C. T. Miller,
Coal Screen.

No. 48,196. Patented June 13, 1865.

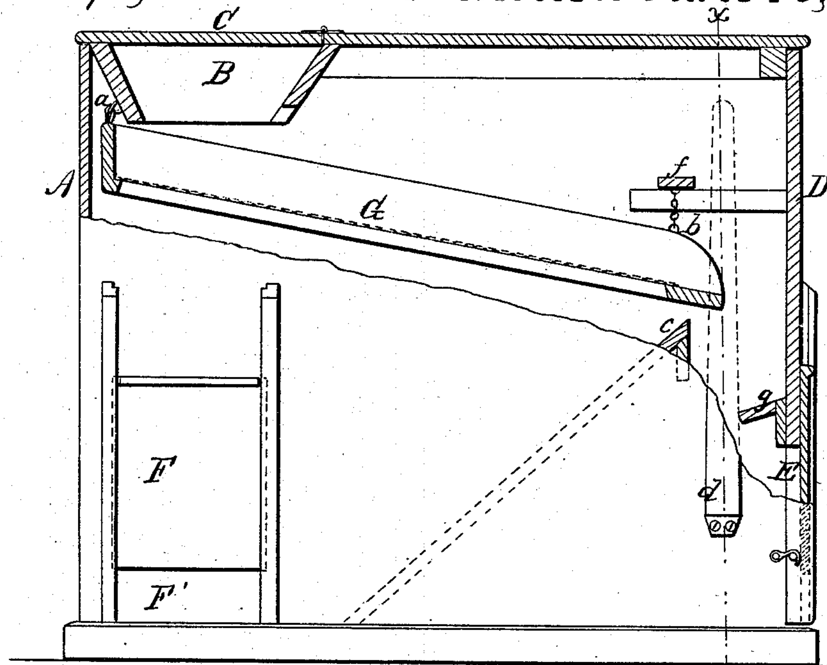

Fig. 1.

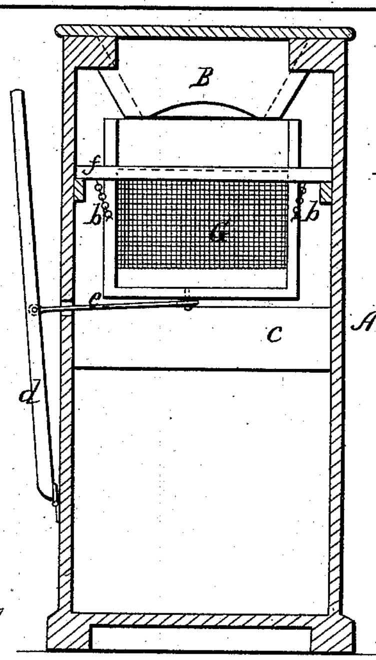

Fig. 2.

Witnesses;
M A Kearney
S M Covington

Inventor;
Chas T. Miller
By Munn & Co
Attys

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHAS. T. MILLER, OF PROVIDENCE, RHODE ISLAND.

ASH-SIFTER.

Specification forming part of Letters Patent No. **48,196**, dated June 13, 1865.

To all whom it may concern:

Be it known that I, CHARLES T. MILLER, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Coal and Ash Sifters; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of a coal and ash sifter made according to my invention, a portion of one side having been broken away to show part of the interior. Fig. 2 is a vertical cross-section, taken on the line *x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention has for its object to provide a coal and ash sifter which may be operated with ease, and in the use of which the operator will not be annoyed by the rising of dust and fine ashes, nor will these be permitted to escape into the apartment in which the apparatus is placed.

A designates a box with closed sides. Part of its cover is hinged, as seen at C, in order to get access to a hopper, B, which overlies a swinging or oscillating sieve, G, which has a bottom of wire-gauze. The sieve-frame is hung by means of links and chains *a* and *b* fastened to its ends, the chains *b b* being suspended from a cross-piece, *f*. The sieve-frame is not made so wide as the box in which it is placed, neither is it as long, so that it may freely oscillate within it without coming in contact with the sides of the box. *c* is an inclined plane made within the box and filling the whole width thereof. Its highest part is beneath the end of the sieve, and it reaches the bottom of the box near the side opening, F′. Its purpose is to direct the ashes and small matters which pass the sieve toward the opening F′, where they can be reached so as to be easily removed. The side opening, F′, is closed by a door, F, which may slide in guides, or be constructed so as to operate in any other convenient way.

The right-hand end of the box is provided with a door, D, which may be fastened by hooks or in any other convenient way. The inside of this door has a shelf, *g*, placed a little below the level of the lower end of the sieve. Its use is to divert the coal which falls from the end of the sieve away from the door, so as not to accumulate in a pile at the lower part of the door.

The lower part of the door D is provided with an opening, which is closed by a sliding gate, E, so that the coal which is gathered in the box beneath the inclined plane *c* may be removed without the necessity of opening the door D.

To the lower part of the foot of the sieve is attached a rod, *e*, which extends through one of the sides of the box A, and is attached to a hand-lever, *d*, outside of the box, the lower end of which hand-lever is secured to the side of the box by means of a hinge, so that the lever may be free to move toward and from the box.

In operating this apparatus the doors are to be closed, when the cinders or other matters to be sifted are put through the hinged cover C into the hopper B, whence they pass onto the sieve G. The cover C is now closed, and the sieve is gently oscillated by means of the lever *d* until the ashes and fine stuff have passed through its bottom and the coarser stuff has fallen over its end.

I claim as new and desire to secure by Letters Patent—

The combination and arrangement, in a coal and ash sifter, of the hopper B, vibrating sieve G, deflecting-board *g*, inclined ash-board *c*, arranged reversely to the sieve *g*, and doors D, E, and F, substantially as and for the purposes described.

CHARLES T. MILLER.

Witnesses:
HENRY MARTIN,
ALBERT M. HEWITT.