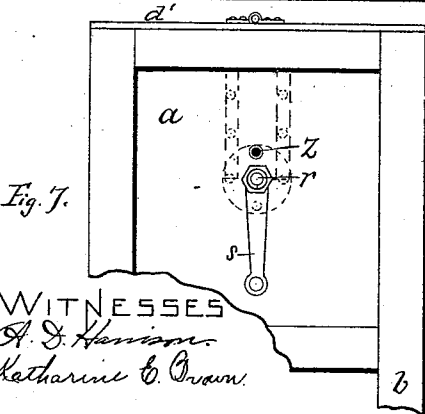
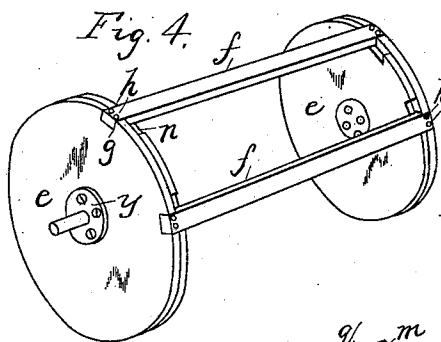
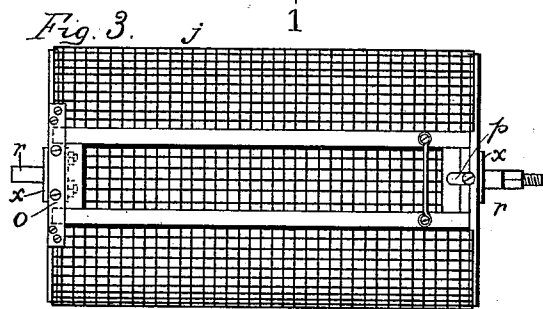
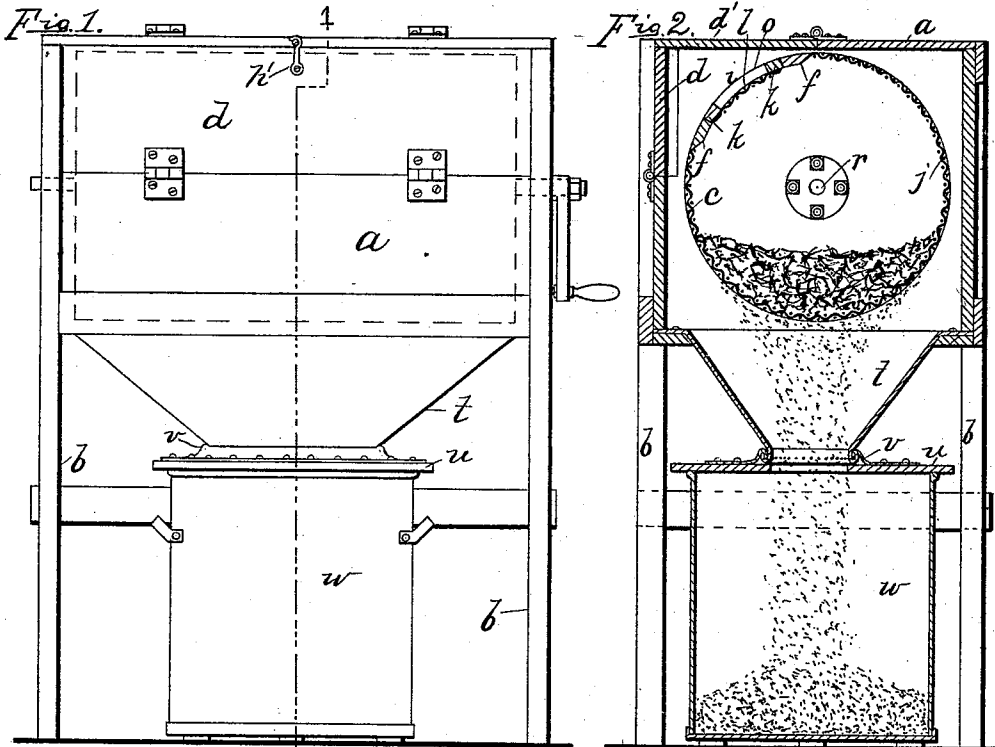


(No Model.)

C. F. ABBOTT.
ASH SIFTER.

No. 487,009.

Patented Nov. 29, 1892.



WITNESSES
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Katherine C. Brown.

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UNITED STATES PATENT OFFICE.

CARY F. ABBOTT, OF NASHUA, NEW HAMPSHIRE.

ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 487,009, dated November 29, 1892.

Application filed August 31, 1891. Serial No. 404,266. (No model.)

To all whom it may concern:

Be it known that I, CARY F. ABBOTT, of Nashua, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Ash-Sifters, of which the following is a specification.

The invention has relation to ash-sifters of the kind employing a rotary sieve; and it is my object to provide such improvements in devices of the kind mentioned as will render the same practical, easy, and economical of construction, and entirely convenient and efficient in operation.

To these ends my invention consists of the improvements hereinafter described in detail, and particularly pointed out in the appended claims.

Reference is to be had to the annexed drawings, and to the letters of reference marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

Of the said drawings, Figure 1 is a front view of the machine complete. Fig. 2 is a central sectional elevation of the same, taken on the line 1 1 of Fig. 1. Fig. 3 is a top plan view of the rotary sieve complete. Fig. 4 is a perspective view of an incomplete sieve. Fig. 5 is a perspective view of the removable section of the rotary sieve. Fig. 6 is a view of the inner face of a portion of one of the disks forming an end of the rotary disk or cylinder. Fig. 7 is a detail view of the end of the machine to which the crank for operating the rotary sieve or cylinder is applied.

In carrying out my invention I construct a dust-proof box *a* of wood, which may be supported on legs *b* and form a cylinder or rotary sieve *c* of a size adapting it to be operated in the box *a*, to which admission may be had through a lid or door. This lid or door is constructed in two parts *d d'*, one part forming the upper front portion of the box and the other the forward part of the top, both parts being so hinged that their free edges will meet and form the upper forward edge of the box, as shown in Figs. 1 and 2. This manner of forming and hinging the lid

is an important feature of the invention, as will presently appear. A single hasp *h* may be employed to lock the two parts of the lid in closed position. I construct the cylinder *c* by forming two disks *e* of wood, each composed of two circular pieces secured together so that the grain of one may cross or run at a right angle to the grain of the other in order to prevent warping. The disks so constructed are connected by two strips *f f* of wood or other suitable material, the ends of which are set into recesses *g*, formed in the periphery of the disks and secured in the said recesses by means of screws *h* or other suitable fastenings. The strips *f f* are arranged sufficiently far apart to permit of the removable section *i* being fitted between them. On the frame thus formed is secured a strip or piece of woven wire *j*, sufficiently stiff and strong for the purpose for which it is to be used and to give the desired stiffness to the cylinder, the mesh of the woven-wire structures *j* being of sufficient size to allow of the passage therethrough of coal-ashes. The removable section *i* of the cylinder comprises a frame consisting of two side strips of wood *k* or other material connected near their ends by cross-pieces *l*, secured thereto in any suitable way. The projecting ends *m* of the side pieces are fitted in recesses *n*, formed in the periphery of the end disks *e*, the said recesses at one end being covered by a strip of metal *o*, which may or may not extend entirely around upon the periphery of the disk, the mortises in the other end being left uncovered, so that the ends of the frame may be thrust into the mortises under the strip *o* and at the other end laid into the mortises, so that the frame can be buttoned down and held in place by means of a button *p*, turning on a screw or stud secured to the disk *e*. The cross-pieces *l* may be curved to conform to the curvature of the wire covering and the wire covering for the removable section may be secured upon the inside of the latter. The mortises *n* may be formed in the periphery of the inside circular piece only of the two pieces going to make up an end disk *e*, as is shown in Fig. 4.

q is a handle composed of wire secured to

and extending between the side strips *k*, whereby the removable section may be manipulated.

The exposed parts of the woodwork on the interior of the cylinder may be covered with sheet metal—such as tin, galvanized iron, or the like—to render the structure fireproof and prevent undue wearing of the parts.

r designates trunnions secured upon the ends *e* and arranged in suitable bearings in the box, and *s* designates a crank connected with one of the trunnions, whereby the cylinder may be rotated.

The bottom of the box may be constructed as a hopper, tapering to the discharging-point, where it is connected with the lid *u* of a can or receptacle *w* by means of a strip of leather or other flexible material *v*, attached at one edge to the bottom of the hopper *t* and at the other edge to the top of the lid *u*. This construction enables an ash or coal can to be readily moved into or out of place under the lid, securing a practically dust-tight connection between the latter and the top of the can without necessity of handling the lid.

The cylinder may be secured in position by being put in place in the box, and with the trunnions in their bearings the said trunnions may be attached to the ends of the cylinder by means of bolts or screws passed through the hole *z*, (Fig. 7,) formed in the side of the box at one side of the trunnion-bearing, through holes formed in the base-plate *y*, and into the ends of the cylinder. If bolts are employed, nuts may be turned up on the inner screw-threaded ends thereof in a well-known way.

In the use of my invention the parts *d d'* of the door of the box may be opened and the removable-section *i* displaced, when the ashes to be sifted may be emptied into the cylinder; the removable section replaced, the door closed, and the cylinder revolved by means of the crank until the ashes are thoroughly sifted. The can may now be removed and the siftings emptied out therefrom, when it may be replaced, the removable section of the cylinder taken out, and the unburned coal and

cinders dumped out through the hopper into the can, to be in turn transferred to the coal-hod for use.

By constructing the door in two sections, as described, a very large opening can readily be made in the box at the most desirable point, so that ashes can with the greatest convenience be shoveled into the open cylinder. This same convenience would not exist if the opening to the box were made on the side or top.

By this invention coal-ashes can be conveniently and expeditiously sifted without creating any considerable dust outside of the apparatus. As much as a half-barrel of ashes can readily be sifted and removed in two and one-half minutes.

It will be noted that the device constructed as described is strong and durable and may be made at little cost, there being no part of the structure that may not be readily made by an ordinary mechanic or obtained in almost any hardware-store.

What I claim as my invention is—

1. An ash-sifter comprising in its construction a box mounted on legs and having a door, a movable reticulated ash-receptacle mounted in said box, and a can cover having an opening and a permanent flexible connection with the bottom of the box, substantially as described.

2. An ash-sifter comprising in its construction a stationary box containing a rotary reticulated ash-receptacle and having a tapering or funnel-shaped bottom, a rigid can-cover having a central opening, and flexible material permanently uniting the can-cover and the said bottom of the box, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 10th day of July, A. D. 1891.

CARY F. ABBOTT.

Witnesses:

R. P. ELLIOTT,
ARTHUR L. FRANKS.