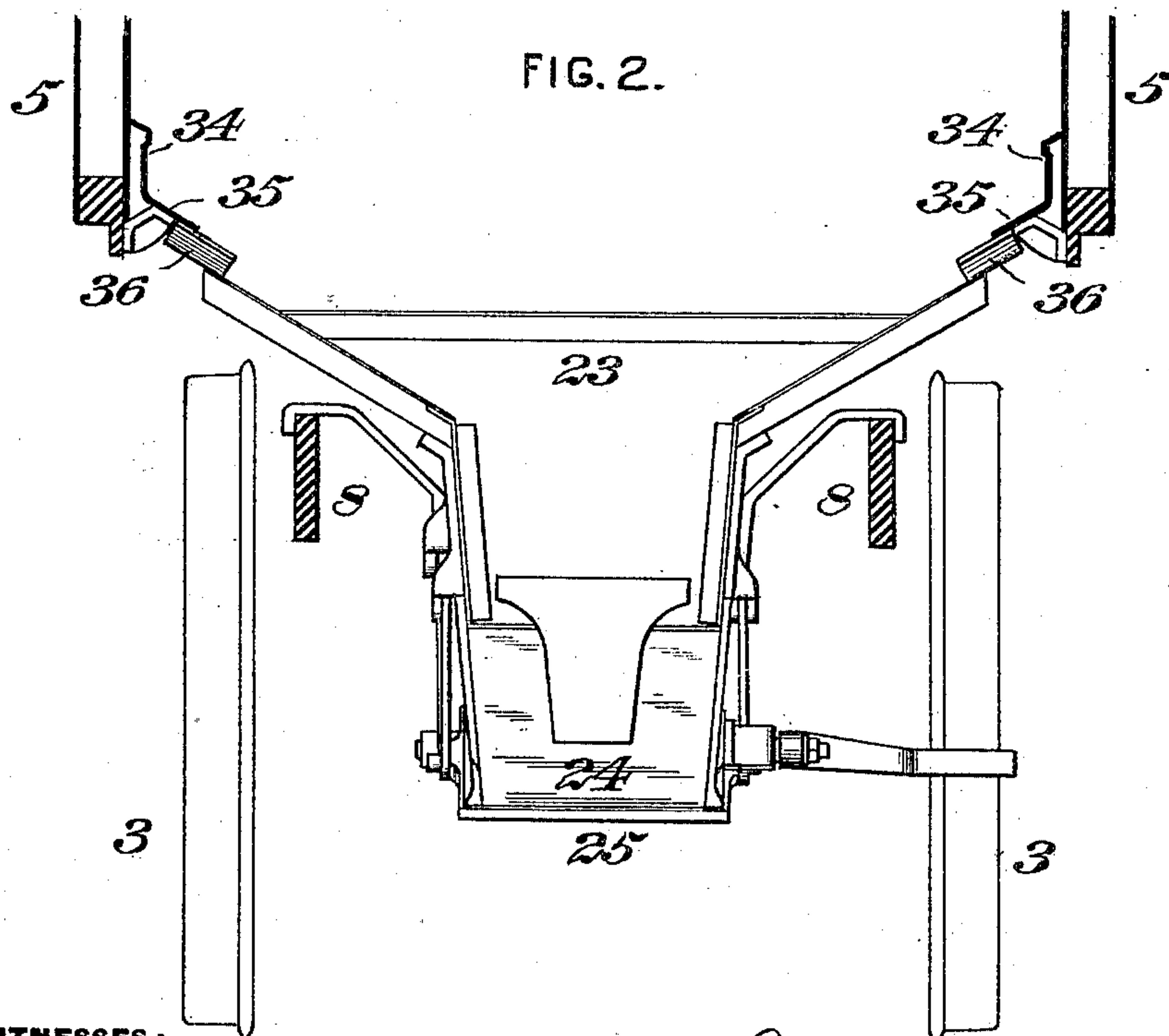
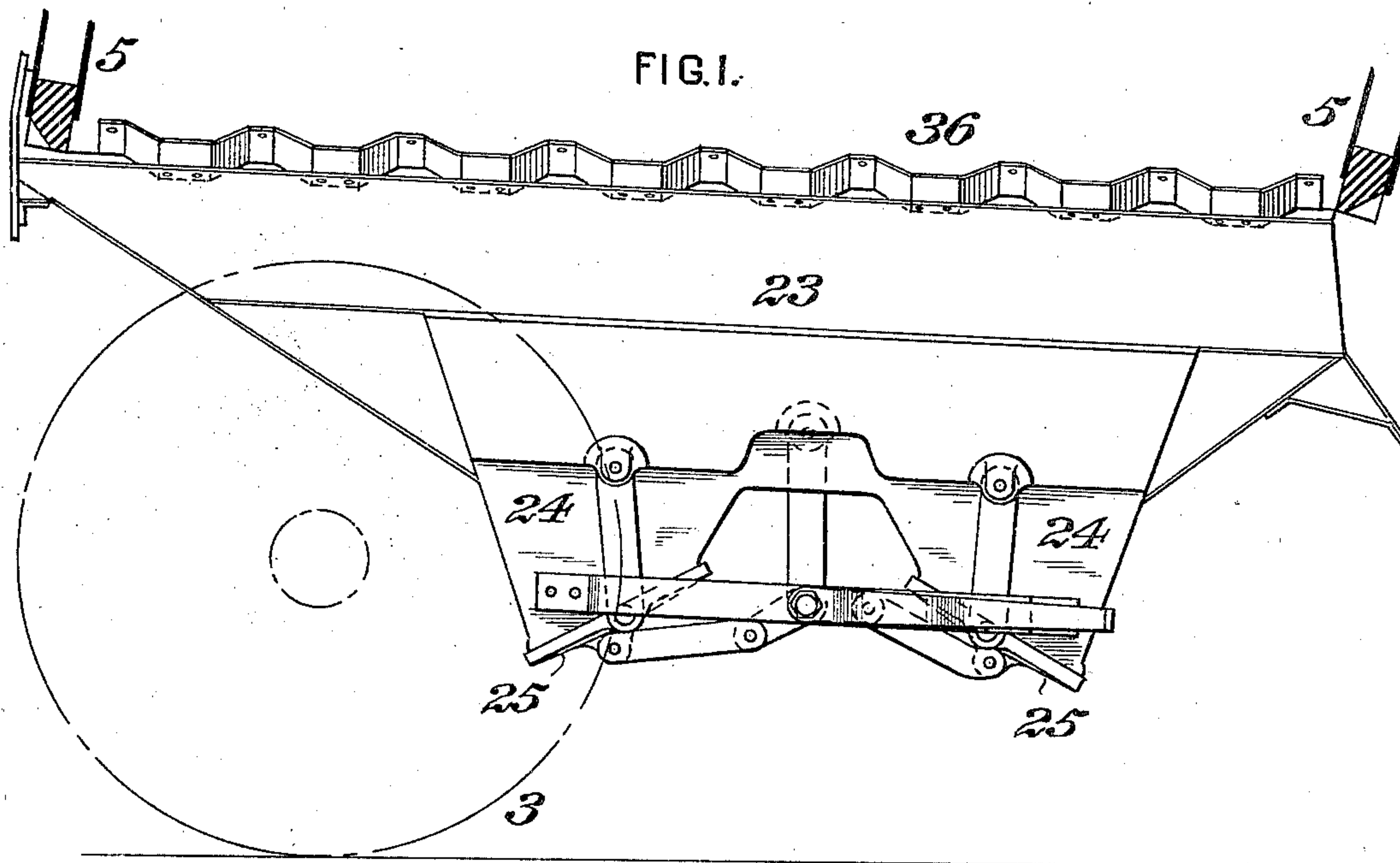


No. 696,486.

Patented Apr. 1, 1902.

J. PLAYER.
LOCOMOTIVE ASH PAN.
(Application filed Nov. 7, 1901.)

(No Model.)



WITNESSES:

James C. Herron.
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INVENTOR,

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Att'y.

UNITED STATES PATENT OFFICE.

JOHN PLAYER, OF CHICAGO, ILLINOIS, ASSIGNOR TO AMERICAN LOCOMOTIVE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

LOCOMOTIVE ASH-PAN.

SPECIFICATION forming part of Letters Patent No. 696,486, dated April 1, 1902.

Application filed November 7, 1901. Serial No. 81,478. (No model.)

To all whom it may concern:

Be it known that I, JOHN PLAYER, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful
5 Improvement in Locomotive Ash-Pans, of which improvement the following is a specification.

My invention while more particularly designed for application in connection with locomotive-boilers of the wide or widened fire-box type is likewise and equally applicable
10 to those having narrow fire-boxes; and its object is to provide an ash-pan which shall present the characteristic features of a comparatively large receptacle for ashes and other
15 residuum from the fire-box and air-admission passages of ample capacity, through which the proper supply of air to the grate may be effected with as little tendency as practicable
20 to the maintenance of combustion in the residuum contained in the ash-pan.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawings, Figure 1 is
25 a side view in elevation of a locomotive ash-pan, illustrating an application of my invention, with the front and back water-legs of the fire-box in section; and Fig. 2, a rear view in elevation of the same with the side water-
30 legs of the fire-box in section.

My invention is herein illustrated as applied in connection with a wide fire-box 5, which is located above a pair of trailing wheels 3. The upper section or body 23 of the ash-
35 pan, which is formed of sheet or plate metal and connected to the fire-box in the usual manner, is inwardly and downwardly tapered, so as to clear the wheels 3 and frame 8 of the engine and to direct the ashes and other re-
40 siduum which drop into it from the superposed grate toward its middle portion. The lower section of the ash-pan, which is preferably made of cast metal, is in the form of one or more hoppers or discharge-chutes 24, two
45 being shown in this instance, each of which is open at top to the upper section and has an inclined bottom, in which there is formed a cleaning or discharge opening preferably
50 extending throughout the full distance between the side and the end walls of the hop-

per and closed by a discharge-door 25, which is fitted to abut against and make a tight joint with the walls of the hopper around the discharge-opening.

The discharge-doors are in this instance 55 shown as suspended upon the sides of the hoppers in such manner as to be automatically closed and maintained in contact with the bottoms thereof by gravity and are provided with means for manually opening them 60 for the discharge of residuum from the ash-pan, as may from time to time be required. This construction does not, however, constitute any part of my present invention and is the subject of a separate application for 65 Letters Patent filed by me of even date herewith, Serial No. 81,477.

The side sheets of the upper section or body 23 of the ash-pan are secured in any suitable manner, as by bolts or rivets, to the side 70 bearers or grate-supports 34, and in this instance said grate-supports are shown as provided with integral downward extension-plates 35, which constitute, operatively, the upper portions of the side walls of the ash- 75 pan and may, if preferred, be made integral therewith and be detachably secured to the grate-supports. A separator 36 is interposed between and connected at its upper and lower edges to each of the extension-plates 35 and 80 the upper edge of the adjacent side sheet of the ash-pan. The separators 36 are provided for the purposes of dividing the upper portions of the sides of the ash-pan into separate but connected sections, of forming air-ad- 85 mission passages in said upper portions, and of preventing the escape of ashes by deflecting them toward the middle of the ash-pan. In the specific embodiment of the invention shown herein the separators are in the form 90 of plates which are inclined correspondingly with the extension-plates and side sheets and are bent or curved transversely into a plurality of corrugations or alternate elevations and depressions, which constitute channels or 95 passages for the admission of air to the lower side of the grate, these channels being downwardly and inwardly inclined, and therefore not presenting avenues for the egress of ashes or other residuum which may fall on the sepa- 100

rators from the grate, such solid matters being deflected by the inclined surfaces of the separators to the connected portions of the side sheets and along the same to the middle
5 portion of the ash-pan. The residuum deposited in the ash-pan rests thereon entirely below the air-passages, and not being subjected to the action of the currents of air entering through the same tendency to maintain combustion in said residuum and the resultant deteriorating action on the ash-pan
10 are fully obviated.

The specific form of the separators employed is not an essential of my invention
15 and structural variations of the same may be made in the discretion of the constructor without departure therefrom. The leading and characteristic features of a separator embodying my invention are that it shall be
20 located as near as practicable to the top of the ash-pan and form a portion of an upper wall thereof, that it shall form or inclose an air-admission passage or passages, and that it shall be of such construction as to prevent the
25 egress of material from the ash-pan through said passage or passages. These ruling conditions may be complied with under modifications of form and detail which will readily suggest themselves to those skilled in the art.
30 Thus, for example, in lieu of bending or corrugating the plate of the separator it may be provided with one or more inclined slats or wings in the manner of the devices known as
35 ing apparatus.

I claim as my invention and desire to secure by Letters Patent—

1. In a locomotive ash-pan, the combination of a body which is open at its top and adapted to be connected thereat to a fire-box, a
40 door or slide controlling a discharge-opening in the lower portion of the body, and a separator, forming a portion of the wall of the body adjacent to the top thereof, and provided with one or more air-admission pas-
45 sages having walls located in position to prevent the egress of solid matter.

2. In a locomotive ash-pan, the combination of a body which is open at its top and adapted to be connected thereat to a fire-box, a
50 door or slide controlling a discharge-opening in the lower portion of the body, and a separator, forming a portion of the wall of the body adjacent to the top thereof, and provided with one or more inwardly and down-
55 wardly inclined air-admission passages.

3. In a locomotive ash-pan, the combination of a body which is open at its top and adapted to be connected thereat to a fire-box, a
60 door or slide controlling a discharge-opening in the lower portion of the body, and a separator, forming a portion of the wall of the body adjacent to its top, said separator being inwardly and downwardly inclined and bent or corrugated transversely to form one or
65 more air-admission passages.

JOHN PLAYER.

Witnesses:

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EVA B. JUDD.