

(No Model.)

C. CLARK.
SAND BOX FOR STREET CARS.

No. 368,812.

Patented Aug. 23, 1887.

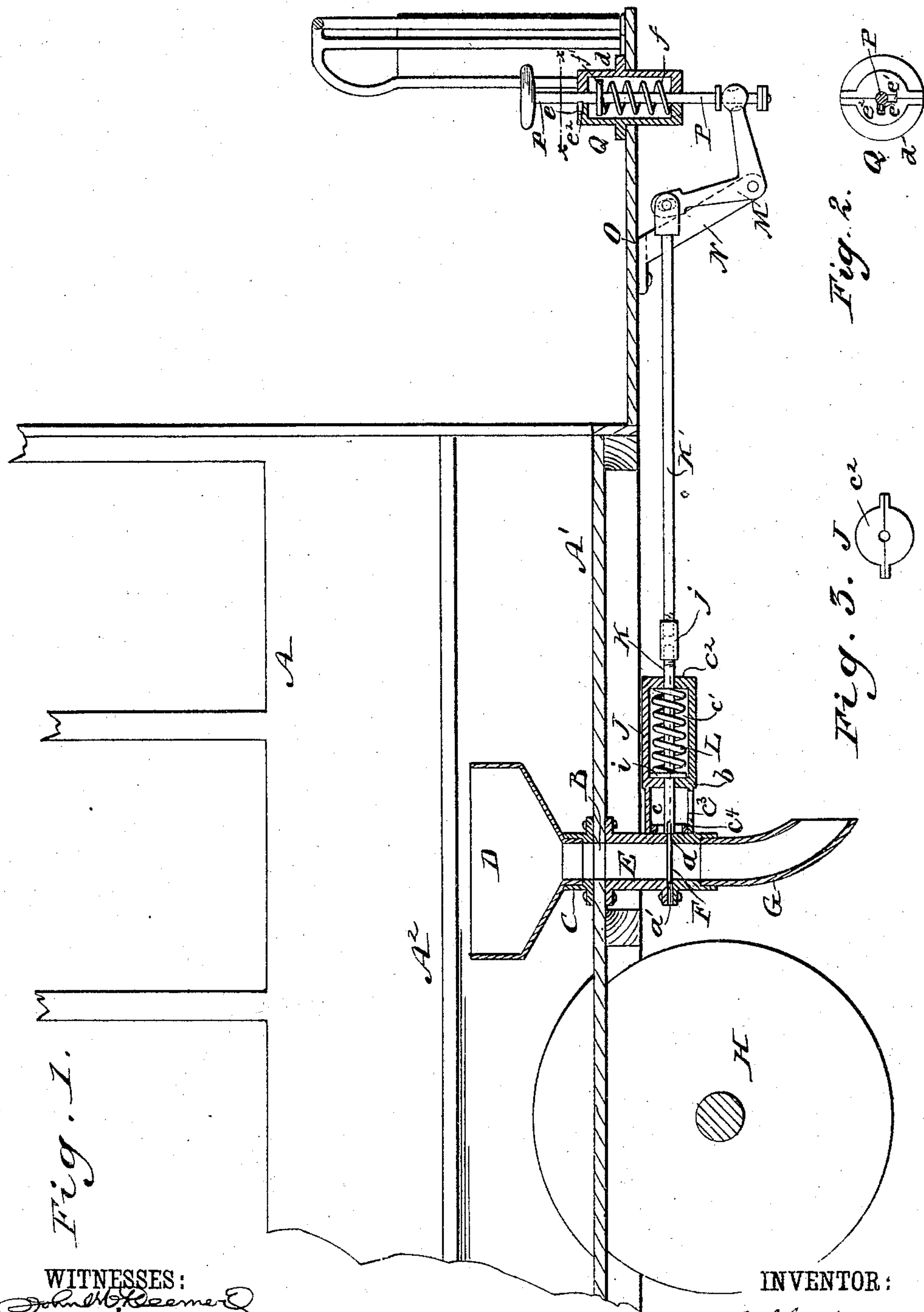


Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES:

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SAND-BOX FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 368,812, dated August 23, 1887.

Application filed February 10, 1887. Serial No. 227,118. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CLARK, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Sand-Boxes for Street-Cars, of which the following is a full, clear, and exact description.

The object of my invention is to provide practical means for carrying sand in street-cars and for supplying it to the track when needed to stop the car, as in case of freezing or slippery weather, the sand-valve being under the control of the driver.

The invention consists of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a part of a car, showing my invention applied thereto. Fig. 2 is a detailed sectional plan view showing the valve-operating rod and its casing, the section being taken on line *xx* of Fig. 1; and Fig. 3 is an end view of the tubular casting J.

The body A of the car is of the usual construction, except that in the bottom A' thereof, beneath the seat A², is formed an opening, B, around which is fitted a collar, C, in which is held a hopper-shaped box or receptacle, D, for sand. To the under side of the bottom A' is secured, in line with the opening B, the vertical pipe or tube E, in which is fitted a valve, F, and to the lower end of this tube is secured the pipe G, which conducts the sand to the rail, and this latter pipe is slightly curved away from the wheel H of the car, so that mud or trash thrown up by the wheel will not enter the pipe and clog it. The valve F works in opposite slots *a a'*, made in the tube E, and the slot *a'* is open to the outside of the tube, so that any sand that may enter the said slot will be forced out, and thus not interfere with the free working of the valve. Surrounding the slot *a* is the horizontal tube or casing J. This casing or tube J is formed of two flanged parts and bolted together and secured to the circular flange *c'*, and formed with the partition *b*, which divides it into two chambers, *c* and *c'*, the latter of which is closed by the end flanges,

c'. The partition *b* and flanges *c'* are correspondingly apertured to receive and form guides for the operating-rod K, to which the valve F is attached, and upon the rod K, within the chamber *c'*, is placed the coil-spring L, which acts between the cap C² and the collar *i* on the rod, so that the spring normally holds the valve F shoved back to close the pipe E. Connected to the rod K by the turn-buckle *j* is the rod K', which connects at its opposite end with the arm of the bell-crank M, pivoted to the arm N, secured to the under surface of platform O of the car. To the forward end of the bell-crank M is attached the lower end of the vertical rod P, by which the valve F is operated by the driver standing upon the platform. This vertical rod P is held in a sectional tube or casing, Q, fitted in an opening in the car-platform O, and held by a flange, *d*, and in the tube or casing Q is placed a coiled spring, *f*, which acts between the bottom of the said tube or casing and the collar *f'*, secured upon the rod, so that the spring constantly tends to elevate the rod, and will act also indirectly to close the valve F should the spring L become set or broken.

In fair weather it is expedient to lift the rod P and to lock it in an elevated position. For this purpose I provide the rod at the top of the tube Q with a shoulder or pin, *e*, and form a slot, *e'*, in the upper end of the said tube, so that the pin *e* may be lifted through said slot above the top of the tube and turned out of line with the slot, so that it will rest in a recess, *e'*, at the top of the tube. In this manner there is no danger of accidentally opening the valve F and causing a waste of sand.

In use, the rod Q has simply to be turned to bring the pin *e* into line with the slot *e'*, when, in case the track is to be sanded, the driver has simply to press downward upon the rod P, which will draw the valve F within the chamber *c* of the horizontal tube J and open the vertical tube E and permit the sand to flow from the box D to the track, thus accomplishing the desired result. When pressure is removed from the rod P, the springs L *f* will act to close the valve F and elevate the rod P ready for another operation.

Any sand that may be drawn with the valve F into the chamber *c* will drop to the ground

through the opening c^3 , made in the lower surface of the horizontal tube J.

While I have shown but one end of a car with my invention applied thereto, it will be understood that both ends of reversible cars will have the same construction, so that sand may be supplied to the wheels from both platforms.

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

1. The box or receptacle D, held in the car beneath the seat and over the opening B in the floor of the car, in combination with the vertical tube E, valve F, horizontal tube J, rods K K', spring L, bell-crank lever M, vertical rod P, and spring f , arranged to elevate the rod P, substantially as and for the purposes set forth.

2. The tube or casing Q, secured in the plat-

form and provided with the vertical rod P, in combination with the bell-crank lever M, rods K K', valve F, and the tube E and hopper D, substantially as described.

3. The tube or casing Q, fitted in the platform of the car and formed with the slot e' in its upper end, in combination with the rod P, provided with the side pin, e , and connected to the bell-crank M, which is connected to the valve F, substantially as described.

4. The tube E, provided with a valve and with the horizontal tube J, formed with the opening c^3 and partition b , in combination with the operating-rod K and spring L, held upon the rod within the tube J, substantially as described.

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Witnesses:

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