

J. R. DARKE & D. S. SMITH.

ASH-SIFTER.

No. 191,754.

Patented June 12, 1877.

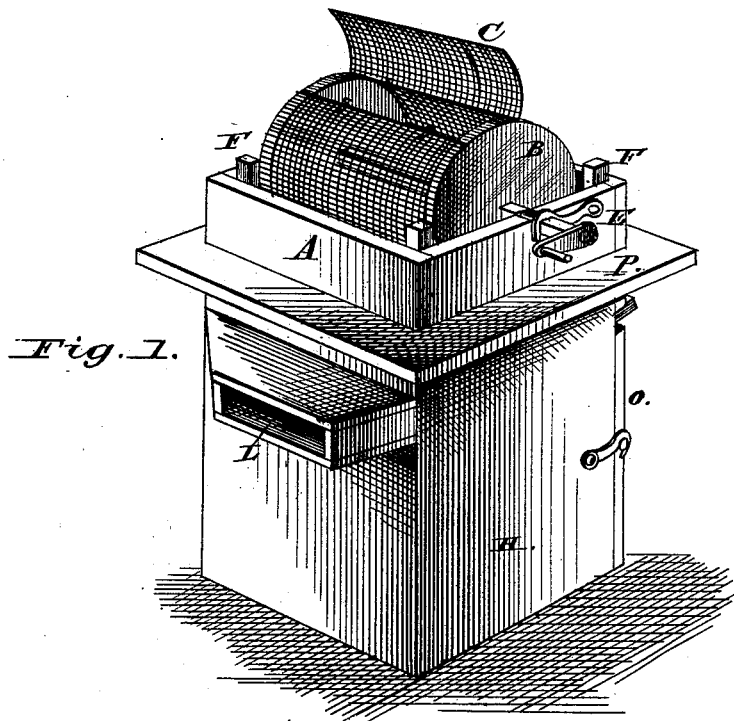


Fig. 1.

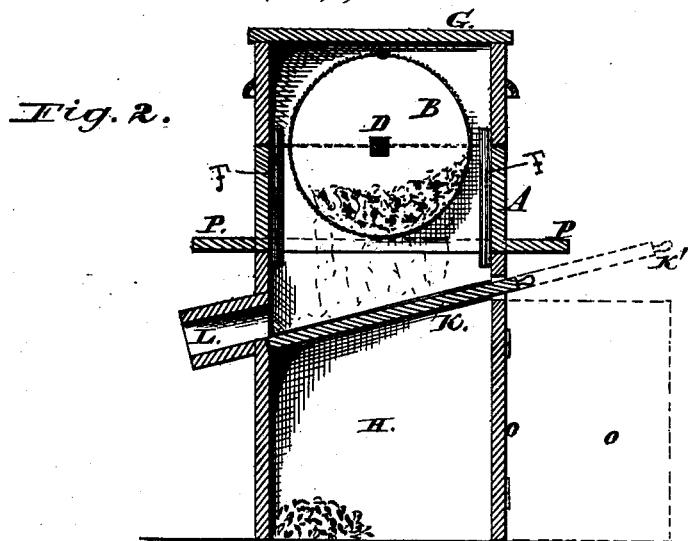


Fig. 2.

Attest:
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN ASH-SIFTERS.

Specification forming part of Letters Patent No. **191,754**, dated June 12, 1877; application filed November 15, 1876.

To all whom it may concern :

Be it known that we, JOHN R. DARKE and DANIEL S. SMITH, of South Evanston, county of Cook and State of Illinois, have jointly invented certain new and useful Improvements in Coal-Screeners and Ash-Sifters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view of a device embodying our improvements, the cover being removed in order to show the circular screen. Fig. 2 is a vertical section taken at right angles to the axis of the screen.

Like letters in both figures refer to corresponding parts.

Our improvements relate to that class of screens intended to be used for cleaning coal and ashes, and they are equally applicable to those used for separating grains and like articles.

The invention consists in certain details of construction and combination of parts, to be hereinafter fully described, and then pointed out in the claims.

A is the central removable box, which supports the axis D of the circular screen B in suitable boxes cut therein. For convenience in holding the screen B, so that its lid C shall remain uppermost during the process of charging the sifter, the axis D is cut square, and a hook, E, having a corresponding notch, is pivoted to the side of the box A, as shown at Fig. 1. After the screen is charged the lid C is buttoned down, and the hook E may then be thrown back and the screen thus made ready to revolve.

The box A is provided with corner-cleats F F, &c., which project above and below said box sufficiently to receive and hold the cover G at top, and to secure said box upon the receptacle H below.

Near the top of the box H is an inclined slide, K, running in suitable guides formed on or cut into the sides of said box, its lower end resting just below the mouth L, through which the contents of the screen are discharged after the cleaning process is finished.

During the revolution of the screen the slide K should be withdrawn to a position indicated by dotted lines K', in order to permit the waste material to drop down to the bottom of box H.

A dust-tight door, O, affords access to the lower part of box H, through which the refuse may be removed.

The drawing illustrates a circular screen mounted in a square box, but we propose to construct some of the machines with circular boxes and covers, and they may then be used in connection with an ordinary barrel, which will form the dust-receptacle.

In order that the square box A may be used in connection with a barrel or other receptacle not specially designed for it, we place a moderately-broad flange, P, round about the bottom thereof, which will serve, under all ordinary circumstances, to confine the dust within the lower receptacle.

The method of operating the device is sufficiently obvious without further explanation.

As thus constructed the sifter or screener is very simple in all its parts, and is thus particularly applicable for domestic uses. Dust is thoroughly confined during the process of cleaning, except, perhaps, as to the opening L, over which a piece of cloth or other material may be hung. It will perform its work in a thorough and effective manner, and may be cheaply and easily constructed.

We propose to furnish various-sized screens with each machine, if desired, so that it may be always conveniently suited for the numerous purposes hereinbefore indicated.

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

1. In combination with a revolving screen mounted in a box, A, the dust-receptacle, provided with mouth L and door O, and slotted to receive the removable inclined plate K, as shown and described.

2. The combination, with the box A, carrying the screen or sifter, and provided with extending cleats F F, of the dust-receptacle, having the removable inclined plate K, mouth L, and door O, arranged to operate substantially as and for the purposes set forth.

In testimony that we claim the foregoing we have hereunto set our hands in the presence of two witnesses.

JOHN R. DARKE.
DANIEL S. SMITH.

Witnesses :

HARRISON H. NEWELL.
EDWIN MEMORY.