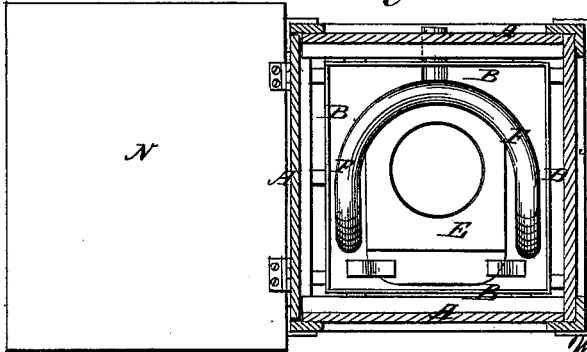
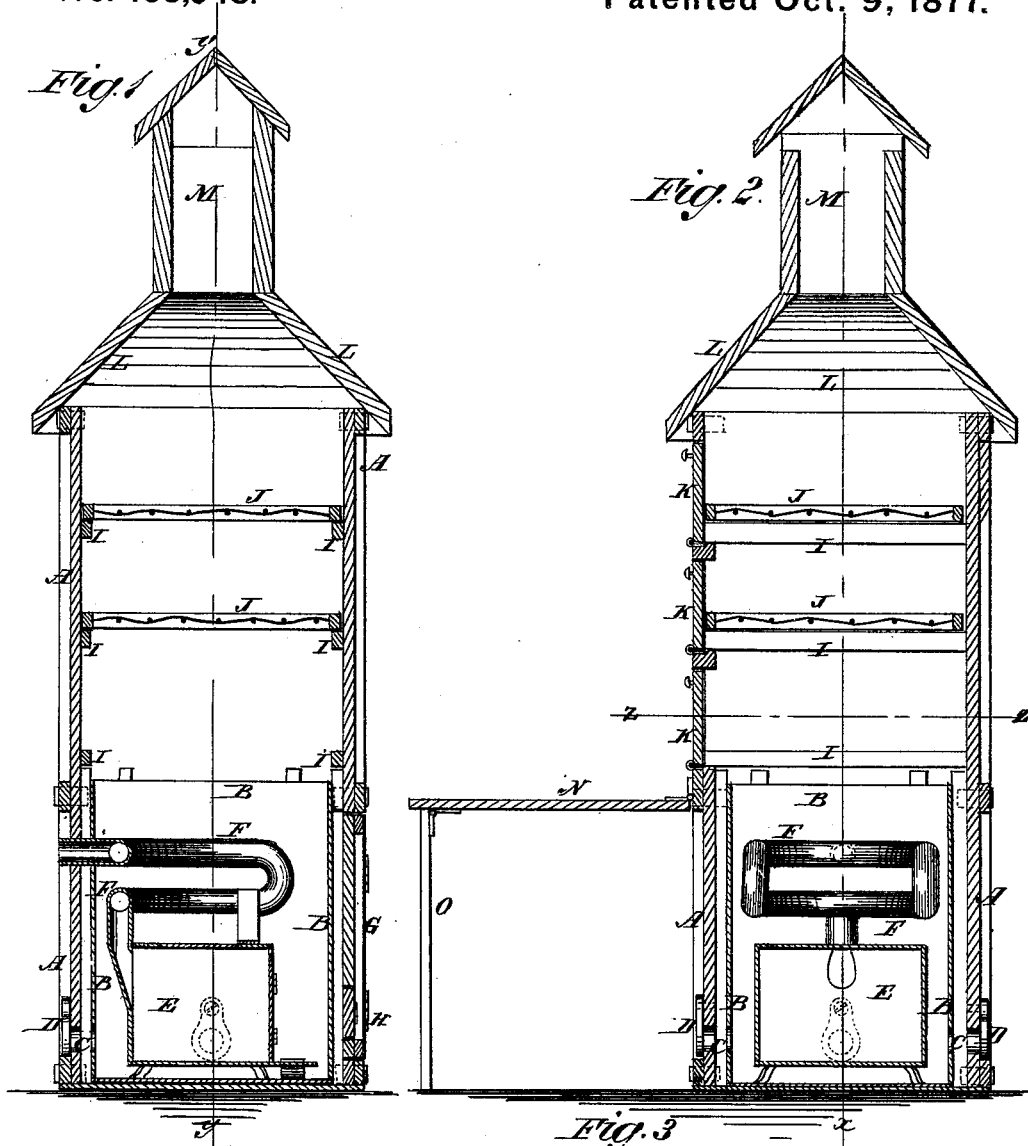


W. S. PLUMMER.
Fruit-Driers.

No. 195,948.

Patented Oct. 9, 1877.



WITNESSES:
E. M. Arde.
J. A. Scarborough.

INVENTOR:
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UNITED STATES PATENT OFFICE.

WILLIAM S. PLUMMER, OF PORTLAND, OREGON.

IMPROVEMENT IN FRUIT-DRIERS.

Specification forming part of Letters Patent No. **195,948**, dated October 9, 1877; application filed February 17, 1877.

To all whom it may concern:

Be it known that I, WILLIAM S. PLUMMER, of Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Improvement in Fruit-Driers, of which the following is a specification:

Figure 1 is a vertical section of my improved fruit-drier, taken through the line *x x*, Fig. 2. Fig. 2 is a vertical section of the same, taken through the line *y y*, Fig. 1. Fig. 3 is a horizontal section of the same, taken through the line *z z*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved apparatus for drying fruit, which shall be simple in construction, convenient in use, and effective in operation, drying the fruit rapidly and evenly, and which shall be so constructed that it may be readily taken down, set up, and moved from place to place.

The invention consists in the case provided in its lower part with a lining set at a little distance from its walls, the large door, the small door, the cleats or slides to receive the fruit frames or trays, the doors, and the cover and cap to allow the moisture-laden air to escape, to adapt it for use in drying fruit.

A is the case of the drier, which is made of such a size that it may be conveniently moved from place to place.

The lower part of the case A is lined with brick or sheet metal B, a space being left between the said lining B and the case A to induce an upward current around the sides of the said case, so that the fruit upon the outer parts of the drying trays or frames may be dried as quickly as that upon the middle parts of said trays or frames.

Cold air is admitted through holes C in the lower parts of the sides of the case A and lining B, and the amount admitted is regulated by pivoted slides D, attached to the case A. The air is heated to dry the fruit by a large box-stove, E, inserted in the lower part of the case.

With the smoke-flue of the stove E is connected a pipe, F, which is coiled above the rear end and sides of the said stove E in such a way as to leave its top and front exposed, so

that it may be used for boiling food for stock, and for other purposes. The coil F discharges its smoke through a hole in the case A. In the front of the lower part of the case A is formed a door, G, large enough to allow the stove E to readily pass through it.

In the lower part of the large door G, directly opposite the door of the stove E, is formed a small door, H, to allow fuel to be put into the said stove without admitting too much cold air.

To the sides of the upper part of the case A, and at suitable distances apart, are attached from ten to twenty pairs of cleats, I, to serve as slides for the frames or trays J, upon which the fruit is placed to be dried.

In the front of the upper part of the case A the spaces between the pairs of slides I are closed by doors K, hinged at their lower edges to give convenient access to said spaces, for inserting and removing the said frames or trays J. The case A is provided with a pyramidal cover, L, having a ventilating-cap, M, connected with its apex, to allow the heated air to escape, carrying with it the moisture from the fruit. The attendant, while attending to the fruit, stands upon a platform, N, the inner edge of which is hinged to the case A, and its outer part is supported by legs O. The upper ends of the legs O are hinged to the platform N, so that it may be turned up along the under side of the platform N, and the said platform turned down against the case A when the apparatus is not in use. Access is had to the platform N when extended by a ladder or set of steps, which is not shown in the drawings.

In using the drier the upper door K is opened, and one or more frames or trays of fruit are inserted. After a suitable interval of time, the next lower door K is opened, and other frames or trays of fruit are inserted, and so on until all the slides are occupied. The space of time between the putting in of the frames or trays should be such that the fruit upon the first frame or tray J may be fully dried and ready to be removed and replaced by a frame or tray of green fruit by the time the lowest frame or tray is inserted, so that the operation may be continuous.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The case A, provided in its lower part with a lining, B, set at a little distance from its walls, the large door G, the small door H, the cleats or slides I, to receive the fruit frames or trays, and the cover and cap L M, to allow the

moisture-laden air to escape, substantially as herein shown and described, to adapt it for use in drying fruit.

WILLIAM S. PLUMMER.

Witnesses:

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