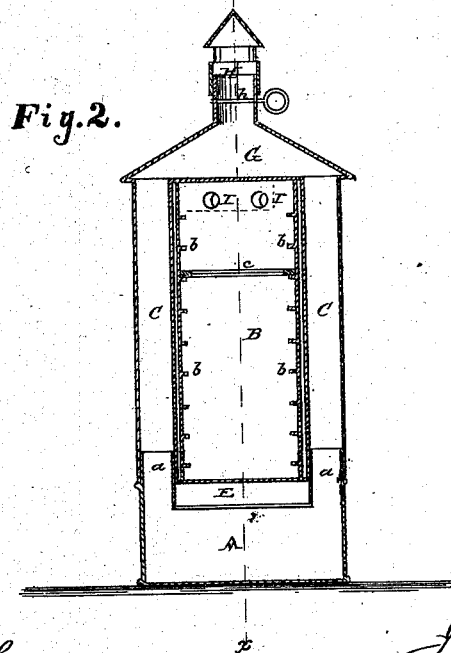
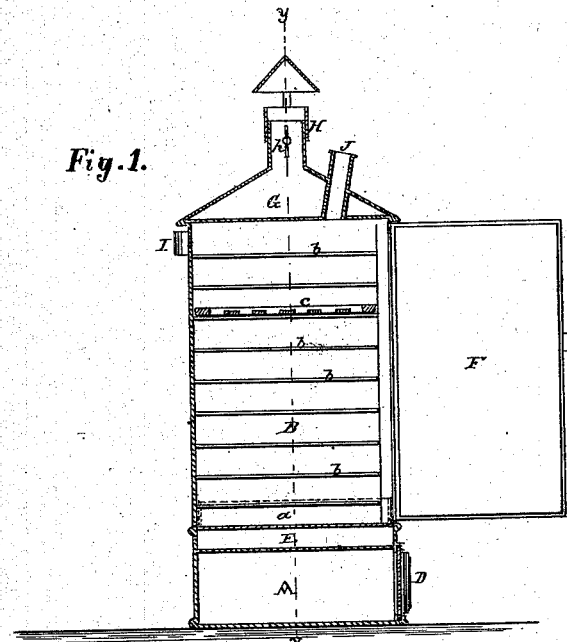


BIDDLE & LINGENFELTER.
Fruit Dryer.

No. 112,532.

Patented Mar. 14, 1871.



Witnesses.

W. H. Hamistric & Shuron
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Inventor

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JACOB S. BIDDLE AND THEODORE S. LINGENFELTER, OF PATTONVILLE,
PENNSYLVANIA.

Letters Patent No. 112,532, dated March 14, 1871.

IMPROVEMENT IN FRUIT-DRIERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JACOB S. BIDDLE and THEODORE S. LINGENFELTER, of Pattonville, in the county of Bedford and State of Pennsylvania, have invented a new and useful Improvement in Fruit-drying Apparatus; and we do hereby declare the following to be a full and correct description of the same, sufficient to enable others skilled in the class to which our invention appertains to fully understand and construct the same, reference being had to the accompanying drawing which makes a part of this specification, and in which—

Figure 1 is a vertical central section in line *x x*, fig. 2, and

Figure 2 is a similar section in line *y y*, fig. 1.

Like letters of reference indicate like parts in both figures.

The nature of our invention consists in the peculiar construction of the drying apparatus, as hereinafter more fully described.

A in the drawing is the fire-place, constructed of sheet metal or otherwise formed, detachable from the body B of the drying apparatus.

This fire-place is provided with two rims, *a*, one at each side, fitting closely into and forming part of the flues C of the drying-chamber B.

Sliding doors D are provided on the front side of the fire-place, through which fuel is placed within the latter, and which act at the same time as dampers to regulate the fire.

The front and rear of the fire-place extend upwardly to the bottom of the chamber B, so as to form under the same a hot-air chamber, E.

The chamber B is constructed with double sides, which form flues C, while its back is single and its front is closed by a door, F.

The flues C extend into the hollow roof G, provided with a chimney, H, in which a damper, *h*, is arranged.

The interior of the drying-chamber B is provided, at its sides next to the flues C, with ridges *b*, on to which drawers *c* slide. These ridges *b* are so secured to pieces extending from top to bottom of chamber B

that a short space is allowed between the drawers and the sides, so as to form an open space, through which the steam and vapors from the front may escape upwardly without being obliged to pass through the successive layers of fruit on the drawers.

A damper, I, is arranged on the rear wall of chamber B, and a steam-escape pipe, J, leads from the chamber through the double roof G.

The fruit to be dried being placed on the drawers *c*, and the drawers being placed on the ridges *b*, the door F of chamber B is closed and fire kindled in the fire-place A. The products of combustion, passing upwardly through flues C and double roof G, escape through chimney H, the draught being regulated by doors D and damper *h*.

As the chamber B gets heated from the flues and roof the steam and vapors arising from the drying fruit pass upwardly between the sides of chamber B and drawers *c* and escape through pipe J. Should the heat become too great in chamber B the damper I may be opened, to allow the steam to escape quicker and cold air to enter the chamber. The quicker drying of the fruit on the lower drawers, by reason of their being nearer to the fire, is prevented by the air-chamber E, and thus a uniform heat is kept up in the chamber B.

The fire-place A and chamber B being constructed in separate parts, we are enabled to clean the flues C at any desired time with the greatest ease.

The whole apparatus may be constructed of sheet metal or any other suitable material.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

The fire-place A, constructed separate from the chamber B, with rims *a* and doors D, and so arranged as to form, with the bottom of chamber B, an air-chamber, E, substantially as herein described.

JACOB S. BIDDLE.

THEODORE S. LINGENFELTER.

Witnesses:

JOSEPH BAYER, Jr.,
JOSIAH PRITCHY.