

J. E. SHAW.
Sand-Box for Street-Cars.

No. 209,196.

Patented Oct. 22, 1878.

FIG I

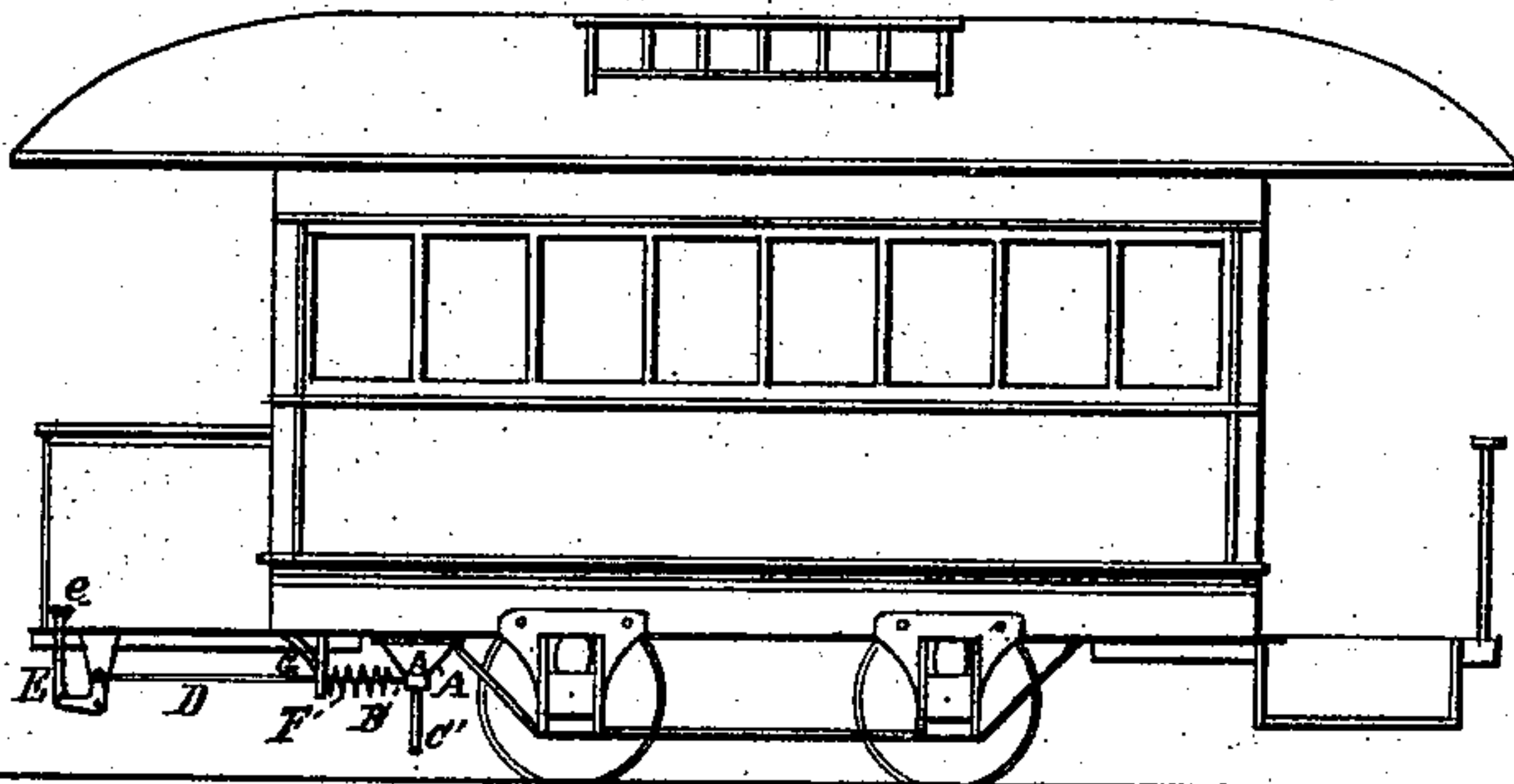


FIG II

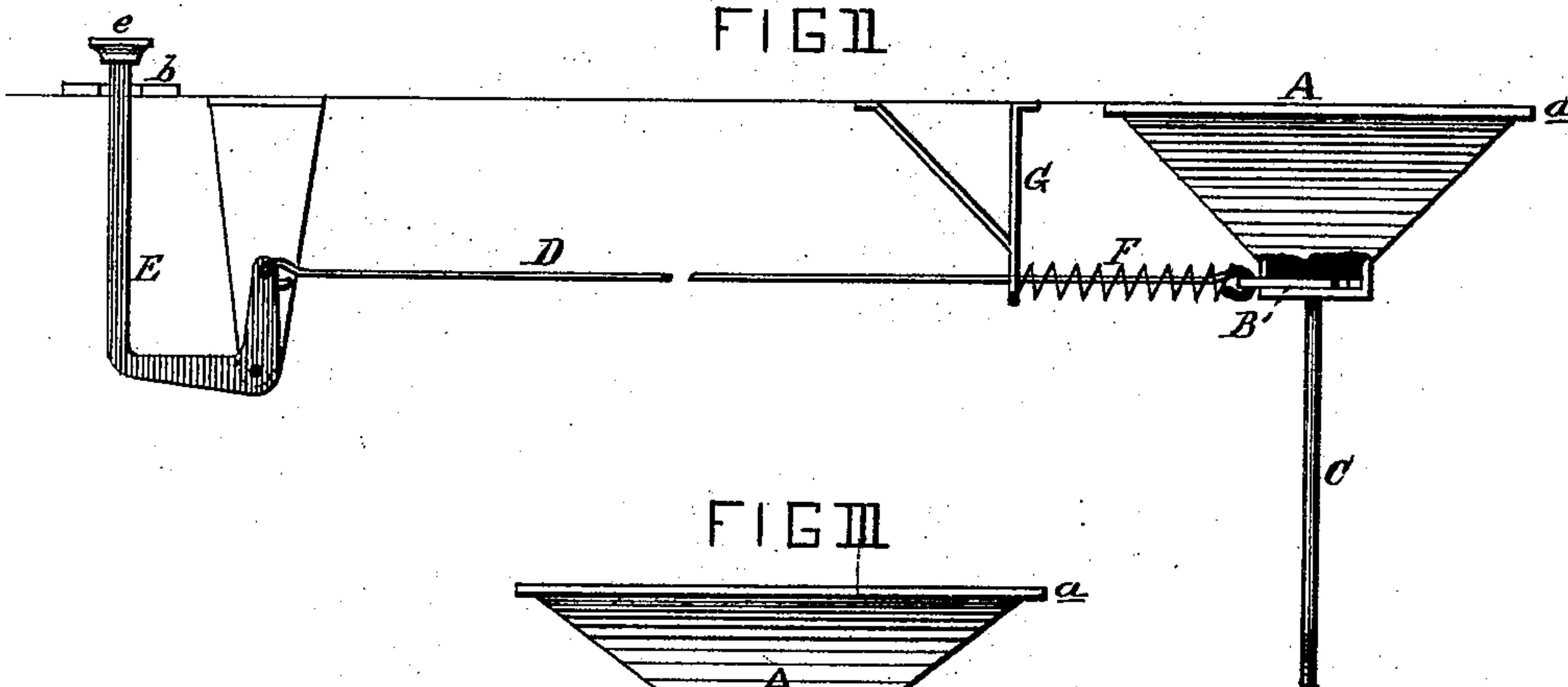


FIG III

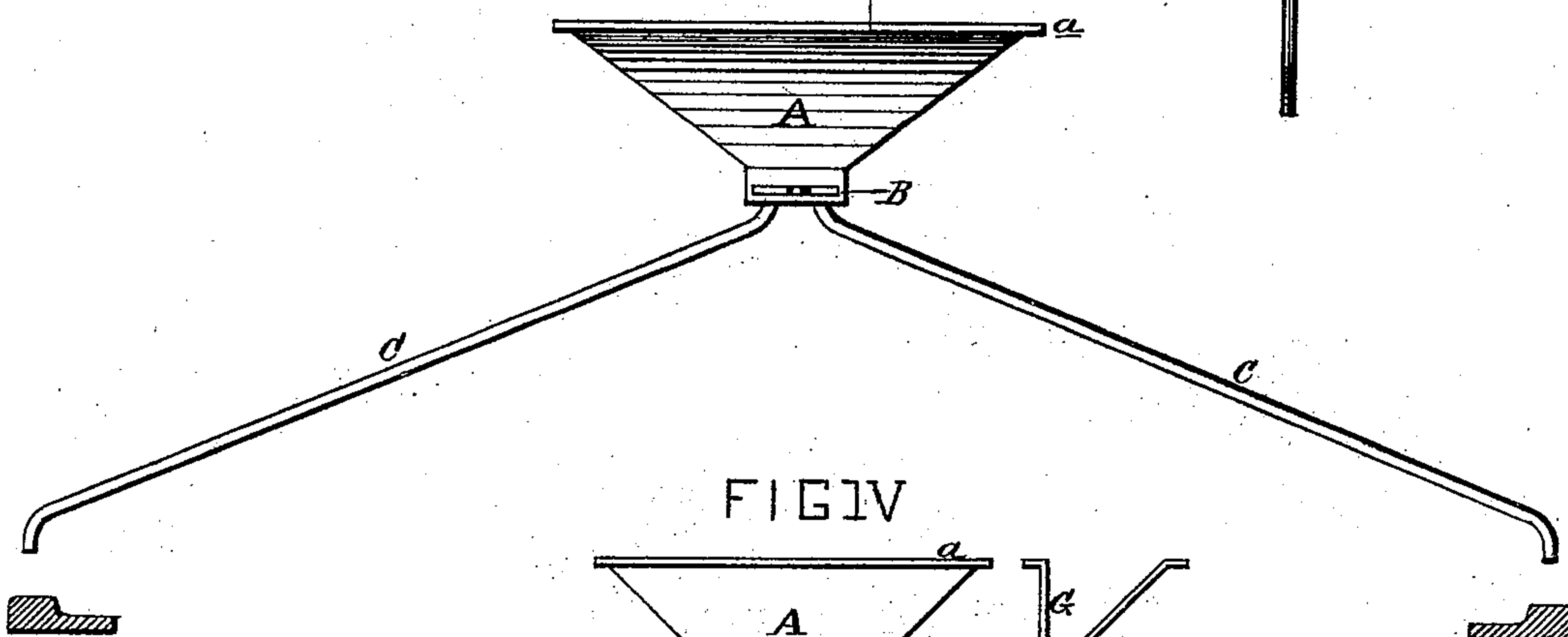
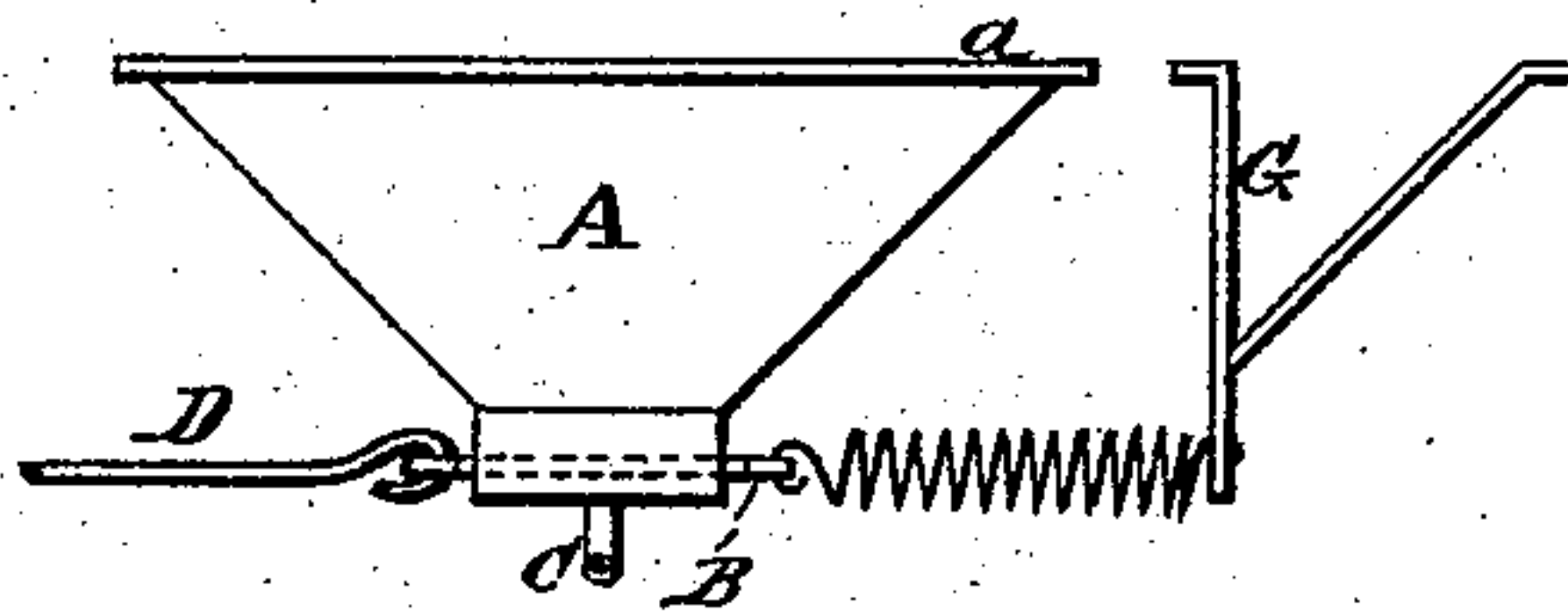


FIG IV



WITNESSES.

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UNITED STATES PATENT OFFICE.

J. ELLIOTT SHAW, OF NORRISTOWN, PENNSYLVANIA.

IMPROVEMENT IN SAND-BOXES FOR STREET-CARS.

Specification forming part of Letters Patent No. **209,196**, dated October 22, 1878; application filed January 17, 1878.

To all whom it may concern:

Be it known that I, J. ELLIOTT SHAW, of Norristown, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Improvement in Sand-Boxes for Applying Sand to the track of Street-Railways, which improvement is fully set forth in the following specification and accompanying drawing, in which—

Figure 1 is a side view of a street or horse railway-car with my invention applied. Fig. 2 is a side view, partly in section, of my invention detached from the car. Fig. 3 is an end view of the same. Fig. 4 shows a modification of my invention.

The object of my invention is to provide a street or horse car with a sand-box for applying sand to the track in damp or freezing weather, to overcome a difficulty frequently experienced in stopping the car, owing to the wheels slipping on the track.

My invention consists of a sand-box, secured in any convenient position underneath the car, and furnished with a sliding valve, which is closed by a spring and opened by a treadle from the front platform of the car, to discharge a sufficient quantity of sand through tubes leading from the box to prevent the wheels slipping on the track when the brakes are applied.

The sand-box A is made of any suitable dimensions, with tapering sides and ends to facilitate the discharge of the sand, and with a flange, *a*, around the upper edge to secure it to the car. The lower part of the box is made square or rectangular in shape, to accommodate the sliding valve B, which rests upon the bottom of the box, and opens and closes apertures leading to the sand-conveying tubes C and C'.

A rod or chain, D, is attached to the front end of the valve B, which projects through the side of the box and connects with one of the arms of the treadle-lever E, which is piv-

oted underneath the front platform of the car. The opposite arm of this lever extends up through a slotted plate, *b*, secured to the platform, and is furnished with a foot-rest, *e*.

A spring, F, for closing the valve B and raising the treadle, is placed over the rod D, with one end resting against or attached to the valve and the opposite end bearing against a bracket, G, which is suspended from the bottom of the car to support the rod and receive the stress of the spring.

The treadle E is arranged so as to be within easy reach of the foot of the driver, so that a slight pressure will open the valve and allow the sand to pass through the tubes C and C' to the tracks immediately in front of the wheels.

If desired, the back end of the valve may project through the box, and the spring be applied as shown in Fig. 4, to draw the valve back when the treadle is released.

The box may be filled with sand through an opening in the floor of the car, or through a tube leading from the outside of the car.

I am aware that receptacles for sand have been in use upon locomotives and railway-cars for the purpose of supplying sand to the rails, and that cone-shaped boxes or receivers, arranged to be opened or closed at pleasure, are shown and described in a patent to C.M. Bromwich, dated December 19, 1865; therefore I do not wish to claim them; but

What I do claim, and desire to secure by Letters Patent, is—

In combination with the sand-box A, provided with the curved tubes C and C', the rod or chain D, treadle-lever E, slotted plate *b*, foot-rest *e*, spring F, and bracket G, all operating substantially as and for the purpose shown and described.

J. ELLIOTT SHAW.

Witnesses:

HENRY C. SHEPHERD,
ISAAC R. OAKFORD.