(Model.)

W. C. DOHERTY.

FRUIT DRIER.

No. 258,286. Patented May 23, 1882.

Fig. 1.

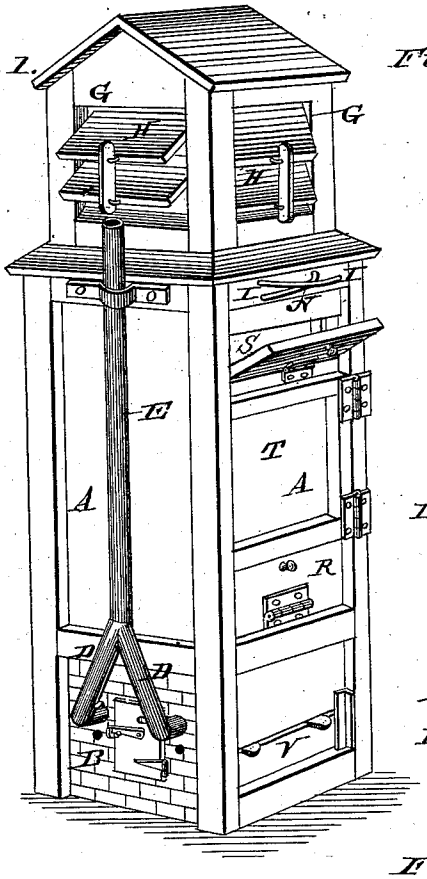


Fig. 2.

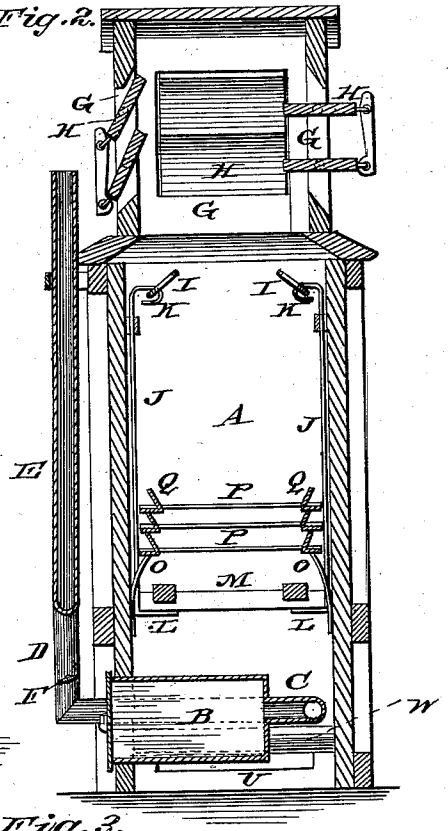
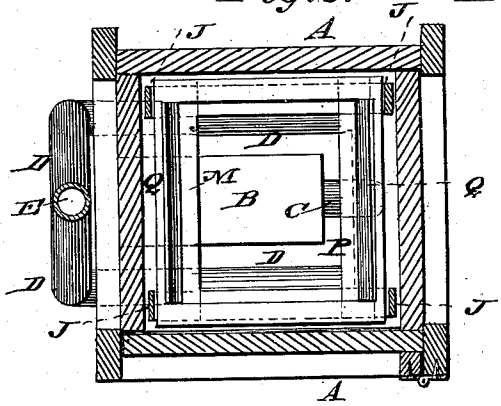


Fig. 3.



WITNESSES

Reed Littell
Fred. L. Dieterich
P. C. Dieterich

INVENTOR

William C. Doherty,
by E. G. Snow & Co. Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM C. DOHERTY, OF ALBANY, OREGON.

FRUIT-DRIER.

SPECIFICATION forming part of Letters Patent No. 258,286, dated May 23, 1882.

Application filed January 18, 1882. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM C. DOHERTY, of Albany, in the county of Linn and State of Oregon, 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 of the invention, 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, which form a part of this specification.

Figure 1 is a perspective view, Fig. 2 is a vertical sectional view, and Fig. 3 is a horizontal sectional view, of my improved fruit-drier.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to fruit-driers; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings hereto annexed, A represents a suitable box or casing, in the lower part of which a furnace, B, is arranged, the lower part of the box A being constructed of or lined with brick or other suitable fire-proof material. The smoke-pipe C of the furnace has two branches, D D, passing along the sides and out through the front of the casing, where they are again united into a single smoke-pipe, E. The pipes D D have dampers F for regulating the draft, either of which may be closed in order to throw the heat to the other side of the casing. The top of the casing is somewhat smaller than the body, and is provided with openings G, capable of being partly or entirely closed by means of pivoted slats H, forming dampers for the purpose of regulating the escape of air and vapor from the casing.

I I are crank-shafts mounted near the upper end of the casing and carrying downwardly-projecting metal straps J, provided at their upper ends with loops K, by which they are adjusted upon said shafts. The lower ends of the straps J have brackets L, which may be formed by bending the lower ends of said straps inwardly, upon which a frame, M, is supported, as shown. The front ends of the shafts I, which project through the side of the casing, are provided with levers N, by means of which they may be conveniently operated.

O O are spring-brackets secured upon the sides of the casing between the straps J.

P P are the tray-frames, which may be made of sheet metal, the inner edges of their sides being provided with upwardly and outwardly turned flanges Q to support the frame of the tray next above. The netting which is in practice to be secured to these frames is not shown in the drawings.

The side of the casing A is provided near its lower and upper ends with small doors R S, of sufficient width to permit the trays to be inserted or removed. The door S is hinged to a large swinging door, T, which need not be opened, except to afford access to the interior of the casing when all the trays are to be taken out, or in case anything should get out of order. The casing is provided at its lower end with openings U, covered by slide-doors or dampers V for the admission of cold air. Inside the casing, just above these openings, are placed horizontal plates or deflectors W, which prevent the air from ascending into the drying-chamber until it has been thrown over against the sides of the furnace and thus heated.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation of my invention will be readily understood. The first tray is inserted through door R and placed upon the frame M, held upon the brackets L of straps J. The shafts I are then operated, thus raising or lifting the tray up past the spring-brackets O, upon which it remains supported while the straps J, with frame M, are lowered. A second tray may now be placed upon frame M and raised or lifted up to the brackets O, where it remains supported, supporting the first tray, which of course is lifted off the brackets upon its flanges Q. In this manner I proceed until the casing is full, when the trays may be successively removed through the top door, S.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In a fruit-drier, the herein-described combination and arrangement of the casing A, having ventilators H, openings U, provided with

doors or dampers V and deflectors W, and mechanism, substantially as described, for manipulating the drying-trays, with the furnace B, having smoke-pipe C at its rear end, from which branches D, having dampers F, extend forwardly between the sides of the furnace and the walls of the casing and out through the front, where they are again united, by which arrangement by manipulating the dampers F the heat may be regulated and thrown to either side of the casing, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM C. DOHERTY.

Witnesses:

CHAS. H. HEWITT.

D. S. AYERS.