(No Model.)

T. L. MONAGHAN.

SAND BOX.

No. 565,773. Patented Aug. 11, 1896.

Fig. 1.

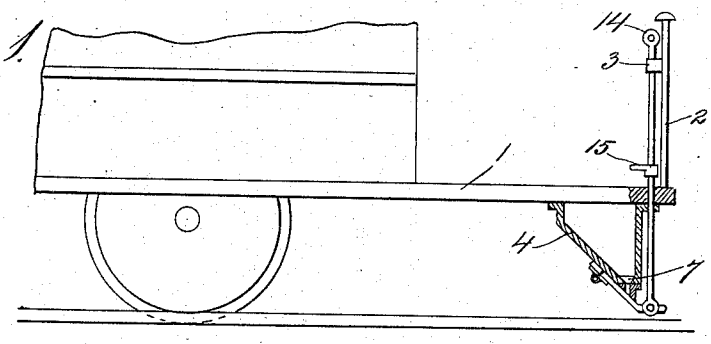


Fig. 2.

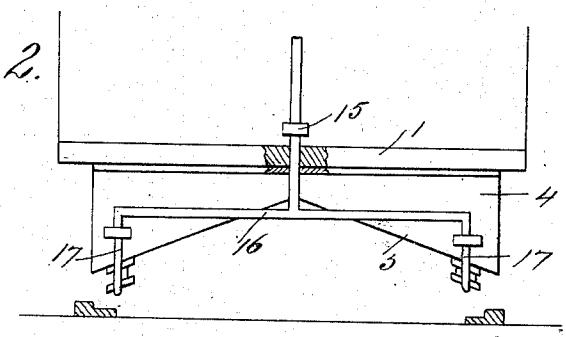


Fig. 3

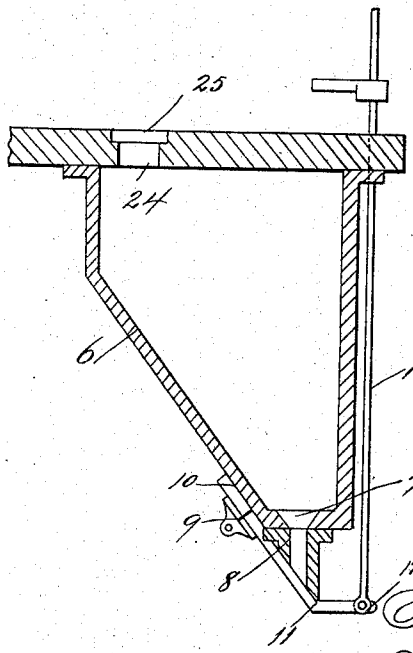
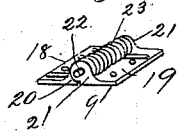


Fig. 4



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SAND-BOX.

SPECIFICATION forming part of Letters Patent No. 565,773, dated August 11, 1896.

Application filed June 9, 1896. Serial No. 594,884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS L. MONAGHAN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Sand-Boxes, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar figures of reference indicate corresponding parts.

This invention relates to improvements in sand-boxes for railway-cars, and particularly upon the construction covered by Patent No. 555,787, granted to me March 3, 1896, and the object thereof is to provide a simple and effective device of this character which will be easily operated and can be readily attached to a car; and with these and other objects in view the invention consists in the construction and arrangement of parts hereinafter more fully described in the specification, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the front portion of a car provided with my improvement, parts of which are shown in section. Fig. 2 is a front elevation of the construction shown in Fig. 1. Fig. 3 is a vertical section through the platform of a car and through my improved sand-box, and Fig. 4 is a detail view of a spring-hinge which I employ.

Similar numerals designate like parts throughout the several views.

Referring to the drawings and particularly to Fig. 1, the numeral 1 designates the floor or platform of a car having connected with the forward end thereof a vertically-extending dashboard 2, to which is secured a guide or apertured lug 3, and secured upon the under side of the platform 1, transversely thereof, is a sand-box 4, the bottom 5 of which is inclined or slopes outwardly, as shown in Fig. 2, so that the contents of the box will tend to fall toward the ends thereof and thus be more readily discharged therefrom. However, I do not confine myself to the peculiar construction of the box 4 herein shown, as I may vary the same without departing from the spirit of this invention.

The rear side of the back 6 of the box 4 is inclined or slopes forwardly, as shown in Figs. 1 and 3, for the purpose of forcing the sand toward the discharge-openings 7 at each end of the box, the edges of which openings are beveled or inclined and communicate with discharge-tubes 8, connected with the under side of the sand-box, and the bore of which registers with said openings 7, but the peculiar construction and formation of these discharge-tubes may be varied if desired.

Secured to the inclined back portion 6 of the box are spring-hinges 9, (shown in detail in Fig. 4,) one leaf of which hinge is secured to said inclined back portion 6, or to an intermediate block 10, secured thereto, and I provide a door or cover 11, (shown in Fig. 3,) one end of which is secured to the free leaf of the hinge 9, and the forward or outer end 12 of the door 11 extends obliquely to the main portion thereof, and to the horizontal portion 12 of the doors 11 are suitably connected the depending ends 17 of the yoke portion 16, secured to the lower end of the rod 13. The opposite end of the vertical rod 13 passes through an opening in the platform of the car and through the guide or lug 3 upon the dashboard 2, and I preferably form an eye or handle 14 on the end of said rod, but any suitable construction of the outer portion of this rod may be employed and secured upon the rod 13. Slightly above the platform 1 is a collar or plate 15, provided with an extension adapted to receive the foot of the operator when it is desired to force the rod 13 downwardly, and it will be observed that said collar also acts as a stopper to limit the downward motion of the rod 13, but it will be understood that either the handle 14 or the collar 15 may be used to depress said rod, and by this construction either manual or pedal power be employed, as preferred.

The spring-actuated hinges 9, Fig. 4, consist of two plates 18 and 19, from the edges of which extend apertured lugs 20 and 21, through which passes the spindle 22, pivotally connecting the leaves 18 and 19 of the hinge. Mounted on said spindle is a coil-spring 23, which is wound or coiled around the spindle, and the free ends of which are bent out laterally and rest upon the leaves 18 and 19 of the hinge, and the effect of this spring is to force the leaves of the hinge together, so that when applied to the door the hinge will

tend to keep the same in a closed position, preventing the discharge of the sand from the box.

The sand will be introduced into the box 5 through the opening 24 in the platform 1 of the car, which opening is provided with a removable cover 25, and it will be seen that the spring-hinges 9 will automatically close the doors 11 and prevent the discharge of the sand from the boxes 5, and when it is desired to permit the discharge of sand from the box upon the rail it is only necessary to depress the rod 13, either by means of the handle 14 or by the collar 15, and when pressure is released upon the rod the doors 11 will close by action of the springs and the discharge of sand will be cut off, and it will also be observed that these discharge-tubes 8 are located directly over the rails of a track, so that the sand is discharged upon the same.

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

1. In a sand-box for railway-cars, the combination of a discharge-tube connected therewith, the bore of which registers with an opening in each end of the box and doors hinged at one side of said openings a rod connected with said doors and extending upwardly therefrom and parallel to the dashboard of the car and a handle and pedal connected with said rod whereby the discharge of sand from the box is controlled, substantially as described.

2. In a sand-box for railway-cars the combination with the discharge-tubes connected with the under side thereof, adapted to register with the opening formed in each end of the box, the back portion of said box being obliquely inclined to force the sand toward said openings, and a door provided with an angle portion and adapted to close the openings of the discharge-tubes, a spring-actuated hinge connecting one edge of said doors with the inclined back of the sand-box, two vertical rods connected with the forward end of the doors and connected by means of a yoke portion with a vertical rod extending alongside of the dashboard whereby the discharge of sand is guided by the tube and caused to be deposited directly upon the rails of a track and means for inserting the sand within the boxes, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 5th day of June, 1896.

THOMAS L. MONAGHAN.

Witnesses:
CHARLES S. ROGERS,
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