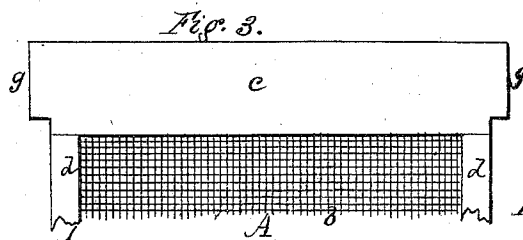
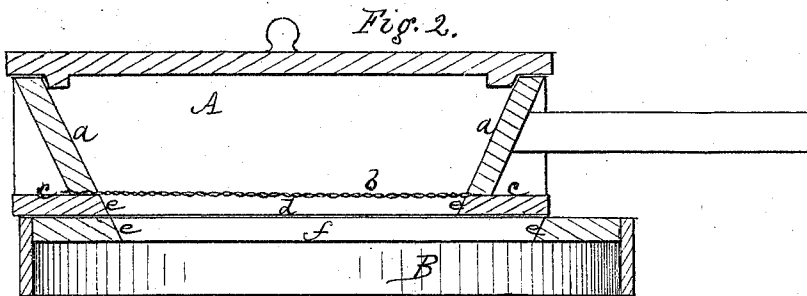
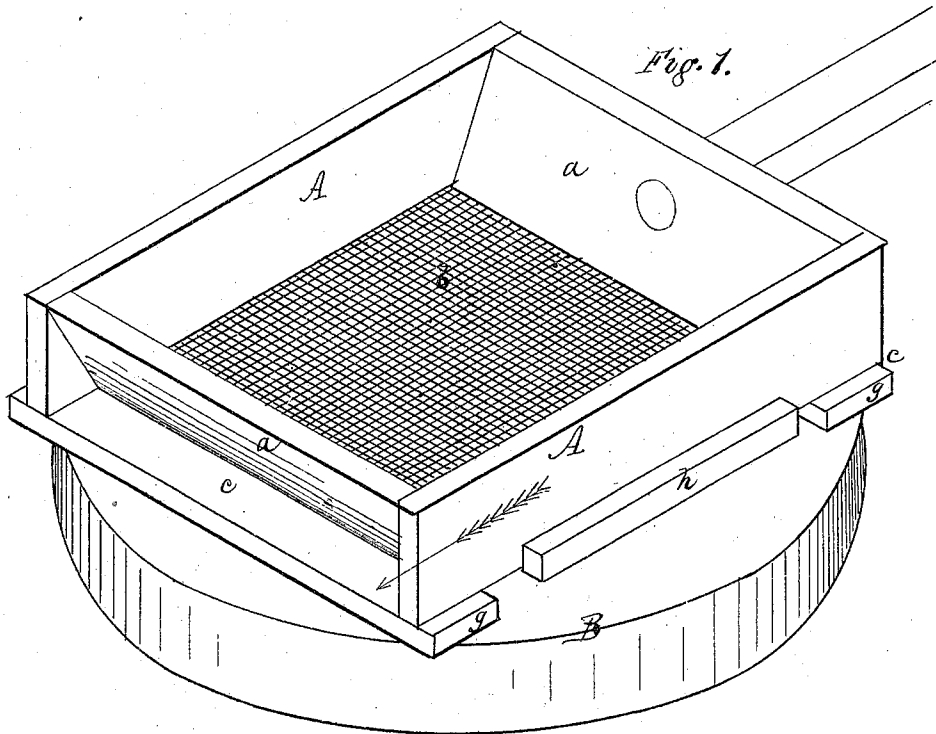


J. S. BROOKS.

Improvement in Ash-Sifters.

No. 128,785.

Patented July 9, 1872.



Witnesses.
R. F. Osgood
Arch. Baine.

Inventor.
John S. Brooks

UNITED STATES PATENT OFFICE.

JOHN S. BROOKS, OF ROCHESTER, NEW YORK, ASSIGNOR TO A. D. McMASTER
AND JOHN W. STEBBINS, OF SAME PLACE.

IMPROVEMENT IN ASH-SIFTERS.

Specification forming part of Letters Patent No. 128,785, dated July 9, 1872.

Specification describing a certain Improvement in Ash-Sifters, invented by JOHN S. BROOKS, of Rochester, in the county of Monroe and State of New York.

Nature of the Invention.

My invention consists of an angular sifting-box having combined therewith end slats or plates, by which a greater vibration and larger sifting-surface are attained; and also in the arrangement of other parts, as hereinafter described.

General Description.

In the drawing, Figure 1 is a perspective view of my improvement with the cover removed; Fig. 2, a longitudinal vertical section; Fig. 3, a bottom view of one end of the sifter.

A is the sifter, and B the hoop-cover on which the sifter rests, and which covers a barrel or other vessel. The sifter consists of a square or rectangular box having angular ends *a a*, and a wire-mesh bottom, *b*. At the bottom and ends of the sifter are also cross-slats or plates *c c*, which form bearings and slide upon the top of the hoop-cover. The inner edges of these slats are beveled to correspond with the angle of the ends *a a*, as shown at *e e*. The wire-mesh is secured by these slats and the side strips *d d* to the bottom of the box by nailing in the ordinary way. These slats *c c*, combined with the angular ends of the sifter, and with the discharging-opening *f* through the hoop-cover, form the subject-matter of the first part of my invention. The length of the bottom of the sifter is greater than the length of the opening *f* by the width of one of the slats *c*; and the stroke or vibration of the sifter in either direction is also the width of one of said slats. Thus it will be seen that, at the extent of each stroke, the slat on the retreating side will project over the discharge-opening, and its back edge come to its margin; while, at the same time, the opposite slat will lie back on the cover with its inner edge just in line with the end of the discharge-opening *f*, as shown in Fig. 2. At the reverse stroke the same will be the result. The opening *f* is therefore never uncovered to allow the escape of dust, but is alternately closed at each end, as the sifter vibrates, by the projecting over of the slats *c c*.

By this means I secure the desired angle of the ends of the sifter to throw the ashes downward properly, and at the same time obtain a longer stroke of the vibration, and a greater sifting action, which is a matter of importance, as these sifters are specially designed for barrels, which are the most convenient receptacles for ashes. In such case the diameter of the cover B must be such as to fit the top of the barrel, which is only about eighteen inches; and the square hole in the hoop-cover can only be about thirteen inches. The increase of the stroke of the sifter is therefore of importance. There is a gain of about two inches in the stroke in this case. If the box were made square, of the size of the wire-mesh, the opening *f* would have to be made correspondingly smaller, to allow the vibration without being uncovered; and in that case, also, a blank space would be left on top the hoop-cover, at the margin of the opening, that would receive ashes, which would impede the action of the sifter in passing over, and would also raise a dust that would escape outward. It is a special advantage in my case that no such blank can be left for ashes to fall on, but that at the extent of each vibration the inner edge of the slat does not pass by the margin of the opening, but coincides with it. I also gain an addition to the throw of the sifter by making the inner edges of the slats and of the opening *f* of angular form, for the reason that the slats in that case can throw past the vertical plane of their inner edge, and still discharge the ashes down properly.

The stops to the sifter may be arranged in any desired manner; but I prefer to extend the ends of the slats *c c* outward, so as to form projections *g g*, and to nail to the top of the hoop-cover strips *h h*, against which the projections strike. The length of the strips *h* is such as to gauge the vibration of the slats over the discharge-opening, as before described. This is very simple and effective, as but two strips are required, one on each side, in addition to the slats. This also insures great strength.

I contemplate, in some cases, applying rollers to the sifter, which are sunk flush in the wood, only projecting sufficiently to bear on the surface of the hoop-cover.

I do not claim, simply and broadly, a sift-

er of angular form, as I am aware that the same is not new; but

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

1. The cross-slats *c c* secured to the end of the sifter *A*, when combined with the discharge-opening *f* in such a manner that the inner edge of one slat coincides, or nearly so, at the extent of vibration, with the corresponding edge of the discharge-opening, while the body of the opposite slat projects over the said opening to cover the joint, and vice versa, as herein described.

2. I claim forming the coincident edges *e e*

of the slats and the discharge-opening of the hoop-cover in bevel form, as and for the purposes specified.

3. I claim the projections *g g* of the slats and the intermediate strips *h h*, arranged as described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN S. BROOKS.

Witnesses:

R. F. OSGOOD,
ARCHD. BAINE.