

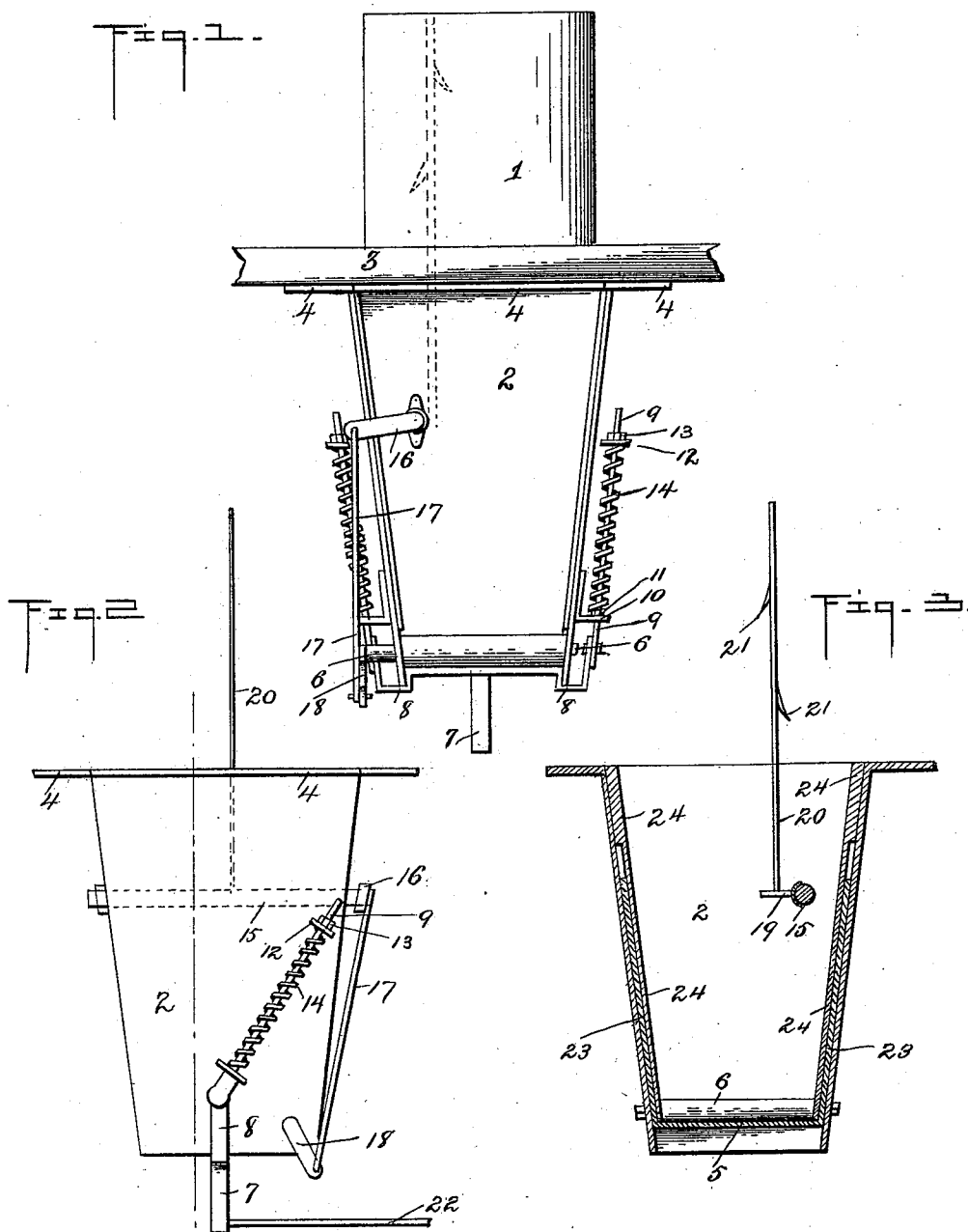
(No Model.)

2 Sheets—Sheet 1.

J. MARTIN.
SAND DISTRIBUTER.

No. 554,603.

Patented Feb. 11, 1896.



Witnesses:

Rebecca Elliott

N. E. Englishman

Inventor:

James Martin

by

by *John R. Smith*
Attorney.

Attorney.

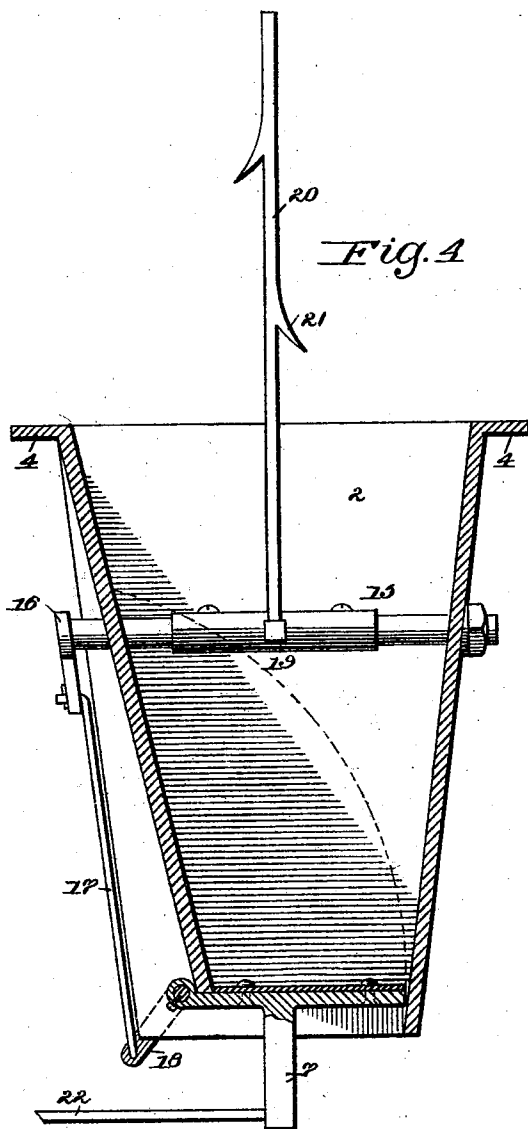
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2 Sheets—Sheet 2.

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SAND DISTRIBUTER.

No. 554,603.

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Witnesses
Arthur Bohler
T. E. Clugbaum

Inventor
James Martin,
by *J. K. Fisher* Attorney

UNITED STATES PATENT OFFICE.

JAMES MARTIN, OF BALTIMORE, MARYLAND.

SAND-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 554,603, dated February 11, 1896.

Application filed October 1, 1894. Serial No. 524,555. (No model.)

To all whom it may concern:

Be it known that I, JAMES MARTIN, a citizen of the United States, and a resident of the city of Baltimore, State of Maryland, have invented a certain new and useful Improvement in Sand-Distributers for Street-Cars, of which the following is a description.

My invention has relation to sand and gravel distributers, and is intended as an improvement upon my application for patent allowed July 31, 1894, Serial No. 506,417.

My object is to provide a device of this character which will be simple in construction, cheap to manufacture, light and durable in use and readily operated.

In the drawings, Figure 1 is a rear elevation of my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional view of the same, and Fig. 4 is a sectional view of the same in a plane at right angles to that on which Fig. 3 is taken.

Referring to the drawings, 1 indicates a suitably-constructed sand-reservoir from which the sand or gravel may be fed to the hopper 2 of the distributor, attached to the platform 3 of a car by means of bolts or screws secured to flanges 4.

The bottom 5 of the hopper 2 is hinged at 6 and secured by rivets to an operating-arm 7, whose upper portion is provided with extensions 8 8, which work between the walls of the hopper and which are pivotally connected to rods 9 9.

Secured to the sides of the hopper 2 are angle-pieces 10 10, provided with bearings 11 11, and through openings in flanges 10 and the bearing-blocks 11 pass the rods 9 9, which are provided at their upper extremities with bearing-blocks 12 12, secured against displacement by bolts 13.

Attached to each bearing-block 11 and 12 are the extremities of spiral springs 14, which surround the rods 9 and exert an upward pressure upon the angle-piece 10, thereby serving to keep the bottom 5 of the hopper in position. Working in bearings in each side of the hopper is a rock-shaft 15, having an arm 16 connected by a rod 17 to an arm 18 on the hinge 6 of the hopper-bottom 5. Secured to the rock-shaft 15 is a bearing 19, in which is pivoted one end of the agitator 20, said agitator being provided with spurs or

projections 21, adapted to loosen the sand or gravel in the reservoir.

22 indicates a lever-rod which may be suitably connected to the operating mechanism for distributing the sand.

It will be noted that the bottom 5 of the hopper has sides 23, which extend up into the hopper and which work between the outer wall of said hopper, and an inner or supplemental wall 24. This construction avoids clogging, and permits the bottom to readily return to its normally-closed position.

It will be noted that the supplemental wall 24 is secured to the inner and top portion of the hopper in such a manner as to allow the sides of the hinged bottom to move within the space formed by the outer and supplemental walls of the hopper, thereby preventing the sand from getting between the sides of the hinged bottom and the wall of the hopper and thereby wearing it away, the opening for the passage of the hopper being at the bottom of the supplementary walls.

In operation, by drawing upon the lever 22 the arm 7 will be moved, thereby causing the bottom of the hopper to be dropped, allowing the sand to escape. As soon as the pressure from the lever is removed the springs 14 will exert themselves, closing the bottom of the hopper. By means of the rock-shaft 15, and the rod 17 connected thereto and to the bottom of the hopper, the agitator 20 will be caused to reciprocate in the sand-reservoir, thereby preventing clogging of the same.

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

1. A sand-distributer comprising a sand-reservoir, a hopper having a hinged bottom, means for keeping the bottom in position comprising rods connected to said bottom and held in position by springs, a rock-shaft in the hopper, having an agitator thereon, said rock-shaft being connected by a rod to the bottom of the hopper whereby the agitator is moved by the opening and closing of the bottom.

2. A sand-distributer comprising a sand-reservoir, a hopper having an outer and an inner wall, a hinged bottom provided with extending sides adapted to slide between the outer and inner walls of the hopper, and

means comprising rods connected to said bottom and held in position by springs, and an agitator secured in said hopper on a rock-shaft and adapted to be moved by the opening
5 and closing of the bottom.

3. A sand-distributor comprising a sand-reservoir, a hopper having double walls, a hinged bottom held in position by rods secured thereto and by springs, said bottom pro-

vided with extending sides, adapted to work 10 between the said double walls, and means for opening the said bottom.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JAMES MARTIN.

Witnesses:

LEE PURCELL,
H. M. LEITCH.