(No Model.)

I. D. CRISPELL.

ASH SIFTER AND SAFE.

No. 419,114. Patented Jan. 7, 1890.

FIG. 1.

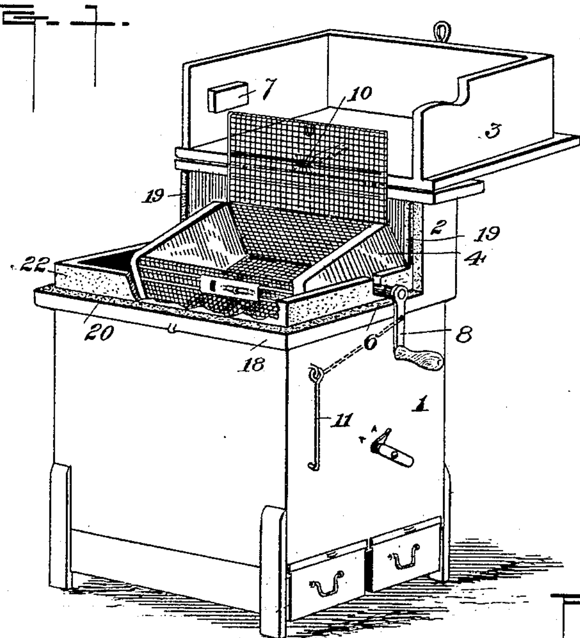


FIG. 2.

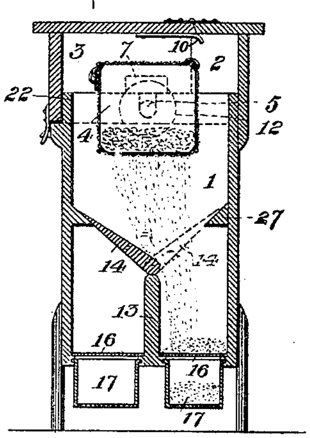
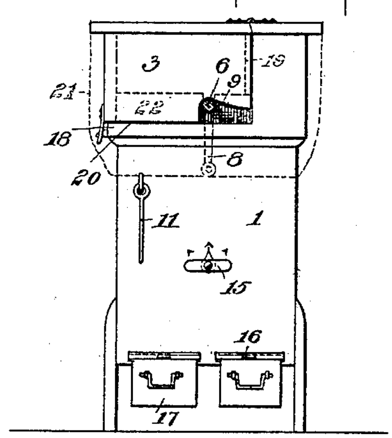


FIG. 3.



WITNESSES

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ISAIAH D. CRISPELL, OF WEST STOCKBRIDGE, MASSACHUSETTS.

ASH SIFTER AND SAFE.

SPECIFICATION forming part of Letters Patent No. 419,114, dated January 7, 1890.

Application filed October 3, 1889. Serial No. 325,842. (No model.)

To all whom it may concern:

Be it known that I, ISAIAH D. CRISPELL, a resident of West Stockbridge, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Ash Sifters and Safes; and I do hereby 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 pertains to make and use the same.

The object of the invention is to conveniently separate fine and coarse material—as in sifting ashes—and to prevent the escape of dust; and it consists in the construction hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective, Fig. 2 a transverse section, and Fig. 3 an end elevation, of the safe and sifter, the latter showing a modification.

The reference-figure 1 indicates a box or case having an elevated portion 2, to which is hinged a cover 3. In some cases this elevated portion may be dispensed with and the cover hinged in or near the plane, passing through the top of the main body of the box. This cover is made of proper size and so hinged as to close down tightly over the top of the main part of the box, and is provided with a suitable fastening device.

4 indicates a rotating sieve provided with journals for which bearings 5 and 6 are formed in the flange or edge 22 of the top of the box embraced and concealed by the cover when it is closed. Over journal 5 and on the interior of the cover is secured a guard 7, which, when the sieve is being rotated beneath a closed cover, holds the journal in its bearing. The journal 6 is extended, as represented, to receive a crank-arm 8. Above this journal 6 the cover is provided with a shoulder 9, a part of the cover being cut away to allow it to be closed down over the journal and also to form a part of the journal-bearing or a cover therefor.

The sieve is preferably made rectangular, or approximately so, in cross-section and provided with a hinged cover having suitable fastening device. The top of this cover is provided with an opening adapted to engage a spring or other catch 10, secured on the box-cover, the object of which is to hold up the sieve-cover and at the same time prevent accidental rotation of the sieve while it is being filled. This latter function may be aided by a hook 11, attached to the box and adapted to engage the crank-shaft.

When desired, the catch 10 can be used to sustain in a raised position both the cover of the box and the cover of the sieve, which may be desirable in case the upper part of the box to which its cover is hinged is made too narrow to properly sustain the same when thrown back. In this latter case the use of the hook 11 will give a desirable stability, though the catch 10, when engaged in the hole in the sieve, would cause the two covers to sustain each other. At the end of the sieve opposite the crank and near its journal is provided a washer 12, to prevent the end of the sieve from coming in contact with the wall of the box.

The sieve may be formed, substantially as shown, by end pieces connected by rods or bars secured thereto, wire-cloth of suitable form and mesh having, preferably, been first secured to said ends. The cover can be hinged to one of the rods and its fastening device supported by another or others.

In the box below the sieve a vertical partition 13 is preferably provided to support a hinged leaf or cover 14, the office of which is to direct falling material to either side of said partition, as desired, for which purpose it is provided with a handle 15. The spaces or chambers below cover 14 on each side of the partition are each closed at the bottom with a slide 16 or a drawer 17, or with both slide and drawer. This cover is made wedge-shaped, its thickest edge being rounded and pivoted just above the partition, in close proximity thereto, to prevent the escape of dust or ashes into the wrong receptacle. The inclines 27 are arranged to support the edge of each cover 14, the construction and arrangement being as shown, whereby all substances falling upon the cover are guided with certainty into the proper receptacle. My construction avoids all ledges for deposit of the

falling material above the cover 14, and also all openings around said cover, whereby fine ashes or other material might escape.

In operation the covers of the box and sieve are opened and supported in their open position, and the sieve supplied with material to be sifted, such as a mixture of ashes and cinders from a stove or furnace. The covers having been securely closed and the hinged leaf 14 properly turned, the slides or drawers being also closed, the sieve is rotated until the fine and coarse materials are separated, whereupon the leaf 14 can be changed to cover the ashes or other materials that have been guided into one of the receptacles at the side of the partition, and then the remainder of the contents of the sieve can be dumped into the other receptacle and the contents of one or both of the receptacles or drawers removed at pleasure. To prevent the escape of dust the flange or ledge 18 is provided as a seat for the edge of the cover 3, and the end walls of the elevated part of the cover are located in the same plane as these flanges to make a close joint with the rear edges of the end walls of the cover when closed, and this joint is further protected by the pieces 19, arranged as shown. These lap-joints and others may be farther guarded by fibrous packings 20 or fibrous curtains 21.

The described means for preventing the escape of dust are particularly important in sifting materials, such as furnace-refuse in a dwelling. The provision of removable receptacles also contributes to cleanliness, as they obviate the necessity of shoveling the fine material, which may be carried out of the house or out of a room therein without removal from the receptacle.

Having described my invention, what I desire to claim and secure by Letters Patent is—

1. In a sifting device, the rotary sieve having a cover provided with an opening, in combination with a box provided with journal-bearings for the sieve, and with a hinged cover having a catch on its inner edge arranged to engage the openings in the cover of the sieve, the construction being adapted to hold the sieve-cover in an open position, substantially as described.

2. In a sifting device, the rotary sieve having a short journal 5, a journal 6, and a crank-arm, in combination with a box provided in its upper edge with journal-bearings and with a ledge 18, bent upwardly and made continuous with an elevated part of the box, and having a cover provided with a projection 7 and with a shoulder 9, said cover overlapping the edge of the box and resting at its bottom and rear edges upon and against the ledge, whereby the journals are covered above when the box is closed and the horizontal and vertical joints are made tight, substantially as described.

3. The combination of the box and hinged cover provided with a catch on its interior, with the sieve having a cover provided with an opening adapted to receive the catch, and a hook adapted to engage the crank-arm of the sieve, whereby both covers may be held by the hook, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ISAIAH D. CRISPELL.

Witnesses:

WILLIAM W. VAN DE BOGART,

DANIEL MILLARD.