

W. ARAM.
FRUIT-DRIER.

No. 175,897.

Patented April 11, 1876.

Fig. 1.

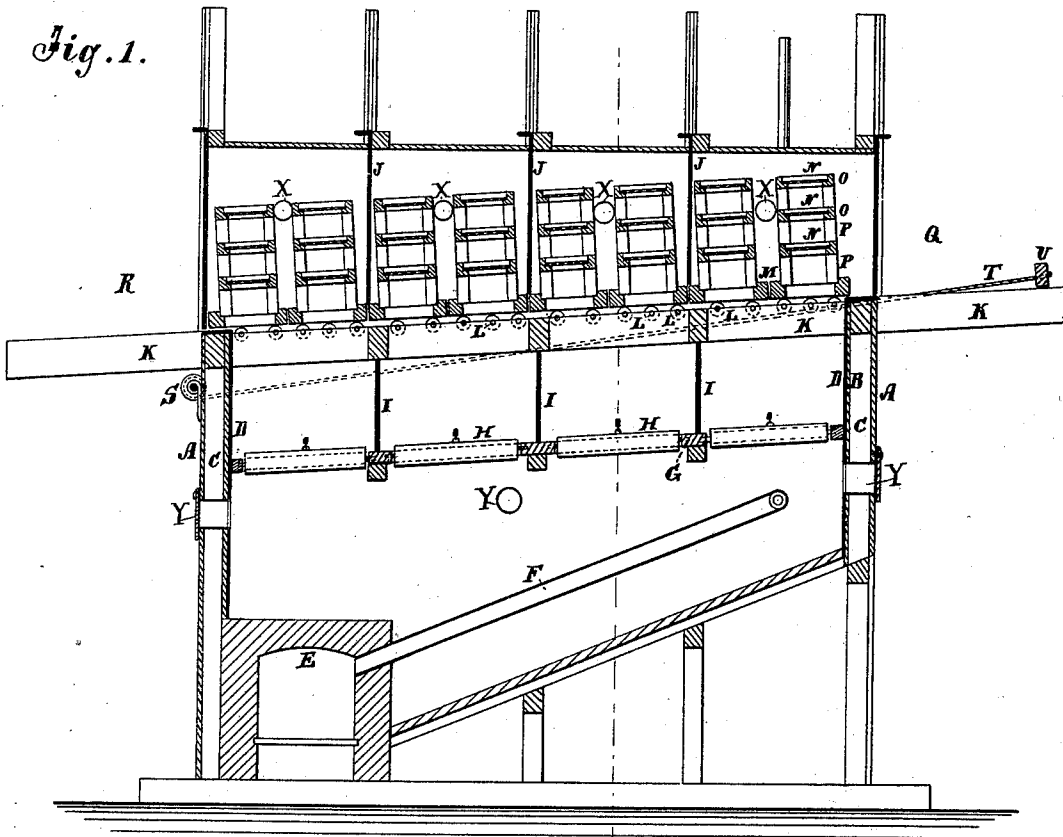
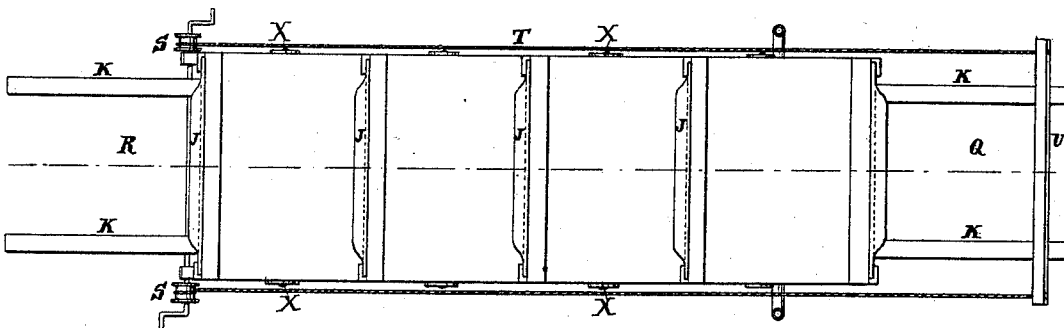


Fig. 2.



WITNESSES:

A. Bonner & Co.
A. F. Terry

INVENTOR:

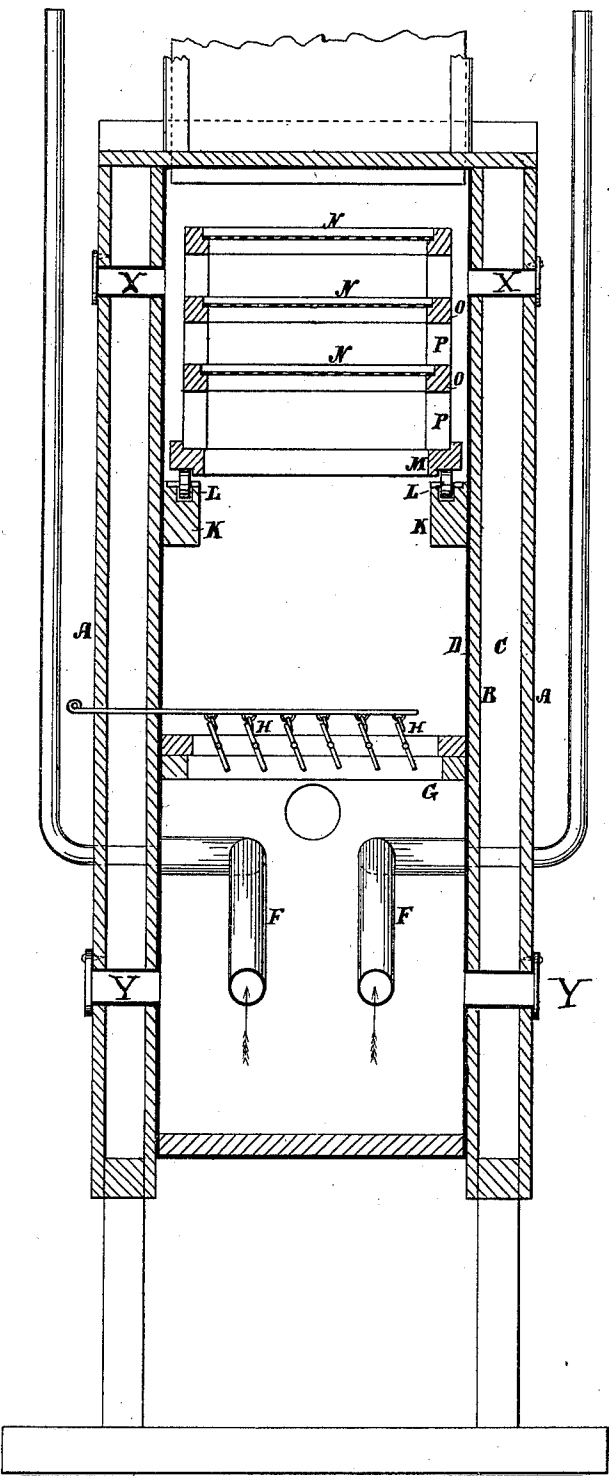
W. Aram
BY *Munnell*
ATTORNEYS.

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Fig. 3.



WITNESSES:

A. Benneken, Secy.
A. F. Terry

BY

INVENTOR,

W. Aram

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE

WILLIAM ARAM, OF SAN JOSÉ, CALIFORNIA.

IMPROVEMENT IN FRUIT-DRIERS.

Specification forming part of Letters Patent No. **175,897**, dated April 11, 1876; application filed July 24, 1875.

To all whom it may concern:

Be it known that I, WILLIAM ARAM, of San José, in the county of Santa Clara and State of California, have invented a new and Improved Fruit-Drier, of which the following is a specification:

My invention pertains particularly to the combination and arrangement of vertical sliding partitions and registers in a case or oven, provided with suitably-located openings for passage of hot and cold air, whereby the application and degree of heat are controlled at will in the several compartments of the case or oven, through which the fruit is conveyed on trucks or wheeled frames, as hereinafter fully described.

Figure 1 is a longitudinal sectional elevation of my improved fruit-drier, the section being taken on the line *x x* of Fig. 1. Fig. 2 is a top view, and Fig. 3 is a transverse sectional elevation taken on the line *y y* of Fig. 2.

Similar letters of reference indicate corresponding parts.

A is the outer and B the inner wall of the case or oven, between which is a space, C, which in the practical apparatus may be filled with sand or other suitable material. D is the sheet-metal lining on the inside of the inner wall to retain the heat. E is the furnace of brick, iron, or other suitable material by which, in connection with the smoke and heating pipes, hereinafter described, the heat is supplied. F, one or two or more smoke and heating pipes, extending from the furnace to the opposite end of the drying-case, where they terminate in a drum, said pipes and drum being for the double purpose of conveying smoke from the furnace and of supplying heat to the drying-chamber or oven; and from said drum extends a pipe conveying the smoke outside the case. G represents a horizontal partition in the oven, having registers H, to let the heat pass up through at any part to the drying-chamber above, or to exclude it from any part of said chamber, in which are the trays containing the fruit, said registers to be opened or closed by means of rods extending through the side of the case. I represents vertical partitions above the horizontal partition, to regulate the distribution of the heat by the registers, and above these are movable

partitions J, in the space along which the fruit is carried. These movable partitions may be arranged to rise and fall through the top, as represented in the drawing, or to move through the case transversely between the several divisions or stacks of trays. K represents the ways on which the fruit enters and passes through and out of the oven; they have small stationary rollers attached, L, on which frames M, which carry the trays N, are conveyed along, said frames being so rabbeted or grooved at their point of contact with the rollers as to guide them properly through the oven. These trays are of wire-cloth or other suitable material, arranged in frames O, which are grooved or rabbeted on the upper side to let the wire-cloth or other material down low enough for the frames to form the sides of the trays, and they have short legs P, on which to stand one above another, high enough to make the necessary space between the trays for the circulation of the hot air. The ways K project, at Q, beyond the end of the oven to receive the trays, and at R to allow the trays to pass out and rest awhile to cool the fruit. The windlass S, ropes T, and pusher U are employed to draw the frames M, supporting the trays, into the oven and push along those in it at the same time. In each division or compartment of the drying-chamber as formed by the stationary and movable partitions and adjustable registers, hereinbefore described, is at least one opening, X, in the top of the drying-case, for the escape of heat and vapor, and also at least one, Y, in the side of the heating-chamber, for the purpose of admitting cold air, as well as making examinations of the drying fruit. Said openings are each provided with a wicket or slide, by which it may be closed wholly or partly, as required. This combination and arrangement of parts enables me to perfectly regulate the heat of each drying-compartment, and thus produce a like effect on the several lots of fruit in the compartments.

I do not claim passing the fruit-frames or trays through the drier on parallel ways, this not being a new method.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The vertical sliding partitions J, the fixed partitions I, the horizontal adjustable registers H, and drying and heating chambers provided with cold and hot air openings, all combined and arranged as shown and described, whereby the application and degree of heat may be perfectly regulated or controlled in the several

compartments through which the fruit-carrying frames are made to pass.

WILLIAM ARAM.

Witnesses:

J. H. A. MILLS,
A. W. WHITE.