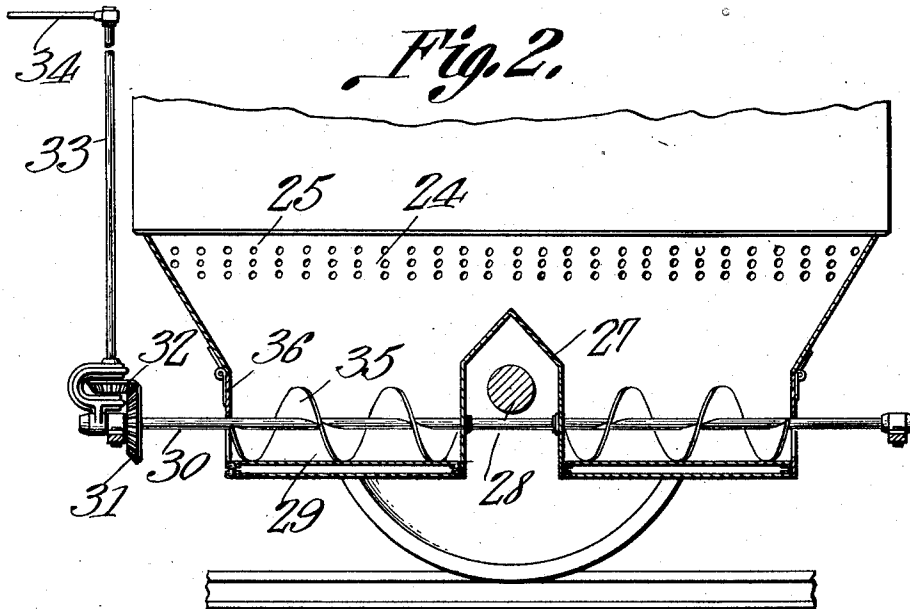
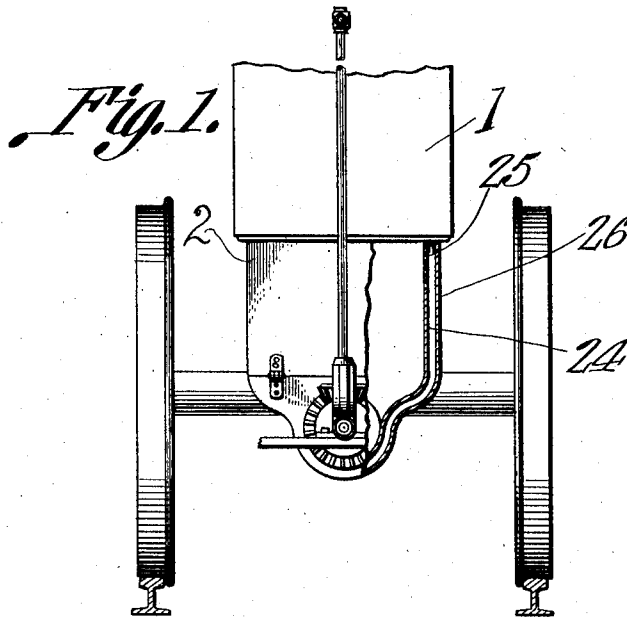


M. HANNA, JR.  
 ASH PAN.  
 APPLICATION FILED JUNE 28, 1910.

1,003,402.

Patented Sept. 12, 1911.



Witnesses

*J. Bonley*  
*Hubert Lawson*

*Mike Hanna Jr.,*

Inventor

by *Chas. Snow & Co.*  
 Attorneys

# UNITED STATES PATENT OFFICE.

MIKE HANNA, JR., OF EARLINGTON, KENTUCKY.

ASH-PAN.

1,003,402.

Specification of Letters Patent.

Patented Sept. 12, 1911.

Application filed June 28, 1910. Serial No. 569,335.

*To all whom it may concern:*

Be it known that I, MIKE HANNA, JR., a citizen of the United States, residing at Earlington, in the county of Hopkins and State of Kentucky, have invented a new and useful Ash-Pan, of which the following is a specification.

This invention relates to ash pans applicable to locomotives, steam rollers and similar motors and contemplates to provide an ash pan having a steam chamber surrounding its ash outlets to prevent the same from becoming choked with snow and ice; to provide an ash pan having its ash outlets arranged in the most advantageous manner to promote the discharge of the entire contents of the ash pan at each dumping operation; to provide an ash pan having a rotary ash conveyer that will simultaneously deliver the ashes to the ash outlets at each end of the ash pan to facilitate the dumping of the ashes in a minimum amount of time.

To this end the invention consists in the novel details of construction and combination of parts hereinafter more fully described and claimed, it being understood that various minor changes in the details of construction may be made within the scope of the appended claims without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a view partly in end elevation and partly in transverse section, of the ash pan and its operating mechanism. Fig. 2 is a central longitudinal section through the parts shown in Fig. 1.

Referring to the figures by characters of reference, 1 designates a portion of the fire box of a locomotive and the pan 2 is arranged directly thereunder. The side walls 24 of the pan are formed with apertures 25 whereby, should it be desired to extinguish fire within the ash pan, water may be admitted from any suitable source to the space between the walls 24 and a jacket 26 which is arranged along the sides and bottom of the pan. From this jacket the water will flow inwardly through the openings 25 and onto the ashes. The pan is provided with a central arch 27 adapted to straddle the axle 28 and separate ash receiving compartments 29 are thus formed. The shaft 30 extends longitudinally through these compart-

ments and under the axle 28 and has a gear 31 upon one end portion thereof and adapted to be shifted, in any desired manner, to mesh with an actuating gear 32 secured to an upwardly extending shaft 33. This shaft may be extended to any point where it is in convenient reach of a person upon the engine and may have a handle 34 or the like to facilitate the rotation thereof.

Worm conveyers 35 are arranged upon the shaft 30 and within the respective compartments 29, the two conveyers being oppositely pitched so that, when the shaft is rotated in one direction, said worms will operate to simultaneously shift the ashes from their respective compartments and in opposite directions beyond the outer ends of the compartments. These outer ends are normally closed by pivoted doors 36 adapted to swing open when the ashes are forced there-against.

By referring particularly to Fig. 2, it will be seen that the outer ends of the conveyers 35 prevent ashes from banking up against the doors 36 and opening them while the shaft 30 and the conveyers are at rest.

It will be seen that when the shaft 33 is rotated by means of the handle or lever 34, the conveyers will be operated to shift the ashes from the pan. If preferred, any suitable cinder crushing mechanism may be arranged within the pan for the purpose of breaking up the large cinders dropped thereinto.

By referring to Fig. 1 it will be noticed that the ash pan has its sides curved inwardly and downwardly and merging into the rounded bottom of the pan. It has been found that by shaping the pan in this manner warping of the pan is eliminated.

What is claimed is:—

1. An ash pan for locomotives, including separate ash receiving compartments and an intermediate arched portion, outlet openings at the outer ends of said compartments, doors hingedly mounted at their upper ends and normally closing said outlets, a shaft extending longitudinally through the compartments and journaled within said arched portion, oppositely pitched worm conveyers within the respective compartments and revoluble with the shaft, the outer end portions of said conveyers constituting means for preventing ashes from banking against the doors and opening them, and means for ro-

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tating the conveyers simultaneously to shift ashes against the doors and open said doors.

2. An ash pan having a continuous compartment extending throughout the length and height of sides and within the bottom thereof, there being openings in the upper portion of the walls of the pan and communicating with the compartment in the wall, and means for directing fluid into said compartment to discharge it through the

openings into the pan and onto the contents of the pan.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MIKE HANNA, Jr.

Witnesses:

W. L. PHILLIPS,

JESSE PHILLIPS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."