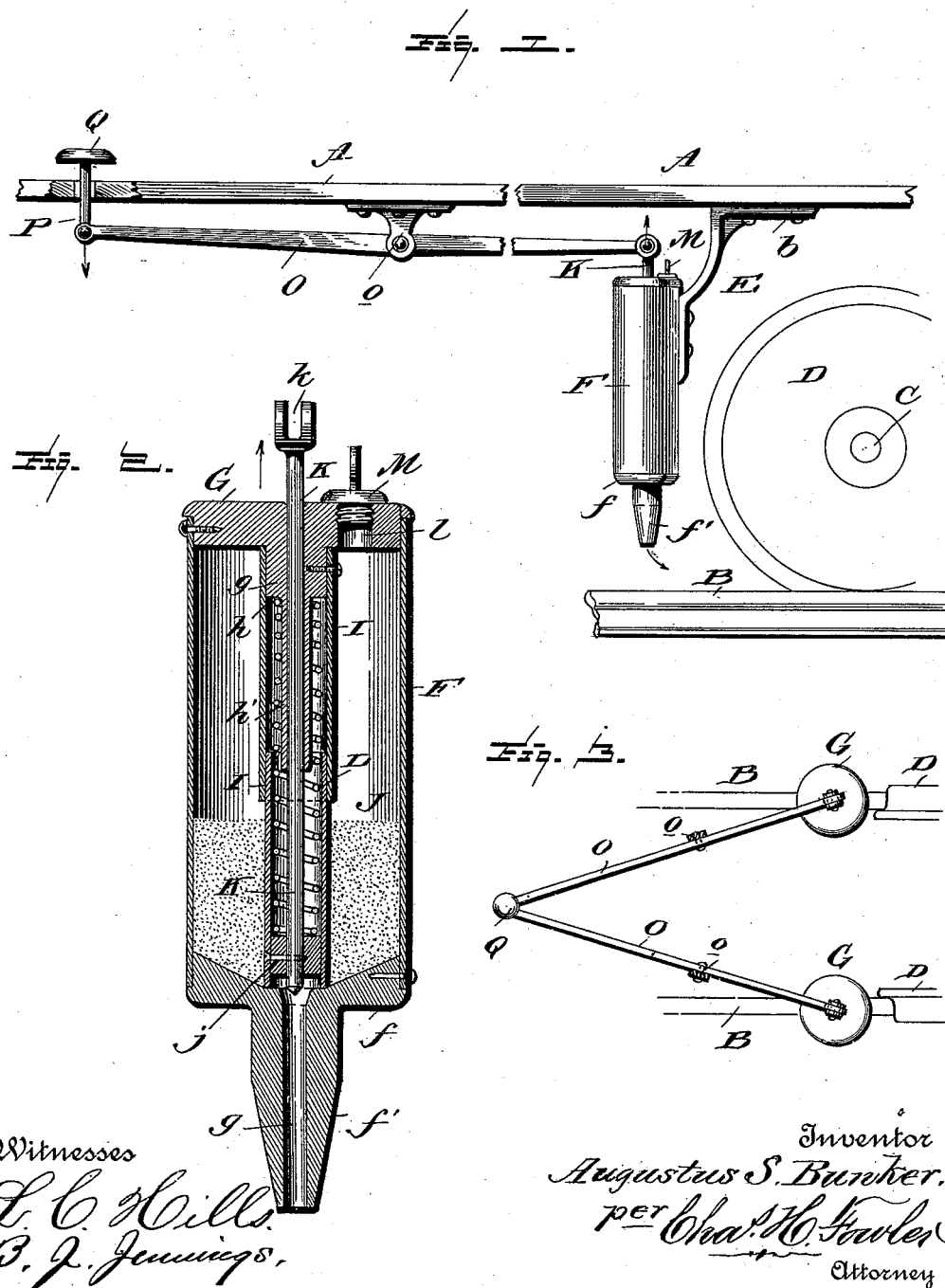


(No Model.)

A. S. BUNKER.
SANDING DEVICE FOR STREET CARS.

No. 490,896.

Patented Jan. 31, 1893.



UNITED STATES PATENT OFFICE.

AUGUSTUS S. BUNKER, OF LAWRENCE, MASSACHUSETTS.

SANDING DEVICE FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 490,896, dated January 31, 1893.

Application filed October 28, 1892. Serial No. 450,232. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS S. BUNKER, a citizen of the United States, residing at Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Sanding Devices for Street-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in devices for applying sand to tracks and while it is especially adapted for street-cars still it is applicable to any kind of moving vehicles adapted for traveling on a stationary track and it is to be understood as not in any way restricted to street-car use.

It has for its objects among others to provide a simple and cheap mechanism readily applied to any and all forms of cars and to those already in use. All the mechanism is arranged outside the car whereby space in the car is not encroached upon, and I have so arranged the parts and connected them with the operating lever or rod that both tracks can be sanded at the one time and by the movement of the same lever or rod. The receptacle in which the sand is held is also of novel construction, providing against waste of material and aiming to protect the plunger and its spring.

Other objects and advantages of the invention will be hereinafter made apparent and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation, with parts broken away, of a portion of a car equipped with my improvements. Fig. 2 is an enlarged vertical section through the sand receptacle. Fig. 3 is a plan view showing the manner of connecting the operating levers.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates a portion of the floor or platform of a car of known construc-

tion, B the tracks, C the axle, and D the wheels, all of which may be of any well known or approved form of construction.

The sanding device may be arranged to sand one or both tracks, and while I have shown in Fig. 3 a means whereby both tracks may be simultaneously sanded it is evident that the other features of the invention are as applicable to the sanding of but one track.

E is a bracket having a horizontal portion *b* by which and suitable means it is designed to be secured to the under side of the floor or platform of the car in proximity to the wheel as seen in Fig. 1. To the vertical portion of this bracket is secured in any suitable manner the sand receptacle which consists of a vessel F of any desired shape and capacity, preferably a metallic cylinder having a flanged bottom *f* to which the lower end of the cylinder is secured, the said bottom having a neck or spout *f'* with a passage way *g* which communicates with the interior of the vessel and the upper end of the said bottom being inclined from the outside toward said passage-way as seen in Fig. 2.

G is the cap of the vessel, having a flange fitting within the cylinder and a neck portion or boss *g'* which is formed with a shoulder *h* and a smaller tubular portion *h'* all as seen in Fig. 2.

I is the tube secured to the neck portion *g'* of the cap and depending therefrom for a sufficient distance within the vessel.

J is a smaller tube fitted to slide within the tube I and having secured within its lower end a block *j* to which is secured the lower end of the rod K which passes upward through the tubular portion of the cap and through the said cap. A spring L is confined within the tubes, having one end held against the block *j* and its other end against the shoulder *h* of the cap as shown in Fig. 2. The cap piece is provided with an opening *l* through which the sand can be deposited in the vessel, and this opening may be closed in any suitable manner, as by a screw plug M as shown. The lower end of the inner tube fits snugly against the bottom of the vessel and the natural tendency of the spring is to keep it closed so as to stop the flow of sand through the discharge spout.

O is a lever pivoted between its ends to a

suitable bracket *o* on the under side of the platform of the car and at one end connected pivotally with the upper end of the rod *K* as for instance by being held on a pivot in the bifurcation *k* of said rod and its other end is pivotally connected with the vertical push-rod *P* which is fitted to slide vertically through an opening *q* in the platform and is provided with a button *Q* as seen in Fig. 1. Simply pressing upon this button will depress that end of the lever and consequently elevate the other end and thus raise the rod *K* and the inner tube and thus disclose the discharge opening in the vessel and allow the sand to flow out onto the track; when pressure is removed from the button the spring returns the parts to their normal position and stops the flow of sand.

When it desired to sand both tracks at once I arrange the two receptacles one over each track as seen in Fig. 3 and rub the levers from the two receptacles in an inclined direction as seen in Fig. 3 and pivotally connect them both with a centrally-arranged push-rod and button as shown so that when the

push-rod is depressed both levers will be simultaneously operated and both tracks sanded.

What I claim as new is;—

1. The combination with the receptacle having discharge spout and cap, of a tube within the vessel depending from the cap, a smaller tube sliding within said tube, a spring within the tubes, and a rod connected with the inner tube and passed through the cap, as set forth.

2. The combination with the vessel having bottom with discharge spout and a cap with a neck and a tubular portion, of the tube secured to said neck, the smaller tube sliding within said tube, the spring within the tubes, the block in the inner tube and the rod held to said block and passed through the tubular portion and through the cap, as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

AUGUSTUS S. BUNKER.

Witnesses:

DAVID N. MARTIN,
JOHN S. F. HAM.