(No Model.)

C. J. W. JOHNSON.

LOCOMOTIVE ASH PAN.

No. 476,147. Patented May 31, 1892.

FIG. 1.

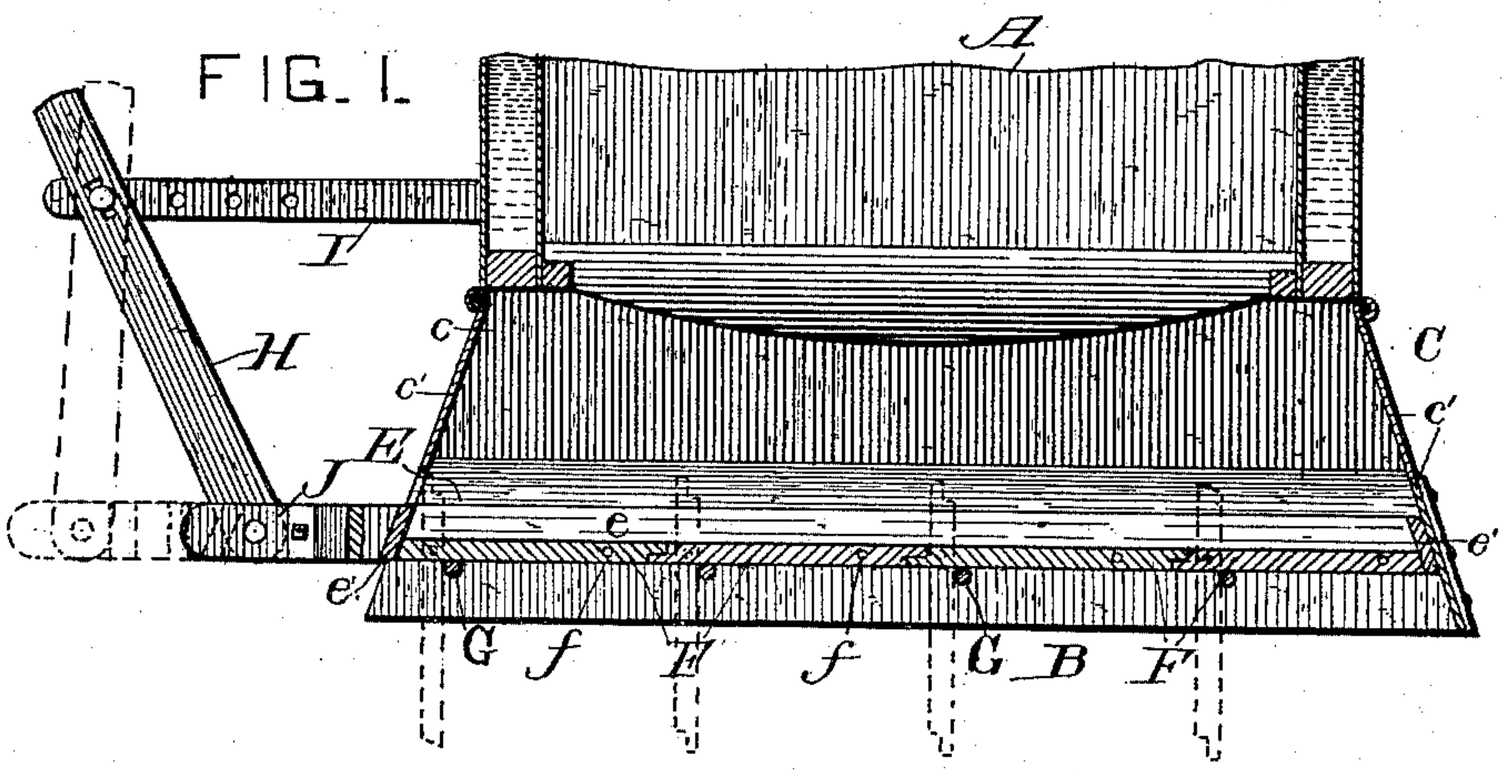


FIG. 2.

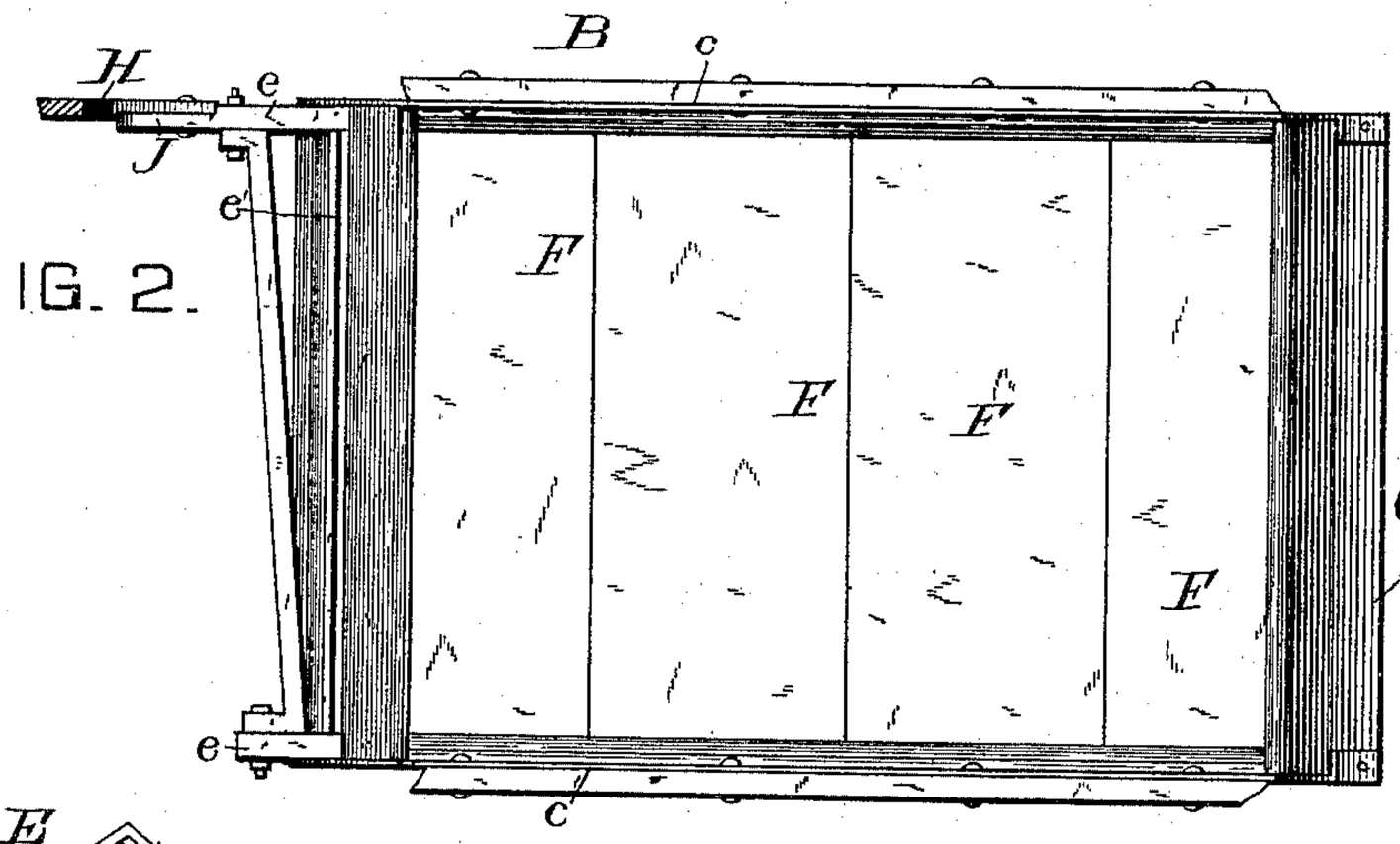


FIG. 4.

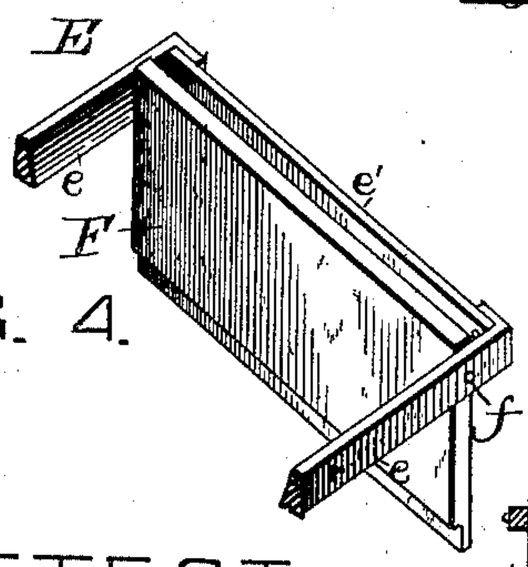
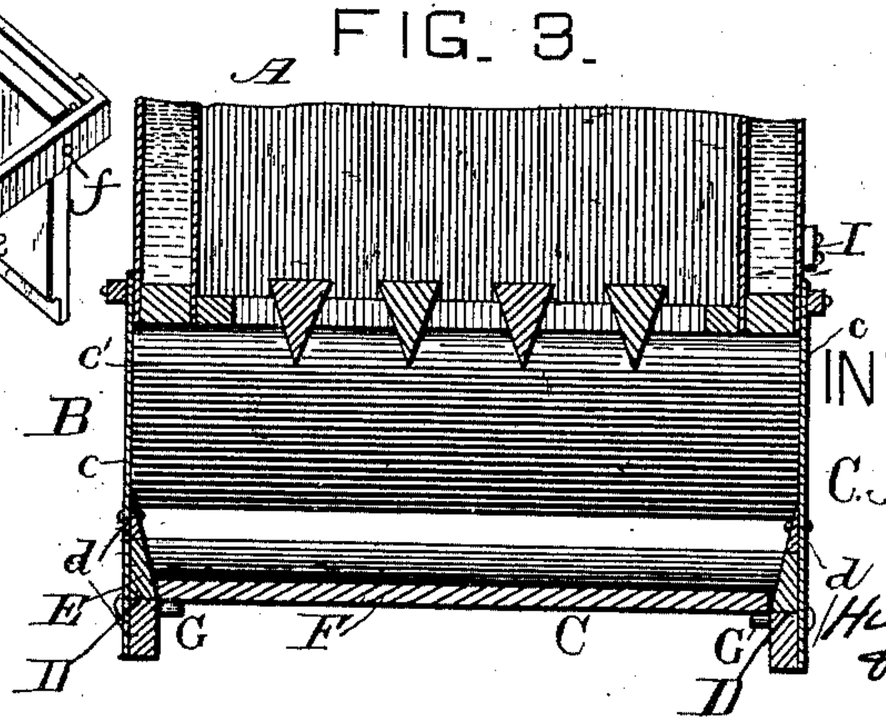


FIG. 3.



ATTEST

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INVENTOR

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By
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UNITED STATES PATENT OFFICE.

CHARLES J. W. JOHNSON, OF TEMPLE, TEXAS, ASSIGNOR OF ONE-HALF TO T. P. SELF AND M. D. COFFMAN, OF SAME PLACE.

LOCOMOTIVE ASH-PAN.

SPECIFICATION forming part of Letters Patent No. 476,147, dated May 31, 1892.

Application filed February 9, 1892. Serial No. 420,913. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. W. JOHNSON, a citizen of the United States, residing at Temple, in the county of Bell and State of Texas, have invented certain new and useful Improvements in Locomotive Ash-Pans; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to ash-pans for locomotive and other fire-boxes; and it has for its object to provide a simple and improved device of this character in which the contents of the pan may be discharged therefrom by a single operation of a controlling-lever.

To this end the invention consists, substantially, in a sliding frame working in guides, a series of slats forming the entire bottom of the pan pivoted to the frame and carried thereby, a lever for operating said frame, and means for sustaining the slats normally in horizontal position, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a vertical longitudinal sectional view illustrating a portion of a locomotive fire-box with my improved ash-pan in position thereunder. Fig. 2 is a top or plan view of the pan. Fig. 3 is a vertical transverse sectional view. Fig. 4 is a detail perspective view.

Corresponding parts in the figures are denoted by the same letter of reference.

Referring to the drawings, A designates the fire-box, under which is suspended the ash-pan B. The latter comprises a carrier-frame C, consisting of side walls or plates *c c*, connected at their ends by plates *c' c'*. The sides are provided at or near their lower edges with horizontal oppositely-located grooves or ways D D. These grooves or ways are preferably formed by a pair of cleats *d d*, secured to each side, the upper cleats of each pair being preferably beveled, as shown, to present an unobstructed surface. Within the grooves or ways is adapted to slide a frame E, which carries the floor of the pan. The frame E is rectangular in shape and composed of two longitudinal bars *e e* and transverse bars *e' e'*, connecting the ends thereof. Disposed between the bars *e* and pivotally secured thereto at equidistant points are a series of transversely-disposed slats F, which constitute the entire floor of the pan. These slats are provided at their ends and near their forward edges with pins or studs *f*, which are received by apertures in the side bars of the sliding frame and form the pivots therefor. By thus pivoting the slats at one side their longitudinal center it will be obvious that when unsupported they will drop down to a vertical position and discharge the contents of the pan.

Normally the slats are designed to be held in a horizontal plane and form conjunctively a tight flooring for receiving the ashes which fall from the fire-box. To accomplish this, inwardly-projecting supports or studs G are provided upon the opposing faces of the sides of the carrier C, said studs being located under the rear end of each slat and serve to support the same.

In order to provide an unbroken surface to the floor, the slats are rabbeted at their opposing edges, whereby said edges are adapted to overlap and bring the surfaces of the slats in a common plane.

For operating the frame a lever H is provided, which is fulcrumed to a horizontal rearwardly-projecting standard I and connected at its lower end to a bar J, projecting from the frame, the free end of the lever being carried to a point accessible to the fireman. In order to prevent the tendency of the sliding frame to vertical play when the lever is operated, the latter may be provided with a slot at its fulcrum-point, as shown, or in lieu thereof the connecting-bar J may be pivotally connected with the frame.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. As before stated, when the pan is closed the slats occupy a horizontal plane, with their rear ends resting upon the supporting studs. When it is desired to dump the pan, the lever is operated to draw the frame rearwardly, by which movement the slats are carried by the frame over the supporting-studs, and as the pivots of the slats pass beyond the vertical plane of the studs the portion of the slats in rear of the pivots, by reason of their greater weight,

fall by gravity to a vertical position, thus allowing the entire contents of the pan to be freely discharged. The pan is closed by a reverse movement of the lever, the slats being raised to a horizontal position in their passage over the supporting-studs.

I claim as my invention—

1. In an ash-pan for locomotive and other fire-boxes, the combination, with a carrier-frame adapted to be suspended under the fire-box and provided upon its sides with horizontally-disposed cleats, forming opposing grooves, of a rectangular frame sliding in said grooves, pivoted gravity-slats carried by said sliding frame, and rigid supports normally retaining said slats in horizontal position, substantially as and for the purpose set forth.

2. In an ash-pan for locomotive and other fire-boxes, the combination, with a carrier-frame open at its top and bottom and provided in its sides with opposing longitudinal grooves, of an open rectangular frame disposed and sliding in said grooves, slats disposed transversely across the sliding frame at equidistant points and pivoted thereto at one side the longitudinal center of said slats, supports rigid with the carrier and adapted to engage the portion of the slats farthest from their pivots, and a lever connected with the sliding frame for operating the latter, substantially as and for the purpose set forth.

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

C. J. W. JOHNSON.

Witnesses:
W. P. O'KELLY,
C. A. BRAND.