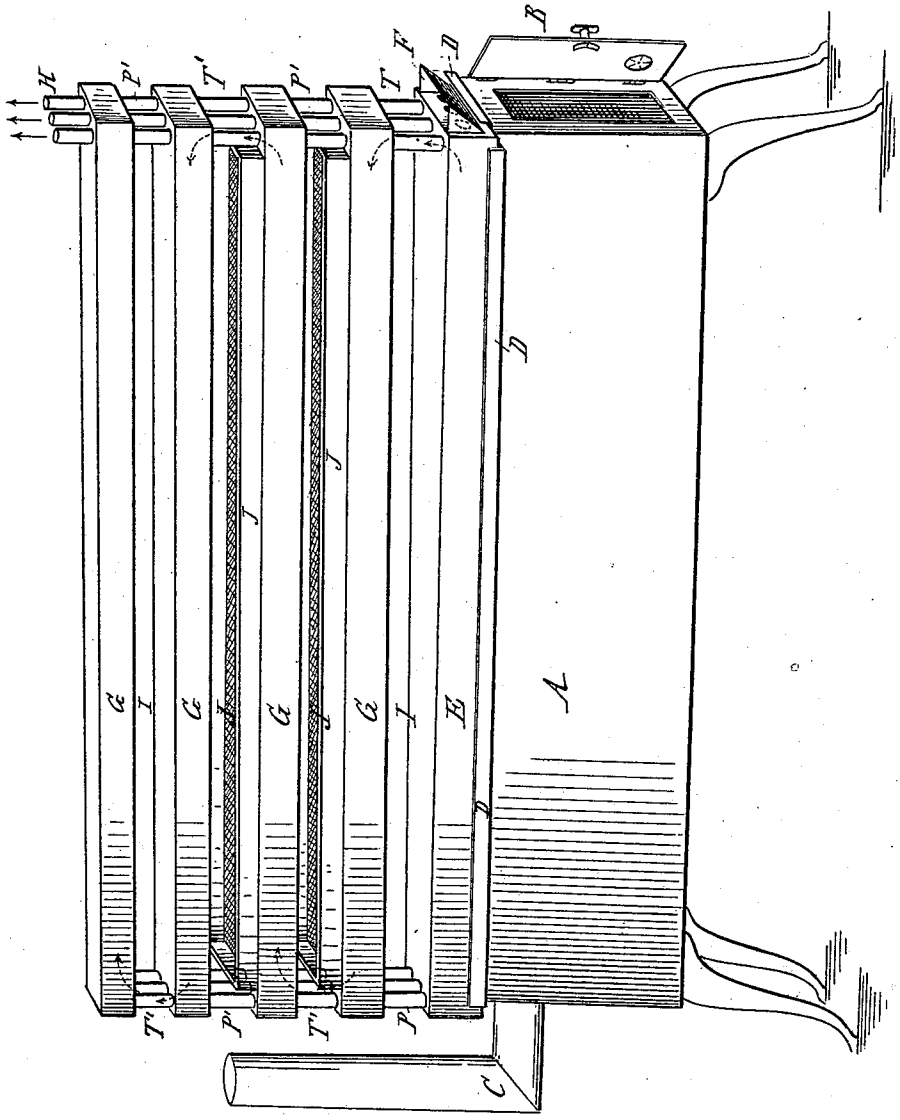
(No Model.)

L. E. WOODRUFF, H. P. WHEELER & J. PEARSON.

FRUIT DRIER.

No. 254,524. Patented Mar. 7, 1882.



Attest:
A. Barthel
Geo. Carter

Inventors:
Leslie Elbert Woodruff,
Harry Philemon Wheeler,
and John Pearson
by Thos. F. Magner
Atty

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

LESLIE E. WOODRUFF, HARRY P. WHEELER, AND JOHN PEARSON, OF HOWELL, MICHIGAN.

FRUIT-DRIER.

SPECIFICATION forming part of Letters Patent No. 254,524, dated March 7, 1882.

Application filed September 14, 1881. (No model.)

To all whom it may concern:

Be it known that we, LESLIE ELBERT WOODRUFF, HARRY PHILEMON WHEELER, and JOHN PEARSON, of Howell, in the county of Livingston and State of Michigan, have invented an Improvement in Fruit-Driers, of which the following is a specification.

The nature of this invention relates to new and useful improvements in the construction of devices whereby fruit, vegetables, &c., are dried by evaporation, such evaporation being accelerated by close circulating steam; and the invention consists in the peculiar construction of the device, as more fully hereinafter described.

In the accompanying drawing, wherein our invention is shown in perspective, and which forms a part of this specification, A represents a furnace provided with feed-door B and outlet C, with an open top, the top of the plates forming the sides and ends of the furnace terminating in an outwardly-projecting flange or ledge, D.

E is a rectangular water-receptacle, which, when in place, forms the top of the furnace, and is secured by resting within the flanges D. This water-receptacle E is provided with the spout or trough F, through which water may be introduced and replenished as evaporation takes place under the heat of the furnace. This trough F communicates with the water-receptacle E by means of perforations in the end of the latter, and the water in it is always of the same height as the water in the receptacle E, and by this construction the amount of water in the evaporator can always be ascertained by looking into the trough, thereby obviating the danger of burning the receptacle or the fruit by reason of the total evaporation of the water.

G represents rectangular boxes, preferably of the same shape as the water-receptacle E, above which they are successively placed. Between the lower box, G, and the water-receptacle E are the series of tubes T, affording communication between one end of the receptacle E and the coincident end of the box G, while the opposite end of the box G is supported by posts P, corresponding in length to the tubes T. The next box in the series is connected with the one below by the tubes T′, and the opposite end of this box is supported upon pillars or posts P′, and so on. The series of boxes G may be unlimited in number, and the connections between each two being at the opposite end from the connections between the two next lower, while posts P will support the unconnected ends. In the drawings four of these boxes are shown, with discharge-tubes for the steam, (marked H.) The spaces I between the boxes G and between the lower box and the top of the water-receptacle E are designed to be filled with drawers J, the bottoms of which are covered with cloth, wire screens, or finely-perforated tin. One of these drawers should be provided for each of the spaces I, and fill about half such space vertically. It will be seen that by this construction any number of steam-chambers G and drawers may be used, and that the steam generated in the water-receptacle E will pass into one end of the steam-box above, through it to the connection with the steam-box still above that, and through that box to the next or to an outlet, as may be desired, while the moisture evaporated from the fruit upon the drawers will pass out of the space left between the top of the drawers and the bottom of the next steam-chamber above.

What we claim as our invention is—

In a fruit-drier, and in combination with the furnace A, having an open top, and provided with flanges D, and the water-receptacle E, provided with a trough, F, and perforations leading into said trough, the parallel steam-boxes G, supported at each end by alternate steam-pipes T and posts P, arranged in superposed vertical series, and the drawers J, having perforated bottoms, and adapted to rest on the steam-boxes between the pipes T and posts P, as and for the purpose specified.

LESLIE ELBERT WOODRUFF.
HARRY PHILEMON WHEELER.
JOHN PEARSON.

Witnesses:
GEORGE P. DUDLEY,
M. W. BULLOCK.