

(No Model.)

E. M. BREWSTER.
Ash Sifter.

No. 229,371.

Patented June 29, 1880.

Fig. 1.

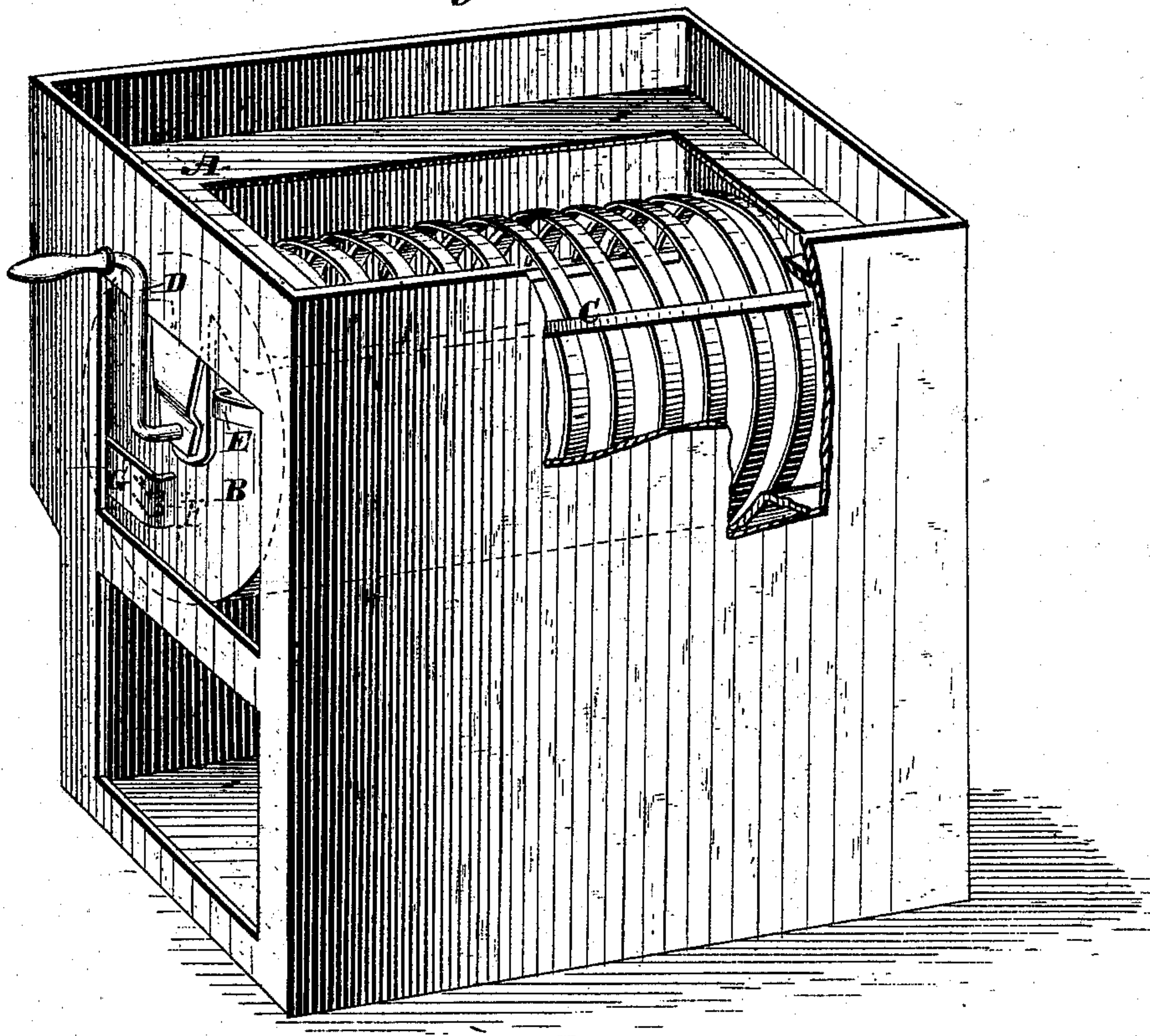
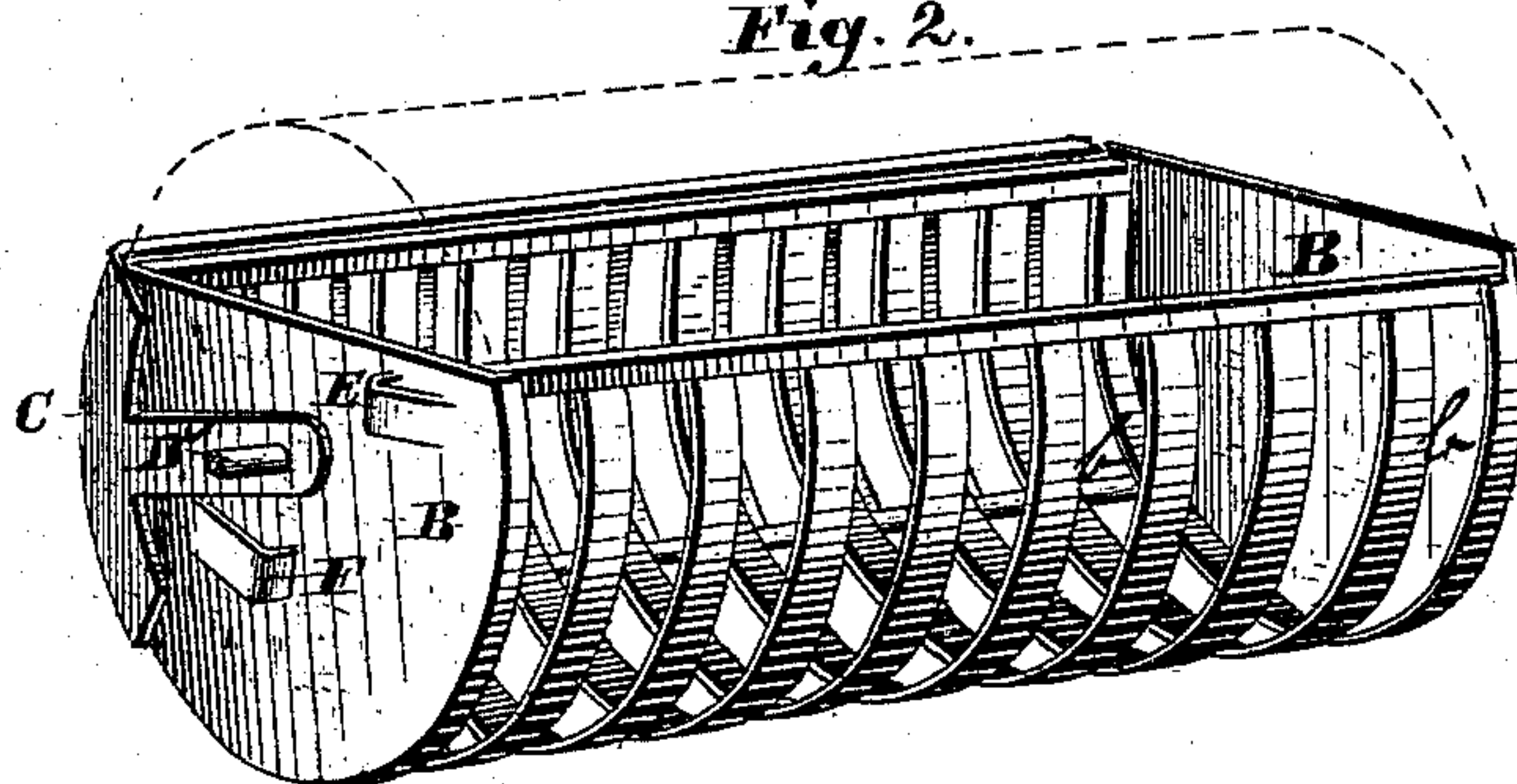


Fig. 2.



Attest:

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UNITED STATES PATENT OFFICE.

ELIAS M. BREWSTER, OF NORWICH, CONNECTICUT.

ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 229,371, dated June 29, 1880.

Application filed June 3, 1880. (No model.)

To all whom it may concern:

Be it known that I, ELIAS M. BREWSTER, a citizen of the United States, residing at Norwich, in the county of New London and State of Connecticut, have invented a new and useful Ash-Sifter, of which the following is a specification.

My invention relates to that class of ash-sifters in which the ashes and cinders are received or placed in a cylinder of bars or rods through a section which may be opened and closed, and then the ashes separated from the cinders by rotating said cylinder. The opening-section is then raised, and the cinders and unburned coal put in any convenient receptacle.

The object of my improvement is to render the opening and closing of the section through which the cinders are received and removed entirely automatic, so that, without touching any part with the hands except the crank, the sliding opening-section may be operated to receive the ashes, then closed, and the receiver rotated to separate the ashes, and finally the section opened and the cinders dropped out after the ashes that have sifted out have been removed.

I attain these objects by the peculiar mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents the sifter as it stands ready for use, with a part of its outer casing broken away to show the grated cylinder. Fig. 2 shows the grated cylinder removed and its sliding or cover section turned back in a position to receive the cinders at its top.

Similar letters refer to similar parts in the different figures of the drawings.

A represents the bars or frame upon which the ordinary grate of a stove rests. If this sifter is to be used under a stove-grate the cylinder is rotated in journals in the end of the stove, fitted in any common method. If it is used in a separate casing or box the said box may, of course, be provided with a hinged lid.

B B are the ends of the open-barred cylinder. *b b* are the bars or grates. C is the opening-section. D' is a piece projecting downward at each end of the movable section, and provided with a hole through which the handle-

crank passes at one end and the journal-pin at the other. D is the crank by which the sifter is rotated. E is a lug or catch, beveled or inclined at one side and abrupt at the other. F is a second lug or catch, beveled or inclined in the same direction of rotation. G is a spring bar or latch attached to the end of the box or casing of the sifter, or, if it is to be used under a grate in an ordinary stove, it is secured in any suitable manner. It is of any spring metal, and bent at its outer or free end at right angles to itself. It may be of iron, in the form of a latch.

It will be seen that when the crank D is turned upward, as in Fig. 1, the removable rotating section closes the opening. If, now, the crank be turned to the left the abrupt shoulder of the lug F holds back the cylinder, while the opening-section rotates to the left, opening the cylinder at the top. The ashes are then dropped into the cylinder, either from the ordinary grate-bar of a stove, or are put in from any receiver in which they may have been placed. Now, if the crank is turned to the right, it first closes the opening, and then continues rotating the cylinder, with the cinders closed up within it. This rotation to the right may be continued indefinitely, or until the ashes have been sifted out into a proper receptacle and been removed. The bevels of both catches, when the cylinder is turned to the right, lift and easily pass the opening-latch G.

After the sifting is completed and the crank-handle D is turned downward, then the catch E will just have raised and passed the latch. If, now, the rotation to the right be absolutely stopped, and the crank turned to the left, as in the former instance, the covering-section is rotated away from the cylinder, and thus leaves the opening at the bottom for the discharge of the cinders and coal.

I am well aware of rotating cylinders with bars or sewers for separating ashes from cinders, &c., and that such sifters are used for various purposes; but I am not aware of any in which, by a turn of the crank, an opening-section is rotated away, the opening closed, the ashes sifted out, and the opening again made at the bottom.

I do not wish to be restricted to any particular use of this device, as it is applicable when any sifting for any purpose is to be done.

5 The main part of this cylinder, it is evident, can readily be made in sections and secured together after the parts are passed into the chamber of any stove or coal-burner without departing from my invention.

What I claim is—

10 In an ash-sifter, the combination of the barred or open-work cylinder provided with an opening-section, and journaled at each end

in a proper case, with the crank D, the catches E and F, constructed, substantially as shown, upon the end, and the spring or latch G upon 15 the case, whereby, by rotating the handle in different directions and at different points, the cylinder is opened or shut or turned to sift the ashes, all as and for the purposes set forth.

ELIAS M. BREWSTER.

Witnesses:

HENRY H. BURNHAM,

WILLIAM S. CONGDON.