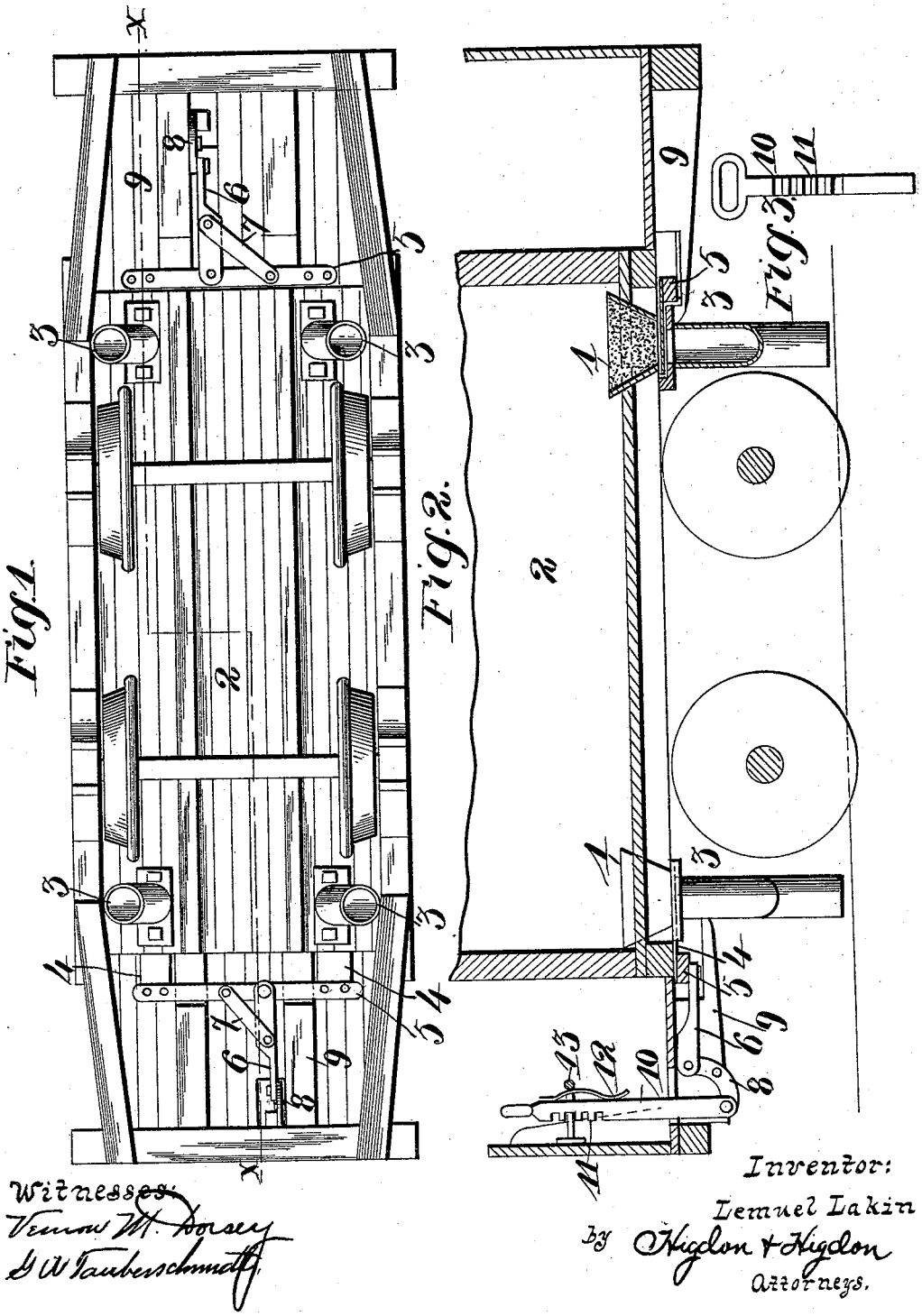
(No Model.)

L. LAKIN.

SANDING APPARATUS FOR STREET CARS.

No. 454,683. Patented June 23, 1891.



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UNITED STATES PATENT OFFICE.

LEMUEL LAKIN, OF ST. LOUIS, MISSOURI.

SANDING APPARATUS FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 454,683, dated June 23, 1891.

Application filed April 1, 1891. Serial No. 387,319. (No model.)

To all whom it may concern:

Be it known that I, LEMUEL LAKIN, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Sanding Apparatus for Street-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in sanding apparatus for street-cars; and it consists in the novel arrangement and combination of parts, as will be more fully hereinafter described, and designated in the claims.

In the drawings, Figure 1 is a bottom plan view of a car, showing my invention applied to the same. Fig. 2 is a vertical longitudinal section taken on the line *x x* of Fig. 1, and Fig. 3 is a detail view of an operating-handle which I employ in carrying out my invention.

Referring to the drawings, 1 indicates sand hoppers or receptacles, which are located at the forward and rearward ends of the car 2. Said hoppers or receptacles are preferably four in number—that is, four to each car—two of which are located at one end of the car opposite to each other, and the other two are likewise located at the other end of said car. Said receptacles are located under the car-seats a little in advance of the car-wheels.

3 indicates bent pipes or tubes, which are suspended beneath said receptacles and in communication therewith. Said pipes or spouts 3 extend downwardly and lie directly above the rails, so that the sand in its passage through said tubes will always fall on the rails. Located in the bottom of said receptacles and occupying an interposed position between said receptacles and spouts are sliding valves 4, which are connected by means of a transverse bar 5. Said valves are adapted to be simultaneously operated, and thereby close the opening in the bottom of said receptacle or open the same and effect communication between said receptacles and spouts or tubes 3.

6 indicates an arm, which is secured to a transverse bar 5, and 7 indicates a strip, which is firmly secured to cross-piece 5 and arm 6, thereby effecting a substantial structure. Said arm 6 is pivotally secured to one end of a crank-lever 8, said crank-lever being pivotally secured to a part or piece 9 of the car. The other end of said lever is pivotally secured to an operating-handle 10, which projects upwardly through a suitable perforation formed in the platform of the car and is adapted to be operated from said platform. Said handle is provided with a series of teeth 11, which are adapted to engage in any suitable device, thereby holding said handle in any desired adjustment, the engagement, however, between said handle and any suitable device being effected by means of a spring 12, which is secured to the front face of the said handle and bears against a staple 13, in which said handle is inserted. However, I may vary this construction as mechanical ingenuity may suggest.

From the description as herein set forth it can be readily perceived that when lever 10 is depressed valves 4 will be removed from the openings formed in the bottom of receptacle 1, and a communication will be effected through said receptacles into the spouts or tubes 3, and as said valves 4 are simultaneously operated the openings in said receptacle 1 may be simultaneously closed or opened, as desired.

Having fully described my invention, what I claim is—

1. In a sanding apparatus for street-cars, a sand-receptacle, a valve therein, an operating-bar provided with notches near its upper end, means for connecting said bar with the valve, a device to engage the notches on the operating-bar, a flat spring on said bar, and a staple through which said bar passes and against which the spring bears, whereby the notched portion of the operating-bar is pressed against the device to engage the notches, substantially as described.

2. In a sanding apparatus for street-cars, sand-receptacles, valves therein, a cross-bar connecting said valves, a connecting-bar secured to the center thereof, an operating-bar provided with notches at its upper end, a crank-lever having its arms respectively pivoted to the operating-bar and the connecting-

bar, a staple through which the upper end of the operating-bar passes, a device to engage the notches on said bar, and a flat spring secured to the bar against which the staple bears, whereby said bar is held in contact with the notch-engaging device, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LEMUEL LAKIN.

Witnesses:
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