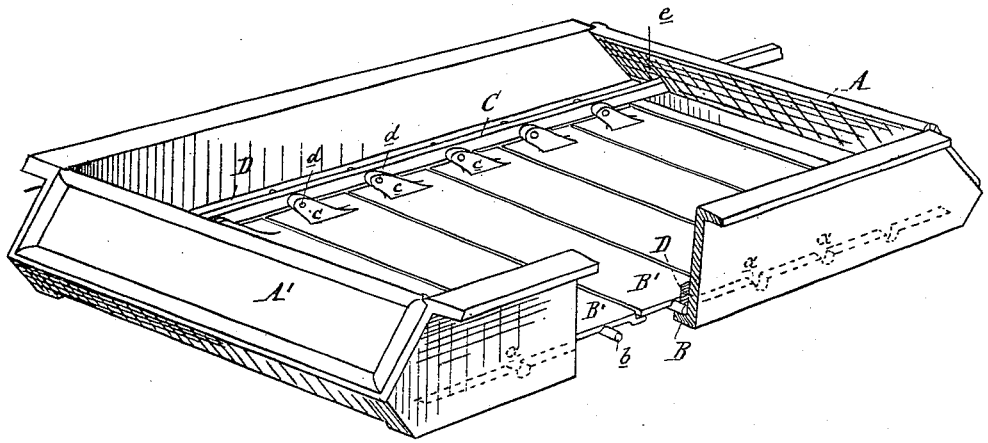
(No Model.)

J. RITCHIE.

LOCOMOTIVE ASH PAN.

No. 262,318. Patented Aug. 8, 1882.



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UNITED STATES PATENT OFFICE.

JAMES RITCHIE, OF DETROIT, MICHIGAN, ASSIGNOR TO HIMSELF AND W. H. D. NEWTH, OF SAME PLACE.

LOCOMOTIVE ASH-PAN.

SPECIFICATION forming part of Letters Patent No. 262,318, dated August 8, 1882.

Application filed March 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES RITCHIE, of Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Locomotive Ash-Pans; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which forms a part of this specification.

The nature of my invention relates to certain new and useful improvements in the construction of ash-pans for locomotive fire-boxes, by means of which the ashes therein may be readily dumped at will from the foot-board of the cab.

The invention consists in the peculiar construction, combination, and operation of the parts, as more fully hereinafter described.

In the accompanying drawing, wherein my invention is shown in perspective with one of the side walls broken out to show more fully the construction, A represents the rear draft-door of the ash-pan. The front end of the pan is provided with a similar draft-door, A′, except that it is not slotted like the door A. A ledge, B, is secured to the lower edge of each of the side walls of the ash-pan, and at suitable distances apart there are formed in the upper edges of these ledges recessed bearings *a* to receive the pintles or journals *b* of the slats B′, which form the bottom of the ash-pan. These slats are centrally supported upon their bearings, and are so arranged that when closed the forward edge overlaps the rear edge of the next slat in front, which is rabbeted out to allow the upper surface of all the slats when closed to form a tight and flat bed; or the same result is attained by casting the rear edge of each slat with an offset. Near one end of each slat there is cast or otherwise rigidly secured an upwardly and forwardly projecting lug, *c*, and near the top of each of these lugs there is cast or otherwise rigidly secured an outwardly-projecting pin, *d*. A rod, C, is provided with equidistant holes to engage with the pins *d*, as shown. The rear end of this rod passes through the slot *e* in the rear draft-door—a necessity in my construction, as the slat-operating devices above described are inside the ash-pan. The projecting end of this rod may be connected by any known mechanical device or lever with the cab, so as to enable the operator to discharge the ashes through the slats opened by the reciprocation of the rod. A bar, D, is secured, one on each side, by bolts and nuts or other devices, which will allow the bar to be readily removed. These bars are placed on top of the ledges to prevent the journals of the slats from accidental displacement, and they are made removable to readily allow the slats to be placed or replaced, should one be broken. My slats, when open, are so nearly balanced that the current of air will close them when the locomotive is advancing at its ordinary speed.

The operating parts of my device all being inclosed within the ash-pan are beyond the action of the elements, which, if such operating parts were outside, would frequently cause ice and snow to interfere with the successful operation of the device.

The weight and position of the lugs *c* are important factors in the successful operation of my improvement. These lugs are cast or otherwise rigidly secured upon the upper face of the slats, with the toe of the base immediately above and in line with the pivotal bearings of the slats, and the heel of the base in front of said pivotal line, with the body of the lug inclining toward the front edge of the slat, and with the top of the lug nearly in a line vertical to the front edge of the slat. Thus while the lugs are the means with the rod for opening the slats they are counter-balances to assist in closing the slats and holding them in position.

I am aware that locomotive ash-pans with slat bottoms adapted to be opened and closed at will are in use, and that several different constructions of the same have been patented. Therefore I do not broadly claim such ash-pan.

I am aware of Patent No. 231,208, and I do not claim the construction shown in said patent.

What I do claim as my invention is—

In a locomotive ash-pan having front and rear draft-doors, the rear door being slotted, as shown, the combination of said slotted rear door, A *e*, with the rod C, the slats B, having central journals, *b*, and forwardly-projecting lugs *c*, and the pins *d*, as and for the purposes specified.

JAMES RITCHIE.

Witnesses:
H. S. SPRAGUE,
E. SCULLY.