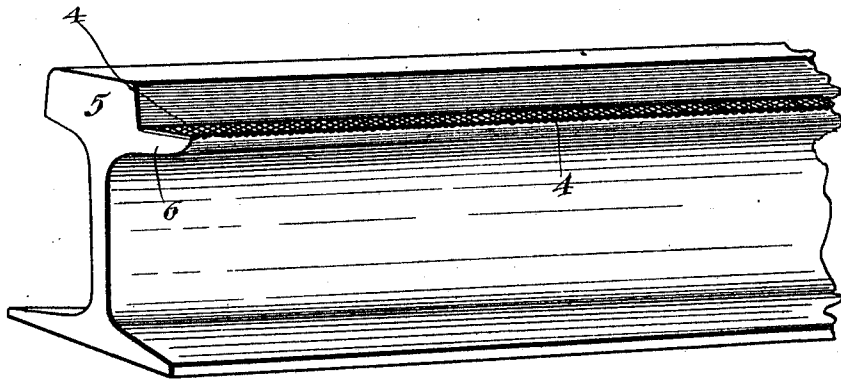


Fig. 1.

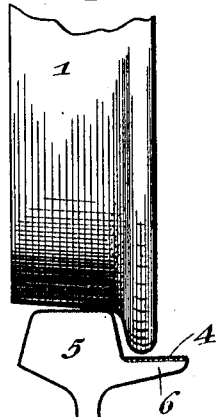


Fig. 3.

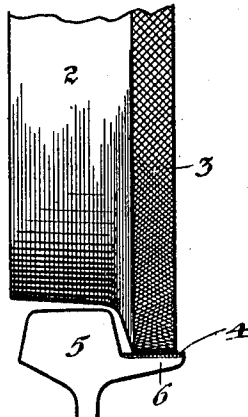


Fig. 2.

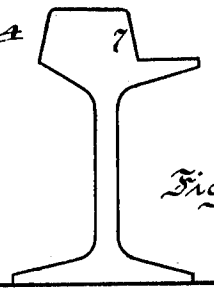


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS J. SHEEHAN, OF CHICAGO, ILLINOIS.

RAILWAY.

988,901.

Specification of Letters Patent.

Patented Apr. 4, 1911.

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To all whom it may concern:

Be it known that I, THOMAS J. SHEEHAN, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Railways, of which the following is a specification.

My invention relates to improvements in railways and has for its object the provision of a railway the wheels of the rolling-stock and the rails of which are so constructed as to increase the tractive force at points of starting, stopping, or on grades.

A further object of my invention is to provide a railway which shall be simple of construction, inexpensive to manufacture, and efficient in operation.

Other objects will appear hereinafter.

I am aware that tracks having a rack-tread have been employed and used in conjunction with toothed wheels precisely the same as an ordinary rack and pinion, but I wish to be clearly understood as distinguishing between devices of this construction and the construction I employ, as my track is designed to be used at points of starting, stopping, or on grades where sand is usually employed to produce friction or increase tractive force.

My invention consists in the novel construction and arrangement of parts as will be hereinafter fully described and more particularly pointed out in the appended claim.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which,

Figure 1 is a perspective view of a rail employed in my invention, Figs. 2 and 3 are front elevations of rails and wheels in contact therewith, and, Fig. 4 is an end elevation of an ordinary rail.

The preferred form of my invention as illustrated in the accompanying drawings comprises wheels 1 and 2, the former being the usual car wheel and the latter a specially formed engine or motor wheel. The latter wheel is provided with the usual tread and with an enlarged flange 3, the peripheral surface of which is cylindrical and knurled. At points of starting, stopping, and on

grades, a knurled surface 4 is provided on the rail 5 to cooperate with the knurled peripheral surface of the flange 3, said knurled surface 4 being formed on the top of the elevated side flange 6.

7 designates a standard rail, the side flange of which is somewhat lower than the knurled flange 6 as clearly drawn in Figs. 2 and 4. It is apparent that the regular wheel flange of the wheel 1 will not contact with the knurled surface 4 and that said wheel will travel in the usual manner on the rail 5 when the motor wheel 2 is elevated therefrom and traveling in the side flange 6. The end of the knurled surface 4 is slightly beveled to prevent sudden shock when the motor wheels engage therewith.

The operation is obvious, the motor or engine wheel being able to secure a grip upon the track sufficient to enable it to get a quick start without the use of sand and without in any way impairing or injuring either the wheels or the track. Should, however, it ever become expedient to use sand in connection with my rails, the knurled surface will so hold the sand as to cause a greater friction with the wheels by preventing the sand from being brushed off the track by the revolving of the wheels necessary in starting. In stopping also the construction of my track prevents the liability of slipping and sliding of the wheels after brakes have been applied, thereby enabling a train or car to be stopped in a much shorter space and in a much shorter time.

While I have shown what I deem to be the preferred form of my improved railway, I do not wish to be limited thereto, as there might be various changes and modifications made in the details of construction and arrangement of parts described without departing from my invention, hence I desire to avail myself of such variations and modifications as will be comprehended within the scope of the appended claim.

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

In a railway, the combination with a wheel provided with the usual tread and having an enlarged integral flange provided with a

knurled cylindrical periphery, of a rail having the usual tread and a knurled integral side flange arranged to contact with said wheel flange and to elevate the usual wheel
5 tread above the usual rail tread, substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

THOMAS J. SHEEHAN.

Witnesses:

JOSHUA R. H. POTTS,
ARTHUR A. OLSON.

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