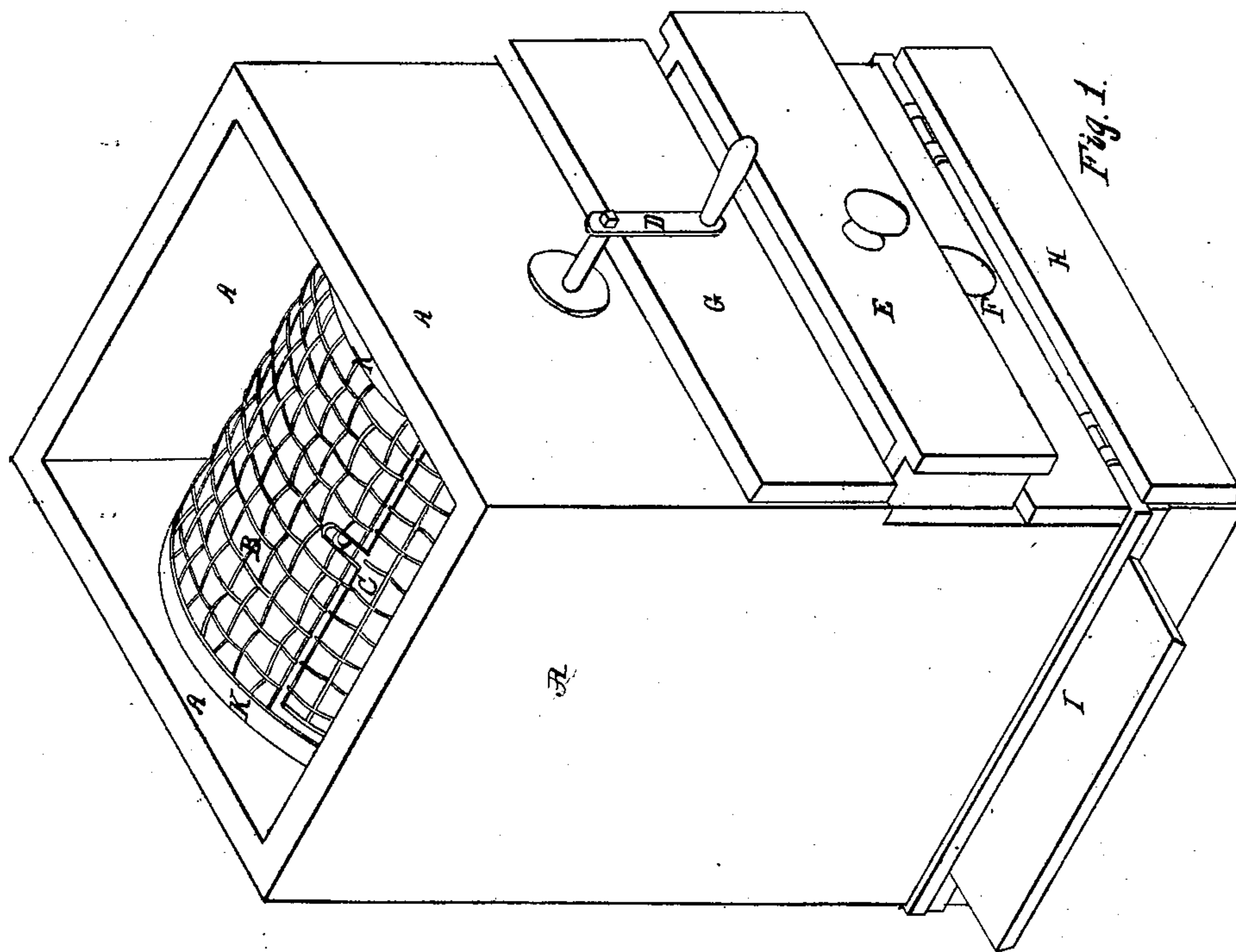
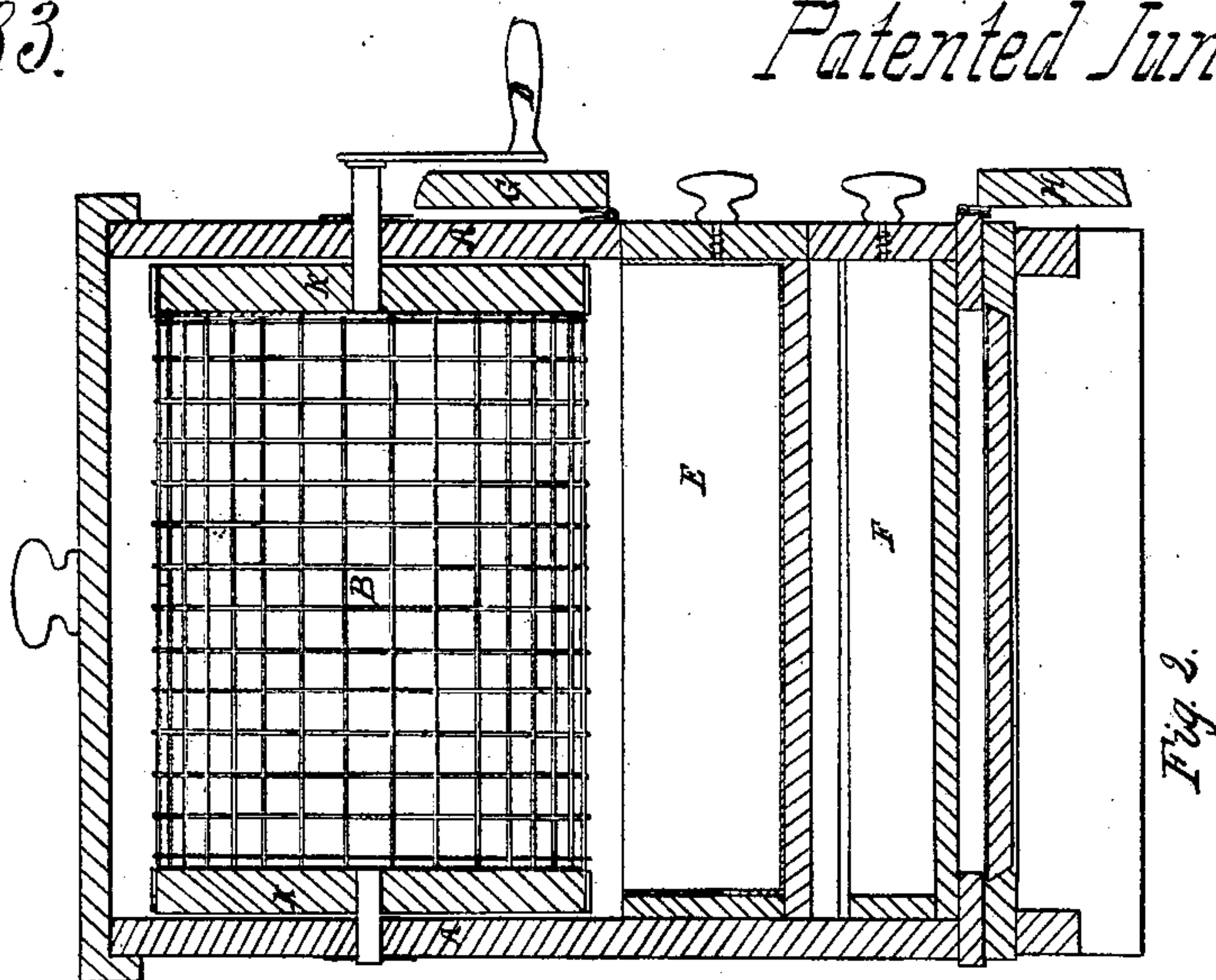


*J. P. Fennel,
Coal Screen.*

Nº 13,083.

Patented June 19, 1855.



UNITED STATES PATENT OFFICE.

JAMES P. FENNELL, OF PHILADELPHIA, PENNSYLVANIA.

COAL-SCREEN.

Specification of Letters Patent No. 13,083, dated June 19, 1855.

To all whom it may concern:

Be it known that I, JAMES P. FENNELL, of the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Portable Coal-Screens; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—
10 Figure 1, represents a perspective view, and Fig. 2 represents a vertical section.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings, in which similar letters in both figures denote like parts.

A, represents a tight box—the lid being removed in Fig. 1 to show the rotating screen B, within it, said screen being provided with a door C, into which the coal to be screened is thrown, and a crank D, outside of the box, by which the screen is rotated.

Underneath the screen are two drawers 25 E, F. The upper one E, is to receive the ashes as it drops through the screen, and the under one F, is to receive the screened coal, when the ash drawer is removed. To deposit the cleaned coal into the drawer F, after the drawer E, is removed, the door of the screen is opened, and the screen turned half around, or rotated, when it drops out.

The openings into which the drawers E, F, slide are respectively provided with 35 hinged doors G, H, which close said openings, when the drawers themselves are removed, so that the ashes and coal may be separately received into their respective drawers while the box continues to be closed up tight, and thus prevents any dust from escaping into the room. The bottom of the box I, is made to slide into its place, the object being to enable the machine to be used for screening larger quantities of coal than 40 is usually contained in the drawer of a stove or grate.

J, is the cover of the box, and K, K, the heads of the screening cylinder, which may be of wood or metal.

50 The operation of the machine is as follows: The coal to be screened is thrown into the cylinder B, and its door C, closed. The cylinder is then rotated by the crank D, and the ashes and fine material drop into the drawer E—it being prevented from escaping into the room by the cover J, which closely fits over the top of the box. When the ashes are sifted out, and in the box E, said box or

drawer is drawn out, and the door G, shut down so as to entirely close up the opening. 60 The door of the screen is then opened and it is turned around, and deposits its coal in the drawer F, and thus the ashes, and screened coal are taken from the box in separate receptacles. 65

When any considerable quantity of coal is to be screened—more than the drawers would contain—the machine is set over a box or barrel, and the bottom I, is drawn out, and removed, and also one of the drawers. 70 The same operation follows, the drawer remaining in catching the ashes, and when it also is taken away, the screened coal drops entirely through the machine into the box or barrel, on which it stands. 75

I am aware that a rotating screen, and single drawer has been used in a tight box, but the drawer was common to the ashes and coal both, and the coal could not be taken from the machine until the ashes were first 80 carried out of the room or building and emptied, and the box or drawer then reinserted, and the coal dropped into it, which required time, or other conveniences for receiving the ashes, and liability to escape of the ashes or its dust, all of which inconvenience my arrangement avoids. My invention is not, however, the mere addition of another drawer, for that would leave an opening when the dust drawer is taken out, 90 through which the ashes would escape, but my box is closed whether the drawers be in or out—one or both,—and the screened coal may pass entirely through the machine into a receptacle below, without having any 95 openings through which dust could escape.

Having thus fully described the nature of my invention, I would state that, I am aware that a rotating screen in a tight box with a single drawer which was used in common 100 for the ashes and coal both has been used. This I do not claim, but

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

A portable coal screen composed of a tight 105 box, within which are arranged a rotating screen, and two drawers, the openings into which box are provided with doors, so that the box shall remain tight when either or both of the drawers are taken out, as described. 110

JAMES P. FENNELL.

Witnesses:

A. B. STOUGHTON,
E. COHEN.