

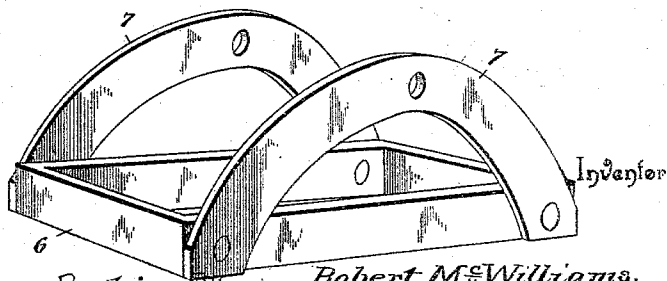
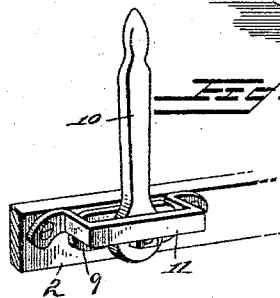
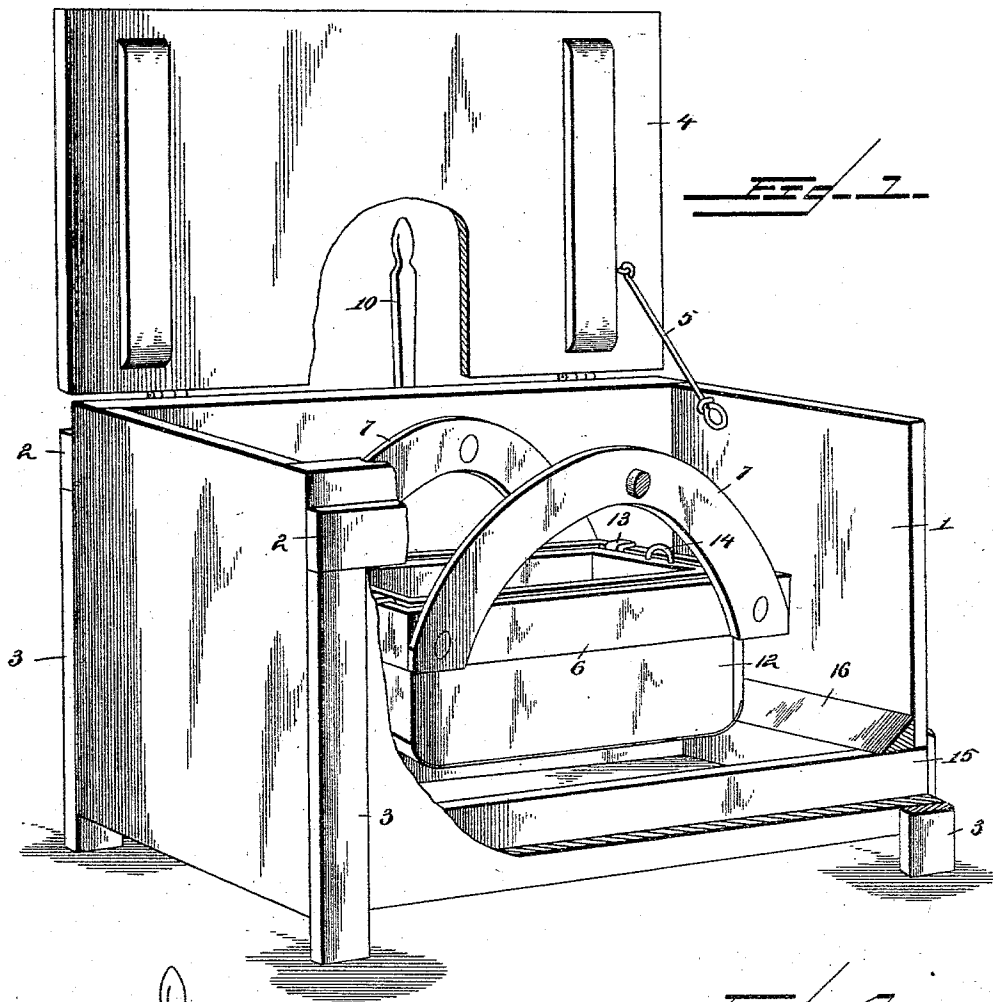
(No Model.)

2 Sheets—Sheet 1.

R. McWILLIAMS.
ASH SIFTER.

No. 553,013.

Patented Jan. 14, 1896.



Witnesses
J. W. Riley
R. M. Smith

By *his* Attorneys, *Robert McWilliams.*

Calhoun & Co

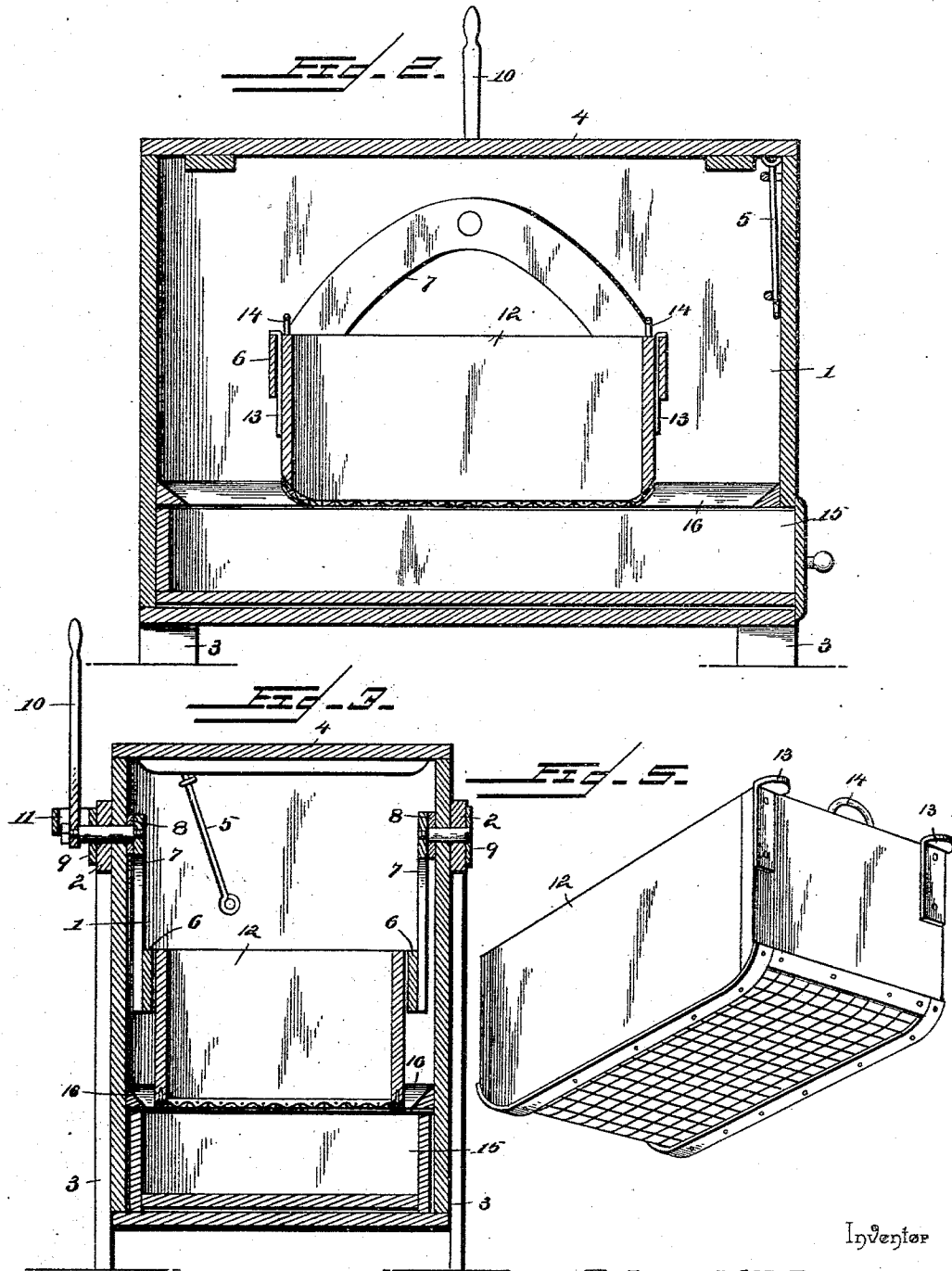
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Inventor

Robert McWilliams

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C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

ROBERT MCWILLIAMS, OF COATESVILLE, PENNSYLVANIA.

ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 553,013, dated January 14, 1896.

Application filed July 16, 1895. Serial No. 556,166. (No model.)

To all whom it may concern:

Be it known that I, ROBERT MCWILLIAMS, a citizen of the United States, residing at Coatesville, in the county of Chester and State of Pennsylvania, have invented a new and useful Ash-Sifter, of which the following is a specification.

This invention relates to an improvement in devices for sifting ashes and separating therefrom the coals and cinders.

The object of the present invention is to simplify and improve the construction of devices of the character referred to, with a view to cheapening the cost of manufacture thereof and providing means for facilitating the easy insertion and removal of the sifting-tray.

A further object of the invention is to provide a novel form of oscillating frame, by means of which an increased throw is given to the ash-sifting tray and said frame greatly strengthened and braced.

Other objects and advantages of the invention will appear in the course of the subjoined description.

The invention consists in an improved ash-sifter embodying certain novel features and details of construction and arrangement of parts, whereby advantages in point of simplicity and efficiency are attained, as herein-after fully set forth, illustrated in the drawings, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of an improved ash-sifter constructed in accordance with this invention, with a portion of the front wall of the box or casing broken away to show the interior construction. Fig. 2 is a vertical longitudinal section through the same. Fig. 3 is a vertical transverse section through the sifter. Fig. 4 is a detail perspective view of the oscillating frame in which the ash-sifting tray is seated. Fig. 5 is a similar view of the ash tray or receptacle. Fig. 6 is a detail view showing the operating-lever and the loop-shaped stop therefor.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 designates a box or casing of any desired size and material, the same being provided

upon its front and rear sides with horizontally-disposed reinforcing strips or cleats 2, adapted to receive the bearings in which the oscillating frame is journaled. Vertically-disposed cleats 3 are also secured to the front and rear sides of the box or casing, and at each corner thereof, the same abutting at their upper ends against the lower edges of the horizontal strips or cleats 2 and extending at their lower ends beneath the bottom of the box or casing 1 to form feet or legs upon which the same is supported. The box or casing is further provided with a top or lid 4, hinged preferably at its rear edge and adapted to tightly close the top of the box for preventing the egress of dust and dirt therefrom.

5 designates a metal strap or stop, which is hinged at one end to the under side of the lid or cover and passes at its opposite end through a staple or eye secured to the inner surface of one end of the box, beneath which the same is looped or expanded, as shown. By means of this strap or stop the top or lid 4 when opened is prevented from swinging back far enough to interfere with the operating-lever of the device, hereinafter described.

6 designates an open rectangular metallic frame, which is arranged within the box or casing 1 and is provided upon its front and rear sides with curved supporting arms or segments 7, either formed integrally therewith or made separately and riveted or otherwise secured thereto. Each of said arms or segments is provided, centrally thereof, with an outwardly-extending pivot or trunnion, and said pivots or trunnions pass through horizontally and transversely aligning openings in the box or casing 1 and in the horizontally-disposed strips or cleats 2, centrally of the latter, as shown. Metal washers 8 are interposed between the outer faces of the arms or segments 7 and the inner adjacent faces of the front and rear sides of the box or casing, said washers fitting snugly around the pivots or trunnions referred to and being made of a thickness which will adapt them to fill the spaces between said arms or segments and the box sides, thus serving to form a tight joint and prevent the escape of dust through the holes which receive the pivots or trunnions of the oscillating frame.

9 designates a pair of bearing-plates, which are preferably secured to the outer faces of the strips or cleats 2 referred to, and receive and form bearings for the trunnions of the oscillating frame. One of the trunnions, preferably that one at the rear side of the box or casing, is extended sufficiently to receive an operating-lever 10 by means of which said frame may be operated, and the movements of said lever and the oscillating frame are limited by a stop in the form of a loop 11, secured to the horizontal strip or cleat 2 upon the rear side of the box or casing. The operating-lever strikes against the end portions of this loop-shaped stop and prevents the oscillating frame from striking against the lid or the ends of the box, in a manner that will be readily understood.

The ash tray or sieve 12 corresponds in shape and measurements to the inside configuration of the frame 6, being in open rectangular form and of any desired depth and having its bottom edges slightly rounded and covered by perforate sheet metal or wire-netting which extends entirely over the open bottom of said ash-tray and is secured in place by means of metal strips tacked to the lower edges of the frame 12 or in any other convenient manner. The sieve thus formed is provided adjacent to each of its corners with angle-irons or clips 13, having horizontally-disposed lips which are adapted to rest upon the upper edge of the frame 6 when said sieve is in position therein. Said sieve is further provided with a pair of bails or handles 14, located one at each end thereof, thus providing for the easy insertion and removal of said sieve into and from the oscillating frame by which it is adapted to be agitated.

A removable drawer 15 is provided which is introduced through an opening in one end of the box or casing adjacent to the base thereof, said drawer being of a size adapting it to fit snugly within the box and provided with a headboard, the edges of which extend beyond or overlap the sides, top, and bottom of the drawer and bear against the outer surface of that side of the box or casing through which the drawer slides, for preventing the escape of dust.

16 designates inclined guards or deflectors which are disposed around the interior surface of the casing just above and in close proximity to the upper edges of the sides and ends of the drawer. These guards serve to deflect the ashes, &c., and direct the same into the drawer, thus preventing the same from clogging around the sides of the drawer

and interfering with the removal and introduction thereof.

By means of the construction above described it will be seen that the ash tray or sieve may be readily removed and replaced within the oscillating frame.

It will also be apparent that by reason of the particular construction of the oscillating frame and its curved arms or segments, a considerable throw is given to the bottom of the sieve by a comparatively short stroke of the operating-lever. By means of the washers interposed between the curved arms or segments of the oscillating frame and the adjacent inner surfaces of the box or casing the escape of dust while the device is in operation is effectually prevented.

It will be apparent that changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In an ash sifter, the combination with a suitable box or casing, of an internally arranged oscillating frame made in open and unobstructed rectangular form and provided at its upper portion with laterally projecting pivots or trunnions mounted in bearings in said box or casing, a rectangular ash tray or sieve removably fitted in and embraced by said frame, and partaking of the motion of said frame and an operating lever rigidly secured to one of said trunnions exteriorly of the box or casing, substantially as and for the purpose described.

2. In an ash sifter, the combination with a suitable inclosing box or casing, of an interiorly arranged oscillating frame made in open rectangular form and provided with upwardly extending curved arms or segments having laterally projecting pivots or trunnions journaled in the walls of said box or casing, a removable ash tray or sieve adapted to be placed within said oscillating frame and provided with angle irons or clips for supporting the same relatively thereto, and means for operating said oscillating frame, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ROBERT MCWILLIAMS.

Witnesses:

HUGH KENWORTHY,
LONDON RICHARDS.