

(No Model.)

H. ST. J. ANDREWS.
COAL SCUTTLE SCREEN.

No. 482,431.

Patented Sept. 13, 1892.

Fig. 1.

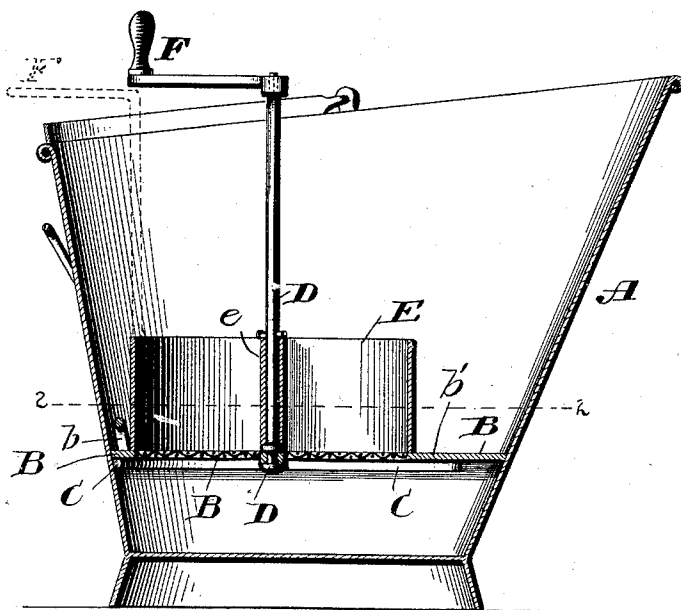
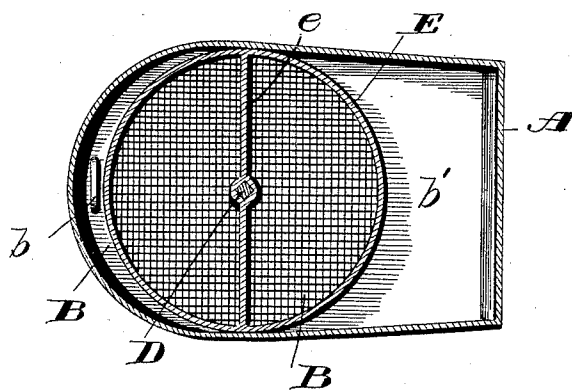


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

HORACE ST. JOHN ANDREWS, OF WEST ORANGE, NEW JERSEY.

COAL-SCUTTLE SCREEN.

SPECIFICATION forming part of Letters Patent No. 482,431, dated September 13, 1892.

Application filed May 23, 1892. Serial No. 434,066. (No model.)

To all whom it may concern:

Be it known that I, HORACE ST. JOHN ANDREWS, a citizen of the United States, residing at West Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Coal-Scuttle Screens; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide an improved ash-sifting device for use with coal-scuttles; and to this end it consists in the ash-sifter and in its construction and combination with a coal-scuttle, substantially as and for the purpose hereinafter specified and claimed.

In the accompanying drawings, Figure 1 is a vertical section of a coal-scuttle equipped with my sifting device; Fig. 2, a horizontal section of the same.

Referring to the drawings in detail, A designates a coal-scuttle of usual form, and B a metal plate, preferably iron, supported a short distance from its bottom, preferably about three inches. The plate snugly fits the scuttle, conforming in shape to the shape of the scuttle in section on a horizontal plane at the point where it is placed. Such shape comprises a semicircular rear edge, two straight slightly-inwardly-converging sides, and a straight front edge uniting the sides.

For the support of the plate an iron rod C is secured to the rear wall and the two side walls of the scuttle, on which said plate rests; but of course other means of supporting the plate may be employed, it being necessary, simply, that the means employed admit of the easy removal and replacement of the plate at will. For its ready removal the plate is provided with a suitable handle *b*. The front edge *b'* of the plate B for a distance rearward of two or three inches is solid or imperforate, while the remainder is perforated with openings of a diameter to admit the easy passage of ashes, but not that of cinders. The purpose of the imperforate portion, which is very important, will appear farther on.

Rising vertically from the center of the plate B is a pin or bolt D, that forms the pintle or pivot of an open-ended oscillatory cylinder E, whose lower end rests upon the plate B over its perforated or screen portion. Said cylinder is divided into two semicircular compartments by a transverse partition *e*, and is adapted to be oscillated by means of a handle F to cause the sifting of ashes through the screen. The sifting, it will be seen, is accomplished by the dislodgment or movements of the material upon the screen by the plate *e*, as the screen itself, relative to said material, is immovable. If desired, of course more plates *e* than one may be provided.

The operation of my invention will be readily understood. The plate B is first placed in position within the scuttle upon the supporting device C fixed therein, and then the cylinder mounted on its pintle D. The ashes to be sifted are now placed on both sides of the plate *e* in the cylinder, and the latter oscillated to cause the plate *e* to move the ashes, so as to effect the precipitation of the fine worthless portions through the screen portion of the plate B. The sifting having been effected to the desired extent, the cylinder is lifted out of the scuttle, and instead of removing the cinders from the latter, as is necessary with some sifting appliances used with scuttles, they, resting on the plate B, are poured directly from the scuttle onto the fire. The ashes beneath the plate B as the scuttle is tilted will fall forward under the solid imperforate portion at the front edge thereof, and thus be completely kept from mingling with the cinders. To empty the ashes, it is necessary simply to remove the plate B.

My device, it will be seen, is extremely simple in structure, convenient in use, and susceptible of ready application to common forms of scuttles.

A particularly advantageous feature about the device resides in the fact that when the sifting has been completed the cinders do not have to be removed from the scuttle, but can be poured directly therefrom upon the fire, precisely as is done with coal, and of course, materially contributory to this advantage, are the making of the cylinder separable from the screen-plate and the provision of the imperforate portion in said plate B to keep the

refuse and the available material from coming together when the scuttle is tilted to discharge the cinders.

5 If desired, the scuttle may be provided with a suitable cover to confine the dust during the sifting operation.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

10 1. A sifting device for use with coal-scuttles, comprising a screen or sieve to be fixedly attached to the scuttle and an oscillatory cylinder to rest upon said sieve and carrying a vertical plate, substantially as shown and described.

15 2. A sifting device comprising a screen or sieve, the pintle rising from its center, and the oscillatory cylinder pivoted on said pintle

and having a diametrically-extending plate, substantially as specified.

3. In combination with a coal-scuttle, a sifting device comprising a plate supported above the bottom of the scuttle and having its front portion imperforate and its remainder perforate and the oscillatory cylinder having the plate or partition to move the material over the perforate portion, said cylinder being removably mounted upon the screening-plate, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

HORACE ST. JOHN ANDREWS.

Witnesses:

J. W. SPALDING,
OLIVER DAVIS.