

A. M. Olds,

Coal Screen.

No. 46,019,

Patented Jan. 24, 1865.

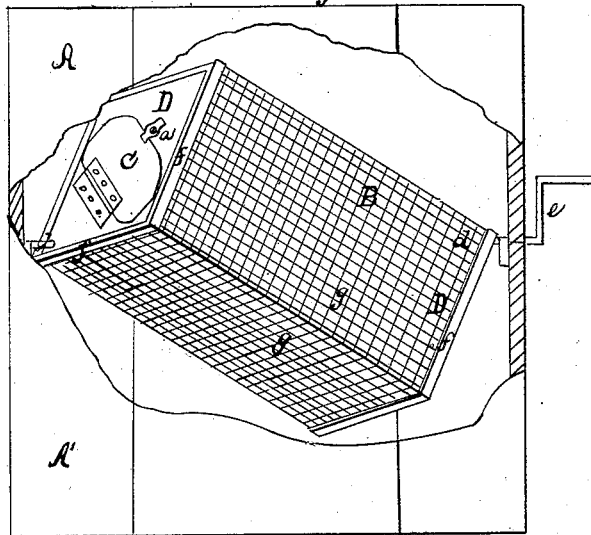


Fig. 1.

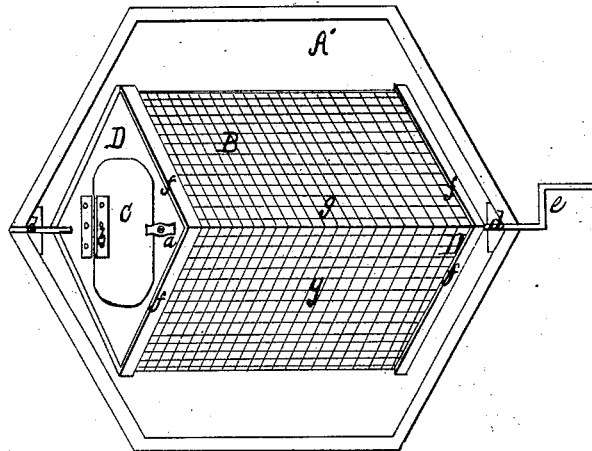


Fig. 2.

Witnesses

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per Wm. C. [unclear]
att'y*

UNITED STATES PATENT OFFICE.

A. M. OLDS, OF CHICAGO, ILLINOIS.

IMPROVED COAL-SCREEN.

Specification forming part of Letters Patent No. 46,019, dated January 24, 1865.

To all whom it may concern:

Be it known that I, A. M. OLDS, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Coal-Screens; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an elevation of my coal-screen, the sides of the box being partly broken away to show the screen within. Fig. 2 is a plan view of the lower half of the box and of the screen within it.

Similar letters of reference indicate like parts.

This invention consists of a novel arrangement of revolving screen within a closed box for screening coal, and for similar purposes, the screen being suspended eccentrically and the cover of the box being removable.

A is the upper, and A' the lower, part of a six-sided box, the lower part being the deepest. The upper part is to be fitted with a suitable handle, *j*, by which it can be removed from and replaced upon the lower part.

The screen B, in this example of my invention, is in the form of a parallelogram, whose opposite sides are equal. Its ends or heads D are solid, and the meshes *g* of the screen are made of wire, secured along their edges to the edges of the heads D by means of strips *f*, nailed to the edges of the heads, thereby confining the body of the meshes *g* to the said heads; but the meshes may be secured to the heads in any suitable manner. The meshes *g* are to be of such size as is necessary for the particular description of coal to be screened therewith, varying with different sizes; and if the screen is to be used for sifting ashes or fine coal-dust the meshes are to be proportionably fine. One of the heads of the screen is provided with a door, C, hinged at *b*, and locked by means of a button or other fastening. The screen is hung eccentrically upon an axis, *d*, which passes through opposite

corners or angles of the heads D, being rigidly secured to them, so that the screen will be revolved when the said axis is rotated. The axis *d* extends on one side of the box far enough to form or have fastened thereon a crank, *e*. Suitable bearings are made on or near the upper edge of the lower part A' of the box for the journals of the axis *d*, which are so arranged as to be easily removable from their bearings with the screen when the latter is to be taken out of the box. The box is to be of such dimensions as to allow the screen to revolve within it, and when the screen is of the shape here shown a six-sided box will be found the best and most economical in space and material.

The screen may be cylindrical, triangular, or many-sided, its axis being, however, always placed eccentrically. In operating it, the top A of the box is removed and the screen rotated until the head, which contains the cover, is uppermost, as in Fig. 1, when the mass to be sifted or screened is placed therein and the door C closed. The cover A being replaced, the screen is rotated so long as is necessary, when the cover A is removed and the screen can be removed and its contents emptied through its door C. The dust or ashes or fine particles of coal will be found on the bottom of the lower part, A', of the box, from which they are removed by upsetting it.

The part A' may be made open at the bottom, so that the ground or any suitable receptacle shall receive the refuse.

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

The coal-screen above described, constructed substantially as set forth, and consisting of the closed box A A', the part A being removable, and a screen, B, revolving eccentrically within the part A', said screen having a door at one end, and being so journaled on the part A' of the box as to be removable at pleasure.

A. M. OLDS.

Witnesses:

J. A. HOISINGTON,
C. L. JENKS.