

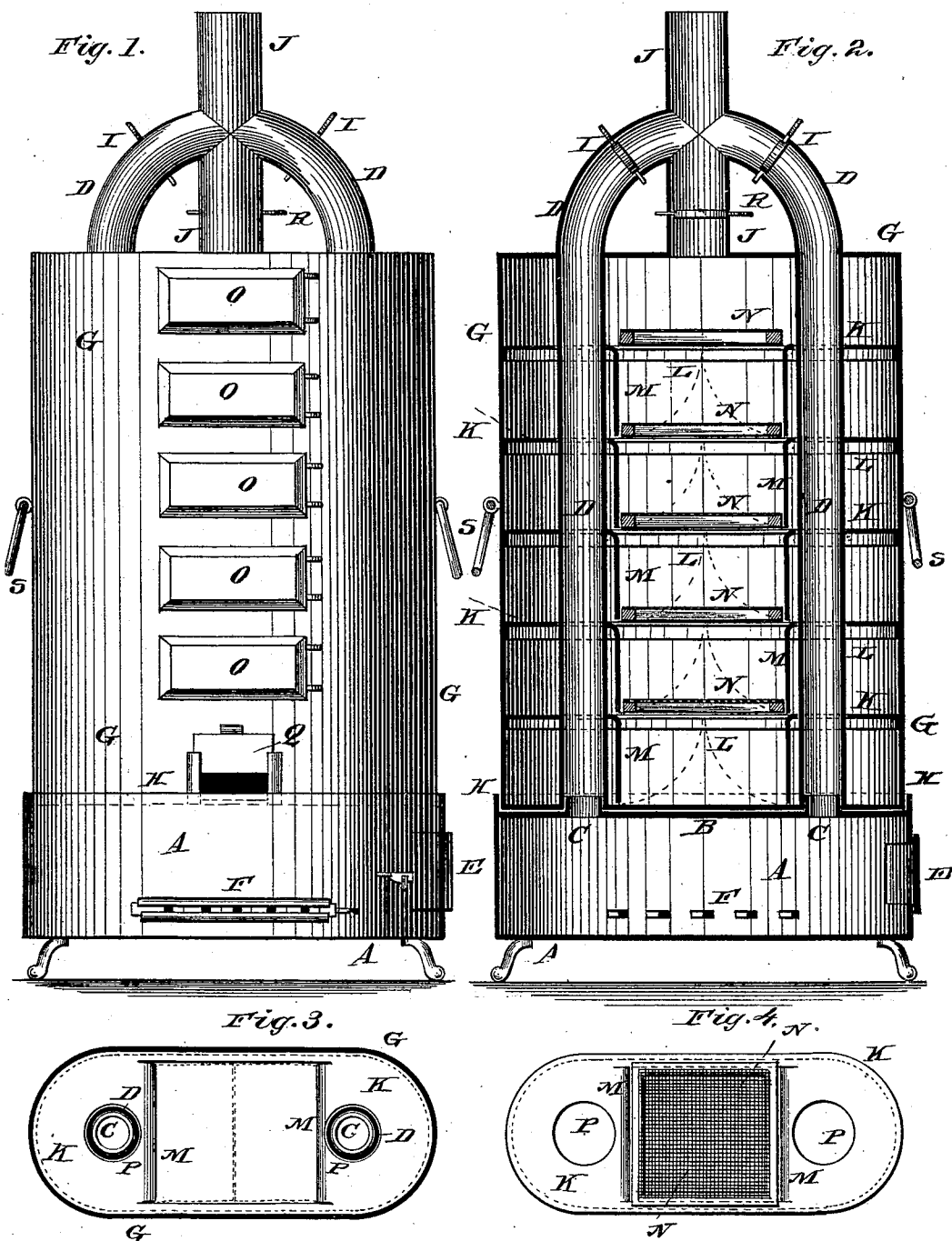
(No Model.)

J. C. GUNN.

EVAPORATOR.

No. 251,433.

Patented Dec. 27, 1881.



WITNESSES

Fred. L. Dietrich
P. C. Dietrich

INVENTOR

John C. Gunn
By A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JOHN C. GUNN, OF KNOXVILLE, TENNESSEE.

EVAPORATOR.

SPECIFICATION forming part of Letters Patent No. 251,433, dated December 27, 1881.

Application filed November 3, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. GUNN, of Knoxville, in the county of Knox and State of Tennessee, have invented certain new and useful Improvements in Evaporators; 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 side view of my improved evaporator. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a horizontal sectional view, and Fig. 4 is a detail view, of one of the horizontal partitions and drying-screens.

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 the base, which consists of a stove or fire-box constructed of sheet or cast metal, and having its top B provided with collars C C, located near the ends, for the flues or stove-pipes D D. The fire-box is provided with a door, E, and with suitable draft-openings, F.

G is the casing of my improved evaporator, which is preferably constructed of sheet metal and oval in shape, so as to be capable of being placed upon the correspondingly-shaped stove, which is provided with a rim or flange, H, to hold the body or casing in its proper position.

The stove-pipes or smoke-flues D D are arranged vertically in the casing G, near the ends of the same, so as to fit over the collars C, as above described. Above the top of the casing the pipes D are provided with dampers I, and they are then connected with the hot-air flue J, which extends upward from the center of the top of the casing.

K K are shelves or partitions, arranged horizontally in the casing suitable distances apart, and consisting of oval or oblong plates having downturned flanges L, by which they are riveted or otherwise secured to the sides of the casing. Said plates are provided with I-shaped slots or cuts, and the flaps M thus

formed are turned down, as shown, so as to form screens between the stove-pipes and the fruit, which is placed upon sieves or trays N, supported upon the partition-plates, as shown.

The side of the casing is provided with doors O O, to afford access to the several compartments between the partition-plates, which latter are provided with openings P, for the stove-pipes. Near its lower end the casing has a slide-door, Q, for the admission of cold air, which, when it enters the casing, is heated, ascends, and escapes through the flue J, which is provided with a damper, R.

The sides of the casing have handles S, enabling it to be readily lifted off or on the stove or fire-box.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation of my invention will be readily understood. The fruit is placed upon the sieves or trays, supported on the plates K. Air enters the casing through the slide-door Q, becomes heated, ascends, and escapes through the flue J, carrying with it the moisture escaping or evaporated from the fruit, &c. The hot air, as it escapes, mingles with the products of combustion escaping through the flues D, thus promoting the draft. The flaps M of shelves K protect the fruit from being scorched by the heat of pipes D.

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

1. In an evaporator, the combination, with a stove or heater, of a casing, G, having smoke-flues D, hot-air flue J, shelves K, and cold-air entrance Q, substantially as set forth.

2. In an evaporator, the combination, with a suitable casing having vertical smoke-flues, of the shelves or partitions K, having flanges L and flaps M, forming screens between the smoke-flues and the trays N, supported upon said shelves, substantially as set forth.

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

JOHN C. GUNN.

Witnesses:

SAML. J. MORROW,
F. S. WILLOUGHBY.