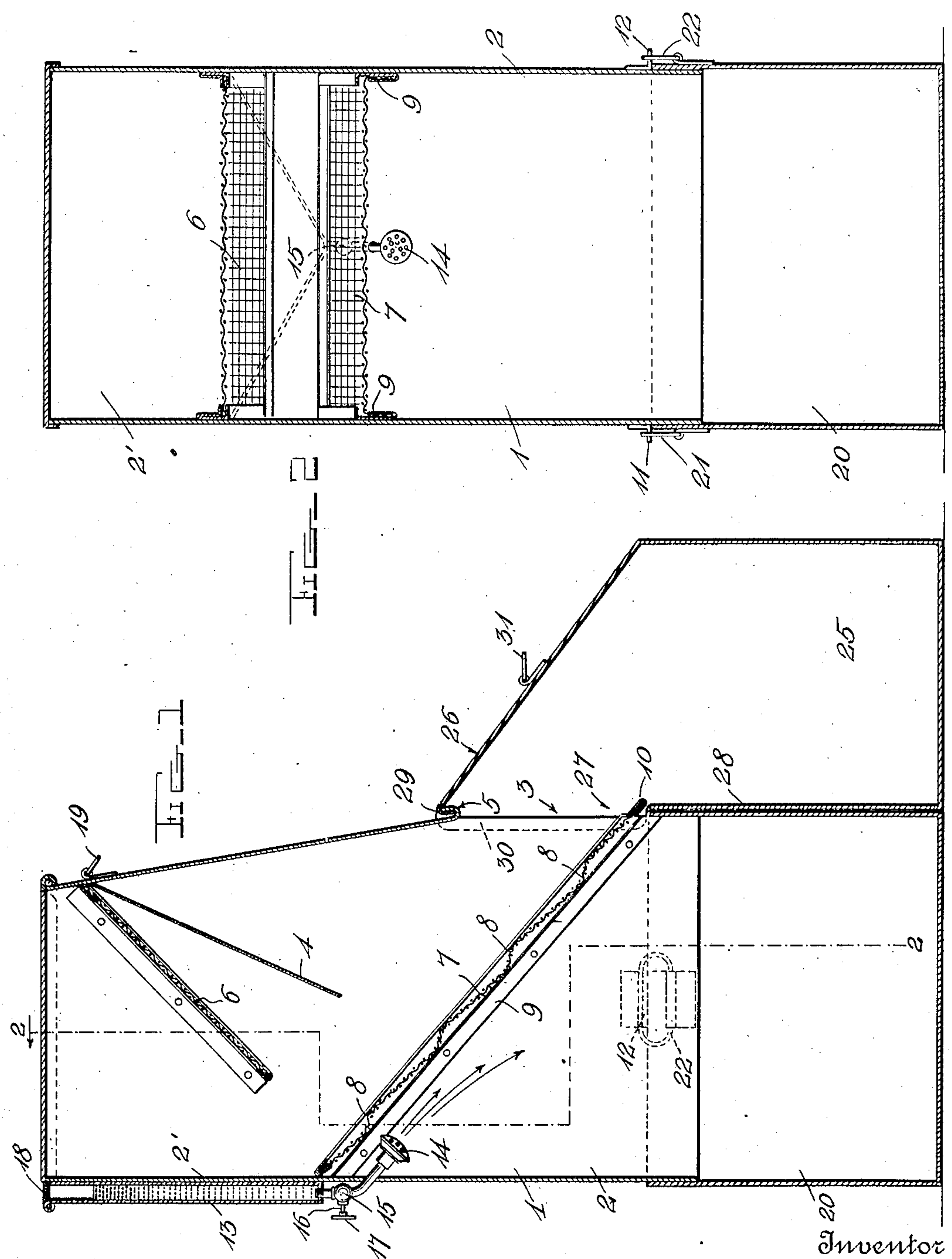


No. 892,952.

PATENTED JULY 7, 1908.

M. FROESE.  
ASH SIFTER.

APPLICATION FILED OCT. 17, 1907.



Witnesses  
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# UNITED STATES PATENT OFFICE.

MINNA FROESÉ, OF NEW YORK, N. Y.

## ASH-SIFTER.

No. 892,952.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed October 17, 1907. Serial No. 397,816.

*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 an improved self-operating ash sifter, and it consists in the construction, combination and arrangement of devices hereinafter described and claimed.

The object of the invention is to provide a simple, cheap, compact, strong and durable ash sifter by means of which the ashes deposited therein will be thoroughly separated from the cinders, and said cinders and ashes discharged from the sifter into separate receptacles provided therefor, and connected with the sifter proper in such manner as to prevent the discharge or flying of the dust from the ashes.

Another object is to so construct the sifter as to enable it to be readily opened to expose the screens and facilitate the cleaning thereof.

Another object is to provide a sifter with means for laying the dust during the sifting operation, so that the ash receiver may be removed and emptied without any dust or ashes flying about.

In the accompanying drawings,—Figure 1 represents a longitudinal vertical section of this improved sifter; Fig. 2 is a cross sectional view thereof, taken at right angles to Fig. 1.

In the embodiment illustrated, the sifter is shown composed of three separably connected members, a sifting member 1, an ash receiver 20 and a coal or cinder receptacle 25.

The sifting member 1 or sifter proper, comprises a casing 2 constructed of any suitable material and in any desired form, preferably of galvanized sheet metal and in the form of an approximately rectangular vessel, open at the bottom and having a hinged lid at the top with one side wall cut out near its bottom to form an opening 3 through which the cinders pass to the receptacle 25. This side wall above the opening 3 is preferably inclined upwardly toward the top, and it is provided on its inner face with a deflecting plate 4, secured along one edge near the top of the receptacle 2 with its free end projecting inwardly to form a spring member for throwing the ashes onto the screen arranged below

it, as hereinafter described. As shown, this plate 4 has its top edge folded over one edge of the top screen member hereinafter described.

The upper edge of the opening 3 is bent upwardly and folded in to form a lip 5 spaced from the outer face of the side wall of the vessel to receive a depending flange on the cinder receptacle 25 for holding the members detachably connected. Arranged within the casing 2 near the upper end thereof and above the deflecting plate 4 is a downwardly inclined screen 6, preferably formed of heavy wire secured at its upper edge to the same side of the casing as said plate 4, preferably by having the upper edge of said plate 4 folded over said screen 6. This screen 6 may be made of any suitable material and secured to the casing in any desired manner, but is here shown constructed of wide mesh heavy screen wire with a metal facing on its sides and bottom, the side facings being preferably bent in L-shaped form, and the upwardly projecting flanges thereof are riveted or otherwise secured to the sides of the casing 2, leaving a suitable space between its lower edge and the opposite side wall of the casing for the passage of cinders. Arranged below said screen 6 in the chute or casing 2 is an oppositely inclined screen 7, extending to a point near the lower edge of the opening 3. This screen 7 is preferably formed of the same material as the screen 6, and is corrugated transversely to form a series of steps, over which the cinders and ashes fall, and which serve to agitate or jar said cinders and assist in the separation thereof from the ashes. The edges of this screen 7 are preferably bound by metal strips, as 9, which closely engage the inner walls of the sides of the chute 2. The lower edge 10 of this screen 7 preferably projects beyond the side walls of the opening 3 for a purpose hereinafter described.

Projecting from the outer faces of the opposite sides of the chute 2 near the bottom thereof are two laterally extending members 11 and 12, designed to support the chute on the ash receiver 20, to serve as handles for lifting it therefrom and as catches for engagement with loops on the ash receiver for holding the chute securely connected with said receiver.

On the wall 2' of the chute 2, to which the upper end of the screen 7 is secured, is preferably arranged a water tank or font 13,



which extends below the top of said screen 7, and is provided at a point below said screen top with a nozzle 14, opening into the chute and designed to spray the falling ashes and lay the dust caused thereby during the sifting operation. This nozzle 14 may be of any desired form, and is provided with a cut-off valve 15, having an operating rod 16, extending through one end of the font and terminating in a handle or knob 17, for operating the valve to open and close the nozzle. This tank 13 is preferably provided with a hinged closure 18 to provide for the filling and cleaning of the tank. A handle loop 19 is preferably attached to the upper end of the casing or chute 2 for lifting and hanging it up when not in use.

The ash receiver 20 is preferably made of the same shape in horizontal section as the chute 2, and slightly larger, to receive the bottom of said chute, which fits in said receiver and is supported by the members 11 and 12 at opposite sides thereof, which rest on the top edges of the receiver. This receiver is provided at opposite sides with two loops 21 and 22, adapted to serve as handles and to hook over the members 11 and 12 for securing the chute and receiver together, as before described.

The cinder receptacle 25, as shown, is made in the form of a scuttle or scoop having a downwardly inclined top 26 and an opening 27 in the front wall 28 thereof extending to the top and having a depending flange 29 arranged along the upper edge of said opening 27 to engage with the lip 5 of the opening 3 in the chute 2.

The opposite sides of the opening 27 are preferably provided with flanges, as 30, extending in the same plane as the side walls of the scoop or scuttle-shaped receptacle 25 to overlap the sides of the opening 3 and form a dust-proof closure therefor. A handle member 31 is preferably attached to the inclined top 26 for lifting and moving said receptacle.

Having described my invention, what I claim is:

1. An ash sifter having a screen arranged therein, and a sprinkling nozzle opening into said sifter below said screen.

2. A self-acting ash sifter having a screen arranged therein, a water font carried by said sifter and having a sprinkling nozzle opening therefrom into said sifter below said screen.

3. A self-acting ash sifter having oppositely disposed, downwardly inclined screens arranged one above the other, one of said screens having a series of steps formed therein, and a sprinkling nozzle opening into said sifter below said screens.

4. A self-acting ash sifter having an inclined screen arranged diagonally therein, a water font carried by said sifter, and a sprinkling nozzle arranged to discharge in a plane parallel with said inclined screen and connected with said font.

5. In a sifter, the combination of a chute open at its top and bottom and having an opening through one of the side walls thereof near its bottom, with an upturned lip at the upper edge of said last mentioned opening, screens arranged in said chute, a closure for said top, and a scuttle-shaped receptacle having a depending flange at the upper edge of the opening therein for engagement with said depending lip whereby said receptacle may be supported by and moved with the sifter.

6. A self-acting ash sifter having oppositely disposed, downwardly inclined screens arranged one above the other, and a water font carried by said sifter and having a sprinkling nozzle opening therefrom into said sifter below said screens.

7. A self-acting ash sifter having oppositely disposed, downwardly inclined screens arranged one above the other, a water font carried by said sifter and having a sprinkling nozzle opening therefrom into said sifter below said screens, and means for regulating the supply of water through said nozzle.

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

MINNA FROESÉ.

Witnesses:

BENJ. G. COWL,  
E. EDMONSTON, Jr.