No. 614,534. Patented Nov. 22, 1898.

J. CARTER.

ASH SIFTER.

(Application filed Jan. 25, 1898.)

(No Model.)

Fig. 1.

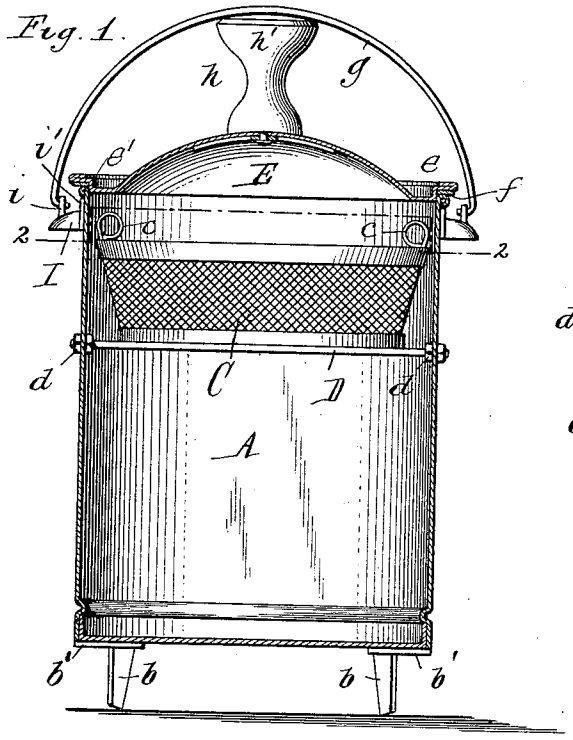


Fig. 2.

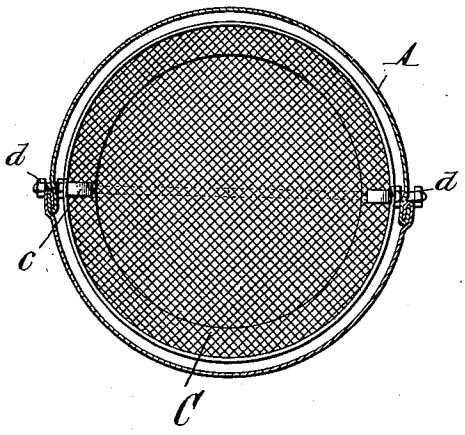


Fig. 3.

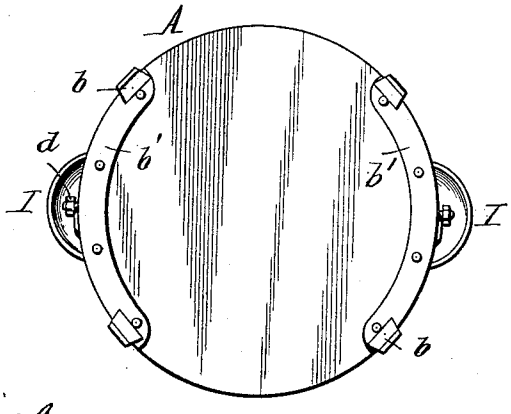


Fig. 5.

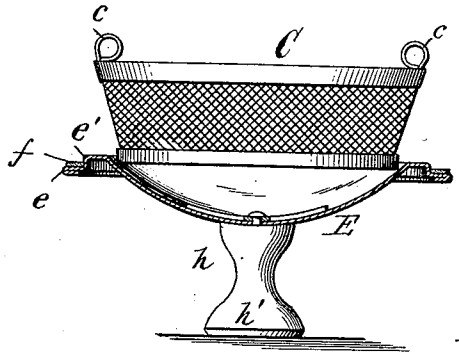
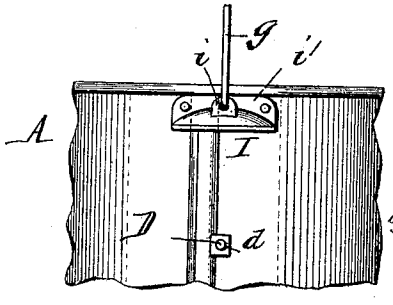


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES CARTER, OF LOCKPORT, NEW YORK.

ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 614,534, dated November 22, 1898.

Application filed January 25, 1898. Serial No. 667,920. (No model.)

To all whom it may concern:

Be it known that I, JAMES CARTER, a citizen of the United States, residing at Lockport, in the county of Niagara and State of New York, have invented a new and useful Improvement in Ash-Sifters, of which the following is a specification.

This invention relates to that class of ash-sifters which consist of a closed case or vessel and a sieve supported therein, and more especially to a sifter in which the ashes are sifted by rocking the can back and forth on legs or projections arranged on opposite sides of its base, so that the sieve receives a sharp jolting or jarring motion as distinguished from a sifter in which the ash can or vessel remains stationary and the sieve is shaken in the can.

My invention has for its object to produce a dustless ash-sifter of this kind which is strong and durable and at the same time light and convenient of manipulation and to so construct the cover that it may be used as a receptacle for clinkers and for carrying the filled sieve from the stove or furnace to the can.

In the accompanying drawings, Figure 1 is a sectional elevation of an ash-sifter embodying my improvements. Fig. 2 is a horizontal section thereof in line 2 2, Fig. 1. Fig. 3 is a bottom plan view of the can, showing the legs on which it is rocked. Fig. 4 is a fragmentary side elevation of the can, showing one of the handles and bail-ears. Fig. 5 is a sectional elevation of the cover of the can, showing the same inverted for holding the sieve.

Like letters of reference refer to like parts in the several figures.

A is the can or vessel which forms the body of the ash-sifter and which is preferably cylindrical in form and constructed of sheet metal. The can is supported by short legs or feet *b*, which are arranged in pairs on opposite sides of the bottom or base of the can, so that the latter can be rocked or tilted alternately on the two pairs of legs for jarring or jolting the same. The legs of each pair are formed integral with a curved base-plate *b'*, which is riveted or otherwise secured to the bottom of the can and arranged at the edge thereof, where it is directly under the wall of the can, as shown in Figs. 1 and 3. By this construction the bottom of the can is reinforced, rendering it stronger and more durable, and the legs are more securely fastened to the can than is the case when they are riveted to the side thereof, and by the integral construction of the legs a uniform spacing of the same on opposite sides of the can is insured, causing the can to rock in the same line or track. The lower ends of the legs are preferably cut off obliquely, so as to form a point at the outer side of the same, as shown in Fig. 1, whereby they embed themselves in the ground or floor and prevent the sifter from moving out of place in rocking or jolting it.

C is the ash-sieve, which is removably supported in the upper portion of the can, preferably by a transverse rod or bolt D, which passes diametrically through the walls of the can, as shown in Fig. 2. The sieve rests loosely on this rod and is prevented from tipping by bearing with its wall against one or the other side of the can. The sieve is preferably separated from the surrounding wall of the can by a narrow space—say of about one-fourth of an inch, as shown—so that the sieve is permitted to slide back and forth on the supporting-rod and strike the walls of the can in rocking the latter, thus giving the sieve a double jar and hastening the sifting operation. The sieve may be of any suitable construction, that shown in the drawings being constructed of wire and reinforced at its top and bottom by iron bands and having suitable handles *c*. The supporting-rod D also serves as a brace, which stiffens and ties together the upper portion of the can-body, so as to resist bending or buckling thereof. For this purpose the rod is provided both on the inner and outer sides of the can with nuts *d*, between which the walls of the can is clamped, as shown. The can-body is preferably formed of two semicircular sections or halves, which are united by upright joints arranged on opposite sides of the can, as shown in Figs. 2 and 4, and in order to reinforce these joints or seams the rod D is arranged to penetrate the wall of the can at or adjacent to its seams, so that the nuts *d* overlap the latter.

E is the cover of the can, provided, preferably, with a raised or dome-shaped central portion and having its marginal portion or

rim *e* raised to form an annular shoulder *e'*, whereby the cover is held in place on the can. To the under side of this raised rim is glued or otherwise secured a packing ring or gasket *f*, of rubber or other suitable material, which bears upon the top of the can when the cover is in place, as shown in Fig. 1, thereby forming a dust-proof joint.

g is a clamping-bail pivoted to the upper portion of the can and adapted to hold the cover down upon the can in sifting ashes. For this purpose the cover is provided on its upper side with a central knob or standard *h*, over which the bail extends. The bail is preferably drawn or sprung over the knob, as shown in Fig. 1, and has sufficient elasticity to permit of this action. The upper end of the knob *h* may be beveled, as shown, to facilitate the engagement of the bail with the same. The clamping-bail has inwardly-bent ends passing through perforated ears *i*, which are preferably formed on handles I, projecting horizontally from opposite sides of the can. Each of these handles is provided at its inner edge with an upwardly-extending flange *i'*, which is riveted or otherwise secured to the outer side of the can-body. These handles and their attaching-flanges are arranged to extend across the joints of the can-body and their fastening-rivets pass through the body on opposite sides of the seams, as shown in Fig. 4, so as to reinforce the seams and reliably tie together the two sections of the can-body.

The knob or handle of the cover is preferably formed with a comparatively large head *h'*, having a flat top, so as to form a pedestal or standard which will support the cover in an inverted position, as shown in Fig. 5. The cover can thus be used as a tray or temporary receptacle for clinkers by placing it upside down on the floor. It may also be used in the same manner to prevent dust and spilling of the ashes in carrying the same from the stove or furnace to the sifter by placing the sieve in the inverted cover, filling the sieve, and carrying it to the can.

In the use of my improved ash-sifter after placing the sieve containing the ashes into the can and applying the cover to the latter the clamping-bail is sprung over the knob *h* of the cover, as hereinbefore described, thereby pressing the cover down upon the can and effectually preventing the escape of dust and ashes. The can is then rocked back and forth on its legs for shaking the sieve and jarring the ashes through the same. The cover is released by forcing the clamping-bail off its knob, when the cover and the sieve can be removed.

My improved sifter is not only dust-proof, but it combines strength with lightness and its cost is comparatively small.

I claim as my invention—

1. The combination with a sieve and a can inclosing the same and composed of sections which are united by upright joints arranged on opposite sides of the can, of a transverse tie-rod supporting the sieve and extending through the walls of the can at said joints and having clamping-nuts which overlap the joints, substantially as set forth.

2. The combination with a can provided near its upper end with a transverse rod or similar support, of a sieve resting on said support, a cover applied to the can and provided on its upper side with a knob or projection, and a clamping-bail which is pivoted to the can and which in its raised position bears upon said knob for retaining the cover on the can, substantially as set forth.

3. The combination with the can provided with an internal support, and a sieve resting on said support, of a cover applied to the can and provided on its upper side with a knob or pedestal having a flat head which is adapted to support the cover in an inverted position, and a clamping-bail which is pivoted to the upper portion of the can and which in its raised position bears upon the head of said knob, whereby the cover is locked on the can, substantially as set forth.

4. The combination with a can composed of sheet-metal sections which are united by upright joints arranged on opposite sides of the can, of handles secured to opposite sides of the can and extending across said joints, respectively, and each provided on its upper side with a bail-ear, a cover applied to the can and having a knob or projection on its upper side, and a clamping-bail pivoted to said ears and arranged to extend over and bear upon said knob when swung into its upright position, substantially as set forth.

Witness my hand this 13th day of January, 1898.

JAMES CARTER.

Witnesses:
CARL F. GEYER,
KATHRYN ELMORE.