

J. Brady and C.L. Wall, Impel Ash Sifter.

No. 118,334.

Patented Aug. 22, 1871.

FIG. 6.

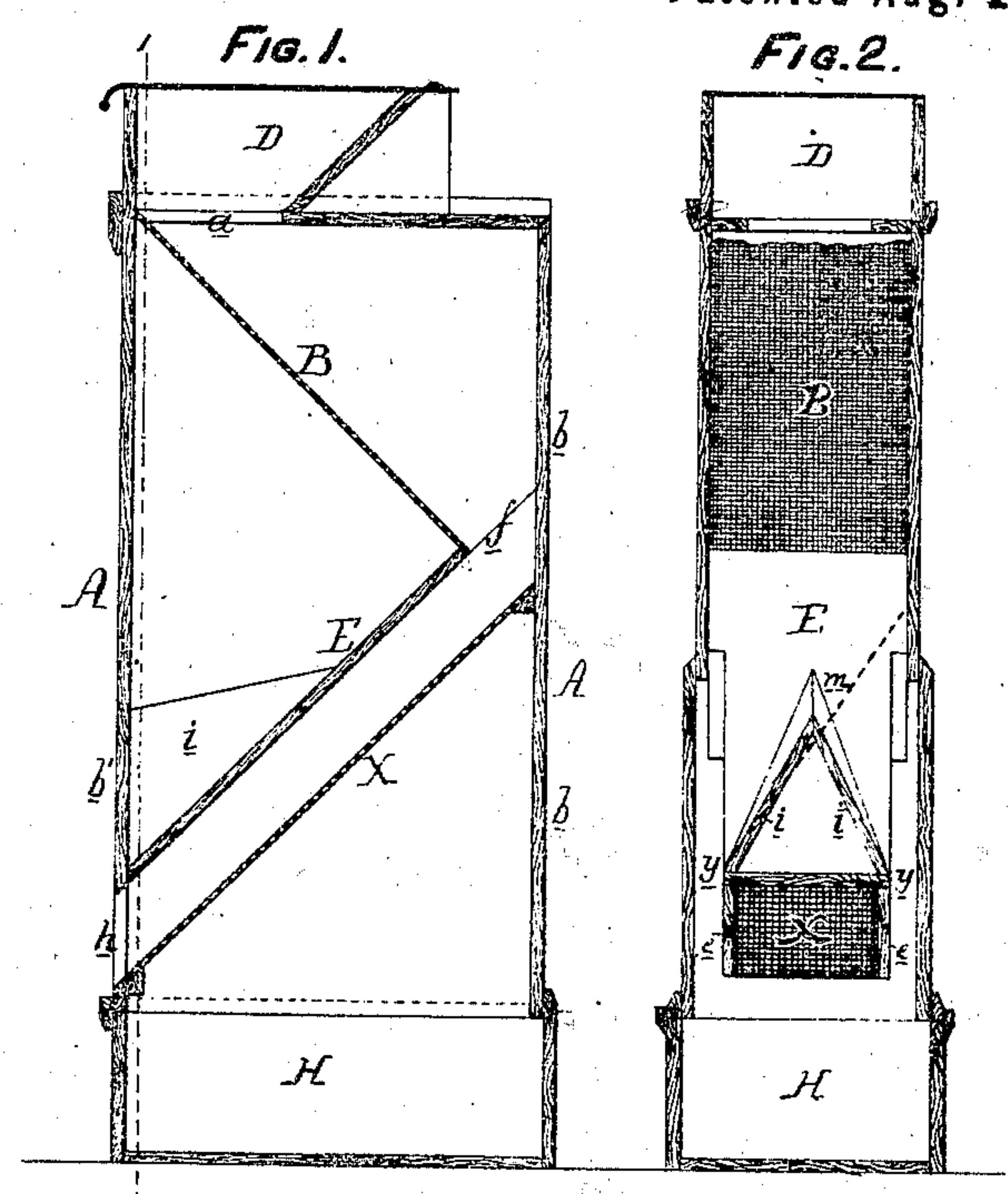
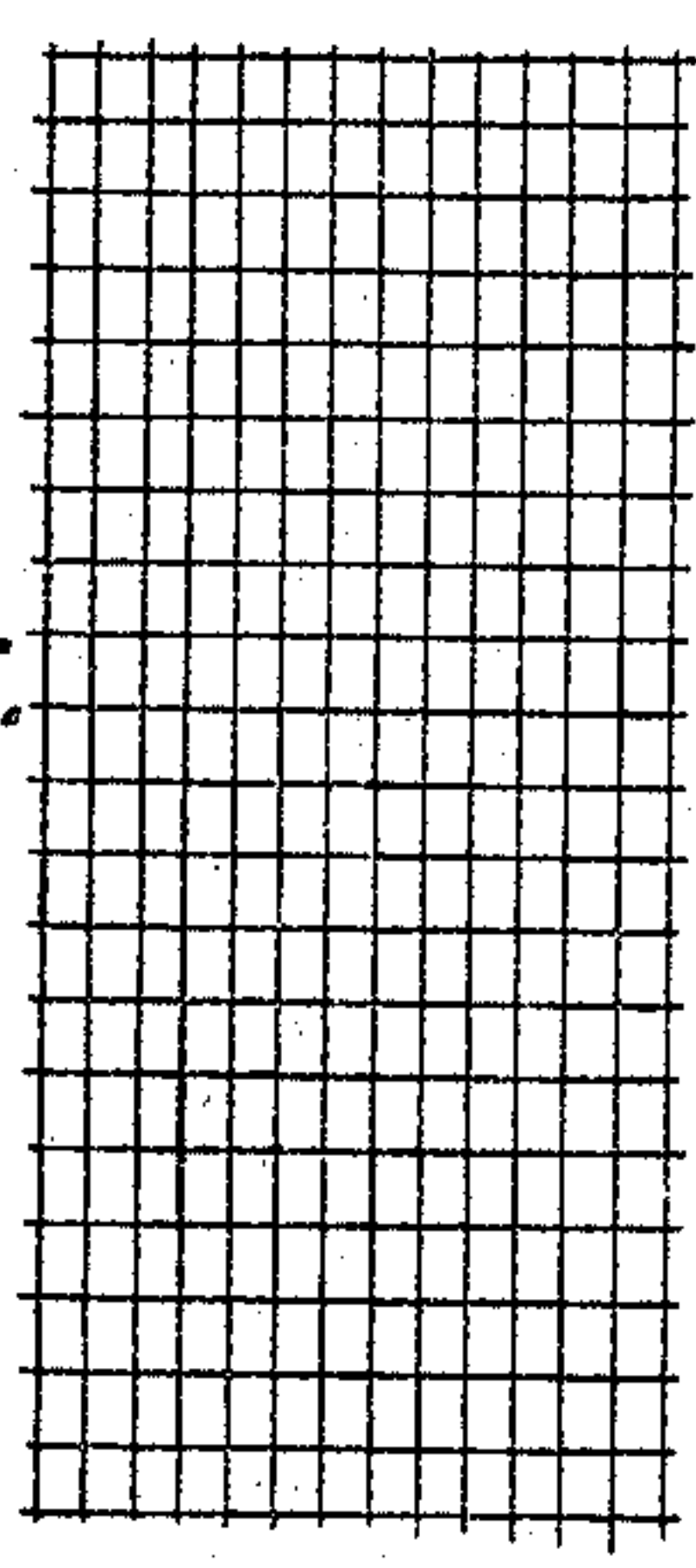


FIG. 3.

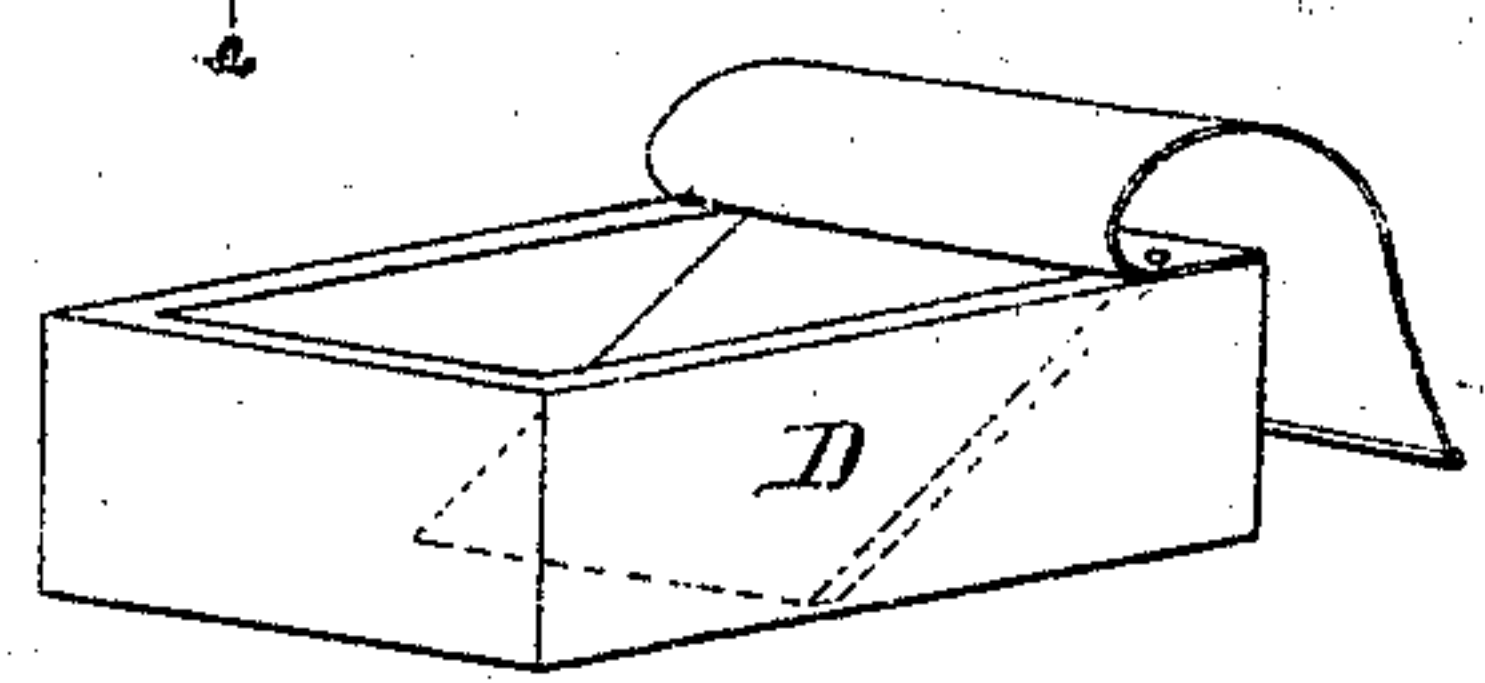


FIG. 4.

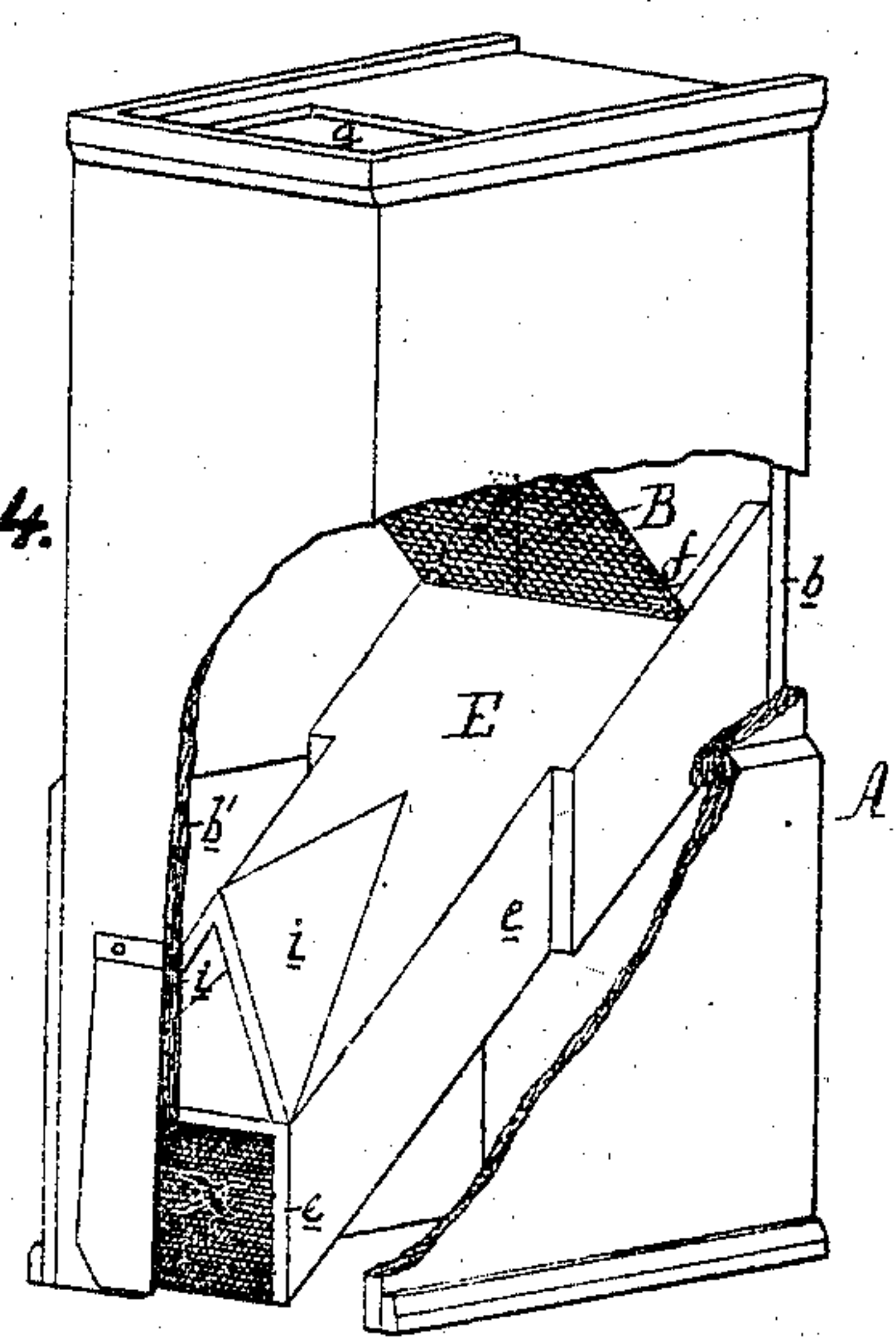
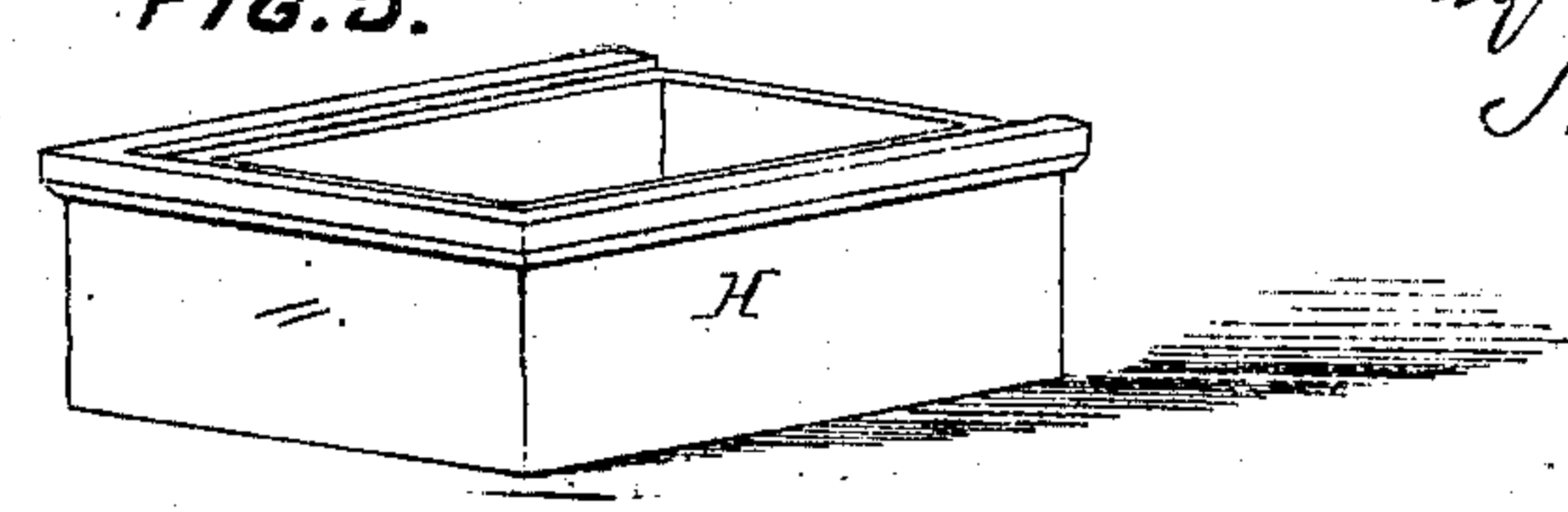


FIG. 5.



WITNESSES

Jno. B. Harding.
Thos. McIlwain

J. Brady and C.L. Wall.
by their Attors
Storzen and Son

UNITED STATES PATENT OFFICE.

JOHN BRADY AND CHARLES LAFAYETTE WALL, OF PHILADELPHIA, PA.

IMPROVEMENT IN ASH-SIFTERS.

Specification forming part of Letters Patent No. 118,334, dated August 22, 1871.

To all whom it may concern:

Be it known that we, JOHN BRADY and CHARLES LAFAYETTE WALL, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improved Ash-Sifter, of which the following is a specification:

Our invention consists of apparatus, too fully explained hereafter to need preliminary description, for effectually separating from waste ashes the cinders which are available for consumption as fuel.

Figure 1 is a vertical section of our improved ash-sifter; Fig. 2, a transverse vertical section on the line 1 2, Fig. 1; Fig. 3, a perspective view of the upper portion of the ash-sifter; Fig. 4, a perspective view, partly in section, of the body of the same; Fig. 5, a perspective view of the base; and Fig. 6, an enlarged view of a portion of one of the sieves or screens.

The body of the sifter consists of a rectangular box, A, within which are arranged two screens or sieves, B and X, one inclined in a contrary direction to the other. The upper end of the screen B extends from the front edge of the opening *a* at the top of the box to the lower edge of an opening in an inclined chute, E, the bottom of the latter, consisting of the above-mentioned screen X, which, together with the sides *e* of the chute, extend from the rear *b* to the front *b'* of the box A, where the chute communicates with an opening, *h*, in the above-mentioned front *b'* of the box. Two inclined planes, *i i*, best observed in Fig. 4, are so arranged as to meet at the top in a sharp edge, these planes extending to the front *b'* of the box.

It will be observed, in referring to Fig. 2, that the chute E is narrower than the interior of the box is wide, so that there may be spaces *y* on each side of the chute for a purpose described hereafter.

At the top of the box A is a detachable hopper, D, for directing the unsifted ashes to the opening *a*, and to the top of this hopper may be so secured one edge of a flap of leather or fabric that it can be thrown back, as shown in Fig. 3, or turned over the top of the hopper, as shown in Fig. 1, where it will prevent the dispersing of

the ashes. The lower end of the box A is so fitted to the receptacle H for the waste ashes that it can be readily detached therefrom.

Combined ashes and cinders raked from a fire-place are thrown into the hopper, whence they fall onto the inclined sieve or screen B and pass down the latter, a great portion of the fine ashes falling through the meshes of the screen onto the top of the chute E, or onto the inclined planes or deflectors *i i*, which direct the ashes to the spaces *y y*, through which they fall into the receptacle H. The partially-sifted cinders pass from the screen B onto the second inclined screen X, the sifted cinders being finally discharged through the chute E and opening *h* in the front of the box, ready for use as fuel, while the remaining fine ashes pass through the meshes of the said sieve X and into the receptacle H. In passing down the first screen the ashes are not thoroughly sifted from the cinders, owing to both descending together in a comparatively undisturbed volume; but the moment this volume passes through the opening *f* of the chute and turns in the direction of the next screen X it is entirely broken up, and so thoroughly disturbed that the remaining ashes are at liberty to pass through the second screen, while the sifted cinders are discharged in front of the box.

If desired, the above-described sifter may extend from the floor to the rafters of a cellar, and the opening *a* may be in the kitchen-floor and the hopper attached to the same, so that a cook may from time to time throw the ashes into the hopper and collect the sifted cinders whenever it is convenient to do so.

It will be seen, on referring to Fig. 6, that the meshes of the screen are longer than they are wide, the narrow meshes being arranged transversely in the box.

Three or even more than three screens may be used if the height of the box will permit, but we have found that two will suffice if placed at a proper inclination.

Instead of two deflectors, *i i*, one deflector only may be used, and arranged to extend from one edge of the chute to the side of the box, as shown by the dotted line *m*, Fig. 2, the waste ashes from

the upper screen being in this case directed to a single space, *y*, between the chute and adjacent side of the box.

I claim—

An ash-sifter, consisting of the box A, screen B X, chute E contracted to form the side spaces *y y*, and detachable hopper D having a flexible flap, the whole being constructed and arranged as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN BRADY.
CHARLES L. WALL.

Witnesses:

WM. A. STEEL,
JNO. B. HARDING.