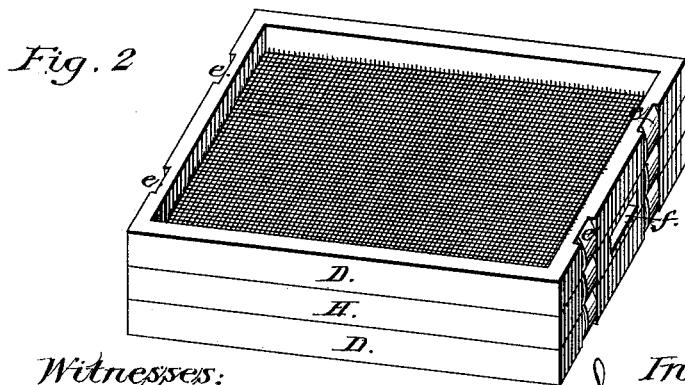
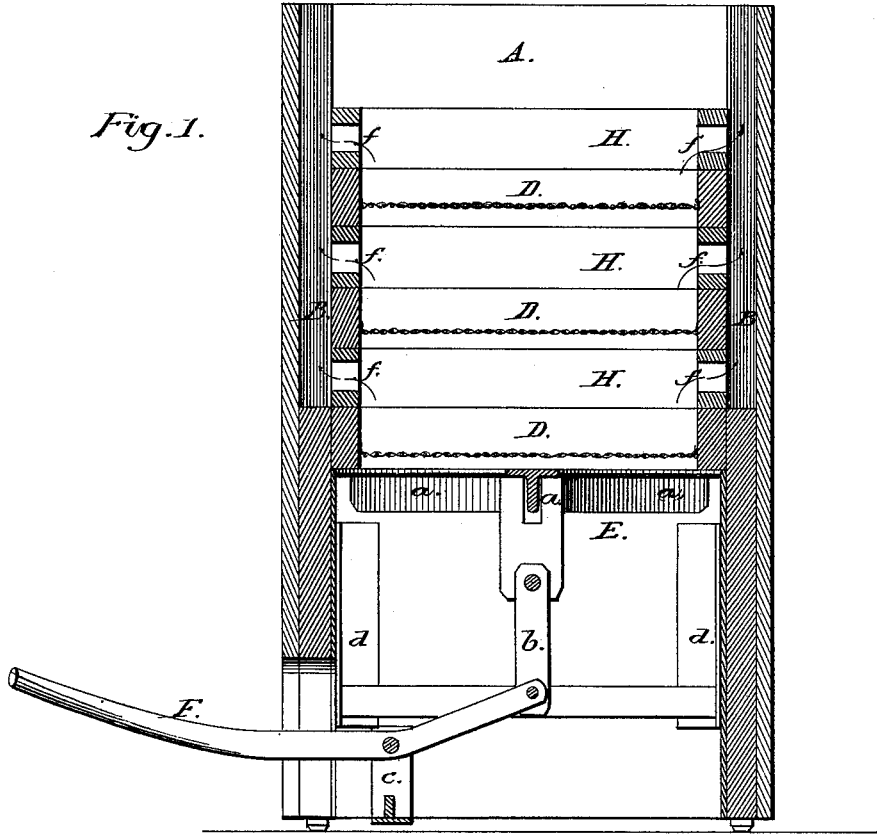


H. BROWN.
Fruit-Drier.

No. 202,699.

Patented April 23, 1878.



Witnesses:
Edw. W. Bonar
L. M. Dungan

Inventor:
Henry Brown
By Parker & Sweet, Jr. & Co.
Attys.

UNITED STATES PATENT OFFICE.

HENRY BROWN, OF DECATUR, MICHIGAN.

IMPROVEMENT IN FRUIT-DRIERS.

Specification forming part of Letters Patent No. 202,699, dated April 23, 1878; application filed February 16, 1878.

To all whom it may concern:

Be it known that I, HENRY BROWN, of Decatur, in the county of Van Buren and State of Michigan, have invented certain new and useful Improvements in Fruit-Driers; 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 which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 represents a vertical longitudinal section, and Fig. 2 represents a detail view.

Similar letters of reference occurring on the several figures indicate like parts.

My invention relates to that class of fruit-drying apparatus in which the fruit-trays are introduced at the bottom of the drying-chamber and moved upward to the place of removal therefrom by a lever-platform adapted to operate in connection with springs upon the inner walls of said chamber, to adjust the fruit-trays one above the other, for the purpose of drying the fruit contained therein, by means of artificial heat introduced at the bottom of said chamber; and it consists in the details of construction and general arrangement of parts, all as will be hereinafter more fully described, and pointed out in the claim.

Referring to the drawings, A represents the drying-chamber, provided at the upper part, on two sides, with flues or chimneys B, and having the usual opening near the bottom for the introduction of the fruit-trays D. The furnace or heater is placed beneath the drying-chamber, and the heated air ascends through the series of trays contained therein, the smoke or other products of combustion being carried off by a separate flue at the rear of said chamber. A movable platform, E, is arranged at the bottom of the chamber, over the heater, and is operated by a hand-lever, F, as shown, said platform being composed of side and end pieces, strengthened by metallic cross-arms *a*, to the center of which is attached the pivoted bearing *b*, connecting the said platform to the hand-lever F, which has its fulcrum in a slotted standard on the beam *c*, running across the

bottom of the drying-chamber. At each corner of the platform E is securely attached metallic angular guides *d*, which project downwardly to suitable braces, so as to assist in keeping the platform in a true horizontal position when being operated, thereby preventing said platform from becoming jammed against the sides of the chamber or thrown out of level, as is frequently the case with other constructions now in use. Above the opening, and in suitable grooves upon the inner sides of the drying-chamber, are arranged spring-catches, which move back automatically while a fruit-rack is being elevated; but as soon as the rack passes they spring out and support the same, while the platform is lowered for the introduction of another rack. These fruit-racks D are preferably of a square shape, adapted to snugly fit within the drying-chamber A, and are provided with wire-gauze bottoms, as shown. Upon each side of the trays are two inclined slots, *e*, arranged in juxtaposition to the spring-catches on the sides of the chamber, and so adapted for operation that the said catches readily slide over the inclined surface of the slots when the tray is being moved upward, and as readily catch under the tray to hold it in position in the chamber.

H represents square frames, of the same size as the fruit-racks, having an open bottom and top, and provided on each side with an opening, *f*, in the same line, and leading out into the flues B on each side of the drying-chamber.

The construction of my invention being as already described, it will be observed that the trays D, containing the fruit to be dried, are introduced one by one through the opening at the bottom of the chamber, and moved upward by depressing the hand-lever F, thus raising the platform E and carrying the trays over the spring-catches, and holding them in position above the same until the required number of trays is in the chamber.

It will also be observed that in the process of filling said chamber I introduce one of the frames H between or over each tray D, the object of which is such that the steam or evaporation from the fruit, instead of being carried up through the tray of fruit directly

above, is drawn out, through the openings *f* in the side of the frames, into the flues B, thus facilitating the rapid drying of the fruit.

The advantages of my invention will be readily apparent, inasmuch as I am enabled, by means of my present improvements, to furnish a fruit-drying apparatus possessing a high degree of utility, simplicity, and durability of construction, combined with a most efficient and economical operation for the purpose intended.

I am aware that fruit-driers having an elevating-platform operated by a lever, and provided with fruit-trays and frames with gauze bottoms, are not new; nor do I wish to claim such a construction, broadly; but,

Having thus described my invention and its mode of operation, I claim as new and useful—

In a fruit-drying apparatus, the chamber A, provided with side flues B, and opening at the bottom for introduction of fruit-trays, and having the movable platform E, operated by the lever F, in combination with the trays D and frames H, having openings *f*, the several parts being constructed, arranged, and combined to operate substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

HENRY BROWN.

Witnesses:

JOHN G. HAYNES,

L. G. STEWART.