No. 865,582. PATENTED SEPT. 10, 1907.

M. FROESÉ.

ASH SIFTER.

APPLICATION FILED DEC. 22, 1906.

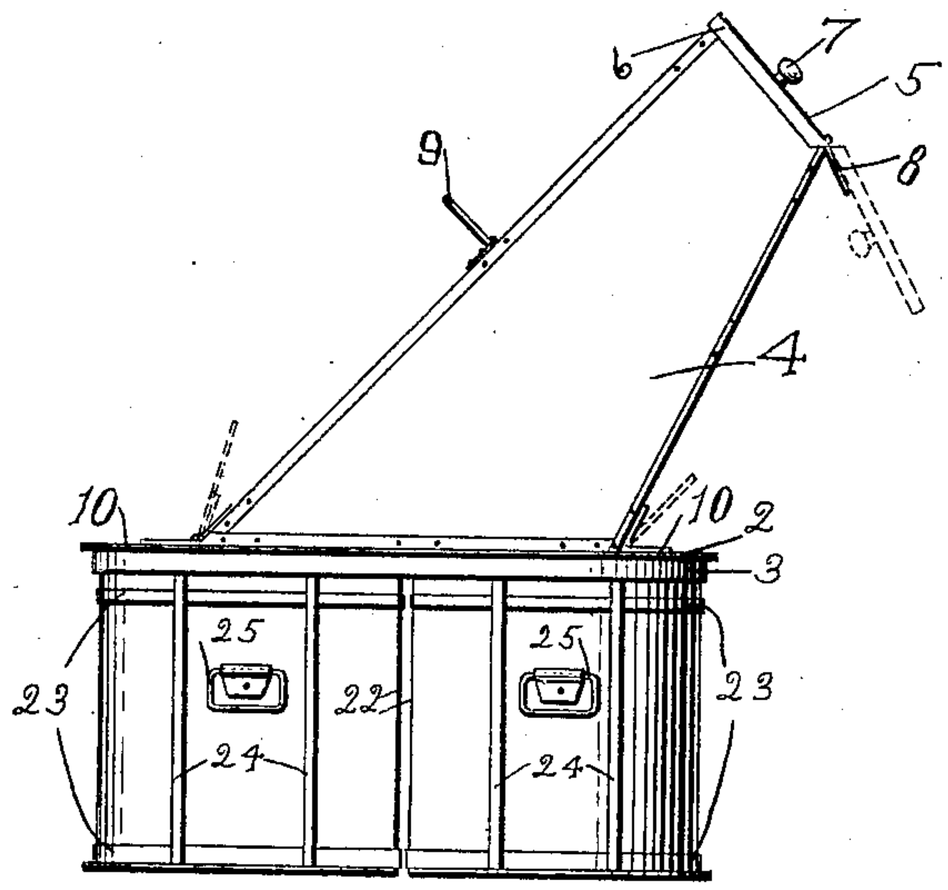

FIG. 1

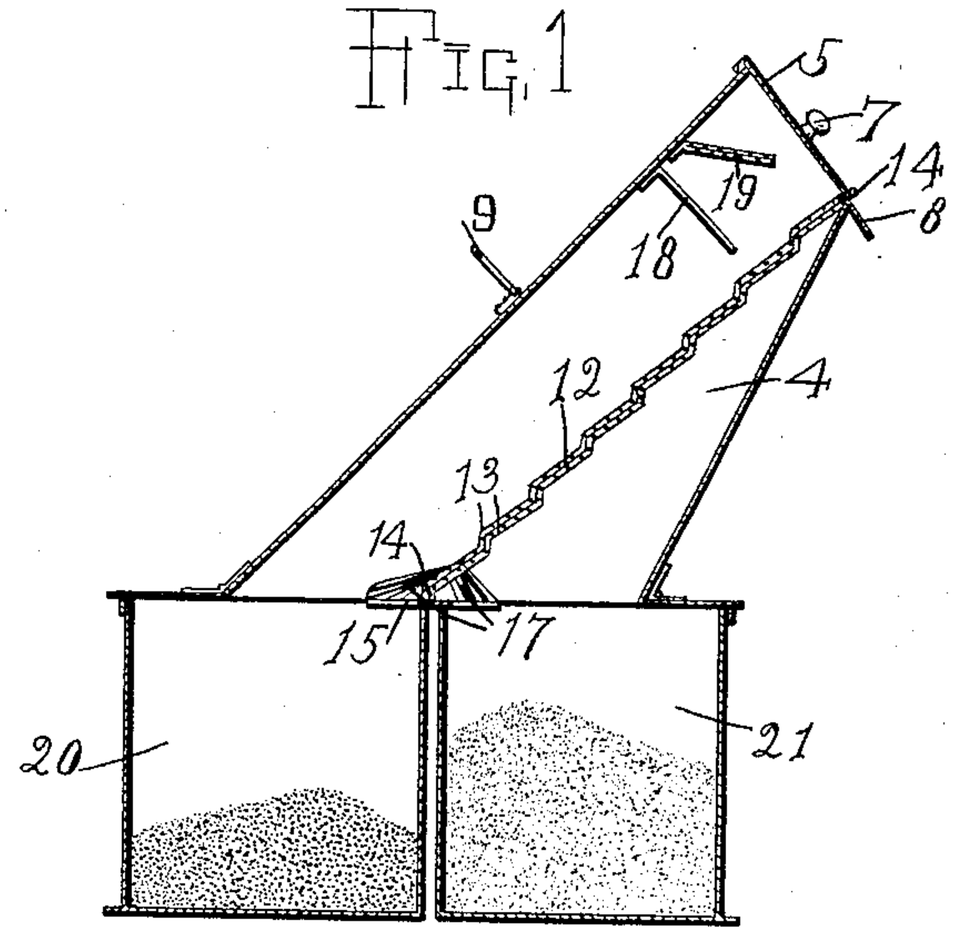

FIG. 2

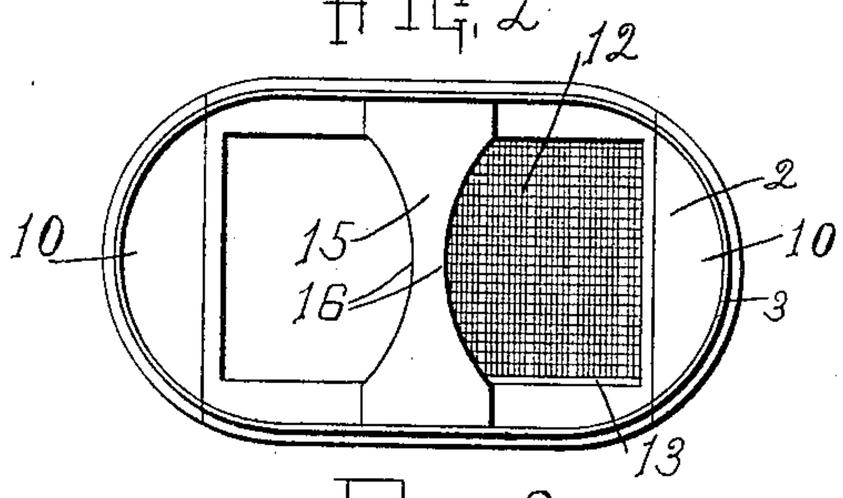

FIG. 3

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UNITED STATES PATENT OFFICE.

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ASH-SIFTER.

No. 865,582. Specification of Letters Patent. Patented Sept. 10, 1907.

Application filed December 22, 1906. Serial No. 349,140.

To all whom it may concern:

Be it known that I, MINNA FROESÉ, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Ash-Sifters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in self-operating ash-sifters.

The object of the invention is to provide a sifter of this character by means of which the ashes deposited therein will be thoroughly separated from the cinders, said cinders and ashes being discharged from the sifter into separate receptacles provided for the same and constructed to receive the sifter in such manner as to prevent the discharge or flying of the dust from the ashes.

A further object is to provide a sifter of this character having means whereby the same may be opened to permit the operator to ascertain when the receptacles are full without the necessity of removing the sifter therefrom.

With the above and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a side view of an ash sifter constructed in accordance with the invention, and showing the same applied to the receptacles for receiving the ashes and cinders separated by the sifter; Fig. 2 is a vertical sectional view of the same; and Fig. 3 is a bottom plan view of the sifter.

Referring more particularly to the drawings, 1 denotes the sifter, consisting of a base plate 2, which is here shown and is preferably oval or elliptical in shape.

On the lower side of the base plate adjacent to its outer edge is arranged a downwardly-projecting flange 3.

The base plate 2 is formed with a centrally-disposed rectangular opening, into which is fitted and secured the lower end of an upwardly-projecting inclined chute 4, which preferably tapers or becomes narrower at its upper end.

The upper end of the chute 4 is closed by a hinged, downwardly-opening door 5 provided around its edges with an inwardly-projecting flange 6 to fit over the upper end of the chute, thereby securely closing the same and preventing the discharge of dust from said end.

The door 5 is preferably provided with a knob 7, by means of which the same may be readily opened or closed.

On the upper edge of the lower side of the chute is arranged a stop plate or flange 8, against which the door 5 rests when in an open position, said flange or plate forming a stop to limit the movement of the door when swung open.

On the front side of the chute 4 is preferably secured a bail-shaped handle 9, which serves to lift the sifter from the receptacle and also serves as a means for hanging or suspending the same upon a suitably arranged hook or nail when the sifter is not in use.

The front and rear ends of the base plate 2 are preferably formed separate from the main body-portion of the base-plate and are hinged at their inner edges to the lower portion of the front and rear sides of the chute, thus forming doors 10, which may be opened to permit the operator to look into the cinder and ash receptacles to ascertain when the same have become filled.

Arranged within the chute 4 is a longitudinally-disposed inclined sifting screen 12, the upper end of which is secured to the inner wall of the rear side of the chute adjacent to the upper end of the same. The screen 12 is preferably bent to form a series of offsets or steps, over which the ashes and cinders fall and which serve to agitate or jar the same, thus assisting in the separation of the ashes from the cinders. The edges of the screen 12 are preferably bound by metal strips 13 and closely engage the inner walls of the sides of the chute. The upper and lower ends of the screen are also bound by metal strips 14, and said lower end thereof preferably rests upon and is secured to the transversely-disposed plate 15 secured at its opposite ends to the under side of the base plate 2 substantially midway between the ends of the opening formed therein. The opposite front and rear edges of the plate 15 are preferably hollowed out or cut away, as shown at 16. The corners of the plate between the central cutaway portion of the same and the opposite end thereof are covered on the front and rear sides of the screen by inclined, triangularly-shaped deflecting plates 17 that prevent the accumulation of ashes or cinders on said corners of said plate 15 and also serve to direct the cinders and ashes toward the center of the receptacles after passing over or through the screen.

On the inner wall of the front side of the chute adjacent to the upper end thereof is arranged a downwardly-projecting deflecting plate 18, in front of which and at a suitable distance therefrom is arranged an upwardly-inclined screen 19. The screen 19 and plate 18 serve as stops to prevent the ashes from being thrown too far into the chute before striking the sifting screen, so that all of the ashes must pass over the entire length of the screen before being deposited into the receptacles at the lower end thereof. The screen 19 serves as an auxiliary separating device, by means of which the ashes and cinders thrown thereon will be partially separated before striking the main sifting screen 12.

When in use, the sifter is adapted to be placed upon suitable receptacles provided to catch the cinders and the sifted ashes discharged from the lower end of the sifter. The receptacles for the sifter are here shown and are preferably in the form of sheet metal cans 20 and 21. These cans are substantially semi-oval or semi-elliptical in shape, the flat sides 22 of the same being adapted to be brought together and when so engaged the two cans form a substantially elliptical or oval support, upon which the base plate 2 of the sifter is adapted to be seated. The flange 3 on the base plate of the sifter serves the double function of holding the two cans together in place and to prevent the escape of the dust from the cans. The cans 20 are preferably of the same size and shape and are interchangeable in their positions beneath the sifter. The can 20 in the present instance is shown beneath the cinder discharge passage of the sifter, while the can 21 is shown beneath the ash discharge passage. The cans 20 and 21 are preferably provided adjacent to their upper and lower ends with metal strengthening bands 23, said bands being connected by metal brace bars 24 that engage the outer sides of the cans, as shown. Suitable handles 25 are secured to the opposite sides of the cans between the bars 24 arranged on the sides thereof.

A sifter constructed as herein shown and described will be self-operating and will thoroughly separate the ashes from the cinders thrown therein. By providing the door 5 and arranging the same as herein shown and described the ashes may be readily deposited into the chute from a hod or other receptacle or thrown therein with a shovel, the deflecting screen and plate in the upper end of the chute preventing the ashes from being thrown too far into the chute before coming into engagement with the sifting screen, as hereinbefore described.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters-Patent, is:—

An ash sifter comprising a pair of vessels having flat meeting side faces, a base plate having a depending marginal flange for engagement with the upper ends of the vessels to bind them in active relation, said base plate being provided with a pair of spaced openings communicating respectively with said vessels, a horizontal division plate extended transversely of the base plate intermediate said openings and having its edges between its ends reversely recessed to provide wide end portions and a narrow intermediate portion, an upwardly inclined chute attached to the base plate with its lower end marginally surrounding said openings, a stepped inclined sifting screen sustained in the casing and having its lower end attached to said division plate on a line between the openings in the base plate, substantially triangular deflecting plates attached to the wide end of the division plate at the juncture of the screen therewith and serving to direct material outward toward the narrow portion of the division plate, a deflecting plate attached to the front wall of the casing at a point near its upper end, and a closure for the front end of the casing.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MINNA FROESÉ.

Witnesses:
JACOB S. STRAHL,
ROBERT STRAHL.