

J. GONOROVSKY.
SAND BOX.

Patented Jan. 26, 1897.

FIG. 1.

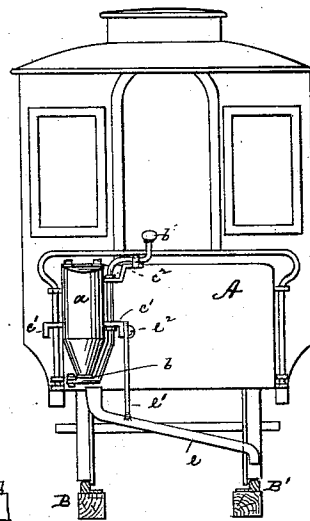
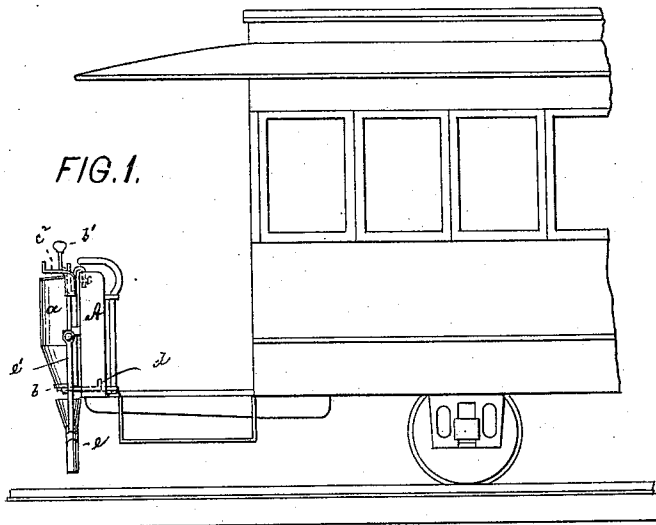


FIG. 4.

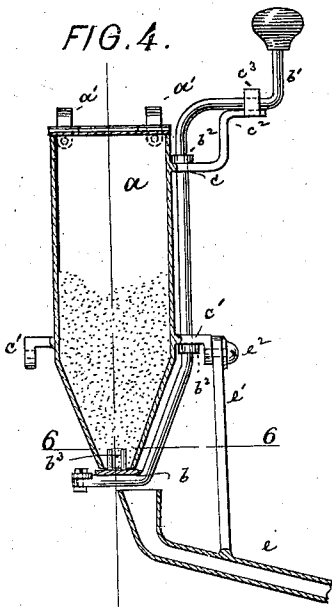


FIG. 3.

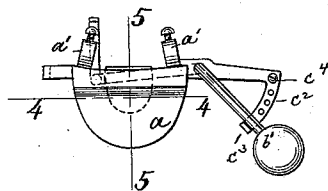


FIG. 5.

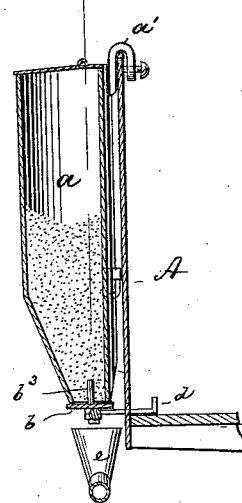
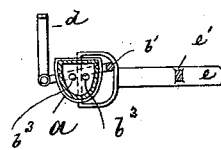


FIG. 6.



Witnesses:
John Becker.
Wilhe Miller.

Inventor:
Joseph Gonorowsky
by his attorneys
Roeder & Brierley

UNITED STATES PATENT OFFICE.

JOSEPH GONOROVSKY, OF NEW YORK, N. Y.

SAND-BOX.

SPECIFICATION forming part of Letters Patent No. 575,834, dated January 26, 1897.

Application filed November 2, 1896. Serial No. 610,796. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH GONOROVSKY, of New York city, New York, have invented an Improved Sand-Box, of which the following is a specification.

This invention relates to a sand-box which may be secured to the front platform of a street-car and is under full control of the motorman, who can thus sand the rails whenever necessary.

In the accompanying drawings, Figure 1 is a side view of my improved sand-box, showing it secured to one end of a street-car. Fig. 2 is a front elevation thereof; Fig. 3, a plan; Fig. 4, a longitudinal section on line 4 4, Fig. 3; Fig. 5, a similar section on line 5 5, Fig. 3; and Fig. 6, a horizontal section on line 6 6, Fig. 4.

The letter *a* represents a sand-hopper made with a flat back which is adapted to fit against the dashboard *A* of a car, to which the hopper is secured by a pair of hooks *a'*, which engage the top of such dashboard. The lower contracted end of the hopper is open to constitute a discharge-orifice, which should be arranged vertically above one of the rails *B*. A horizontally-movable valve *b* fits against the mouth of the hopper and is operated by a crank-handle *b'*, to the elongated shank of which the valve is directly connected. This shank passes through a pair of perforated lugs *c c'*, projecting laterally from hopper *a*, in which the shank can rock, while longitudinal displacement is prevented by collars *b²*.

To limit the play of the valve, the lug *c* is extended to form a horizontal arm *c²*, provided with a fixed stop *c³* and adjustable stop *c⁴*, between which the crank-handle *b'* is free to move.

Pins *b³*, projecting upwardly from the valve into the hopper, are adapted to loosen the sand when caked. To the valve *b* there is pivoted, furthermore, a foot-bar *d*, projecting through an opening in the dashboard *A* within reach

of the driver and permitting the valve to be operated by the foot, if desired.

Beneath the discharge-orifice of the hopper *a* there is arranged a delivery-pipe *e*, which is so placed that it will catch some of the sand and conduct it to the second rail *B'*. This delivery-pipe may be attached to either side of hopper *a* by means of the lugs *c'*, that project from both sides of the hopper, and from either one of which the pipe may be suspended by an arm *e'* and screw *e²*. By this arrangement the hopper may be secured to either the right or left side of the car-platform, wherever most convenient and out of the way of the usual motor-box.

The operation of the sand-box will be readily understood. The driver hangs it to the front dashboard and can by manipulating either the handle *b'* or the foot-bar *d* readily control the discharge of sand, so that any section of the track can be sanded and waste avoided.

What I claim is—

1. The combination in a sand-box, of a hopper with a valve, a handle connected thereto, an arm, and an adjustable stop adapted to engage said arm and to limit the play of the handle, substantially as specified.

2. The combination in a sand-box, of a hopper with a valve, a handle and foot-bar connected thereto, and a delivery-pipe projecting partly under the hopper and adapted to convey part of the charge to the opposite rail, substantially as specified.

3. The combination in a sand-box, of a hopper with a valve, a crank-handle and foot-bar connected thereto, adjustable means for limiting the play of the valve, a delivery-pipe, and means for attaching such pipe to either side of the hopper substantially as specified.

JOSEPH GONOROVSKY.

Witnesses:

MEYER FRANKEL,
WILLIAM SCHULZ.