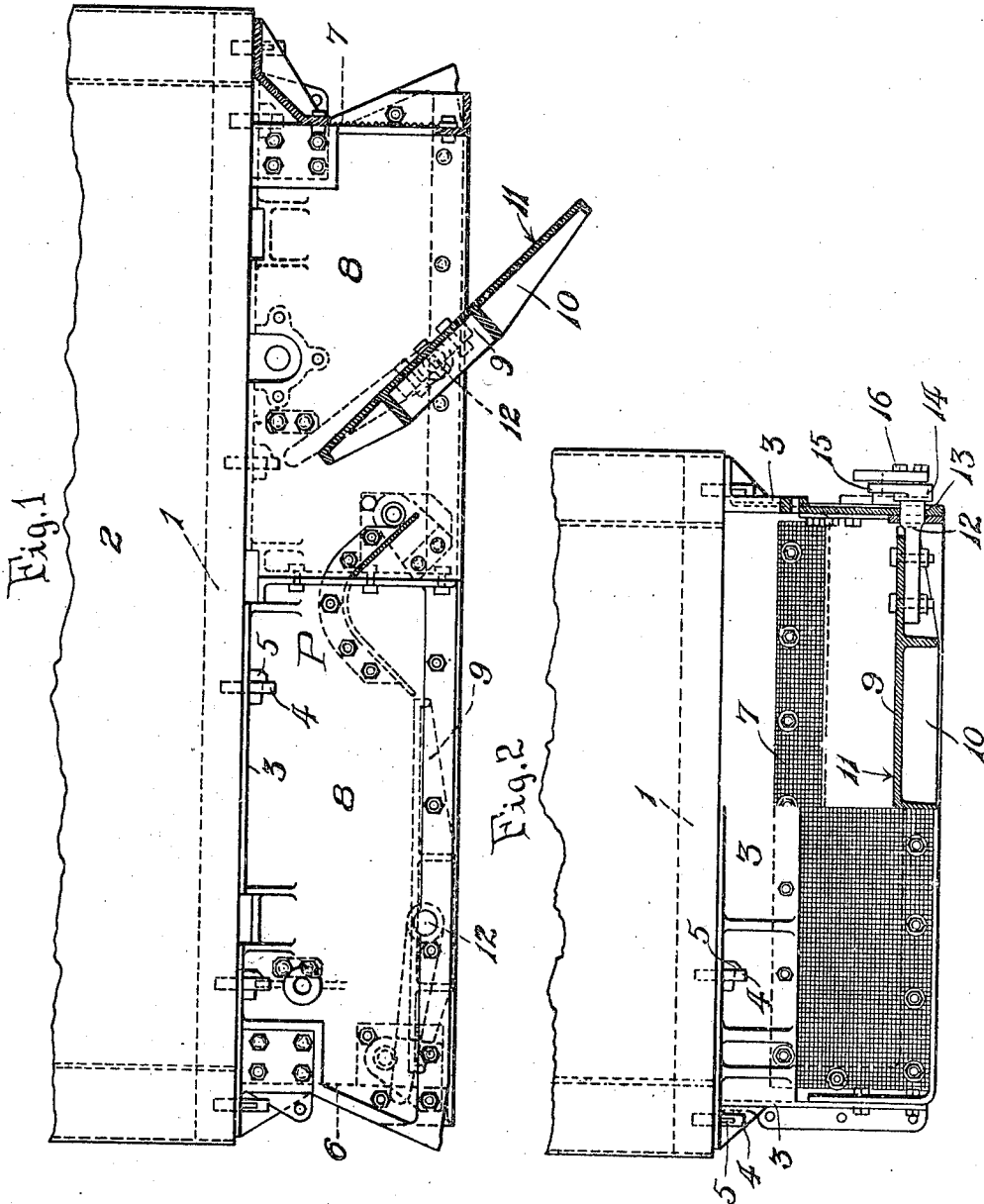


H. A. HOKE.
LOCOMOTIVE ASH PAN.
APPLICATION FILED MAY 25, 1909.

949,017.

Patented Feb. 15, 1910.

2 SHEETS—SHEET 1.



Witnesses

Walter Kelly
Samuel L. Giff

Inventor

Harry A. Hoke

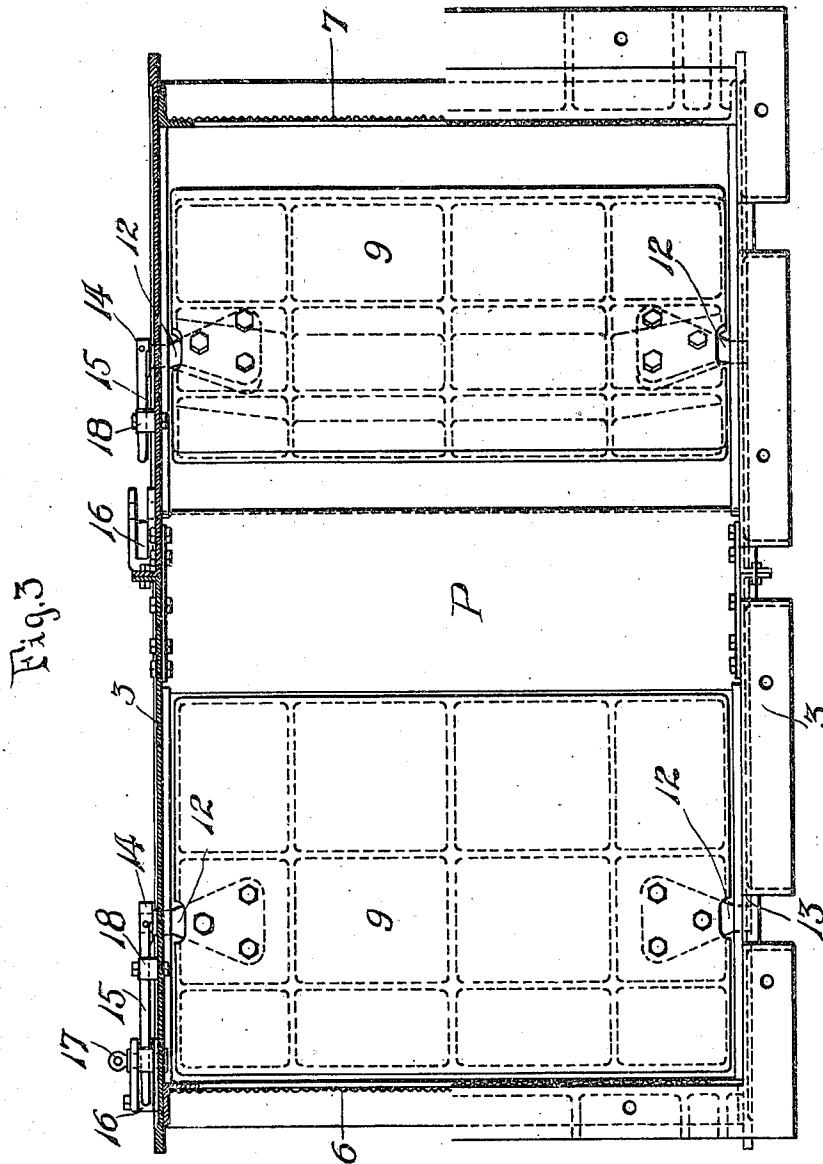
By

N. E. Lee

Attorney

949,017.

2 SHEETS—SHEET 2.



Harry A. Hoke

Walter Kelly

Emory Croff.

ಪೆಚ್

N. E. Gee Attorney

UNITED STATES PATENT OFFICE.

HARRY A. HOKE, OF ALTOONA, PENNSYLVANIA.

LOCOMOTIVE ASH-PAN.

949,017.

Specification of Letters Patent.

Patented Feb. 15, 1910.

Application filed May 25, 1909. Serial No. 493,144.

To all whom it may concern:

Be it known that I, HARRY A. HOKE, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Locomotive Ash-Pans, of which the following is a specification.

This invention relates to the subject of locomotive equipment and, particularly, to ash receptacles or pans of the self-cleaning type and designed to be operated at points where the ordinary ash pits are located.

To this end the invention contemplates a simple and practical locomotive ash pan construction wherein the usual and conventional pivotal drop doors are dispensed with, and the entire receptacle bottom utilized as a dumping drop door to provide for the automatic and complete discharge of the material.

A further object of the invention is to provide a construction which admits of the ash receptacle or pan being attached directly to the foundation ring of the locomotive boiler.

Other objects will readily appear to those familiar with the art as the invention is better understood, and the essential features of the latter are susceptible to structural modification without departing from the spirit or scope of the invention.

In the embodiment of the invention shown in the accompanying drawings, Figure 1 is a sectional elevation of a locomotive ash pan embodying the present invention, and showing one of the bottom dumping plates or doors in its opened position, the other door being illustrated by dotted lines in its closed position. Fig. 2 is a sectional end elevation of the parts shown in Fig. 1 of the drawing. Fig. 3 is a sectional plan view of the improved pan and its dumping bottom plates or doors.

Like references designate corresponding parts in the several figures of the drawings.

According to the present invention, the ash receptacle or pan is designated in its entirety by the reference character P. This receptacle or pan is constructed of suitably assembled castings or plates and is preferably designed to be attached directly to the foundation ring 1 of the locomotive boiler furnace 2. This may be provided for in a practical manner by constructing the ash pan or receptacle with side castings 3 which

directly abut against and fit the said foundation ring 1 and receive a plurality of stud bolts 4 carried by the foundation ring and having eyes therein to receive suitable locking keys 5, although it will be understood that other equivalent mechanical means may be utilized to effect this fastening connection between the body of the ash pan and the foundation ring of the boiler furnace. However, it is to be noted that this direct fastening connection between the pan and said foundation ring provides an air-tight joint between the latter and the former which is very desirable and necessary in order to promote perfect combustion by means of the front and back dampers 6 and 7, which in the form of construction illustrated are preferably made of wire netting.

In the construction shown the ash receptacle or pan P may be provided with one or more dump compartments 8, each of which is confined between the side castings or plates of the pan body, and each of which is designed to be covered and uncovered at its bottom by a swinging dumping bottom plate 9. The said bottom plate 9 for each compartment constitutes the drop door for such compartment and the same is of a size co-extensive with the open bottom of the compartment so that when the door is swung to an opened position the entire compartment is uncovered and thus free to completely and rapidly discharge its contents.

Each swinging dumping bottom plate 9 preferably consists of a reinforced casting presenting a ribbed formation 10 at its under side and a flat upper face 11, which latter forms the bottom surface of the receptacle compartment when the door is closed, and one of the distinctive features of the present invention resides in fitting each of the plates 9 at the ends thereof with the oppositely located pivot journals 12 which are freely journaled in bearings 13 provided at the sides of the pan body. Also the opposite pivot journals 12 of each plate 9 are arranged eccentrically, that is, in a plane at one side of the longitudinal center of the plate, thus economizing in the space required for the complete dumping movement of the plate and at the same time providing for a quick and automatic opening thereof under the load of the pan contents when the door is released. To provide for holding each of the dumping bottom plates in its closed position the pivot journal 12 at one end of each

plate has fastened thereto, as at 14, one end of a holding lever 15, the free end of which lever is adapted to be secured temporarily by a locking device consisting of a stationary
5 keeper casting 16 and a securing pin 17 detachably fitted in said casting over the free end of the lever when the door is in its closed position. A fixed stop 18 arranged in the
10 path of movement of each lever 15 serves to arrest the same when the dumping bottom plate or door reaches its full dumping position shown in Fig. 1.

From the foregoing it is thought that the construction, operation and advantages of
15 the herein described locomotive ash pan will now be readily understood without further description, and in this connection it is to be noted that while the present arrangement
20 shows only two drop bottom doors, there is nothing that would prevent the construction

of an ash pan wherein any number of the doors may be used should other structural features permit.

I claim:—

In a locomotive ash pan, the pan body 25 having an open bottom, a vertically swinging dumping bottom plate arranged within said open bottom and provided with eccentrically disposed pivot journals journaled in the sides of the pan body, a holding lever 30 rigidly fitted to one of said pivot journals, a releasable locking device for the free end of said lever, and a fixed stop arranged in the path of movement of said lever.

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

HARRY A. HOKE.

Witnesses:

ISAIAH SCHEELINE,
N. E. GEER.