

(No Model.)

2 Sheets—Sheet 1.

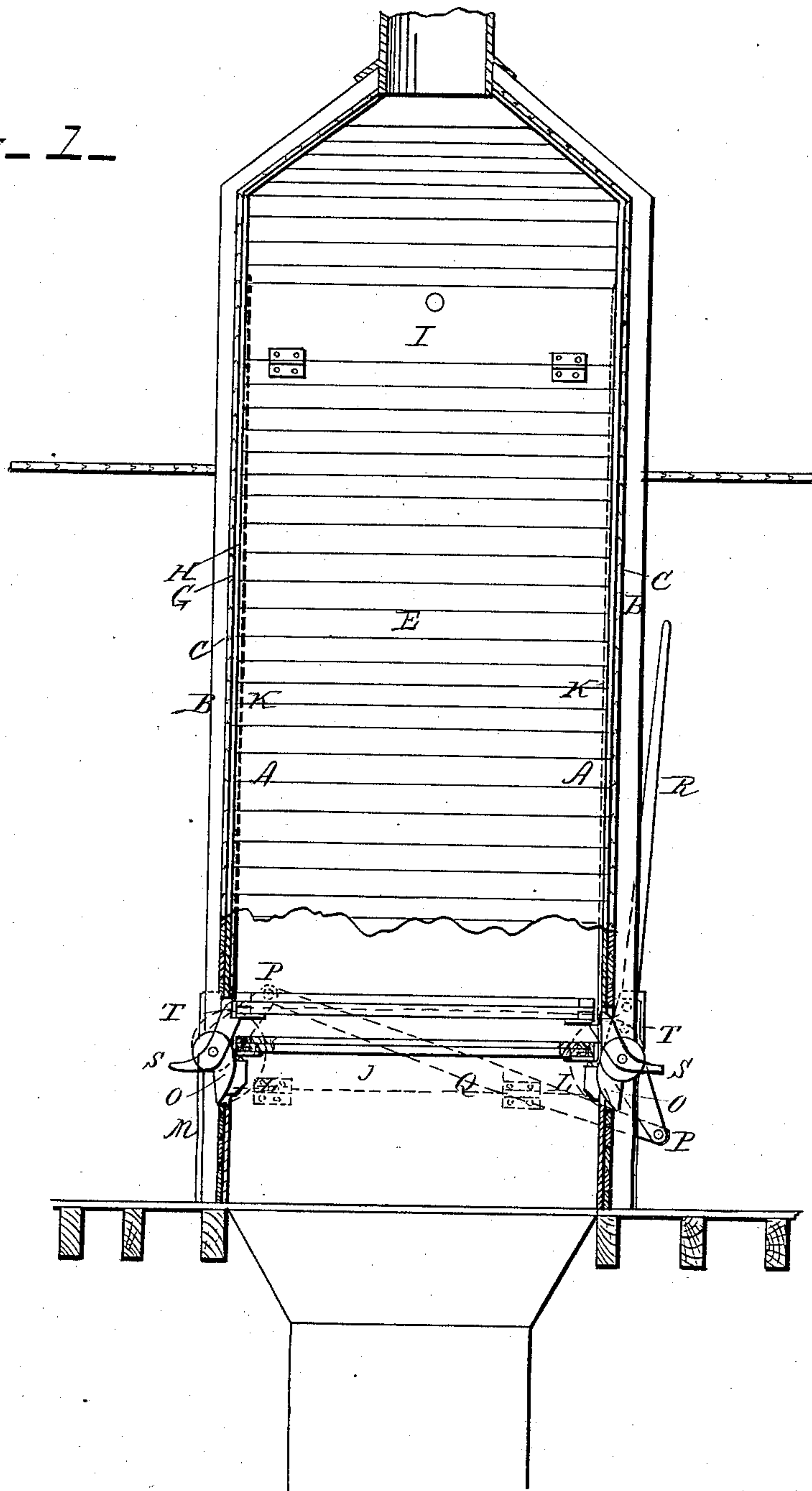
J. A. BALDWIN.

EVAPORATOR.

No. 264,122.

Patented Sept. 12, 1882.

Fig. 1.



WITNESSES

J. L. Ourand
J. R. Little

INVENTOR

J. A. Baldwin,
by Wm. H. C. Smith
Attorneys.

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2 Sheets—Sheet 2.

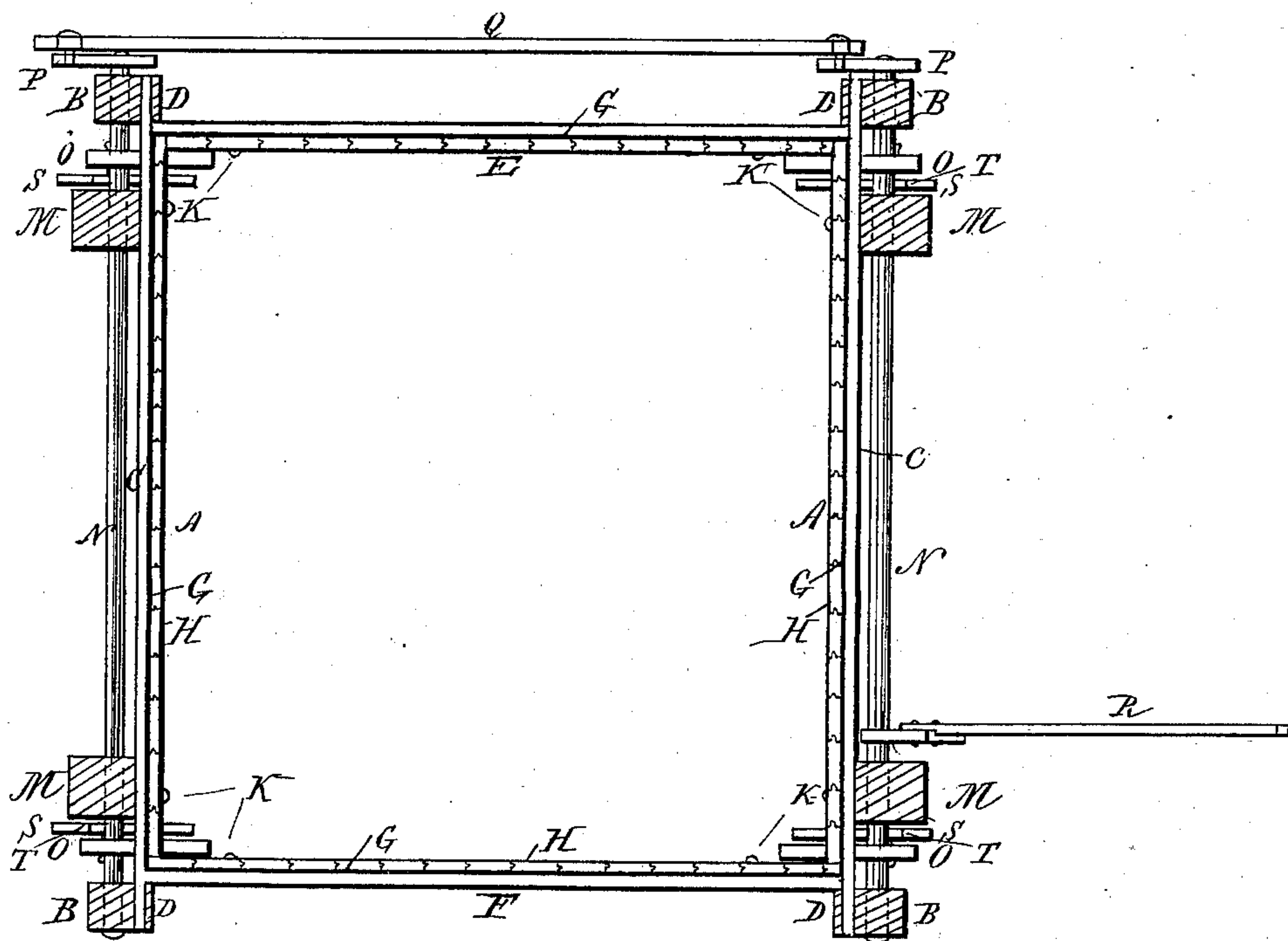
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Fig. 2.



WITNESSES
H. L. Oursand;
J. R. Little,

INVENTOR
J. A. Baldwin,
by C. A. Snow & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

JUDSON A. BALDWIN, OF SHELBURNE, VERMONT.

EVAPORATOR.

SPECIFICATION forming part of Letters Patent No. 264,122, dated September 12, 1882.

Application filed July 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, JUDSON A. BALDWIN, of Shelburne, in the county of Chittenden and State of Vermont, 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 front view, part of the casing having been broken away for the purpose of better showing the construction; and Fig. 2 is a horizontal sectional view.

Similar letters of reference indicate corresponding parts in both figures.

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 stack or casing of my improved evaporator, the construction of which is as follows: Four uprights or vertical corner posts, B B, having been erected, the sides C C of the casing are constructed of matched boards nailed horizontally to said uprights, as shown. Cleats D are then nailed on at the four corners, and to these cleats the matched boards forming the back and front, E E, of the casing are nailed horizontally. The inside of the stack has a lining, G, of water-proof paper, over which is nailed a series of vertical matched boards, H, completely sealing the casing and leaving no openings or apertures for the escape of heat. The front side of the casing is provided near its upper and lower ends with openings having doors I J for the removal and insertion of the screens or trays. Above the upper door the casing is contracted to above one-third its diameter and extended through the roof of the building containing the evaporator. A valve or damper may be arranged in the contracted portion or flue. A furnace of any suitable construction is to be placed under the stack, so situated as to distribute the heat as uniformly as possible.

K K are rods of half-round iron extending vertically from rests L below the lower door to above the upper door, inside the casing, and forming guides for the screens or trays sliding vertically in the same, as will be presently described. Said screens may be of any suitable construction.

Adjoining the sides of the casing are placed uprights M, in which are journaled a pair of rock-shafts, N N, the ends of which are provided with cams O, secured rigidly upon said shafts and projecting through slots in the sides of the casing, so as to be capable of engaging or pressing against the under side of the lowermost screen. The rear ends of the rock-shafts have cranks P, connected by a rod, Q, so that when actuated by pressing down upon a lever, R, secured to one of the shafts, they shall turn toward each other.

S S are dogs working loosely upon the rock-shafts, and having notches T, supporting the column of screens or trays.

In operation the cams as they rise come in contact with the four corners of the under side of the screen just inserted, causing it to rise, gradually displacing the dogs S until the screen reaches the highest point to which it may be carried, when the dogs drop back automatically, supporting it and the entire column of screens above until the operation is repeated.

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

1. In an evaporator, the combination, with the casing, of the vertically-sliding trays and the vertical rods of half-round iron arranged near the corners of said casing to guide said trays, as set forth.

2. The combination of the casing A, uprights M, rock-shafts N, having fixed cams O, loose dogs S, and cranks P, connecting-rod Q, and lever R, all arranged and operating 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.

JUDSON ADANIRAM BALDWIN.

Witnesses:

M. C. SEYMOUR,
W. C. STACY.