

C. M. BROMWICH.
 SAND DISTRIBUTOR FOR RAILROAD CARS.
 No. 51,646. Patented Dec. 19, 1865.

Fig. 1

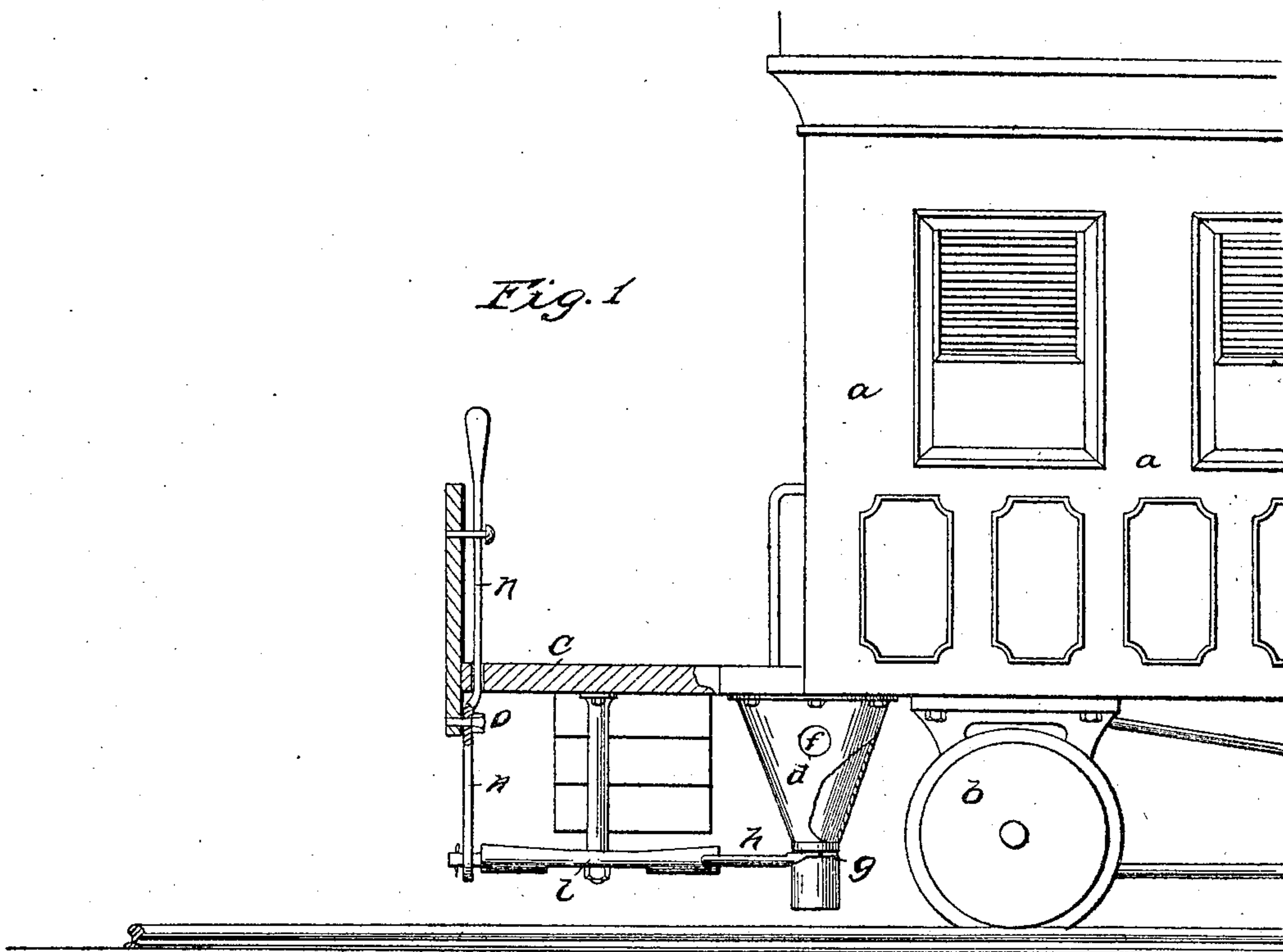
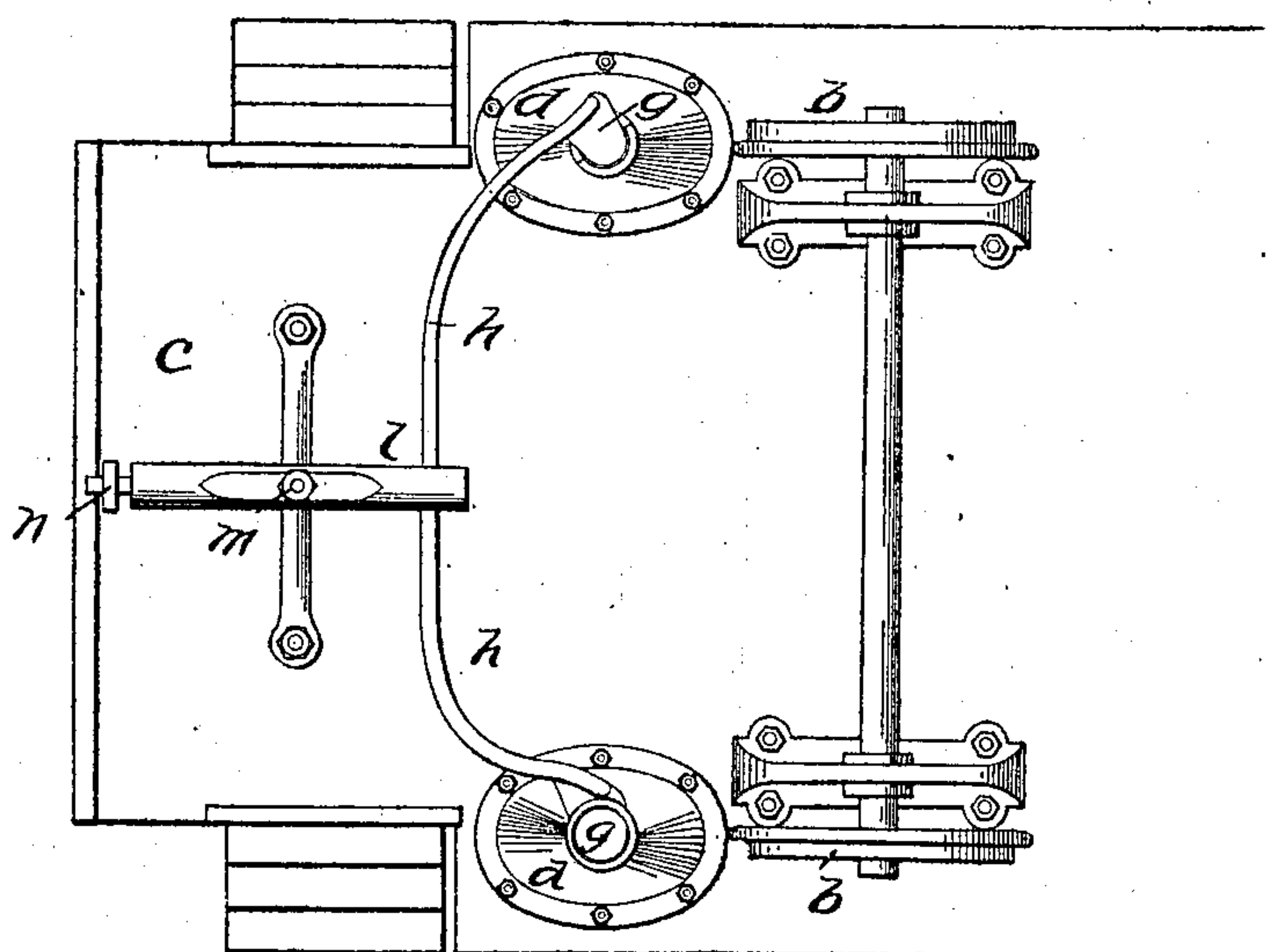


Fig. 2.



Witnesses:
 W. O'Brien
 Thos. Dusch

Inventor: C. M. Bromwich
 By *Wm. H. Brown*
 Att'y

UNITED STATES PATENT OFFICE.

CHARLES M. BROMWICH, OF SOUTH BOSTON, MASSACHUSETTS, ASSIGNOR
TO HIMSELF AND JOHN R. TAFT, OF SAME PLACE.

IMPROVED SAND-DISTRIBUTER FOR RAILWAY-CARS.

Specification forming part of Letters Patent No. 51,646, dated December 19, 1865.

To all whom it may concern:

Be it known that I, CHARLES M. BROMWICH, of South Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Sand-Distributor for Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

In the running of street-railway cars, especially when descending steep grades, or even those of slight inclination, in crowded thoroughfares, if the street is wet and damp from rain and other well-known causes, it is absolutely necessary, for safety to the ordinary travel of the streets, that sand or other gritty substances should be spread about and on the rails in order to enable the speed of the car to be properly regulated by the application of the brakes, the rails, when moist or wet, being so slippery as to render it almost impossible to stop or retard in the least the movement of the car, unless sand is so employed.

Heretofore this has been accomplished by men especially employed for that purpose, but in many respects, as is well known, never with the proper or requisite care; and in order to enable the sand to be spread upon the rails at such times and points as are found while the car is moving to most require it, is the object of the present invention; it consisting in securing to or arranging upon and underneath the car, in front of each of the wheels, a receptacle or receiver for sand or other gritty substances, closed at its lower end by a partition-plate or lid so arranged and connected with a lever-handle of the platform of each end of the car that by moving one of the said levers in the proper directions, either to the right or left, as the case may be, the lids of the receptacles at the corresponding end of the car thereto can be so opened as to allow the sand to fall therefrom to and upon the rails, the lids being closed by a simple reverse movement of the said lever, when a sufficient quantity or amount of the sand has been thus spread upon the rails.

By this arrangement of sand-receptacles upon a car it is obvious that while the car is moving sand can be distributed or spread upon

the rails at such points thereof as may be deemed most desirable, the advantages of which are self-evident to all persons conversant with the requirements necessary for the safe running of street-railway cars in crowded thoroughfares of cities.

In accompanying plate of drawings my improvement is illustrated, Figure 1 being a side view of one end of a car with my improvement applied thereto; Fig. 2, a view of the under side of same end of the car.

a a in the drawings represent one end of a car, made of the usual form and construction, set upon wheels *b b*, and provided with a platform, *c c*, for entering and leaving the car, as in ordinary street-railway cars.

Upon the under side of the car, and in front of each wheel thereof, is attached or secured a receptacle or box, *d*, made of the shape of a truncated cone, with its larger end toward the car, in which receptacles, through an opening, *f*, at their upper ends, sand or other gritty substances are placed, the lower ends being provided with a sliding lid or partition-plate, *g*, placed in a horizontal plane, the lids of the two receptacles at each end of the car being connected, through the projecting curved arms *h h* of a common lever, *l*, hung upon a fulcrum, *m*, of the bottom of the car, to the lower end of an upright lever-handle, *n*, turning upon a fulcrum, *o*, of the car-platform, in such a manner that by swinging the lever-handle to the right or left, as the case may be, the partition-plates can be moved away from or over the lower ends of the receptacles, thus opening or closing the same at pleasure, the lids when opened allowing the sand to freely fall from the receptacles to and upon the rails, as is evident without further explanation.

From the above description it is obvious that with my improved sand-distributing attachment for street-railway cars sand can be at any time spread to and upon the rails, and in any desired quantities or amount, thus enabling the rails to be conveniently and suitably sanded at any points thereof, as may be found requisite, the great importance of which in the safe running of street-cars is manifest to all.

The lever-handle for opening and closing the sand-boxes may be arranged in a horizon-

tal position, in lieu of a vertical one, and there may be many variations in the size and shape of the receptacles, as well as in their connection with the operating-lever; and therefore I do not intend to limit myself to the precise form or arrangement of parts herein described.

I claim as new and desire to secure by Letters Patent—

Attaching to and upon the under side of railway-cars, and in front of the wheels thereof, boxes or receivers for sand or other suitable

gritty substances, constructed and arranged in such a manner as to be opened or closed at pleasure, substantially as described, and for the purpose specified.

The above specification of my invention, signed by me this 18th day of August, 1865.

CHARLES M. BROMWICH.

Witnesses:

ALBERT W. BROWN,
M. M. LIVINGSTON.