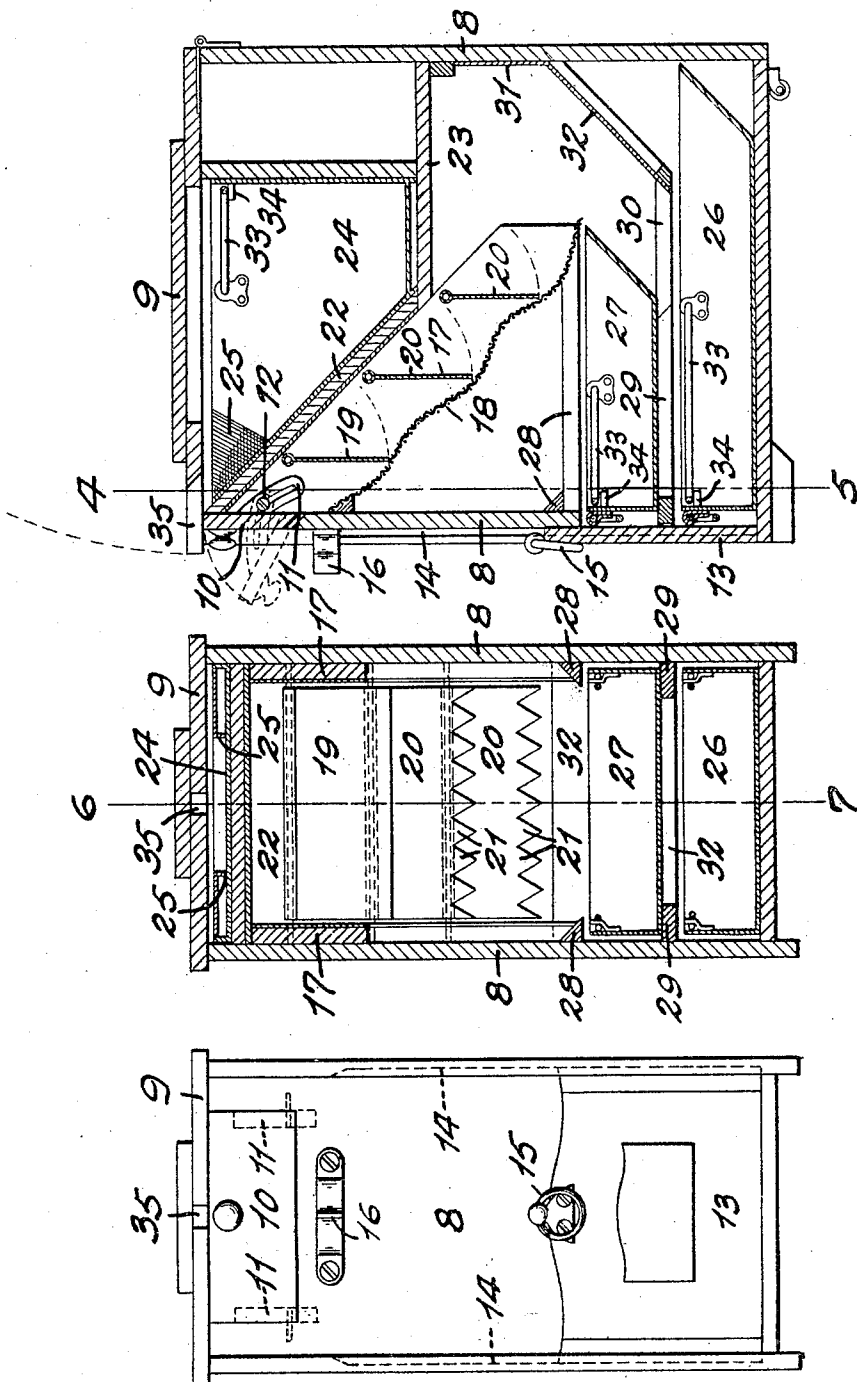


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 AUTOMATIC ASH SIFTER.
 APPLICATION FILED OCT. 29, 1909.

960,591.

Patented June 7, 1910.



WITNESSES
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Specification of Letters Patent.

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Application filed October 29, 1909. Serial No. 525,264.

To all whom it may concern:

Be it known that I, ADOLPH J. SMITH, of the city of Montreal, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Automatic Ash-Sifters, of which the following is a full, clear, and exact description.

My invention relates to a coal receptacle and automatic ash sifter, and the object is to provide a simple, inexpensive, and efficient receptacle for coal, and one in which the ashes and partly consumed coal from a stove or range may be automatically separated by simply placing the ashes therein.

In the drawings which illustrate my invention:—Figure 1 is a front elevation of the device. Fig. 2 is a vertical section on the line 4—5 of Fig. 3 with the screen removed. Fig. 3 is a vertical section on the line 6—7 of Fig. 2.

In the above defined figures, 8 designates the casing having at the top a hinged cover 9. A small outwardly swinging door 10 is provided in the front of the casing immediately under the cover. This door is hinged at the bottom and provided with slotted lugs 11 on the inside thereof, which engage pins 12 in the sides of the casing to limit the movement of the door. A sliding door 13 is located in the front of the casing at the bottom. This door 13 moves in grooves 14 formed in the sides of the casing. A ring handle 15 is provided for the door 13 and is adapted to be passed over a catch 16 in order that the door 13 may be maintained in elevated position when the cinder or ash receptacles are being removed from the casing. An inclined supporting member 17 is secured to the side walls on the inside of the casing. The lower edges of these supporting members are formed into a series of continuous reversed curves and to this curved edge the sifting screen 18 is secured. It will be seen from Fig. 3 of the drawings, that the curvature of the screen 18 will delay the passage of ashes and cinders thereover, thereby insuring a thorough separation of the same.

A gate 19 is pivoted at its upper edge between the members 17 and hangs vertically, its lower edge being in engagement with the screen 18. Below the gate 19 is a pair of further gates 20 having their lower edges provided with teeth 21. These teeth will

effectually remove any ashes which may adhere to the cinders as the same are passing down over the screen 18. It will be seen from the drawings that when ashes are introduced at the door 10, they fall immediately on to the upper end of the screen 18. In their passage over the screen the ashes lift first the gate 19 and afterward the gates 20, one after the other. It will be seen that the gates 19 and 20 will further prolong the passage of the ashes over the screen 18.

An inclined partition 22 rests partly on the upper edges of the members 17 and partly on a horizontal diaphragm 23, which extends from the rear of the casing to the supports 17. The partition 22 and diaphragm 23 form an isolated chamber at the top of the casing within which is placed a suitable coal receptacle 24. The mouth of the coal receptacle is provided at the corners with converged plates 25 which reduce the width of the mouth and enable the coal to be poured from the receptacle into a stove or range without falling on the top of same.

In the bottom of the casing is located a cinder receptacle 26, and above the cinder receptacle and immediately under the screen 18, is an ash receptacle 27. Small guide members 28 are secured to the side and front walls of the casing immediately above the edges of the ash receptacle 27 and serve to guide the ashes falling close to the side walls of the casing into the ash receptacle 27 and prevent the same from falling into the cinder receptacle 26. The cleats 29 which support the ash receptacle are beveled toward the rear of the casing at 30, and serve in a similar manner to guide the cinders into the receptacle 26. The inside of the back wall of the casing is protected by a metal plate 31, which is bent forwardly at its lower end 32 to deflect the cinders falling from the screen 18 into the receptacle 26. The various receptacles contained within the casing are provided with suitable handles 33 for convenience in carrying. Small pins 34 are riveted or otherwise secured to a suitable portion of the receptacle to prevent the handles from dropping into the receptacles and gathering ashes, etc., which would soil the hands of anyone using the apparatus.

The operation of the device will be readily understood from the foregoing description and drawings.

The advantages of my invention will be readily appreciated and may be summarized briefly as follows:—The customary sifting of the ashes by shaking, which produces a
5 great amount of dust, is eliminated, the ashes being simply poured in at the door 10 and allowed to pass down over the screen 18. The ashes fall through the screen 18 into the receptacle 27 and the cinders and pieces
10 of partially burned coal pass over the screen and fall into the receptacle 26. The upper portion of the cabinet contains a receptacle for coal which, when not in use, is thus kept out of sight.

15 An aperture 35, may if desired be formed in the cover 9 through which the handle of a shovel can pass if the same is left in the receptacle.

It will be seen that the coal receptacle is
20 entirely isolated from the screening portion of the device and that it will, therefore, be kept free from the dust incident to the screening. The whole apparatus is tightly closed and will, therefore, prevent the escape
25 of dust and ashes into the room in which it is located.

An extra space may be added to serve as a receptacle for kindling and the like.

Having thus described my invention, what I claim is:—

1. A device of the class described comprising a casing, a curved inclined screen within the casing, a swinging gate at the top of said screen, a plurality of swinging gates having
35 serrated lower edges at intervals down said screen, an ash receptacle, and a cinder receptacle below said ash receptacle.

2. A device of the class described comprising a casing, a door in the upper front portion of the casing, a reverse curved screen
40 extending downwardly and rearwardly from the bottom of said door, a gate at the top of said screen, a plurality of swinging gates having serrated lower edges at intervals
45 down said screen, an ash receptacle, a cinder receptacle below said ash receptacle, and a sliding door at the lower front portion of the casing giving access to the cinder and ash receptacles.

In witness whereof I have hereunto set my
50 hand in the presence of two witnesses.

ADOLPH J. SMITH.

Witnesses:

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E. R. MCKENZIE.