No. 746,691. PATENTED DEC. 15, 1903.

L. A. GARDNER.

SANDING DEVICE.

APPLICATION FILED JAN. 5, 1903.

NO MODEL.

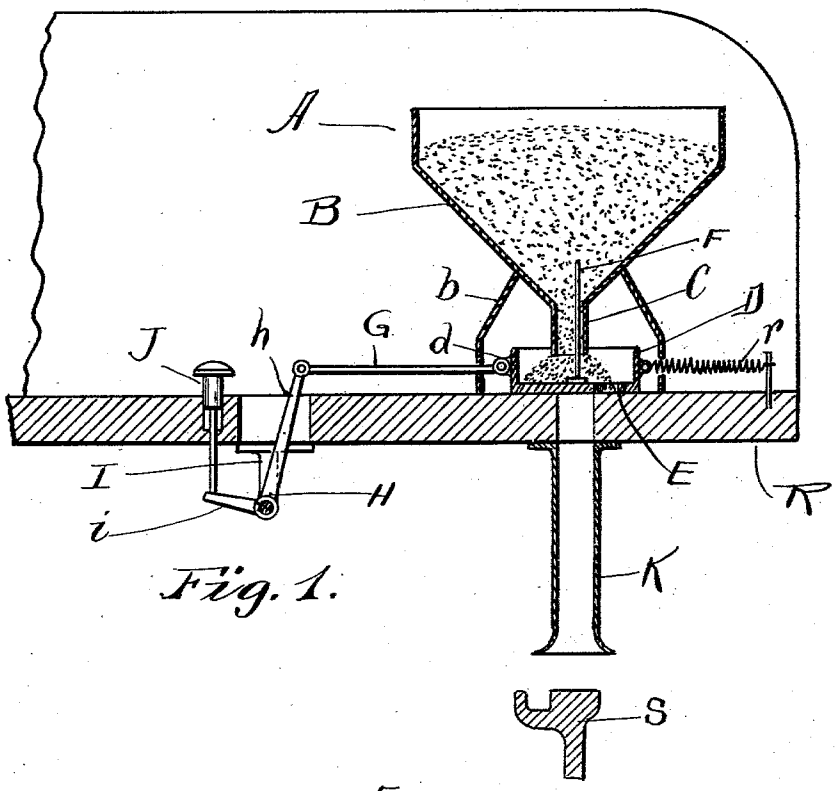


Fig. 1.

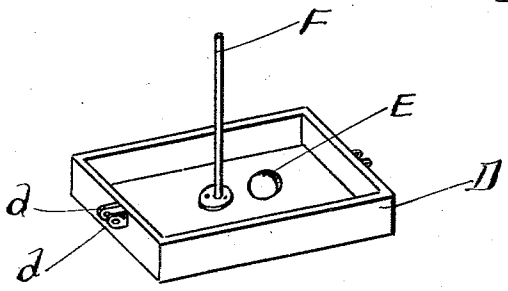


Fig. 2.

Witnesses
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Inventor.
Louis A. Gardner.
By Howard E. Barlow.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 746,691. Patented December 15, 1903.

UNITED STATES PATENT OFFICE.

LOUIS A. GARDNER, OF PROVIDENCE, RHODE ISLAND.

SANDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 746,691, dated December 15, 1903.

Application filed January 5, 1903. Serial No. 137,763. (No model.)

To all whom it may concern:

Be it known that I, LOUIS A. GARDNER, a resident of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Sanding Devices; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to devices for sanding railroad-tracks, and has for its object to produce a simple and effective device that may be readily attached to a street-car and easily operated by the foot of the motorman to deposit sand on the car-tracks in front of the wheels. It is fully explained in this specification and illustrated in the accompanying drawings.

Figure 1 illustrates a sectional side elevation of the device as attached to the platform of a car, said platform being also in section, a portion of the dasher showing in the background. Fig. 2 is a perspective view of the movable shut-off box.

In the construction, A is the hopper or receptacle which receives and holds the sand. It may be supported by a casing *b* from the floor of the car and has a tapering bottom B, the lower end of which converges into a tube C and leads down into the movable or sliding shut-off box D. This shut-off box is located within casing *b* and consists of a substantially square box formed with shallow sides and having a delivery-hole E through its bottom plate. Projecting up from its bottom plate and near its center is a rod F. On one end of this box D are ears *d d*, into which is pivoted one end of the connecting-rod G, the other end of said rod being pivoted on the upper end of the arm *h* of the bell-crank H. This bell-crank is pivotedly hung in the lower end of the bracket I, which is attached to the underneath side of the platform. J is the foot-plunger, the head of which projects up through the car-floor, with its lower end resting on the end of the arm *i* of the bell-crank H and is located in convenient reach of the motorman's foot.

The tube or conducting sand-spout K may be attached at its upper end to the under side of the car-platform R and leads down directly over the rail S. The lower end or mouth of this conductor is flaring or bell-shaped for the purpose of preventing the dirt and mud from collecting on the inside of the tube and stopping it up.

The operation of my device is as follows: The sand box or hopper A may be filled by buckets or any convenient way. The bottom being tapering, the sand is at once conducted down through the tube C into the sliding box D, which may rest on the floor of the car until said box is partially filled, forming a natural stop or shut-off for the rest of the sand in the hopper. When it is desired by the motorman to deposit some sand on the rail in front of the wheel, he merely presses the head of the plunger J with his foot, which draws box D endwise by means of the bell-crank H and connection G until the hole E registers with that in the tube K and the sand freely flows to the track S below. When sufficient sand has been deposited, the plunger J is released, and the sliding box is at once returned and held in its closed or normal position by the spring *r*, which is attached to the opposite end of the box. The rod F, which projects from the bottom plate of the sliding box up into the tube C, moves with said box and is for the purpose of stirring up the sand in said tube, causing it to flow more freely.

My device may be placed in any convenient part of the car—on the platforms or under the seats—and operated equally well by the motorman through the connection above described.

By using the sliding box for the shut-off it is found that a freer discharge is obtained and an easier and more certain shut-off assured, and it will be particularly observed that by placing the sliding box within the supporting-casing said box is protected from injury, and the sides of the casing serve as stops to limit the movement thereof.

This device is extremely simple in construction and may be easily attached to and operated on any car.

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

1. A sanding device comprising a casing forming a chamber the bottom of which is

provided with an outlet-opening, a hopper resting on said casing and serving to close said chamber, said hopper having a portion depending into said chamber, a cut-off valve for said hopper resting on the bottom of said chamber and having an opening arranged to register with said outlet-opening, and means for reciprocating said cut-off valve, as set forth.

2. A sanding device comprising a casing, a hopper resting on said casing and having a portion depending into the latter, a cut-off valve for said hopper located in said casing, and means for reciprocating said cut-off valve, the movement of the latter being limited by the walls of said casing, as set forth.

3. A sanding device comprising a casing, a hopper serving as a cover for said casing and having a portion depending into the latter, a cut-off valve located in said casing, a space being formed between the same and the depending portion of said hopper, and an agitator carried by said valve and projecting into the depending portion of said hopper, the walls of said casing serving to limit the movement of said valve, as set forth.

In testimony whereof I have hereunto set my hand this 3d day of January, A. D. 1903.

LOUIS A. GARDNER.

In presence of—

HOWARD E. BARLOW,

CHAS. P. DAY.