T. H. LANE.

Guide-Wheels for Car-Trucks

No. 163,215. Patented May 11, 1875.

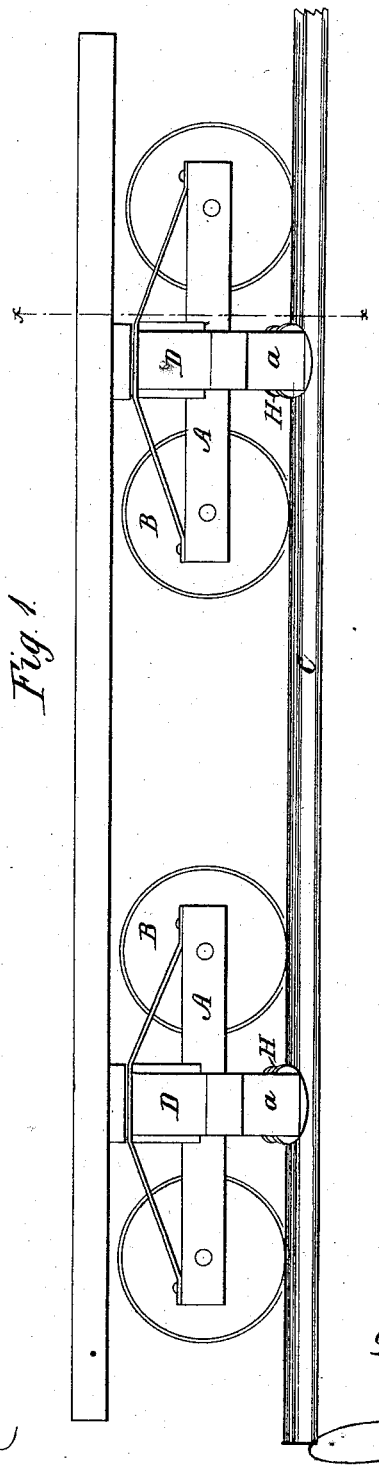

Fig. 1.

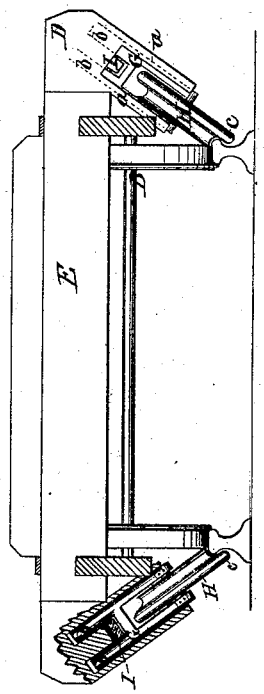

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

TURNER H. LANE, OF HOLLY SPRINGS, MISSISSIPPI.

IMPROVEMENT IN GUIDE-WHEELS FOR CAR-TRUCKS.

Specification forming part of Letters Patent No. **163,215**, dated May 11, 1875; application filed April 13, 1875.

To all whom it may concern:

Be it known that I, TURNER H. LANE, of Holly Springs, in the county of Marshall and State of Mississippi, have invented a new and Improved Inclined Guide-Wheel for Locomotives and Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a side elevation; Fig. 2 a transverse section through line *x x* with parts broken away.

This invention relates to certain improvements in railway-cars; and it consists in the combination, with an inclined guide-wheel having a flange that rests against the under side of the top of the rail, of a detachable supporting-frame, and an elastic cushion or spring, as hereinafter more fully described.

In the drawing, A represents the truck of an ordinary railroad-car, having wheels B that rest upon the rails C. D is an extension of the cross-beam E of the truck, which is extended inwardly toward the track in the form of supports *a a*. In the said supports are grooves in which slides a frame, G, and in this frame is journaled the inclined wheel H. Said frame has branched or forked ends *b b*, and between the same is interposed a rubber cushion or spring, I, which allows the inclined wheel to give a little to the inequalities of the rails, and thereby diminishes the jar upon the car. The wheel H is provided with a flange, *c*, that rests against the under side of the top of the rail, the said wheel being set at any inclination that may be desired, or may be suitable for the rails employed.

I do not confine myself to the inclined wheel upon the outside of the track, as shown, but may place the same upon the inside of the track and in front, in between, or in the rear of the wheels, as may be desired.

By means of my improved guide-wheel, arranged as shown, with the flange against the under side of the top of the rail, the car is held securely upon the track and is not liable to the laterally-swaying motion, the flange holding the car so that it cannot move horizontally nor jump or bounce vertically, in consequence of which advantages locomotives and cars constructed according to my improvement can be run at a much higher rate of speed without danger, and the vibrations of the cars from the inequalities of the road reduced, so as to greatly increase the comfort of the passengers.

In addition to its other advantages also it keeps the track from swagging apart and obviates much wear and tear and loss of life.

The invention, as thus described, is intended to be applicable to locomotives, coaches, flats, cars of all kinds, and all other analogous uses.

Having thus described my invention, what I claim as new is—

The inclined wheel H, having flange *c*, in combination with the frame G, the spring I, and the extension D, substantially as and for the purpose described.

The specification of my invention signed by me this 12th day of April, 1875.

T. H. LANE.

Witnesses:
SOLON C. KEMON,
CHAS. A. PETTIT.