

(No Model.)

J. C. GUNN.  
FRUIT DRIER.

No. 268,399.

Patented Dec. 5, 1882.

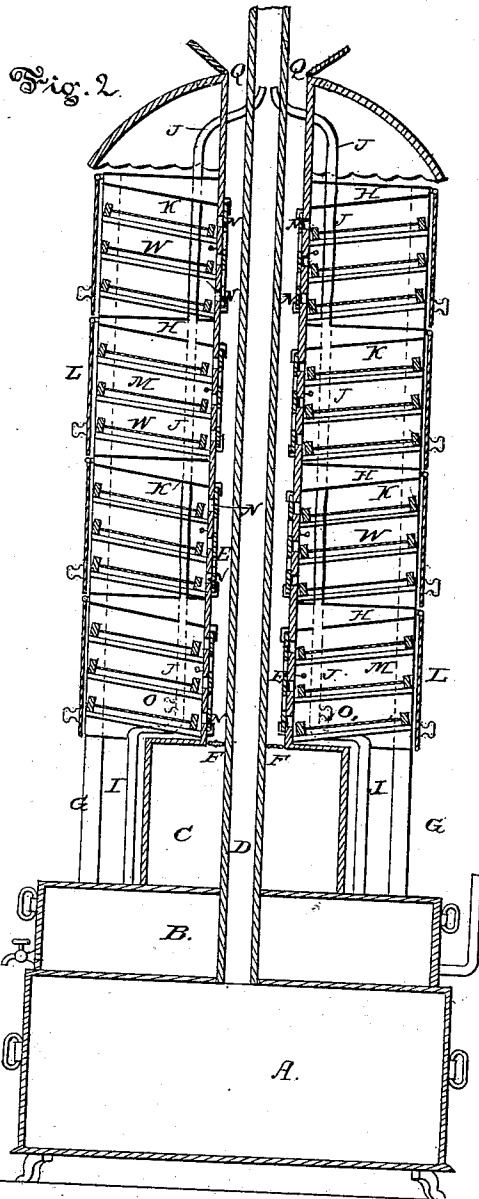
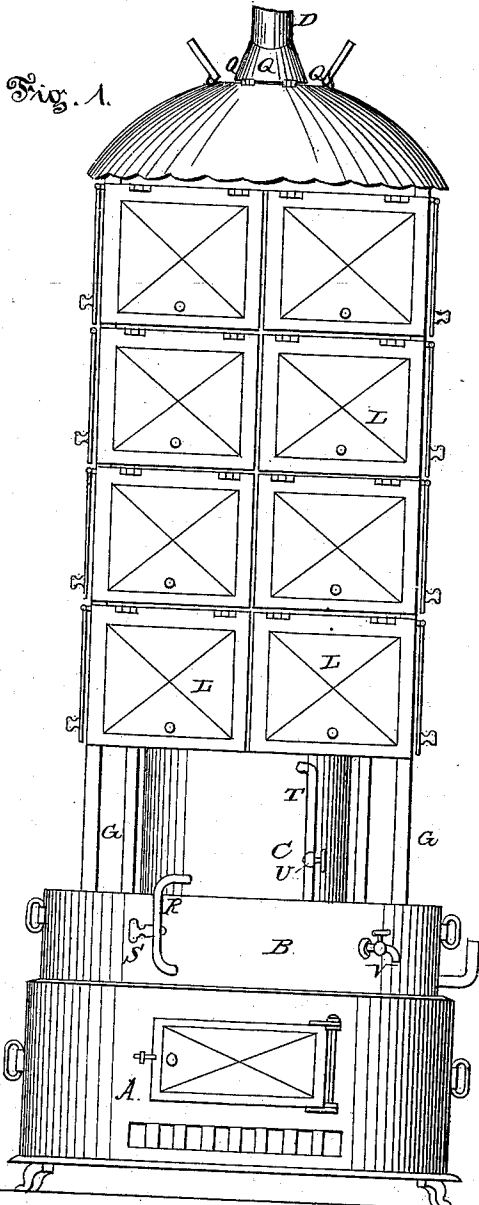
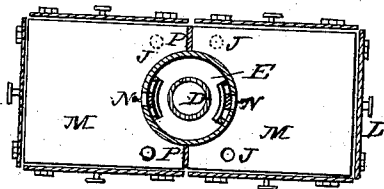
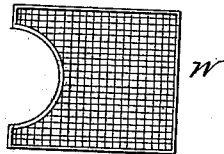


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN C. GUNN, OF KNOXVILLE, TENNESSEE.

## FRUIT-DRIER.

SPECIFICATION forming part of Letters Patent No. 268,399, dated December 5, 1882.

Application filed September 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. GUNN, a citizen of the United States, residing at Knoxville, in the county of Knox and State of Tennessee, have invented a new and useful Fruit-Drier, of which the following is a specification, reference being had to the accompanying drawings.

Figure 1 is a side 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 or evaporators; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A represents a suitable stove or heater, upon which is placed a vessel or boiler, B, supporting another vessel, C, containing the feed-water for boiler B, which is partly heated in said vessel C. The stove-pipe D, which extends up through the vessels B C, is surrounded above the latter by a hot-air pipe, E, having a register, F, near its lower end.

Braces G, extending upwardly from the boiler B, support at suitable intervals the steam-pans H, the lower one of which is connected directly with the boiler B by the steam-pipes I. Steam-pipes J also connect the several steam-pans alternately at their opposite inner corners, closely adjoining the hot-air pipe E, whereby the steam passing through said pipes, is prevented from condensing. The bottoms of the several steam-pans are made dishing, as at K, thus causing the water of condensation to pass from the pans through the pipes J I back into the boiler.

Suitable hinged doors, L, are provided for the spaces M between the several steam-pans, which are thus completely inclosed. Said spaces are also connected with the hot-air pipe E by registers N, suitably attached to said hot-air pipe, thus enabling the spaces M to be filled with hot air at will.

The passage of steam through the pipes I is controlled by cocks O, and the steam-pans are each divided into two sections by central vertical partitions, P. By this construction one side of the drier may, as it were, be charged with steam, while the other side is allowed to be comparatively cool. The upper ends of the steam-pipes J enter the stove-pipe D, thus ac-

celerating the draft and disposing of the waste steam.

The upper end of the hot-air pipe E has vents Q, which may be closed or opened, as desired.

R is a pipe, connecting the lower end of the feed-water heater with the lower end of the boiler for the passage of the feed-water into the latter. Said pipe has a cock, S. Another pipe, T, provided with a cock, U, connects the steam-space in the boiler with the upper end of the feed-water heater. The boiler is provided with a try-cock, V.

In order to feed water from the heater into the boiler, it is only necessary to open the cocks S and U. The steam-pressure being thus equalized, the water will, by its natural gravity, pass into the boiler. Sieves or screens W are arranged in an inclined position upon suitable cleats or slides in the spaces M between the steam-pans, to receive the fruit to be dried. The fruit, however, may be placed directly upon said pans, as it cannot, under any circumstances, be scorched or burned.

I claim and desire to secure by Letters Patent of the United States—

1. In a fruit-drier, the combination of the stove A, boiler B, water-heater C, arranged as described, stove-pipe D, extending through said boiler and water-heater, hot-air pipe E, inclosing said stove-pipe, and having registers F N and vents Q, the steam-pans H, and the steam-pipes J I, all arranged and operating substantially as described.

2. The combination, with the steam-pans having central vertical partitions, of the steam-pipes J I, arranged as described, the latter having cocks O, and of the boiler, as and for the purpose set forth.

3. The combination of the stove, boiler, water-heater, stove-pipe, and hot-air pipe, all arranged as described, with the steam-pans H, the pipes I, having cocks O, the pipes J, the upper ends of which extend into the stove-pipe, the doors L, and the sieves or screens W, all arranged and operating as and for the purpose set forth.

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

JOHN C. GUNN.

Witnesses:

CHAS. A. SANDBERG,  
W. H. STURM.