W. E. FIELDING.

CAR TRACK SANDING DEVICE.

APPLICATION FILED JULY 20, 1909.

938,837.

Patented Nov. 2, 1909.

Fig. 3.

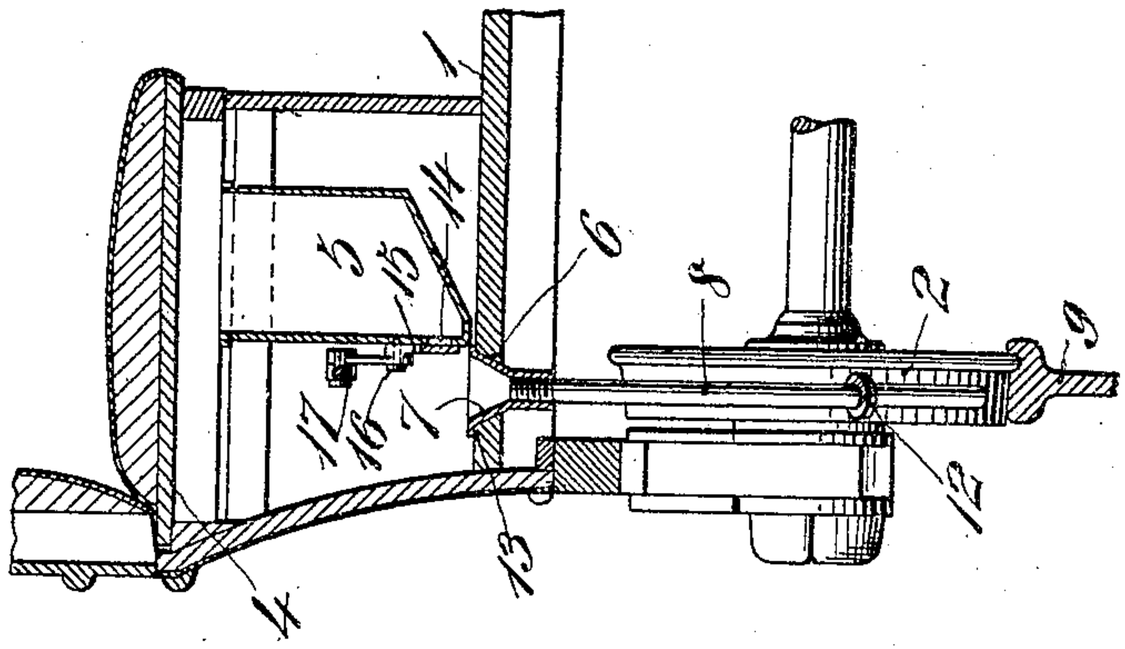


Fig. 2.

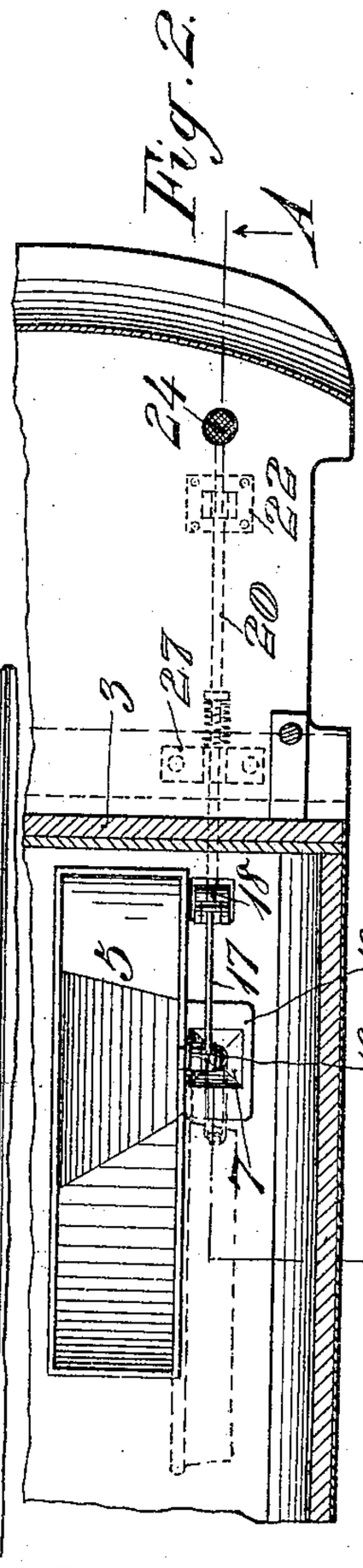
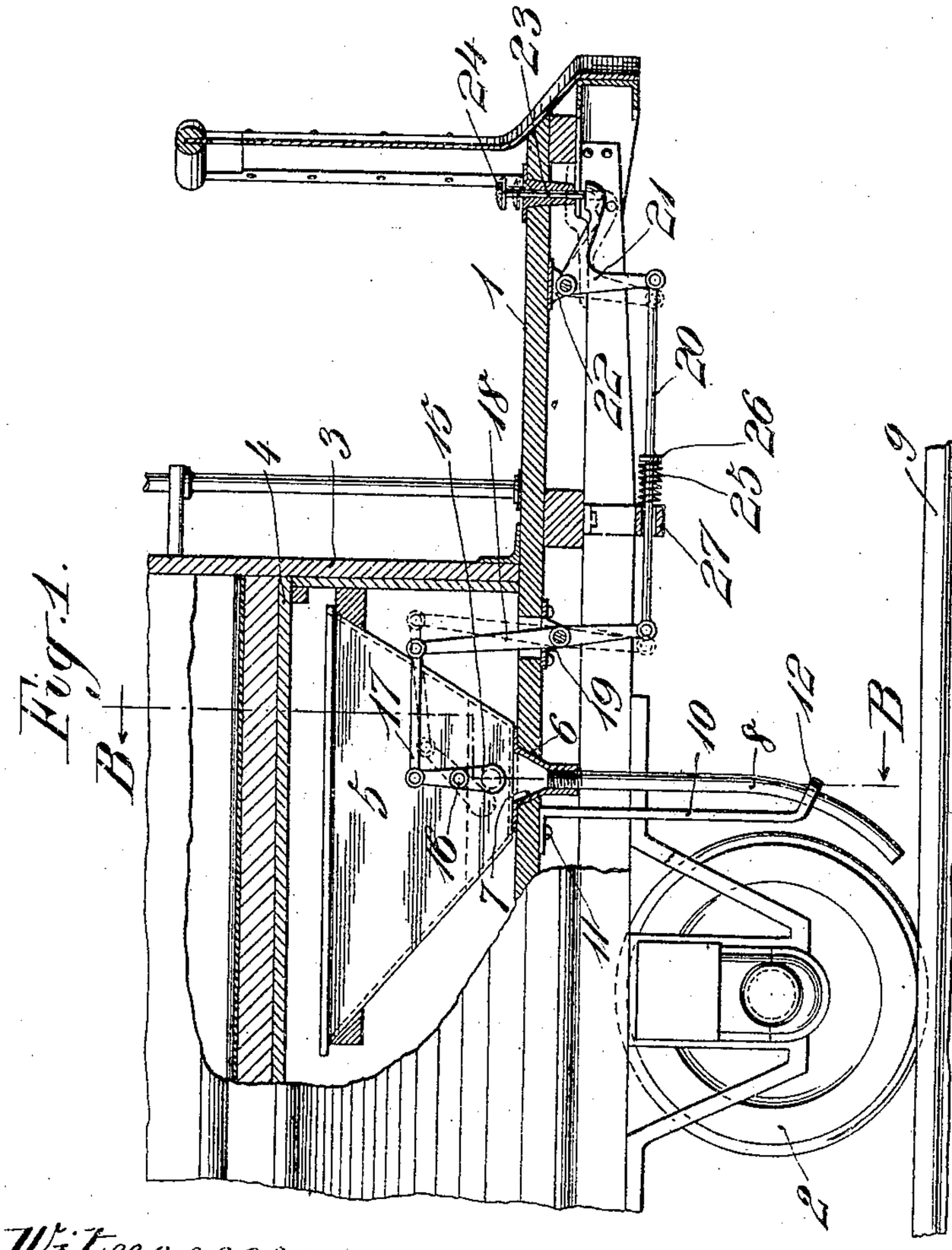


Fig. 1.



Witnesses:
A. Grüber
F. George Barry

Inventor:
Wilfrid E. Fielding
by his attorneys
Brown & Ward.

UNITED STATES PATENT OFFICE.

WILFRED E. FIELDING, OF PATERSON, NEW JERSEY.

CAR-TRACK-SANDING DEVICE.

938,837. Specification of Letters Patent. Patented Nov. 2, 1909.

Application filed July 20, 1909. Serial No. 508,602.

To all whom it may concern:

Be it known that I, WILFRED E. FIELDING, a citizen of the United States, and resident of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful Car-Track-Sanding Device, of which the following is a specification.

My invention relates to a car track sanding device in which the sand delivering pipe is not connected with the sand box and may be removed at pleasure for cleaning or thawing or may be reversed as the car completes its run in one direction and is ready to start on its return run in the opposite direction and in which the valve for admitting sand to the distributing pipe from the sand box is not liable to become inoperative by clogging or freezing.

A practical embodiment of my invention is represented in the accompanying drawings in which—

Figure 1 is a partial vertical longitudinal section of a car in the plane of the line A—A, Fig. 2, showing the sanding device in operative relation thereto. Fig. 2 is a horizontal section of the same taken in a plane below the car seat, and Fig. 3 is a transverse section in the plane of the line B—B, Fig. 1.

The car platform is denoted by 1, one of the truck wheels by 2, the front of the car by 3, the seat board by 4, and the sand box located under the seat within the car body and near its end, is denoted by 5.

In the floor of the car and preferably in the longitudinal vertical plane of the wheel 2, there is located a tapered opening 6 in which the upper funnel end 7 of the sand delivering pipe is seated. The sand delivering pipe is denoted by 8, and is conveniently screwed into the neck of the funnel 7, and extends downwardly in the vertical longitudinal plane of the wheel 2 and curves under toward the face of the wheel 2 to distribute the sand on the track 9 in proximity to the wheel. The pipe 8 is steadied in its position by means of a downwardly projecting brace rod 10 bolted at its upper end 11 to the underside of the car floor and provided at its lower end with an eye 12 through which the pipe 8 may freely slide. The upper funnel portion 7 is conveniently provided with a horizontal flange 13 which rests on the top of the car floor. The sand box 5 is located in proximity to the edge of the funnel 7, but sufficiently off to one side of the same, so that the funnel 7, together with its pipe attachment 8, may be readily lifted upwardly through the opening 6 in the car floor to remove the sand delivering pipe from its operative position whenever desired.

The sand is distributed from the box 5, into the funnel 7, through an opening 14 in the lower part of the sand box, which opening 14 is covered by a swinging valve 15, pivoted at 16, to the outer face of one side of the box 5 and connected by a link 17 with the upper end of a lever 18 fulcrumed to a bracket 19 attached to the underside of the car floor, the lower end of said lever being connected by a rod 20 with an angle lever 21 fulcrumed in the bracket 22 fixed to the under side of the platform 1, the opposite arm of said angle lever 21 being engaged by a plunger rod 23 provided at its top with a foot pedal 24 to place the opening of the valve 15 under the control of the foot of the operator when standing in position on the platform 1, to drive the car. The valve is returned to its closed position by means of a coil spring 25 on the rod 20, intermediate of a shoulder 26 on the rod and the face of a bracket 27 depending from the car floor. The rod 20 is guided by an opening through the bracket 27, through which the rod passes and the spring 25 is compressed by the shoulder 26, when the valve 15 is opened by the depression of the pedal 24. The spring in returning to its extended position, will close the valve when the weight of the foot is lifted from the pedal 24. This simple swinging shutter valve placed on the outer face of the sand box, removes all danger of the valve becoming frozen or clogged, objections which have been found to exist where valves or gates have been arranged to slide longitudinally to open and close the sand opening, the leverage being such that the valve can be caused to swing to one side on its pivotal connection, even though the sand contained moisture sufficient to cause it to freeze in cold weather and when the car is left without heat.

A very important feature of my present invention is the construction and arrangement of the sand delivering pipe by which it may be removed from its position in a moment's time when for any cause it becomes clogged, as, for example, by having water accumulate to a greater or lesser degree therein, and may also be readily re-

moved when the car is stopped and allowed to lie in the car where it is not liable to become clogged or frozen up until the car is again put in use, or if so desired, it may be readily turned so that it will trail when the car is started on its run in a reverse direction.

It is to be understood that these sanding devices may be located where cars are run either end foremost, at opposite ends of the car, so that one device or a pair of devices will be out of use while the other is in use. The direction of the lower end of the device toward the wheel, when the device is out of use, is such that the water from the wheel is liable to be thrown into the end of the pipe and, as above stated, this may be avoided either by turning the lower end of the pipe off to one side or removing the pipe from its operative position up into the car beneath the seat.

To remove the pipe, the operator simply lifts the seat board and by taking hold of the funnel portion draws the pipe upwardly through the board.

What I claim is:

1. A car track sanding device comprising a sand box located beneath the car seat, a sand delivering pipe provided with a funnel upper section supported from the car floor in proximity to the lower end of the sand box and a swinging valve on the outer face of the side of the sand box for controlling the supply of sand to the sand delivering pipe.

2. A car track sanding device comprising a sand box located beneath the car seat, a sand delivering pipe provided with a funnel section at its upper end supported from the floor of the car beneath the car seat and off at one side of the sand box, a swinging valve located on the outer side of one side of the sand box for controlling the supply of sand to the sand delivering pipe and a system of spring-actuated levers for placing the valve under the control of the foot of the operator.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this nineteenth day of July 1909.

WILFRED E. FIELDING.

Witnesses:

F. GEORGE BARRY,

C. S. SUNDGREN.