

(No Model.)

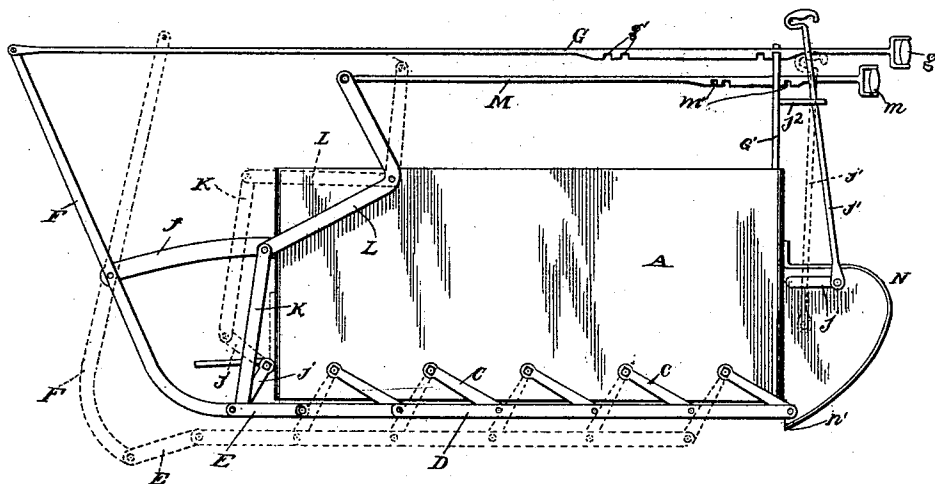
2 Sheets—Sheet 1.

J. W. EADS.  
LOCOMOTIVE ASH PAN.

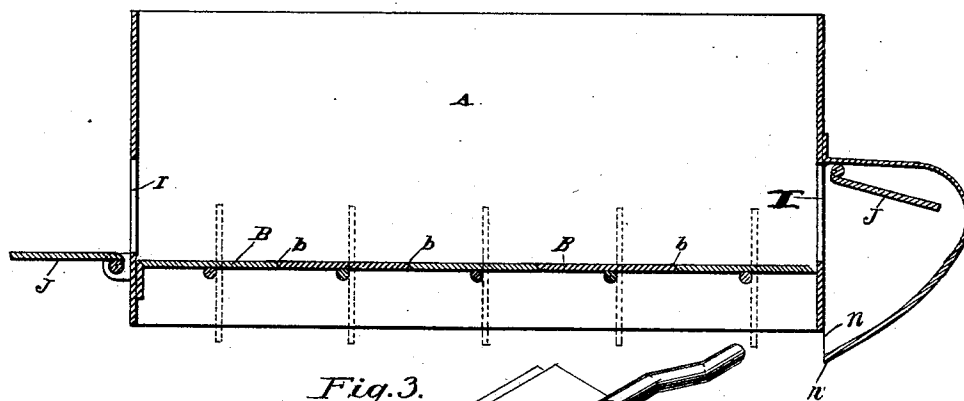
No. 482,235.

Patented Sept. 6, 1892.

*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

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Fig. 4.

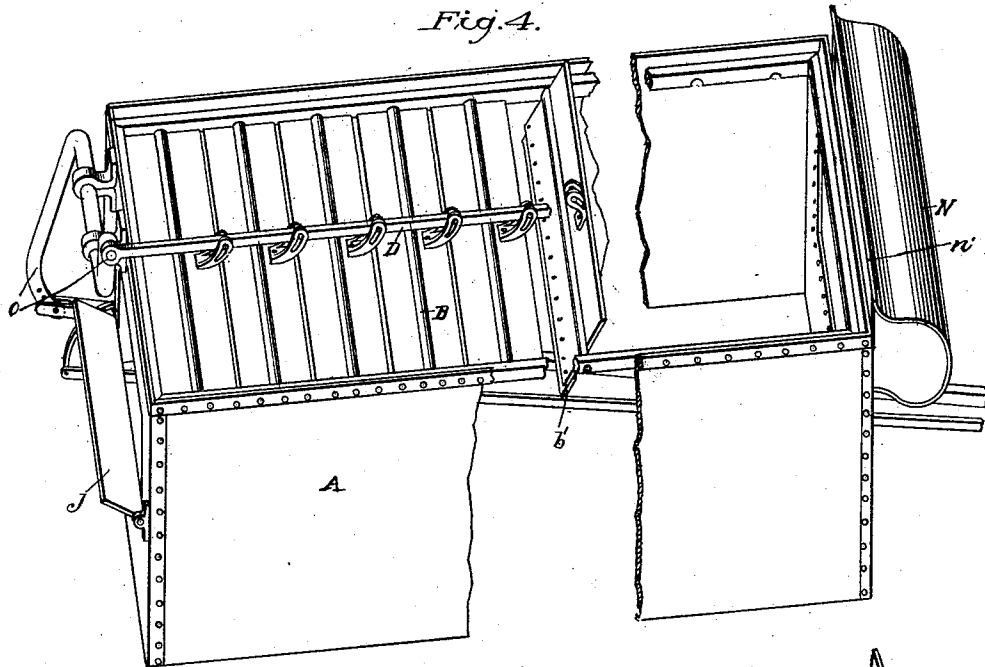


Fig. 5.

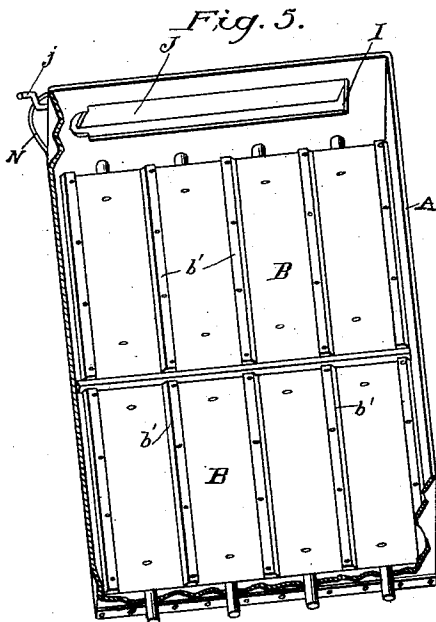
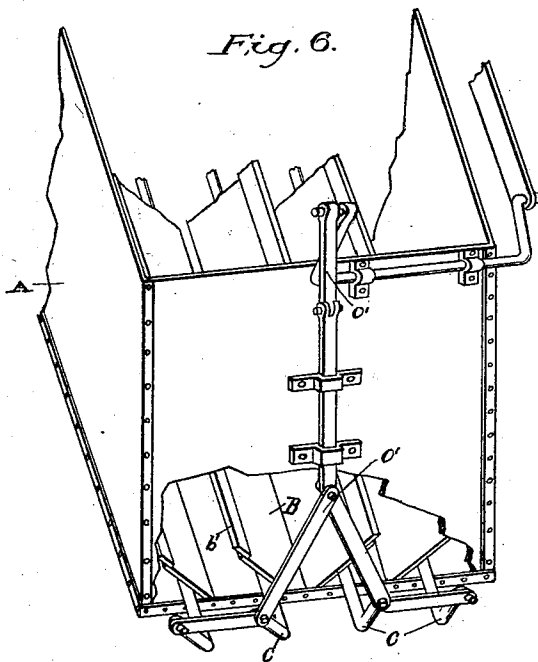


Fig. 6.



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# UNITED STATES PATENT OFFICE.

JOHN W. EADS, OF DALLAS, TEXAS.

## LOCOMOTIVE ASH-PAN.

SPECIFICATION forming part of Letters Patent No. 482,235, dated September 6, 1892.

Application filed March 29, 1892. Serial No. 426,985. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. EADS, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented a new and useful Locomotive Ash-Pan, of which the following is a specification.

This invention relates to locomotive ash-pans; and it has for its object to provide improvements in dumping locomotive ash-pans which will not only effectually and tightly hold the ashes within the same until it is desired to dump the pan, but also to provide means whereby the requisite draft can be obtained and constantly supplied to the fire in regulated quantities.

To this end it is the main and principal object of this invention to improve upon and render more efficient ash-pans of this character.

With these and many other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a locomotive ash-pan constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a detail in perspective of one of the dumping-slats. Fig. 4 is a bottom perspective view of a modified form of an ash-pan. Figs. 5 and 6 are detail perspective views, partly broken away, of additional modifications.

Referring to the accompanying drawings, A represents the rectangular body of my improved locomotive ash-pan; which is suitably secured beneath the locomotive in the usual manner. The said pan is open at top and bottom and has located within the bottom thereof the series of dumping-leaves B. As illustrated in Figs. 1 and 2 of the drawings, the said leaves are journaled in the opposite sides of the pan and are provided with beveled meeting edges *b*, which when the leaves or slats are in a horizontal position meet each other and form a continuous and perfectly-tight bottom, which serves to hold the ashes until it is desired to dump the same by simultaneously turning the several slats. In-

stead of the beveled meeting edges *b* the meeting edges of the several dumping-slats may be provided with the overlapping ledges *b'*, which is a feature common to the other modifications and detail views of the drawings, and also serves to make the joint between the several slats perfectly tight to prevent the ashes from falling out.

In Figs. 1 and 2 of the drawings the journal ends of the several slats at one side of the pan are provided with the crank-arms C, connected by the single connecting-rod D, which thus provides means for simultaneously turning the slats. One end of the connecting-rod D is connected by means of the link E to one end of the lever F, which lever is pivotally connected to the outer end of the bracket-arm *f*, projecting from the front end of said ash-pan. A horizontal operating-rod G is connected to the other end of said lever and terminates at the other end in an operating-handle *g*, by means of which the rod is grasped to turn the leaves or slats, and said rod is further provided with a series of locking-notches *g'* in the under side thereof, and which engage the bracket G' at the rear end of the ash-pan to hold the leaves or slats open or shut, as the case may require. The said ash-pan is provided at each end thereof with the draft-openings I directly in a line with the bottom of the pan, and which are adapted to be opened and closed by the draft-regulating dampers J. The front regulating-damper J, which is hinged at the bottom of the front draft-opening, is provided at one end thereof with the crank-arm *j*, which is connected by means of the link K to one end of the bell-crank lever L, which lever has connected to the other arm thereof the operating-rod M. The said operating-rod M also terminates in an operating-handle *m*, and is provided with a series of locking-notches *m'*, which also engage the bracket H alongside of the operating-rod G to hold the said damper at the requisite position, according to the amount of draft needed. The opposite regulating-damper at the rear end of the ash-pan is hinged at the top of the rear draft-opening and is inclosed by and worked within the air-drum N. The said air-drum N is sufficiently large to allow the regulating-damper at the rear end of the ash-pan to be

opened to its fullest extent, and is open at the lower end thereof, as at *n*, so that as the locomotive travels the air will be gathered by the same and fed to the fire to give the proper draft thereto. The shell of the rear air-drum projects below and in front of the rear wall of the ash-pan to form a lip *n'*, which directs the air sweeping below the ash-pan into the drum and through the rear draft-opening to the fire. It will thus be seen that the air-drum not only serves to collect the air and direct the same to the fire, but also prevents the fire from falling out of the pan at the rear end of the same. The damper working within said air-drum is also provided with an operating crank-arm *j*, which has connected therewith the operating-rod *j'*, passing up through the bracket-arm *j''*, so that the same may be conveniently controlled by the fireman.

In Fig. 4 of the drawings the draft-regulating devices are similar to those just described in connection with Figs. 1 and 2, while the dumping slats or leaves thereof have the connecting-rod *D* connected to the bottoms thereof and controlled by suitable operating-levers *O* in substantially the manner as already described.

In Figs. 5 and 6 are illustrated modifications showing the leaves or slats running lengthwise of the pan and operated by suitable levers *O'*, such figures also illustrating forms of ash-pans to which the rear air-drum attachment may be as advantageously used upon as the preferred form already described.

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

1. A locomotive ash-pan having a rear draft-opening, an air-drum inclosing said draft-opening and open at its lower end, and a regulating-damper working within said air-drum over said draft-opening, substantially as set forth.

2. A locomotive ash-pan having a rear draft-opening, an enlarged air-drum inclosing said

draft-opening and provided with an opening below the rear wall of the ash-pan, and a regulating-damper working within said air-drum and over said draft-opening, substantially as set forth.

3. A locomotive ash-pan provided with a rear draft-opening, an air-drum inclosing said draft-opening and provided with a curved lip projecting below and in front of the rear wall of the ash-pan, and a regulating-damper working within said air-drum and over said draft-opening, substantially as set forth.

4. The combination, with the ash-pan having front and rear draft-openings, of draft-regulating doors working over said openings, means for controlling said doors, and an air-drum inclosing the rear draft-opening and draft-door working thereover, substantially as set forth.

5. The combination, with the locomotive ash-pan having draft-openings at each end and a series of dumping slats or leaves adapted to be closed in a line below said openings, of crank-arms connected with said slats or leaves, a single connecting-rod pivotally connected to the ends of said crank-arms, a vertical bracket-arm projecting from the front end of said ash-pan, a locking-bracket secured to the opposite ends of the ash-pan, an oscillating lever pivoted near its center to said bracket-arm, a connecting-link loosely connected to one end of said connecting-rod and to the lower end of said lever, and a horizontal operating-rod connected to the upper end of said lever and provided in its under side, near the handle thereof, with a series of locking-notches adapted to engage said locking-bracket, substantially as set forth.

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

JOHN W. EADS.

Witnesses:

T. F. LEWIS,  
F. B. SALMONS.