

(No Model.)

N. SEIBERT.
SANDING MECHANISM FOR CARS.

No. 473,090.

Patented Apr. 19, 1892.

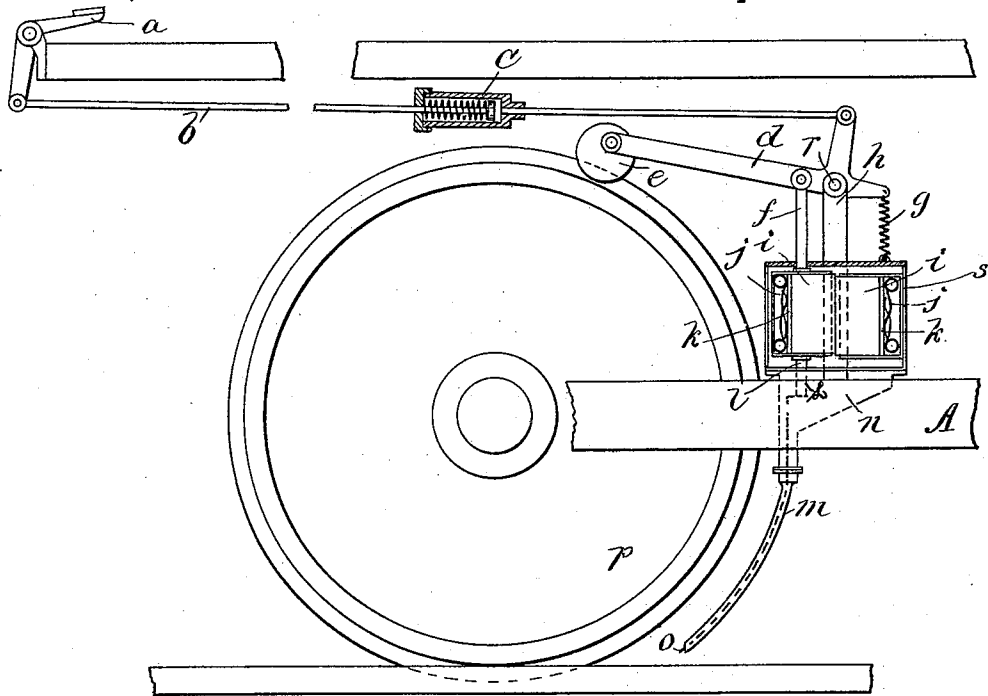


Fig. 1.

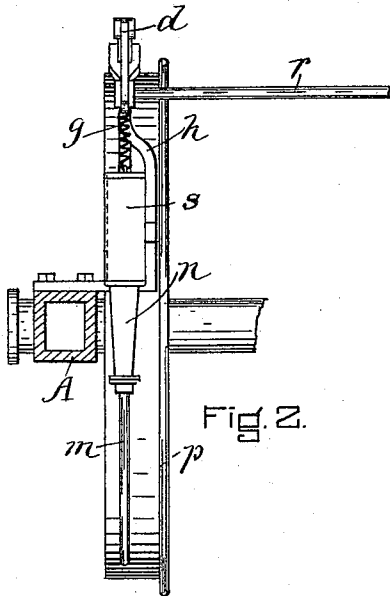


Fig. 2.

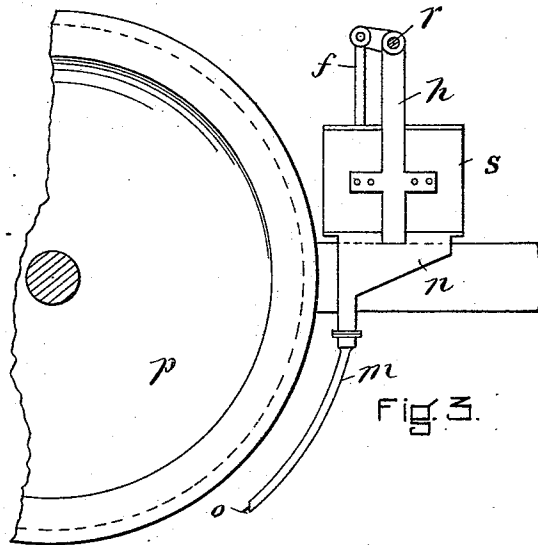


Fig. 3.

WITNESSES.

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SANDING MECHANISM FOR CARS.

SPECIFICATION forming part of Letters Patent No. 473,090, dated April 19, 1892.

Application filed November 27, 1891. Serial No. 413,217. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS SEIBERT, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Mechanisms for Sanding Railway-Tracks, as set forth in the accompanying description and drawings, forming part of this specification, in which—

Figure 1 is a side elevation, partially in section, of a portion of the frame and running-gear of a car with my improvements applied. Fig. 2 is an end view of the same. Fig. 3 is a side elevation of a portion of the car-wheel and the holder for the sandstone, showing its discharge-spout.

My invention relates to means for mechanically supplying dust or grit to railway-rails; and it consists, broadly, in supporting upon the car in any suitable manner a sandstone or its equivalent and mechanically grinding or grating particles from the surface of the same and supplying these particles to the track-rails to increase the traction and prevent the wheels from slipping.

My invention also consists of the constructions and combination of devices, which I shall hereinafter fully describe and claim.

To enable others skilled in the art to which my invention appertains to make and use the same, I will now describe one mode of its construction and indicate the manner in which the same is carried out.

Referring to Figs. 1, 2, and 3 of the drawings, *a* is a treadle or lever pivotally secured upon the frame of the car, preferably to its floor-timbers, and *b* is a two-part connecting-rod, one of the parts of said rod carrying a shell casing *C*, while the other part enters one end of the casing and has a collar or shoulder at its inner end. Within the casing *C* and encircling the rod is a spring, which is confined between the collar and the opposite end of the case, and serves as a cushion or yielding connection between the two parts of the rod, as I shall hereinafter indicate. Suitably secured to the truck-timbers is a box frame or casing *S*, within which the sanding material is located, the said frame or casing having or being connected with an underlying hopper *n*, having an outlet communicating with the tube *m* for conveying the sand or

grit to the track-rails, a rod *O* being located within the tube and connected with a movable portion to prevent the tube becoming stopped up.

The material which I prefer to use for sanding the track is sandstone or its equivalent in brick form or in pieces, from the surface or surfaces of which particles may be ground or disintegrated by mechanical means and afterward conducted to the rails through the tube *m*. Sandstone in its natural condition or an artificial brick composed of sand and other material or pieces of the well-known bricks of commerce may be used without affecting the spirit of my invention, as either of these may be mechanically operated to supply the sand, dust, or grit required for my purpose.

In order that my invention may be fully understood, I will state that the brick or sandstone is to be held or moved against a movable or stationary surface or part, which, operating upon the brick or sandstone, grinds, rubs, or wears away from the surface of the latter particles of grit, sand, or dust, which afterward find their way to the rails.

In Fig. 1 the sandstone or brick is represented in two parts, each of which is contained within a holder or follower, and against the outer portions of the latter springs are placed to feed the parts of the sandstone or brick, which in this case may be two bricks in contact toward each other, as their meeting surfaces wear away. One of these parts or bricks in this case is held against a vertical movement, while the other has itself or its holder secured to a rod *f*, pivotally secured to a lever *d*, fulcrumed upon a standard *h* and having its long arm provided with a loose eccentric or cam adapted to rest upon the rim of the car-wheel *p*, whereby the motion of the wheel is transmitted through the lever *d* to reciprocate one of the bricks or pieces of sandstone across the face of the opposite piece and by this means remove from the faces of the sandstone or brick particles of grit, dust, or sand for sanding the rails. The lever has a short arm connected to the sandstone box or case *S* by means of a spring, and the said lever has another arm, to which the rod *b* is attached, whereby a depression of the foot-lever *a* throws the eccentric into contact with the car-wheel *p* for the purposes above stated, while the

spring *g* exerts its force or power to raise the eccentric from the wheel when the foot-lever *a* is released.

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

1. In combination with the wheel and rail, a sandstone or its equivalent located on the vehicle, means by which mechanically to grind or grate from the surface of the sandstone granular particles, and a conductor for directing the granular particles to a position between the said wheel and rail.

2. A vehicle having a sandstone carried on it, means for disintegrating the sandstone and delivering the disintegrated particles between the wheel of the vehicle and the rail on which it runs, substantially as and for the purpose described.

3. The combination, on a car, of a sandstone, means for disintegrating said sandstone, a tube for delivering the disintegrated particles to the rail, and a rod operating within the tube to prevent the latter being stopped up, substantially as herein described.

4. A means for sanding track-rails, comprising a body of disintegratable material, an opposing body, and a means for operating one of said bodies in contact with the other to separate or detach particles of the disintegratable material for delivery to the rail, substantially as herein described.

5. A means for sanding the rails of a railway, comprising two opposing surfaces of disintegratable material held in contact with each other, and means for causing one of said surfaces to move upon the other and thereby detach particles of the material which are fed to the rails, substantially as herein described.

6. A means for sanding track-rails, comprising bodies of sandstone with opposing

faces in contact, a means for moving one of said bodies over the other and disintegrating it by the friction of the opposing faces, and a tube for discharging the separated or disintegrated portions upon the track-rails, substantially as herein described.

7. A means for sanding track-rails, comprising a fixed and movable body of sandstone, a holder for the same, devices connected with the movable body of sandstone and with a movable portion of the car, whereby the opposing faces of the bodies of sandstone move upon each other and particles of them are detached, and a tube for conveying the detached portions to the track-rails, substantially as herein described.

8. A means for sanding track-rails, comprising a stationary and movable body of sandstone, a holder therefor, spring-actuated followers for holding the faces of the bodies of sandstone in contact, a lever *d*, and rod connected with said movable body, a cam or eccentric on said lever, a foot-lever on the car, and a connection therefrom to the lever *d*, whereby the latter is operated to throw the cam or eccentric into engagement with a movable part of the car and to cause the opposing surfaces of the sandstone to rub upon each other, and a tube leading from the sandstone-holder to the track-rails, substantially as herein described.

9. The combination, on a car having a holder and a discharge-tube, of a body of sandstone within the holder, and means for disintegrating the same and feeding the separated portion to the discharge-tube and the rail, substantially as herein described.

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Witnesses:

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