

S. C. Maine,

Sieve.

N^o 48,293.

Patented June 20, 1865.

Fig. 1.

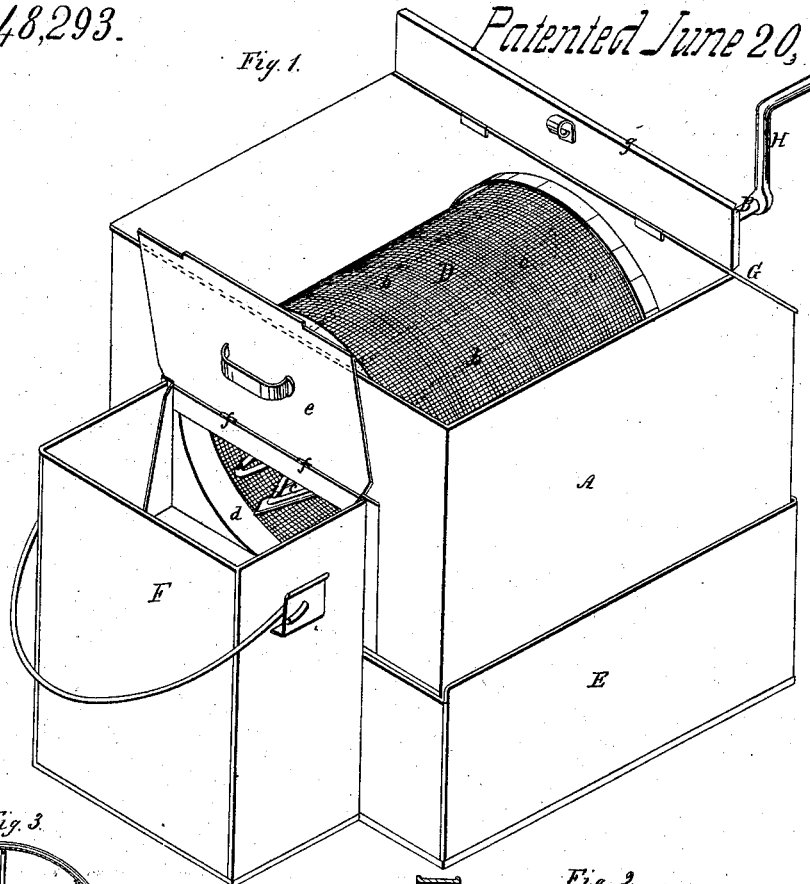


Fig. 3.

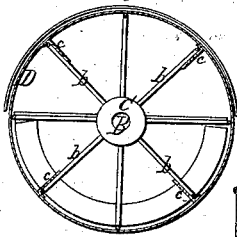
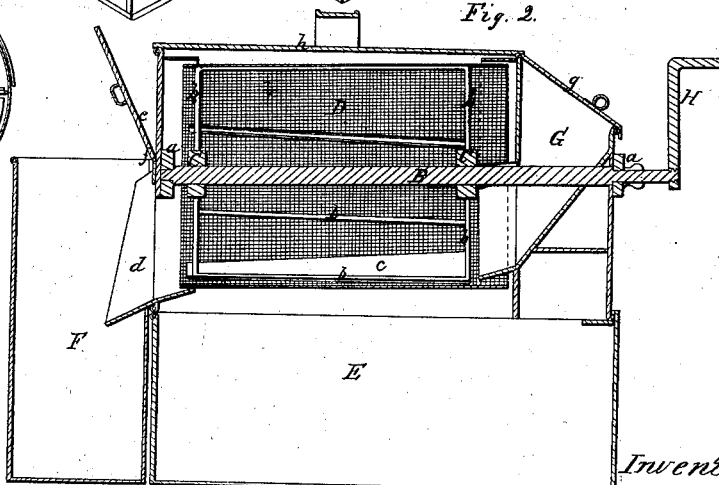


Fig. 2.



Witnesses;

Attest: N. W. Stearns

Inventor;

S. C. Maine

UNITED STATES PATENT OFFICE.

SEBEUS C. MAINE, OF BOSTON, MASSACHUSETTS.

COAL AND ASH SIFTER.

Specification forming part of Letters Patent No. 48,293, dated June 20, 1865.

To all whom it may concern:

Be it known that I, SEBEUS C. MAINE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Family Sieve and Safety Coal-Sifter, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved sifter, the cover being removed. Fig. 2 is a longitudinal vertical section through the center of the same. Fig. 3 is a transverse section through the sifting-cylinder.

The object of my invention is to produce a sifter for coal and other articles which shall perform its work in a rapid and effectual manner, and can be easily operated by hand; and it consists in a perforated cylinder the interior of which is provided with flanges or strips which serve to elevate the article being sifted and throw it forcibly against the opposite side of the screen, whereby the operation of sifting is greatly accelerated, and is performed in a most effectual manner.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is a box, of metal or other suitable material, in bearings *a* in which runs the shaft B from hubs C, on which project the bent rods *b*, to which is secured a perforated cylinder, D, placed horizontally or slightly inclined, as seen in Fig. 2, the longitudinal portions of these rods to which the cylinder is fastened being inclined to its axis, as seen dotted in Fig. 1.

c are strips of metal, which taper gradually from the inlet to the outlet of the cylinder, and are attached to the rods *b*. On revolving the cylinder these strips *c* serve to raise the coal or other substance being sifted and throw it forcibly against the shaft B and sides of the

cylinder D, whereby it is turned over and over, and the dust is effectually shaken out and falls into a receptacle, E, beneath, the inclination of the strips *c* to the shaft B, in connection with their tapering form, serving to give the contents a forward progressive motion toward the outlet *d* in the box A, where it is received by the box or hod F.

The size of the outlet *d* may be contracted by a slide, *e*, in order to subject the contents of the cylinder for a longer time to the screening process; or the outlet may be closed by the slide entirely, if desired. The slide *e* is hinged at *f*, and when raised may be used as a cover for the box F, as seen in Figs. 1 and 2.

The hopper G, into which is placed the article to be sifted, is provided with a cover, *g*.

The box A is closed by means of a cover, *h*, which prevents the dust from escaping.

To the end of the shaft B is attached a crank, H, by which the cylinder is revolved.

In a sifter constructed as above described the cylinder revolves with an easy and uniform motion, and the contents being continually discharged the weight and pressure on the bearings is gradually relieved, and the operation thus facilitated.

It is evident that by altering the size of the cylinder and its meshes the sifter may be applied to a variety of purposes.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The flanges or strips *c*, in combination with the cylinder B, operating substantially as set forth, for the purpose specified.

2. The cylinder B, provided with flanges *c*, in combination with the box A, hopper G, and receptacle E, arranged and operating substantially as set forth.

S. C. MAINE.

Witnesses:

P. E. TESCHEMACHER,
N. W. STEARNS.