

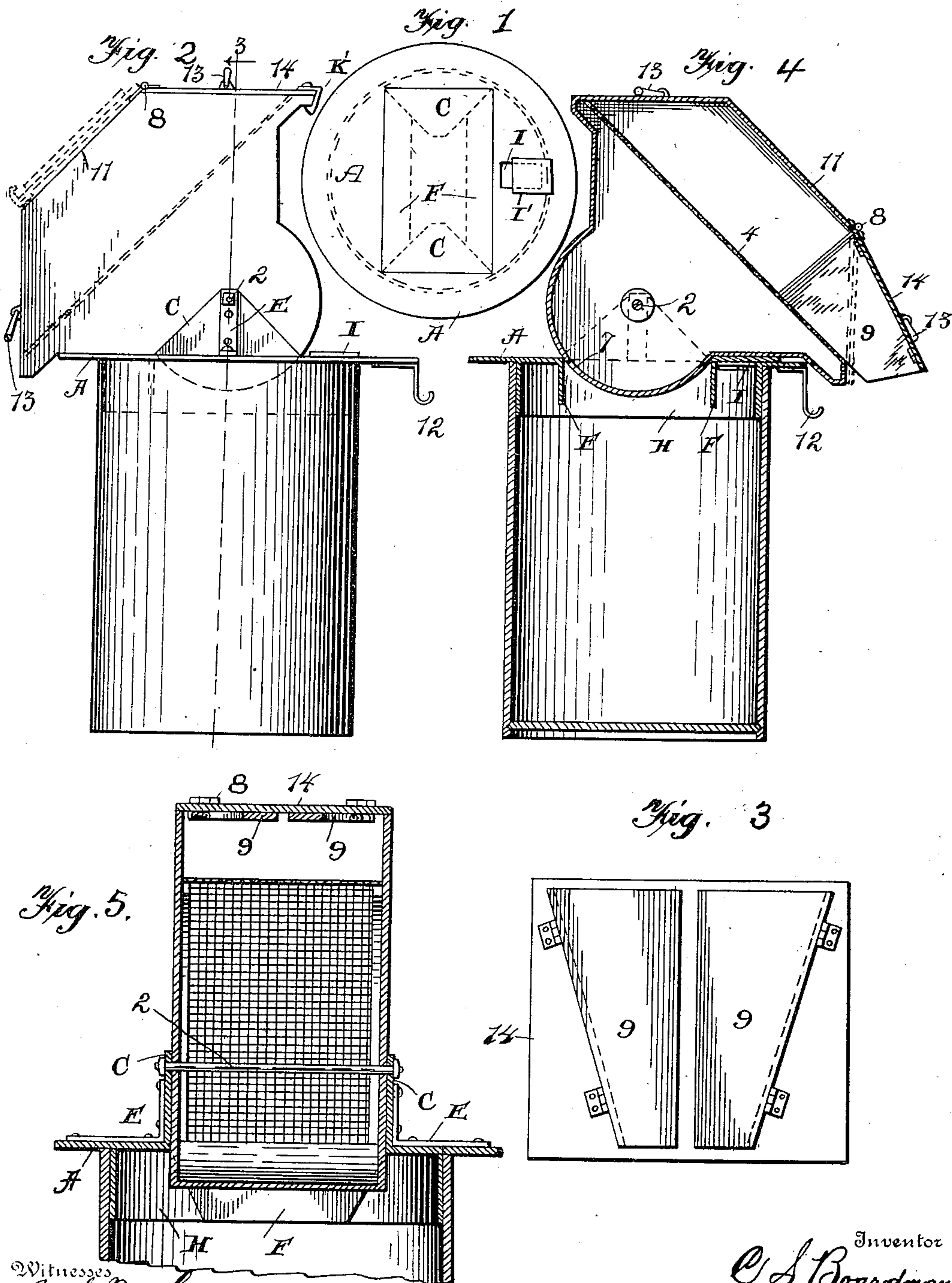
No. 662, III.

Patented Nov. 20, 1900.

C. S. BOARDMAN.
SIFTER.

(Application filed Sept. 16, 1899.)

(No Model.)



Witnesses
Geo. C. French.
Ransom S. Smith

Inventor
C. S. Boardman,
per
E. R. McAfee,
Attorney

UNITED STATES PATENT OFFICE.

CLAUDE SAMUEL BOARDMAN, OF SOMERVILLE, MASSACHUSETTS.

SIFTER.

SPECIFICATION forming part of Letters Patent No. 662,111, dated November 20, 1900.

Application filed September 16, 1899. Serial No. 730,660. (No model.)

To all whom it may concern:

Be it known that I, CLAUDE SAMUEL BOARDMAN, a citizen of the United States, residing at West Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Sifters; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in sifters for separating ashes from cinders; and it has for its object the speedy separation of cinders and coal from the ashes and which operation is performed with very little effort and without making the slightest dust, so that the sifting can be done anywhere.

My invention consists in a sifter-frame provided with a hinged door and flanges secured to the under side of the door, and which flanges serve not only to support the door in a raised position, but to guide the cinders when being emptied from the frame, so that they will pass directly into a bucket or other receptacle placed to receive them.

In the accompanying drawings, which represent my invention, Figure 1 is a plan view of the cover upon which the sifter-frame is mounted and showing the lines upon which the opening through its center is cut. Fig. 2 is a side elevation of the sifter complete. Fig. 3 is a detached view of the door, showing its flanges folded against its under side. Figs. 4 and 5 are vertical sections taken at right angles to each other.

A represents the cover, which is placed upon the top of the barrel or other suitable receptacle and which forms a support for the sifter-frame. To the under side of the cover A is secured in any suitable manner a circular flange H, which catches against the inner side of the barrel or receptacle and prevents this cover A from having any lateral movement. Through the center of the cover is formed a suitable opening which is cut upon the dotted lines shown in Fig. 1 and so as to form at the ends and the sides of the opening the end pieces C and the side pieces F. These side

pieces are turned downward inside of the opening, so as to form vertical flanges which prevent the cover from sagging, and the end pieces C are turned upwardly, as shown, so as to form supports for the sifter-frame. In order to brace these end pieces C in position and to make them sufficiently rigid to support the sifter, the braces E are applied to their outer sides and to the top of the cover, as shown. Through these end pieces are formed suitable openings through which pass the pivotal rod 2, upon which the sifter turns, and which rod is held in position by means of nuts applied to each of its threaded ends. Through the top of the cover at one side is formed a small opening I, which is closed by a sliding door I', and through which opening the clinkers are dropped into the receptacle after the ashes have been sifted. At one edge of the cover is secured a hook 12, upon which the coal-bucket is hung after the ashes have been emptied into the sifter and into which the cinders are discharged.

The sifter-frame is made of the shape shown in Fig. 2, and its lower part is cut upon a circle which fits down into the opening made through the cover, and the frame is adapted to be rocked back and forth through a quarter of a circle, so as to move the ashes and cinders back and forth upon the screen 4, placed in the frame, and which extends from one end to the other. The door 14 of the frame is hinged at its inner end to the top of the frame, as shown at 8, and is so constructed that when closed it is held tightly in position by means of a catch K'. To the under side of this door are hinged or pivoted the two flanges 9, which are wider at their inner than at their outer ends, and which flanges are adapted when not in use to be closed against the under side of the door 14 when this door is turned back upon the top 11 of the sifter or when the door is closed, as shown in dotted lines in Fig. 4. When the door is closed, so as to permit the sifting of the ashes to take place without the escape of any dust, these flanges 9 are also closed against the under side of the door, so as to be out of the way, and are held in this closed position by coming in contact with the front end of the screen. After the sifting of the ashes has taken place and it is desired to discharge the cinders the door is partially

opened and these flanges are let down into the vertical position shown in solid lines, and then they form not only a support to the door 14, but also, by having their outer ends approach each other, contract the opening through which the cinders are discharged, so that they can be readily emptied into the bucket hung upon the hook 12. These flanges being widest at their inner ends and bearing against the side walls of the sifter-frame prevent the escape of any cinders at any other place than the outer end of the screen 4.

When the sifter is to receive the ashes, the door 14, having its flanges closed against its under side, is turned back upon the top 11 of the sifter-frame, and then the ashes can be poured freely in upon the top end of the screen 4, which being upon an angle of forty-five degrees to the cover the ashes almost immediately pass through the screen and drop into the bottom of the frame, from which they pass through the slot 7 into the barrel or other receptacle, thus making the action almost automatic. The door is then closed and caught by the catch K', so that it cannot come open, and then by rocking the sifter-frame two or three times by means of the handles 13 the ashes are wholly separated. The door is then opened and the flanges 9 let down, so that their lower edges rest upon the top of the screen 4, as shown in Fig. 4, so as to form not only supports for the door, but guides for the cinders as they escape into the bucket or other receptacle placed to receive them.

The advantages of my invention are: It is absolutely dust-proof, thus allowing it to be used anywhere. The sifter-frame extends but a short distance above the barrel or other receptacle upon which it is placed, so that it is not difficult to raise the bucket high enough

to empty into it. Being pivoted, the frame is easily rocked, and the parts are few and simple and are not liable to get out of repair. Only one opening is required, which is used both for receiving the ashes and cinders and discharging the coal.

Having thus described my invention, I claim—

1. In a sifter, a supporting-body having a perforation through its top, and suitable supports upon opposite sides of the perforation, and the sifter-frame pivoted or journaled in said supports and which frame is adapted to be rocked back and forth upon its pivots, combined with the stationary sifter placed in said frame, a door pivoted to the frame over the outer end of the sifter, and hinged flanges secured to the under side of the door, which flanges are adapted to fold against the under side of the door when it is closed and to drop into a vertical position to form supports for the door when opened and guides to direct the outward flow of cinders from the end of the screen, substantially as shown.

2. In an ash-sifter, a cover having an opening therein, a body pivotally supported above the cover, a cylindrical projection upon the body rotating within the opening, a screen mounted within the body, a hinged lid upon the body, and normally-closed hinged flanges upon the under side of the lid, said flanges adapted when open to form supports for the open lid and a converging outlet for the sifter.

In testimony whereof I affix my signature in presence of two witnesses.

CLAUDE SAMUEL BOARDMAN.

Witnesses:

WILLIAM W. FISH,
S. J. MEYERPETER.