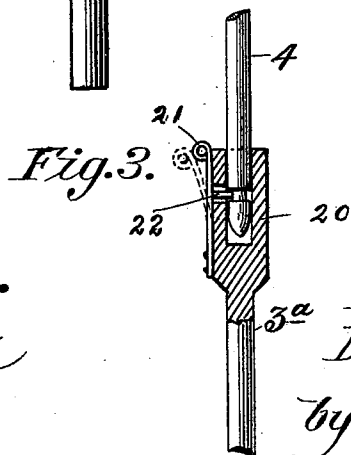
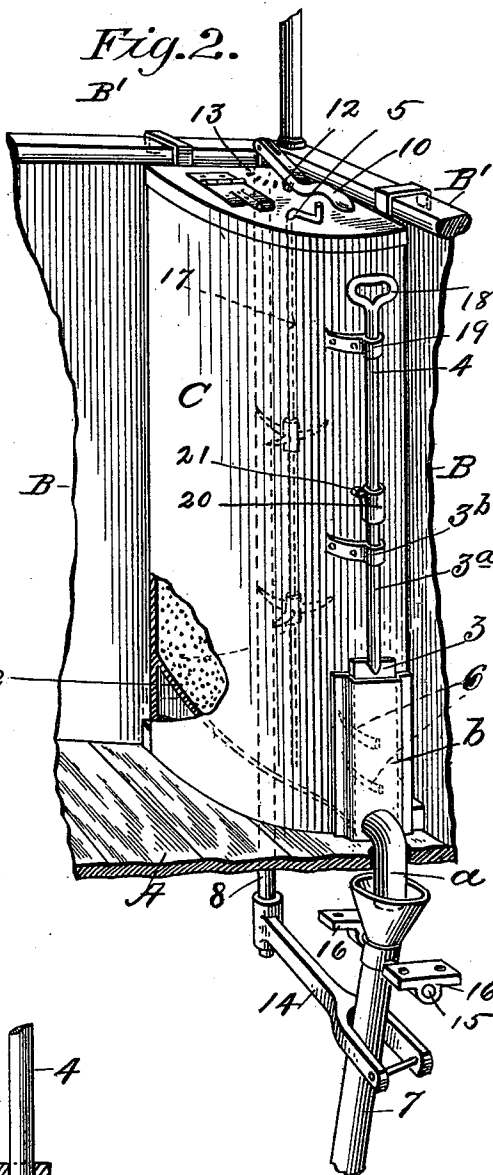
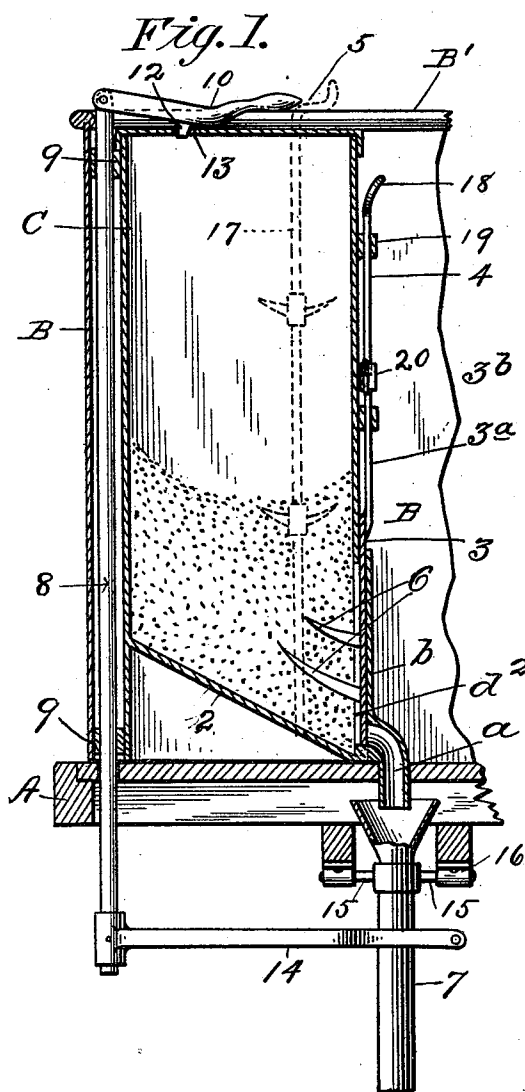


(No Model.)

D. G. MURPHY.
TRACK SANDING DEVICE.

No. 582,541.

Patented May 11, 1897.



Witnesses:
J. D. Gaffney
H. J. Clemons

Inventor:
Dennis G. Murphy.
by *Chapman*
Attorneys.

UNITED STATES PATENT OFFICE.

DENNIS G. MURPHY, OF SPRINGFIELD, MASSACHUSETTS.

TRACK-SANDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 582,541, dated May 11, 1897.

Application filed February 24, 1897. Serial No. 624,859. (No model.)

To all whom it may concern:

Be it known that I, DENNIS G. MURPHY, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Track-Sanding Devices, of which the following is a specification.

This invention relates to improvements in track-sanding devices for street-cars and similar conveyances, the object thereof being the construction of a device of this character capable of applying sand to a straight or curved track from the front platform of the car and possessing improved means for manipulating the sand-distributing devices and improvements in governing the supply of sand admitted to said distributing devices; and the invention consists in the construction and arrangement of the device, all as hereinafter described and claimed.

In the drawings forming part of this specification, Figure 1 is a vertical section of a sand-box constructed according to my invention and showing a part of the platform and dashboard of a car supporting said box and the distributing devices under said platform. Fig. 2 is a perspective view of a sand-box in position on the car-platform and the part thereof projecting below said platform. Fig. 3 is a sectional view showing the manner of constructing the detachable handle of the gate of said box.

Referring to the drawings, A represents the platform of the car, and B the dashboard thereof, having the usual rail B'. The sand-box (represented by C) is made of metal, preferably, and is segment-shaped in cross-section and stands on the platform of the car, in one corner thereof, and is secured by its top to the rail B' by hooks or in any other convenient manner. The bottom 2 of said box (also of metal) is located at an angle therein, whereby the sand is made to gravitate toward one corner thereof, at which point is located the spout *a*. Said spout is secured to a slideway *b*, which is riveted to the outside of the box C or otherwise secured thereto, and a gate 3 is fitted closely in said slideway, which gate has a stem 3^a, running through a guide-clip 3^b, secured to the box for holding said gate in alinement with its slideway. A de-

tachable handle 4 is secured to said stem 3^a, as and for the purpose hereinafter described.

A narrow vertical slot *d* is made in the side of the box C opposite the center of the gate 3, through which project two or more spurs 6, which are attached to the said gate in any convenient manner. These spurs are for the purpose of loosening the sand just above the spout-opening whenever the gate 3 may be raised to operate the said box. The raising of said gate allows the sand to flow out through said spout, and the lowering thereof closes the inner end of said spout. The spout *a* extends through an opening made therefor through the platform of the car and located immediately below it, and pivotally secured to the under side of said platform is a distributing-pipe 7, which has a swinging movement transversely to the car-track. This swinging movement is given to said pipe for the purpose of enabling the operator of the car to follow the curve of the track, as in running onto a turnout or around a curve, it being obvious that by reason of the fact that said cars are provided with fixed trucks said distributing-pipe would not lie vertically over the rail on a curved track if said pipe were fixed. Means for moving said distributing-pipe are provided, and an index on the top of the sand-box shows to the operator the degree of movement necessary to be given said pipe 7 in order to always maintain the lower end thereof in a position vertically over said rail or track, which devices are constructed as follows: A rod 8 is supported in blocks 9 9 on the rear side of the box C, between it and the dashboard of the car, and has a free rotary movement therein. A handle 10 is pivotally secured to the upper end of said rod and is provided with a short downwardly-projecting finger 12, which engages with suitable slots 13 therefor, arranged in a semicircular form in the cover of the box C. Said slots may be numbered to indicate certain degrees of curvature of the track the car is to run on for the guidance of the operator, and by raising the handle and swinging it to the right or left and then dropping it into a certain slot the rod 8 and a forked arm 14 on its lower end may be swung to positions corresponding to the position in which it will correspond to the indicator-slot in which the

finger 12 on the handle 10 engages. Said arm 14 by its forked end engages the pivoted distributing-pipe 7, which is moved by the said arm. Said pipe 7 is provided with trunnions 5 15 on its upper end, which have bearings in two boxes 16, secured to the under side of the car-platform, and a funnel-mouthed end is attached in any convenient way to the upper end of the distributing-pipe 7, into which the 10 spout *a* enters more or less.

The upper end of the box C is provided with a properly-covered opening for the introduction of sand, and an agitator for said sand is located in said box and has a crank- 15 shaped end projecting through the top thereof, by which said agitator may be revolved for breaking up any lumps that there may be in the sand. Said agitator is of the usual construction and consists of a vertically-dis- 20 posed rod 17, having laterally-extending arms at various points thereon and fixed thereto. The lower end of the rod is supported on the bottom 2 of the box C and the upper end projects through the top thereof, as stated.

The detachable handle 4, by which the gate 3 is operated, consists of a rod in whose upper end is formed a handle or grip 18, and a guide-clip 19, secured to the sand-box, serves to keep said rod in alinement with the valve-stem 3^a. 30 On the upper end of said stem 3^a is a socket 20 for the reception of the lower end of the detachable handle 4, which has an annular slot therearound, and a spring 21, secured by one end to the said socket, has a pin 22 secured thereto, which projects through the 35 side of the socket into the said annular groove in the end of the handle, thereby uniting the handle 4 and the gate-stem 3^a.

To remove the handle 4, the spring 21 is 40 swung to the position indicated in Fig. 3 in dotted lines, and the end of the said handle entering the socket 20 is then pulled up through the guide-clip 19.

As a sand-box is provided on each end of 45 the car the operator can remove the handle 4 from one of them and attach it to the other

at each end of the route and thus prevent the unused box from being tampered with.

Having thus described my invention, what I claim, and desire to secure by Letters Pat- 50 ent, is—

1. In a track-sanding device for street-cars, a sand-box on the car-platform, a spout communicating therewith, a sand-distributing pipe pivotally supported on the under side of 55 the car-platform for receiving sand from said spout, means for swinging said distributing-pipe in a line at right angles to the car-tracks, consisting of a vertical rod, a lever attached to the lower end of said rod substantially at 60 right angles thereto, a handle pivotally attached to the opposite end of said rod for reciprocally rotating the latter on its axis, indicator-slots in the top of said sand-box, a projection on said handle for engagement 65 with said slots, and a gate for opening and closing said spout, substantially as described.

2. In a track-sanding device for street-cars, a sand-box having an inclined bottom therein located on the platform of the car, a spout 70 communicating with the lower end of said box, a vertically-movable gate for said spout, a detachable handle for said gate, spurs on said gate projecting into said sand-box through a vertical slot in the side thereof, a 75 sand-distributing pipe pivotally supported under said car-platform for a swinging motion at right angles to the track, a vertical rod, a lever on the lower end thereof engaging said distributing-pipe, a handle on the 80 upper end of said rod for reciprocally rotating the latter, indicator-slots in the top of said sand-box, means of engagement between said handle and said slots for determining the de- 85 gree of rotation of said vertical rod and the degree of swinging movement of said distributing-pipe, and a sand-agitator for said sand-box, substantially as described.

DENNIS G. MURPHY.

Witnesses:

FRANK H. BOWEN,
WM. H. CHAPIN.