A. J. BRODHEAD.

LOCOMOTIVE ASH PAN.

APPLICATION FILED NOV. 16, 1908.

957,142.

Patented May 3, 1910.

2 SHEETS—SHEET 1.

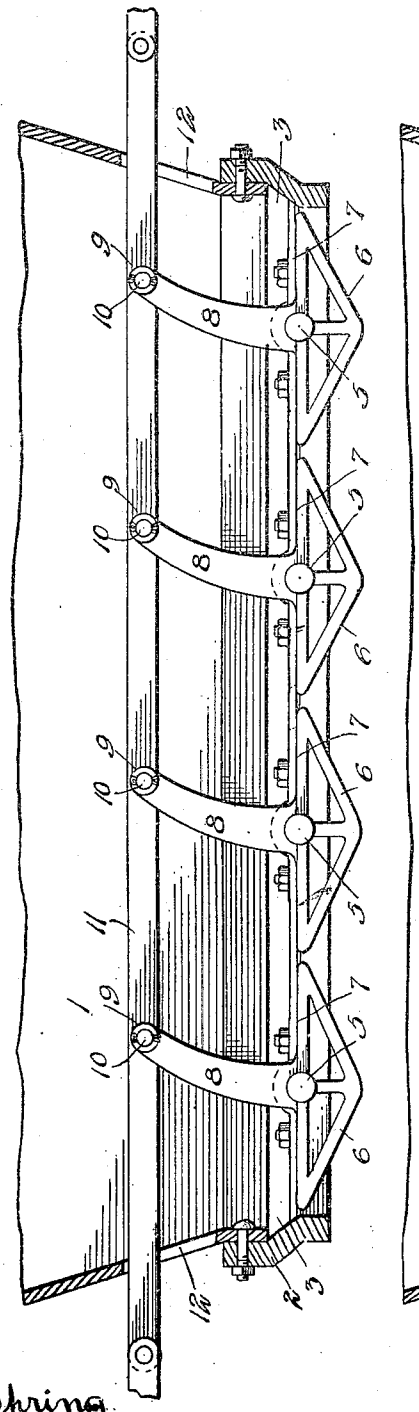

Fig. 1.

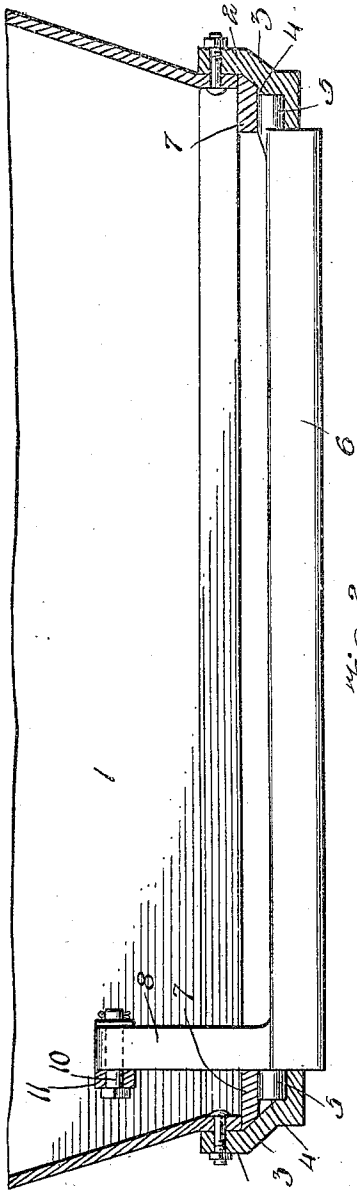

Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

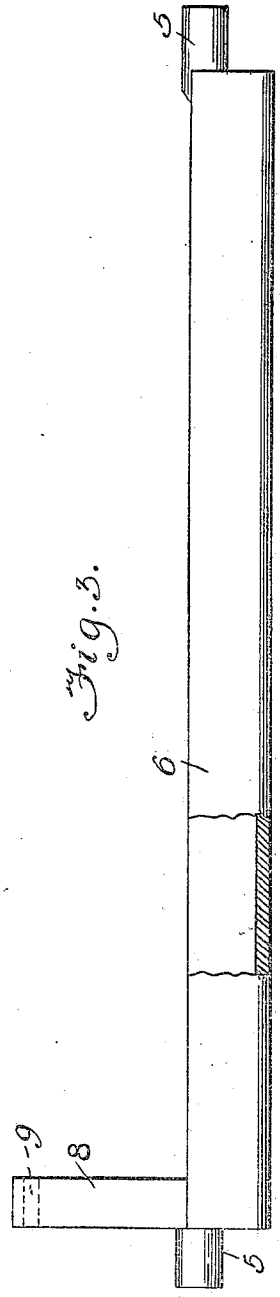



Fig. 5.

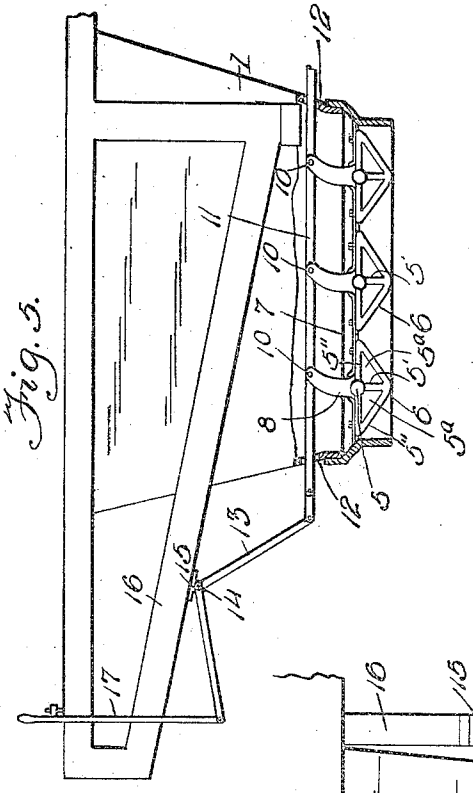



Fig. 6.

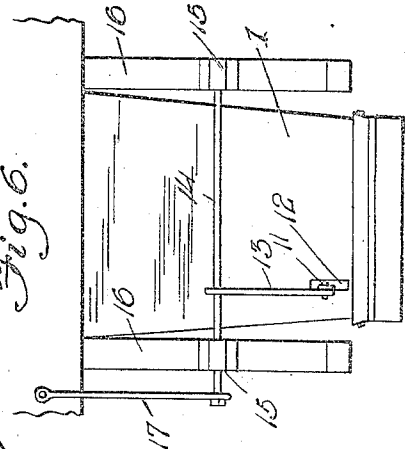
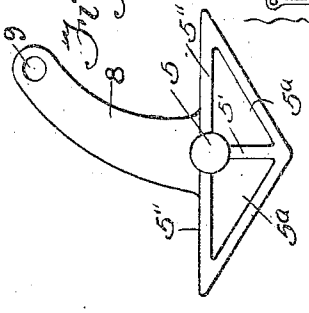



Fig. 4.




WITNESSES

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# UNITED STATES PATENT OFFICE.

ANDREW J. BRODHEAD, OF GREENVILLE, PENNSYLVANIA.

## LOCOMOTIVE ASH-PAN.

957,142. Specification of Letters Patent. Patented May 3, 1910.

Application filed November 16, 1908. Serial No. 462,759.

*To all whom it may concern:*

Be it known that I, ANDREW J. BRODHEAD, a citizen of the United States, residing at Greenville, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Locomotive Ash-Pans, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an improved locomotive ash pan, the main object of which is to provide an ash pan, which can be readily and quickly cleaned without endangering the lives of persons, and at the same time, reduce the labor connected with the present style of pans.

My pan, consists primarily of a series of transversely arranged receptacles, each one of which is V-shaped in cross-section and which are all pivotally mounted in a frame carried at the bottom of the pan. These receptacles are all operably connected to a bar, which in turn is operably connected to a mechanism, by means of which all of the receptacles may be tilted, rocked and dumped, the entire action being controllable from the firing portion of a locomotive. My sections or receptacles are also so mounted, that there are spaces or transverse openings between each pair of sections, thus providing a draft and also allowing smaller particles of the products of combustion to sift through these spaces by slightly rocking the sections. These sections are also further made V-shaped in cross section, and have two openings at each end, so that particles may sift through these openings.

To more clearly bring out and illustrate the details of my invention, attention is invited to the accompanying drawings, in which:—

Figure 1 is a longitudinal section through one side of a locomotive ash pan, embodying my invention. Fig. 2 is a transverse section through the same. Fig. 3 is a side elevation of one of the sections or receptacles removed. Fig. 4 is an end view thereof. Fig. 5 is a side elevation of my ash pan as applied to a locomotive, and Fig. 6 is a view taken from the operating end thereof.

Referring to the drawings:—The numeral 1 designates the tapered walls of the pan, which carry at their lower edges the rectangular ring or casting 2, which is bolted to the walls, and is provided with the oppositely and inwardly projecting rims 3, which are each provided with the alined pockets or recesses 4, in which are mounted the journals 5, of the sections or receptacles 6. These sections 6, as shown in Figs. 2 and 4, are V-shaped in cross-section, and have the journals 5, connected to their ends through the medium of the vertical grids 5′, and the horizontally arranged grids 5″. By this means two openings $5^a$, are formed at the ends of each section. In order to prevent any upward displacement of these journals 5, and thus properly hold the sections or receptacles 6, in proper position in their recesses, I employ the retaining strips 7. At one side of each of the sections, is provided the upwardly projecting and slightly curved arm or lever 8, which is provided with an opening 9. By this means the studs or bolts 10, pivotally secure all of the levers 8, to the longitudinal bar 11, which projects through the openings 12, in the end walls of the ash pan, and is pivotally connected to the lower end of the arm 13, which is carried upon the shaft or bar 14, which is journaled in the boxes 15, carried upon the frame 16, of the locomotive. By operating the lever 17, the bar 14 is turned, moving the arm 13, and thereby pulling upon the bar 11, which in turn tilts or rocks the sections or receptacles 6, and thus shakes down the ashes or dumps them from the pan. It will thus be seen that by a slight rocking motion of the sections, that small particles will sift through the transverse spaces between the sections 6, and that also some will sift through the openings $5^a$.

What I claim, as new, is:—

1. A locomotive ash pan, comprising tapered walls, a ring detachably carried thereby near their lower edges, said ring having upon opposite sides bearing recesses, a series of sections, V-shaped in cross section, having journals mounted in said recesses and providing transverse spaces between the sec-

tions, means for retaining the journals of the sections in the recesses, and means for operating all sections in unison.

2. An ash pan having a sectional tilting bottom, each section of which comprises a body V-shaped in cross section having a vertical grid and two oppositely extending grids at each end, and a journal stud into which all grids converge and form a support for each end of the section, said grids also forming two openings in the ends of each section, as and for the purpose set forth.

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

ANDREW J. BRODHEAD.

Witnesses:

E. W. BISHOP,

D. O. MCMILLAN.