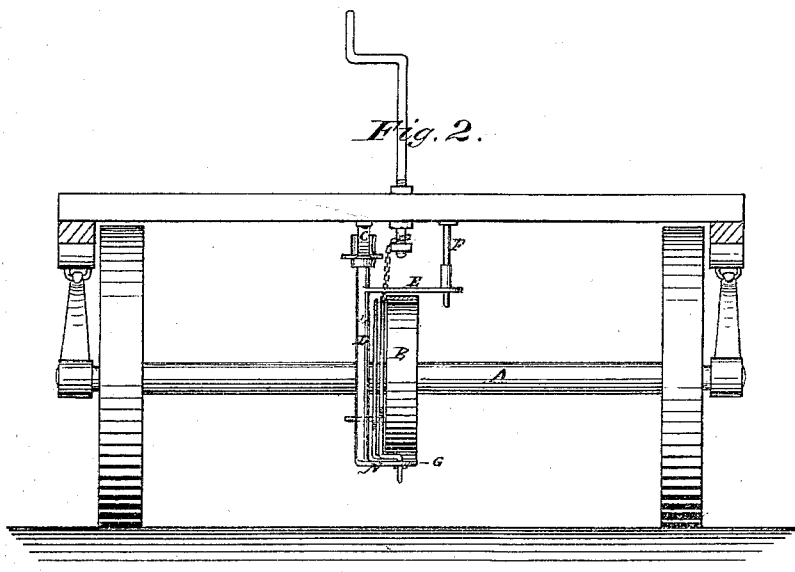
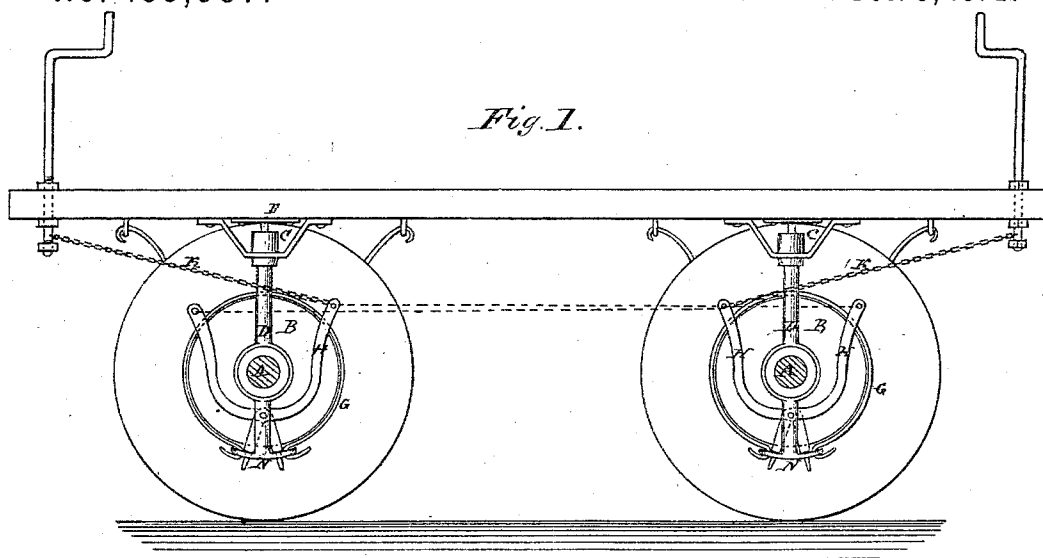


W. T. KOSINSKI.

Brakes for Land Conveyances.

No. 133,587.

Patented Dec. 3, 1872.



Witnesses:

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J. S. Hinault

Inventor:

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Fig. 3.

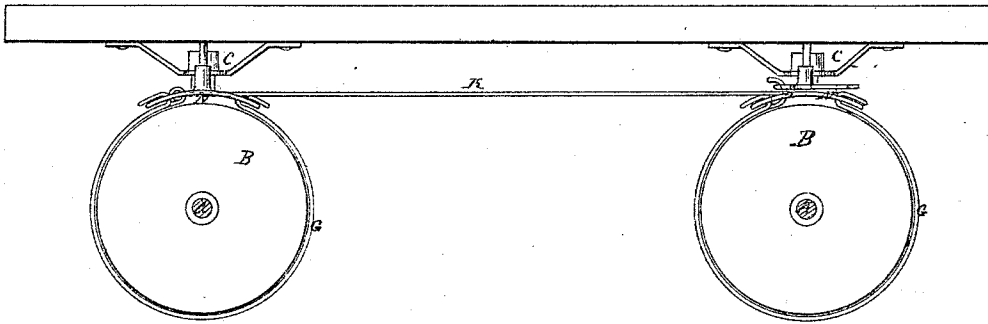


Fig. 4.

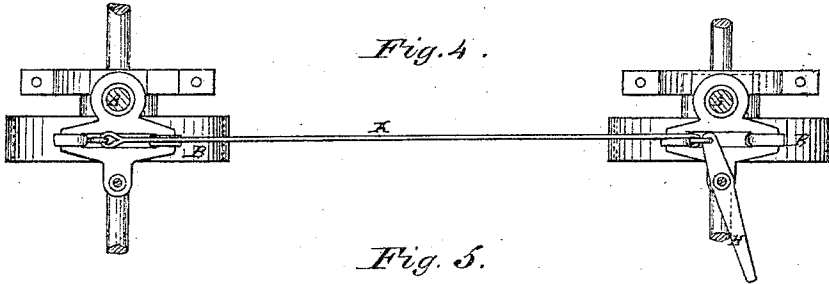


Fig. 5.

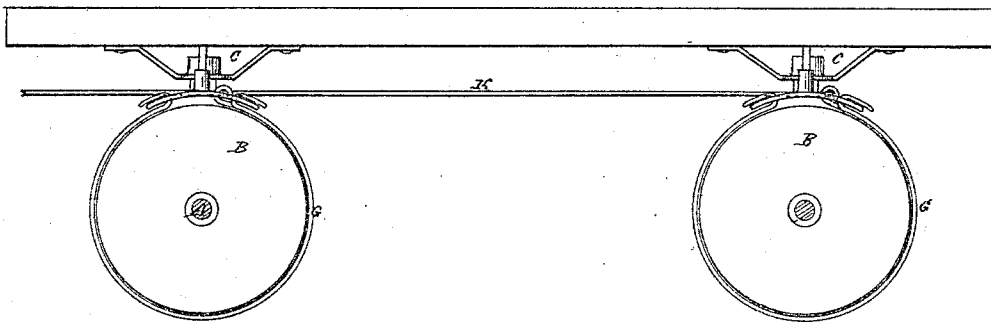
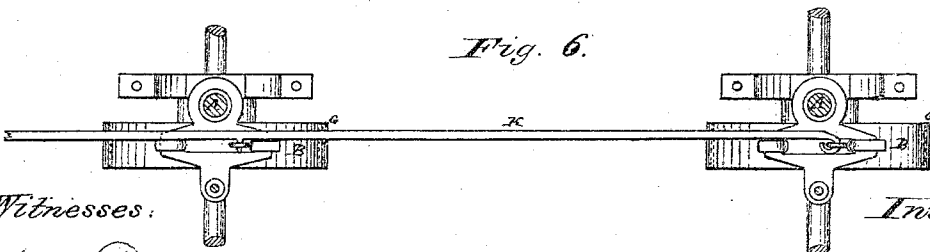


Fig. 6.



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UNITED STATES PATENT OFFICE.

WLADYSLAW THEODOR KOSINSKI, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BRAKES FOR LAND CONVEYANCES.

Specification forming part of Letters Patent No. 133,587, dated December 3, 1872.

To all whom it may concern:

Be it known that I, WLADYSLAW THEODOR KOSINSKI, of the city and county of Philadelphia, State of Pennsylvania, have invented a certain new and useful Improvements in Brakes for Traction-Engines, Cars, and Land Conveyances, of which the following is a specification:

The nature of my invention consists in a new mode of applying brakes by means of pulleys or friction-wheels rigidly secured to both the front and rear axles, which are loosely encompassed by a steel-spring strap or band, their ends playing within a slotted plate, and operating in conjunction with a system of levers.

Figure 1, sectional side view; Fig. 2, sectional rear view; Figs. 3 and 4 and 5 and 6, similar views of modifications.

The construction of the brake is as follows: I secure rigidly upon each of the front and rear axles A friction-pulleys B, which are made considerably smaller than the driving-wheels. C C are brackets, secured to the bottom of the body to one side of the pulley. Said brackets have openings on the lower part for the rods D to slide in. D D are bars, which encompass the axle, project and slide within the aforesaid openings in the brackets above, and terminate in a plate, N, below and at right angles thereto. Said plate is provided with a slot for the reception of the bent part of the steel-spring bands; also for the ends of the cross-levers, which will be hereafter described. The bar D has, about half way between the upper part of the friction-pulley and the bottom of the body, a plate, E, attached, which projects and extends over the pulley. Said plate has a short tube connected therewith above it, through which slides the rod F, secured correspondingly and in line with the bracket C. The purpose of the bar and rod F sliding within the bracket and tube is to prevent the shifting of the friction-band on the pulley; and, in case the load should be too heavy, it will prevent the body from coming in contact with the mechanism, thereby preventing the loosening and tightening of the spring-band which may be caused by the up-and-down motion of the conveyance or car. G G are the steel-spring bands, placed loosely upon the friction-wheels, having their ends bent, which project and pass

through the slot in plate N. These spring-bands have, on each end, in close proximity with the above-mentioned bend, a perforation, through which the ends of the actuating cross-levers project. H H are the operating-levers, which are pivoted to the bar D, and bent at right angles above the plate N, extending over said plate to the slot, and again bent opposite said slot, through which and the perforations in the springs, the ends of said levers pass. The outer extremities of said levers are pivoted to the bars or chains K in such a manner that, by applying power to the front or forward bar, it will draw the cross-levers, which are in the rear of the axle, forward; and the lower extremities each being connected to one end of the spring-band, will cause the said band to be drawn tightly around the pulley, the bend on the other end of the spring, during the operation, bearing against the opposite end of the slotted plate.

In operating the brake by means of the rear bar or chain the rear cross-bar and forward end of the spring remain stationary, and the friction-band is tightened by means of the front cross-bar.

The brake apparatus may, without deviating from the principle of invention, be so arranged that the draft upon the chain be applied between the two brackets, and immediately above the pulleys; or I can utilize the connecting-plate E, which connects the bar D and rod F, forming it in the shape of plate N, and arrange the cross-bars H in a horizontal position in or about in line with the upper part of the pulley, which will bring the whole operating mechanism near the body of the conveyance, and out of sight, giving it a neat appearance. In doing so I dispense with the extension of the bar D below the axle.

The advantages of this mode of operating brakes is that the brake-band is drawn gradually around the friction-pulley, and in the same direction in which the pulley revolves, its motion assisting in the tightening of the bands, thereby lessening the great strain which is usually brought to bear on the brake-shoes applied tangentially onto the periphery of the wheel opposite the axle; or they press in the reverse direction from that of the motion of the wheel.

Having described my invention, what I

claim, and desire to secure by Letters Patent, is—

1. Operating brakes by means of friction-bands placed loosely upon friction-pulleys, secured centrally upon axles, so that the tightening of the bands upon said pulleys is accomplished in the direction of and aided by the revolution of the friction-pulley, as described.

2. The mode of connecting the brake-bands to the cross-levers, and the latter to the brake-operating levers, as described.

3. The mode of connecting the friction-band and cross-levers with the pendent bar.

4. The combination of the spring-bands, friction-pulleys upon the axle, brackets, pendent bars, cross-levers, and brake-operating levers, or their equivalents, whether the mechanism or parts thereof be located in a horizontal or perpendicular position, as described.

Witnesses:

W. T. KOSINSKI.

JOS. PAUDLER,
J. S. HÉNAULT.