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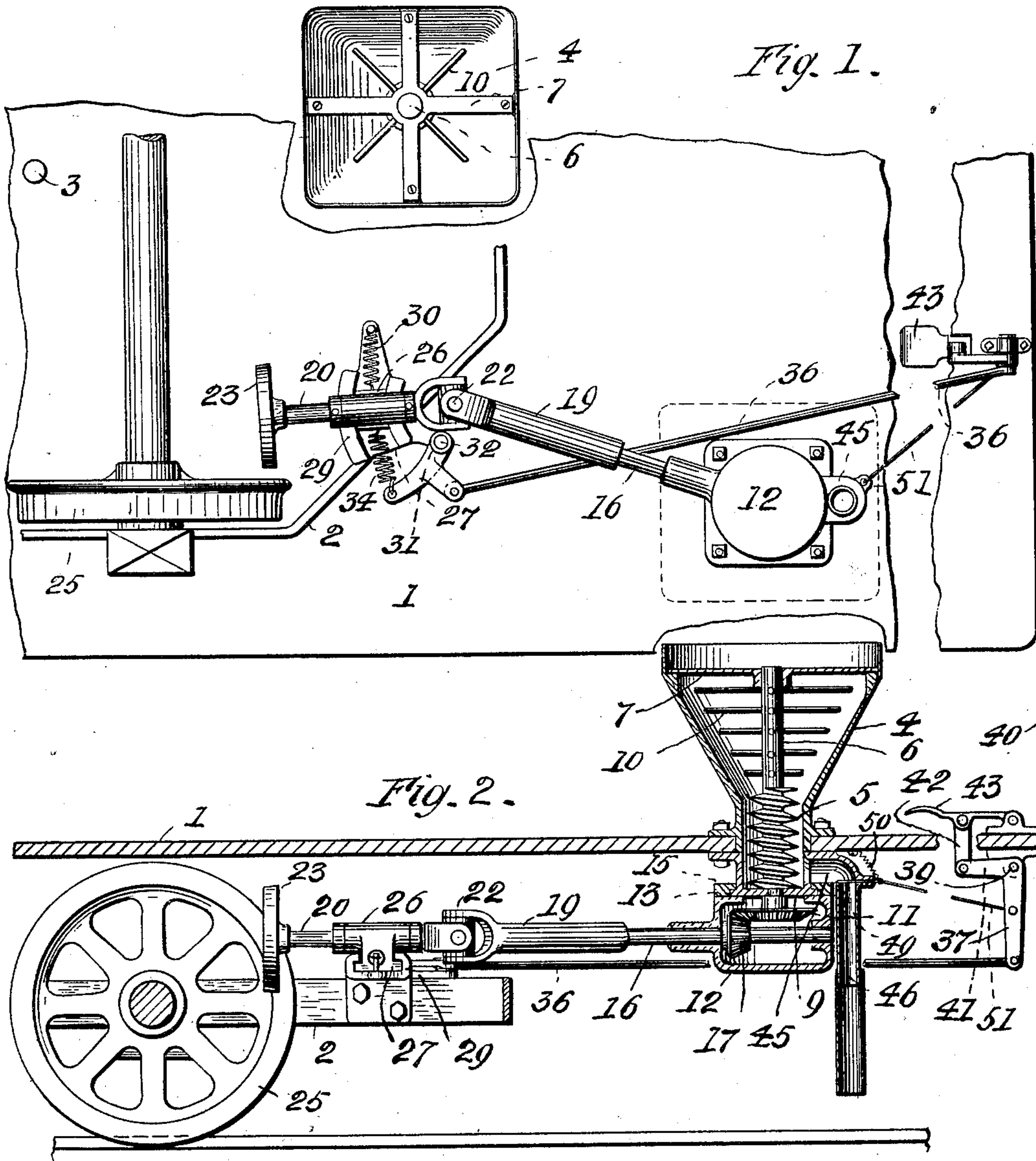
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TRACK SANDING APPARATUS FOR CARS.

(Application filed Aug. 23, 1901.)

(No Model.)

Fig. 3.

Fig. 1.



Witnesses;

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UNITED STATES PATENT OFFICE.

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TRACK-SANDING APPARATUS FOR CARS.

SPECIFICATION forming part of Letters Patent No. 686,988, dated November 19, 1901.

Application filed August 23, 1901. Serial No. 73,003. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. L. PENTLAND, of the city of Baltimore and State of Maryland, have invented certain Improvements in Track-Sanding Apparatus for Cars, of which the following is a specification.

This invention relates to improved means whereby sand is fed mechanically from a suitable receptacle through the medium of mechanism which is set in motion from one of the car-wheels, and while the said invention is well adapted for use when the sand is dry it is more particularly useful when the sand is in a moist condition and from that cause will not readily fall by gravity from the receptacle to and through a conduit or pipe leading to the track-rails, as will hereinafter fully appear.

In the description of the said invention which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a view of the invention as seen from the under side of the car, and Fig 2 a partly-sectional side view of the same. Fig. 3 is a top view of the sand-box forming a part of the invention.

Referring now to the drawings, 1 is the floor of the car, and 2 a bar forming a part of the truck, which turns on the pivotal or king bolt 3. (Shown only in Fig. 1 of the drawings.)

4 is the sand-box, secured to the car-floor 1, terminating at its lower end in a cylinder in which is situated a conveyer-screw 5, hereinafter more particularly described.

6 is a rotary shaft, with its upper end in the central boss of an open frame 7 and with its lower end passing through the bottom 9 of the sand-box. This shaft carries the conveyer-screw 5 before referred to and also the sand-agitating arms 10, and at its lower end it is fastened to the beveled gear-wheel 11, situated in a casing 12. This casing is adapted to have partial rotation about the flange 13 independently of the sand-box, and it is held in place by means of the collar 15.

16 is a horizontally-placed shaft having its bearings in the casing 12, and to it is secured the beveled pinion 17, the teeth of which are in mesh with those of the beveled gear-wheel

11. The outer end of the shaft 16 is adapted to slide longitudinally on a feather (not shown) within the sleeve 19, which is united to another shaft 20 by means of the universal joint 22. Fastened to the outer end of the shaft 20 is a friction-wheel 23, which in circumstances hereinafter described is brought into contact with the inner surface of the car-wheel 25, which swings with the bar 2 as the car rounds a curve. The shaft 20 rotates in a block 26, having a curved flange 27, arranged to slide in a box 29, secured to the bar 2. The friction-wheel 23 is held yieldingly from contact with the car-wheel 25 by means of the coiled spring 30, which is permanently attached at one end to the box 29 and at the other end to the block 26, as shown in Fig. 1.

31 is a bell-crank pivoted at 32 to a lug forming a part of the box 29. One arm of this bell-crank is united by a spiral spring 34 to the block 26 and the other arm is connected by a rod 36 to the arm 37 of the bell-crank 39, which is hinged to the under side of the car-floor and near to the dashboard. The other arm 41 is connected by a link 42 to the treadle 43, upon which the motorman places his foot when sand is to be applied to the track-rails.

45 is a nozzle leading laterally from the cylindrical portion of the sand-box, and 46 a pipe leading from the said nozzle toward the track-rail.

49 is a gate which is held by a spring over the end of the pipe 46, and 51 a wire connecting the said gate to the lower arm of the bell-crank 39.

When the apparatus is not in use, the friction-wheel 23 is retained from contact with the car-wheel, and as the car rounds a curve the shaft 16 slides longitudinally of the sleeve 19. When it is desired to convey sand to the track-rail, the motorman presses his foot on the treadle 43 and the friction-wheel 23 is drawn to contact with the car-wheel and the screw-conveyer set in revolution, which feeds the sand to the pipe 46, which has been uncovered by the withdrawal of the gate 49. When sufficient sand has been applied to the rails, the motorman removes his foot from the treadle 43 and the various parts of the

mechanism assume their original positions (shown in the drawings) and the feeding of sand is suspended.

I claim as my invention—

- 5 1. In a track-sanding apparatus the combination of a sand-box having a conveyer-screw therein, gear-wheels to effect the rotation of the said conveyer-screw, a friction-wheel which is held yielding from contact
10 with the car-wheel, means to communicate rotation from the said friction-wheel to the said train of gearing, and appliances to move the said friction-wheel toward and from the said car-wheel, substantially as specified.
- 15 2. In combination with a truck-wheel of a car, a sand-box having a screw conveyer therein, a shaft having at one end a friction-wheel adapted to be brought into contact with the said car-wheel, and at the other provided with
20 a train of gearing whereby rotation is communicated to the said conveyer-screw, the said shaft having therein a universal joint

whereby a portion of the said shaft may be moved laterally without communicating a corresponding movement to the other part, 25 substantially as specified.

3. In combination with a truck-wheel of a car, a sand-box containing a conveyer-screw, a shaft in two parts connected by a universal joint, having at one end thereof a friction- 30 wheel adapted to be brought into contact with the said car-wheel, and at the other provided with a train of gearing which communicates rotation to the said conveyer-screw, the said train of gearing being situated in a 35 casing which is adapted to have a rotary movement in common with the portion of the said shaft to which the said train of gearing is secured, and independently of the sand-box, substantially as specified.

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Witnesses:

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