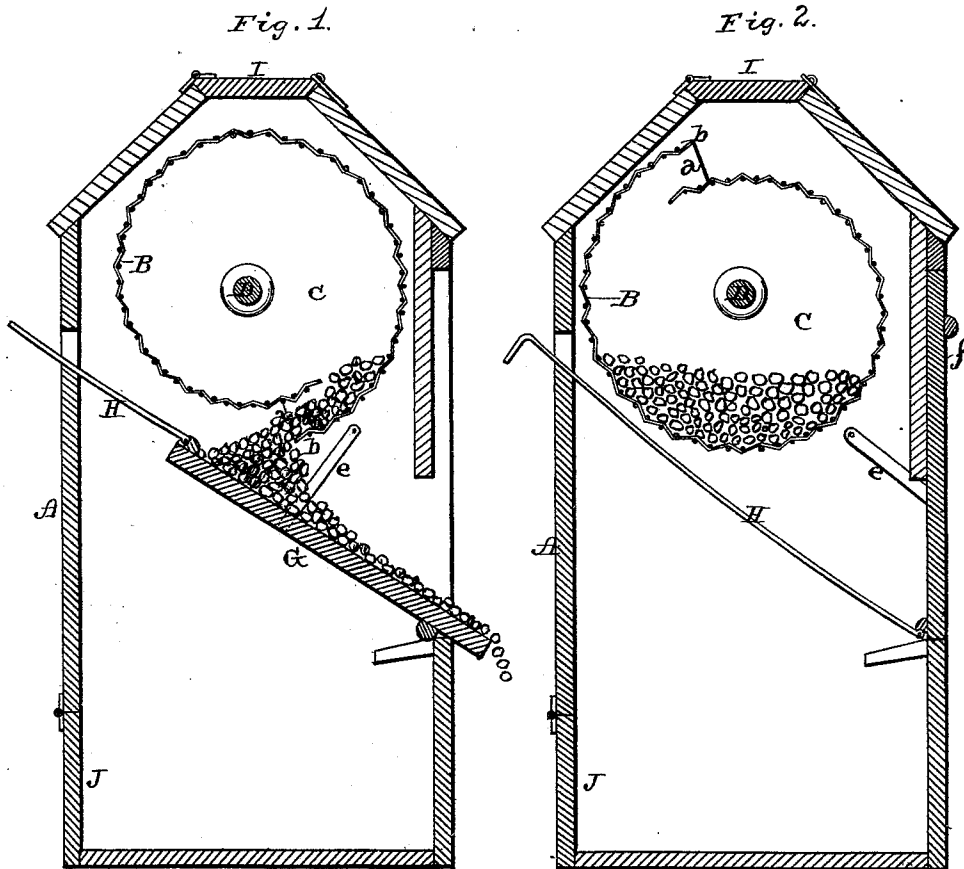


I. & S. S. DAVIS.

ASH-SIFTER.

No. 186,120.

Patented Jan. 9, 1877.



WITNESSES.

Wm. Garner,
F. M. Burrham.

INVENTOR.

Isaac Davis
Sullivan & Davis,
per
F. A. Lehmann, atty.

UNITED STATES PATENT OFFICE.

ISAAC DAVIS AND SULLIVAN S. DAVIS, OF SPRINGFIELD, MASS.

IMPROVEMENT IN ASH-SIFTERS.

Specification forming part of Letters Patent No. 186,120, dated January 9, 1877; application filed August 2, 1876.

To all whom it may concern:

Be it known that we, ISAAC DAVIS and SULLIVAN S. DAVIS, of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Ash-Sifter; and we do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The nature of our invention consists in the construction and arrangement of a sifter for coal-ashes, or other articles similarly separated, as will be hereinafter more fully set forth.

In the annexed drawing, which fully illustrates our invention, A represents the outside box or case, which may be of any desired dimensions, and has in its upper part a rotating cylinder, B, made of wire-cloth, and formed upon two heads, C C, of about fifteen inches in diameter, diverging from a true circle, forming an opening, *a*, by means of a lip, *b*, of about four inches. The opening *a* is about three inches, and serves the double purpose of feeding and discharging the coal. The heads C C of the cylinder are secured on a shaft, D, having its bearings in the sides of the box A, and one end provided with a crank.

It will be seen that when the sieve is turned to the right by means of the crank, and when the mouth *a* is at the bottom, the outer projection or lip *b* has sufficiently passed the perpendicular of the inner line or lip *b* as to prevent the coal from discharging until the sifting is completed; then, by reversing the motion of the sieve or cylinder, the discharge will take place, and the coal falls upon an inclined chute, G, and is caught in a hod or box placed for its reception. The chute G is suspended by means of pivoted arms or swinging hinges *e e*, and is, by means of a rod, H,

drawn back to its position as a chute. Immediately after the coal is sifted and discharged the rod is pushed forward, which moves the chute G forward and swings it upward to its position as a door, as shown at *f*.

When the work of sifting begins, a door, I, at the top of the case A, is opened and the ashes are put into the cylinder at *a*. The lid I is then closed and the cylinder turned slowly to the right from three to six revolutions or more, which completes the sifting. By means of the rod H the door G is now drawn back in position as a chute, and the cylinder is then turned backward slowly, discharging the coal through the opening *a*, and depositing it in the hod or other receptacle instantaneously. This done, the chute is immediately pushed forward by means of the rod H, entirely closing the box, and thus avoiding all dust.

At the back of the box is a door, J, for taking out ashes.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The door or chute G, suspended by means of pivoted arms or swinging hinges *e e*, and operated by means of the rod H to form either a door or chute, substantially as herein set forth.

2. The combination of the box or case A, having lid I and door J, the rotating cylinder B, with lips *b b* and opening *a*, and the combined swinging door and chute G, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 18th day of July, 1876.

ISAAC DAVIS.
SULLIVAN S. DAVIS.

Witnesses:

JOHN P. WALL,
M. T. FOLEY,
J. P. WHALEN.