

(No Model.)

A. S. CUMMINS.
SAND BOX.

No. 560,346.

Patented May 19, 1896.

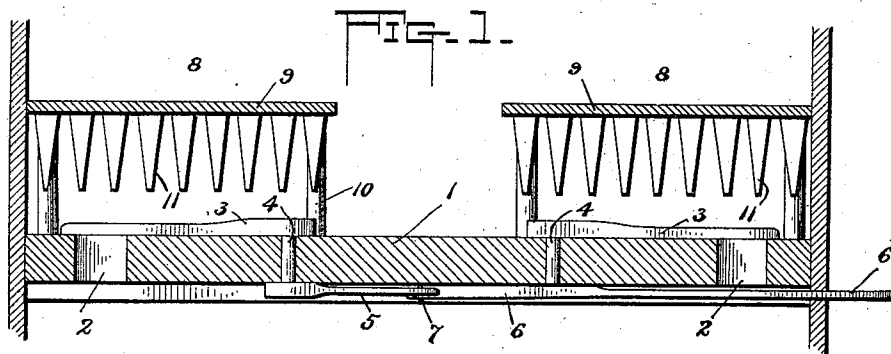


FIG. 2.

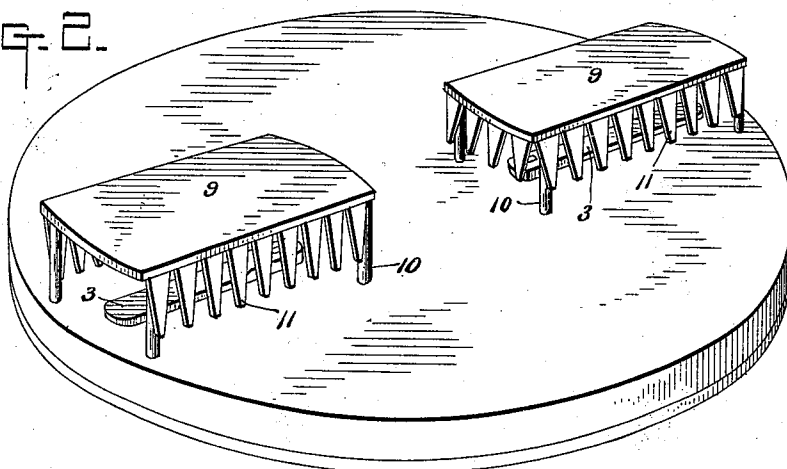
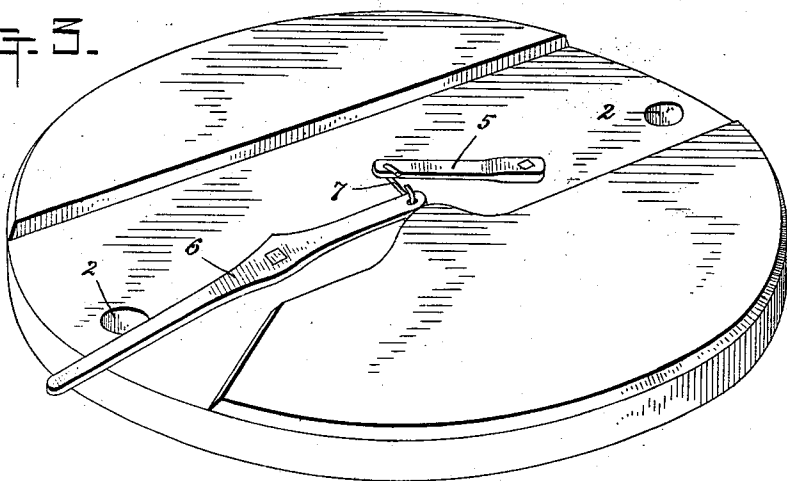


FIG. 3.



Inventor

Witnesses

A. M. Dayton,

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

ARCHER SEYMORE CUMMINS, OF CREWE, VIRGINIA.

SAND-BOX.

SPECIFICATION forming part of Letters Patent No. 560,346, dated May 19, 1896.

Application filed March 25, 1896. Serial No. 584,867. (No model.)

To all whom it may concern:

Be it known that I, ARCHER SEYMORE CUMMINS, a citizen of the United States, residing at Crewe, in the county of Nottoway and State of Virginia, have invented a new and useful Sand-Box, of which the following is a specification.

The invention relates to improvements in sand-boxes for locomotives and various kinds of cars.

The object of the present invention is to improve the construction of sand-boxes, to provide a simple, inexpensive, and efficient one adapted to be employed on locomotives and various kinds of cars, and to prevent the discharge orifice or orifices from becoming clogged with wet or lumpy sand and refusing to operate.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a vertical sectional view of a portion of a sand-box constructed in accordance with this invention. Fig. 2 is a detail perspective view of the bottom of the sand-box, illustrating the manner of mounting the valve-guards. Fig. 3 is a similar view showing the lower face of the bottom and illustrating the construction of the mechanism for operating the pivoted valves.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a sand-box provided at its bottom at opposite sides with discharge orifices or openings 2, adapted to be covered and uncovered by pivoted valves 3. The pivots 4 of the valves have fixed to them an arm 5 and a lever 6, connected at their adjacent ends by a link 7. The lever is fulcrumed on the pivot 4 of the adjacent valve at a point intermediate of its ends, and when it is oscillated two valves will be simultaneously operated to cover or uncover the valve-openings, as will be readily understood. Any suitable means may be employed for operating a lever 6 from any desired point on a locomotive or car.

In order to prevent wet or lumpy sand from packing or clogging around the valves and interfering with the operation of the sand-box, guards 8 are provided. Each guard consists of a horizontal plate 9, arranged over the pivoted valve and preferably supported by studs 10, located at the corners of the plates and suitably fixed to the same and to the bottom of the sand-box. The outer end of the plate is preferably contiguous to the adjacent portion of the side wall of the sand-box, and the studs are arranged sufficiently close to the same to prevent the sand from packing or clogging at that point, and at the other three sides the plates are provided at intervals between the studs with depending fingers 11. The fingers are tapering and arranged at suitable intervals and effectually prevent lumps of wet sand or the like from passing under the plate and packing around the valve and clogging the same. The fingers terminate short of the bottom of the sand-box and are capable of breaking the lumps and of pulverizing wet sand as the same moves toward the valve-openings.

It will be seen that the sand-box is rendered positive and reliable in operation and that simple and effective means are provided for preventing sand from packing around the valves and clogging the same.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. A sand-box having a valve, and provided with a guard comprising a plate supported above the valve, and a series of fingers depending from the plate and arranged at intervals, substantially as and for the purpose described.

2. A sand-box provided with a valve, and having a guard comprising a plate arranged above the valve, lugs supporting the plate, and a series of tapering fingers depending from the plate, arranged at intervals, and terminating short of the bottom of the sand-box, substantially as and for the purpose described.

3. A sand-box having its bottom provided

with an opening closed by a valve, and a
guard-plate supported above the valve and
having a series of fingers around its edges,
which fingers depend from the guard-plate
5 but terminate short of the bottom of the sand-
box, substantially as and for the purpose de-
scribed.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

ARCHER SEYMORE CUMMINS.

Witnesses:

F. F. THORNTON,
W. C. COUSINS.