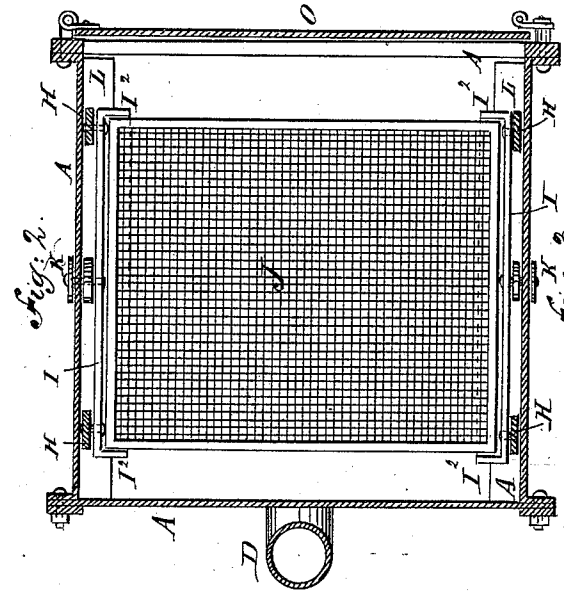
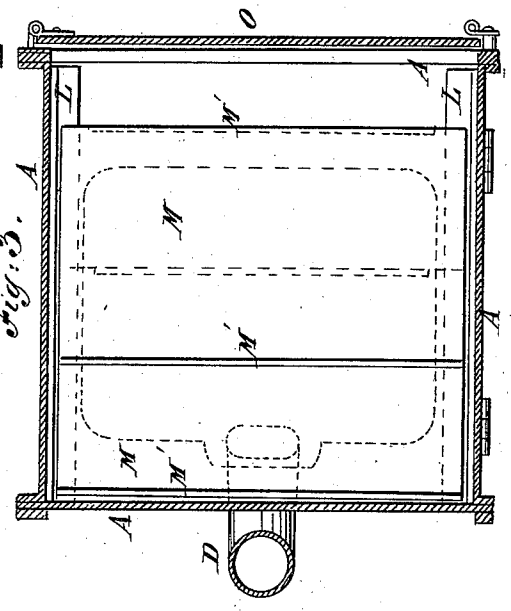
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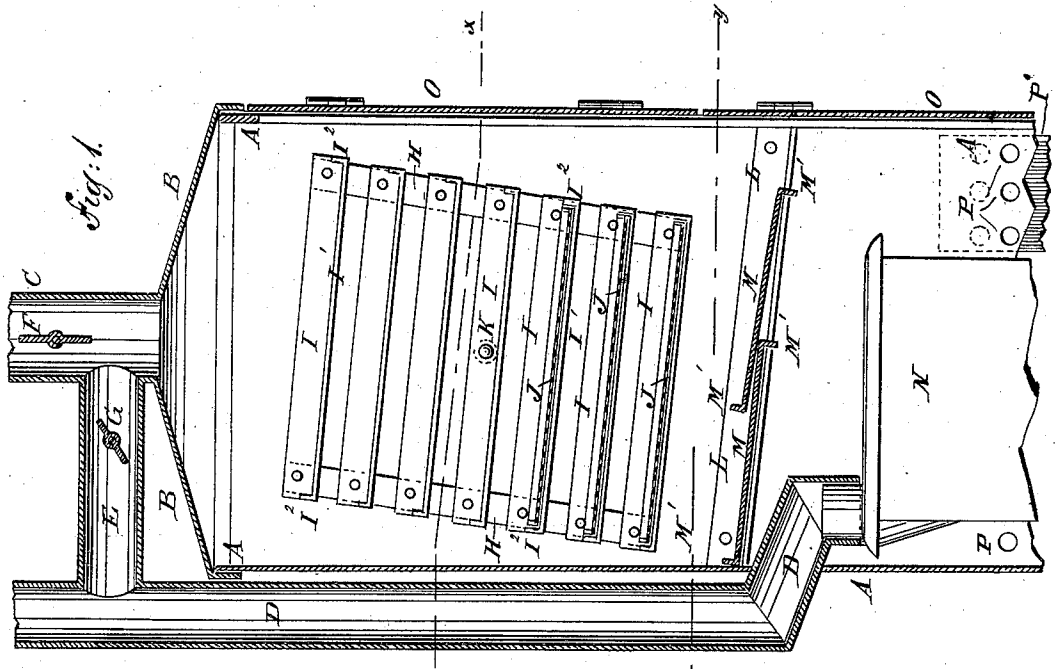
J. N. PARKER.

PORTABLE FRUIT DRIER.

No. 300,118. Patented June 10, 1884.







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(No Model.) 2 Sheets—Sheet 2.

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PORTABLE FRUIT DRIER.

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fig. 3.

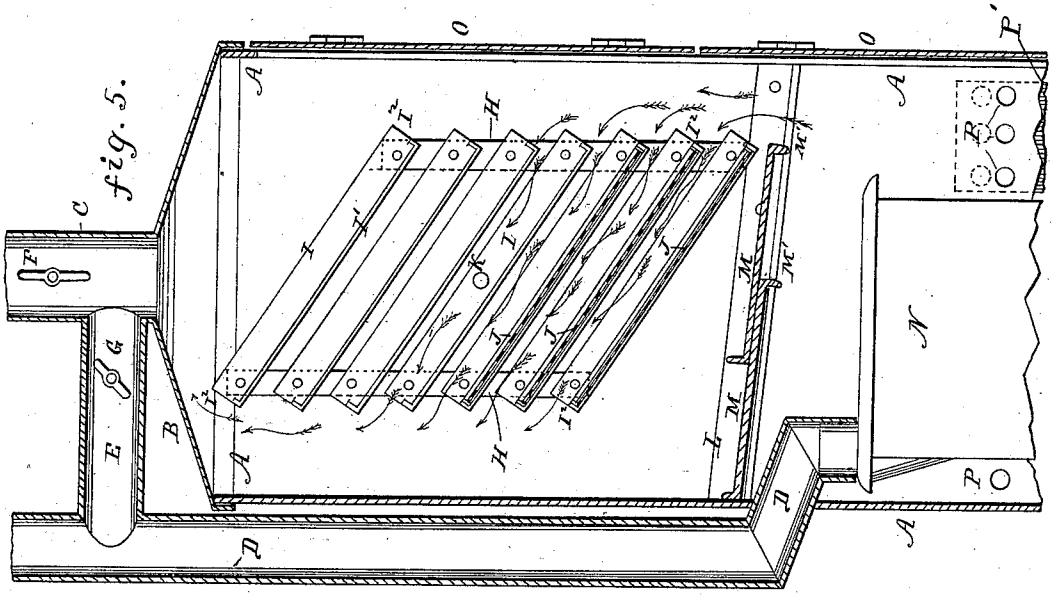
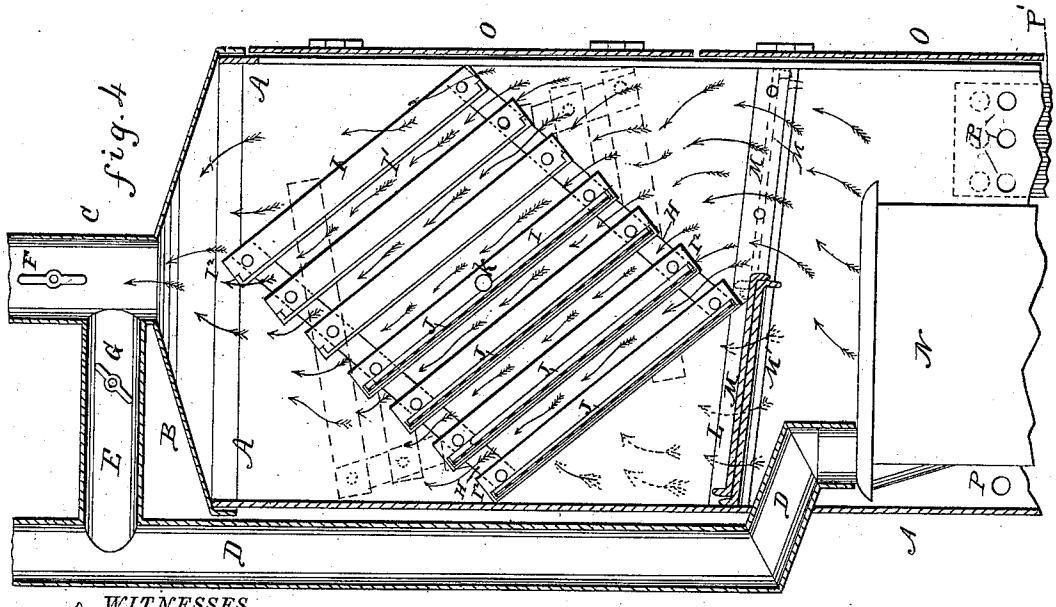


fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH N. PARKER, OF VINELAND, NEW JERSEY.

PORTABLE FRUIT-DRIER.

SPECIFICATION forming part of Letters Patent No. 300,118, dated June 10, 1884.

Application filed November 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH N. PARKER, of Vineland, in the county of Cumberland and State of New Jersey, have invented a new and useful Improvement in Portable Fruit-Driers, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of my improvement. Fig. 2 is a sectional plan view of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a sectional plan view of the same, taken through the line *y y*, Fig. 1. Figs. 4 and 5 are similar views to Fig. 1, except that the dampers and drying-frames are shown in different positions.

The object of this invention is to facilitate the drying of fruits, vegetables, and other substances, and also to promote convenience and economize fuel in conducting such drying operations.

The invention consists in the construction, arrangement, and combination of parts as will be hereinafter fully described and claimed.

A represents the case or shell of the drier, which is made of zinc, tin, plain or corrugated iron, galvanized sheet-iron, or other suitable material, and is designed to be placed over an ordinary cooking-stove, or range, or other convenient heater. The edges of the sides of the case A are bent outward, or flanged, so that they can be secured to each other detachably by bolts or clasps, to adapt the shell to be readily set up, and taken down and packed in a small space for storage or transportation. The top B of the shell A is slightly convexed, and has an opening in its upper part, provided with a pipe, C, for carrying off the heated air and the vapor expelled from the fruit.

In the lower part of the case A is formed an opening for the passage of the smoke-pipe D of the cooking-stove, range, or other heater, N, over which the said case may be placed. The pipe D may pass directly into the chimney, or it may pass up the side of the case A before being connected with the chimney. In the latter case the pipe C can be connected with the pipe D by a branch pipe, E, so that the heated air and vapor from the drier can be led into the pipe D, if desired. The pipes C and D are provided with dampers F G to allow the course of the heated air and vapor from the case A to be directed as may be desired.

To the opposite sides of the case A are pivoted two rack-frames, each of which is formed of two upright bars, H, to which are pivoted the ends of a number of cross-bars, I, having inwardly-projecting flanges I′ upon their lower edges to form seats for the racks J, that receive the fruit or other substance to be dried. The ends I² of the flanges I′ are bent upward, as shown in Figs. 1 and 2, to prevent the racks J from sliding out of the frames H I. The pivots K of the frames H I pass through the centers of the middle cross-bars of the said frames, so that the said frames can be tilted in either direction. Two or more pairs of frames H I can be placed in each case A, and the said pairs can be placed on the same level, or one above the other, as may be desired.

To the sides of the case A, below the frames H I and above the heater N, are attached flanged bars or ledges L, upon which are placed two plates, M, to serve as dampers in directing and controlling the heat. Upon the inner and outer edges of the plates M are formed flanges M′, projecting in opposite directions, as shown in Fig. 1, so that the adjacent parts of the said plates can be slid over each other, as may be desired. With this construction the dampers M can be adjusted to allow the heated air from the heater N to pass up at the front or back part of the case A, as may be desired. When the heated air is allowed to pass up at the front part of the case A, the upper parts of the rack-frames H I are tilted forward, bringing the upper corners of the said frames and the forward edge of the upper rack close to the front of the case A, so that the heated air will be compelled to pass up through the inclined spaces between the racks J to the rear part of the case A, and thence out through the pipe C, so that the moisture from the substance upon each rack J will be carried off without having to pass through the substances upon the racks above the said

rack, and the drying will thus be done uniformly, and without its being necessary to shift the racks during the process of drying.

The front of the case A may be provided with two or more doors, O, for convenience in putting in and taking out the racks.

A second side of the case A, when the said case is placed over a cooking-stove, may be provided with a hinged or sliding door to give convenient access to the said stove, as indicated in Fig. 3.

With this construction the drier can be used over an ordinary cooking-stove, and the fruit or other substance can be dried by the heat required for cooking, so that a great economy in fuel will be secured. The case A can also be used when cooking odorous substances to carry the odors directly to the chimney and prevent them from spreading through the house, and as a heater to heat air to be introduced into adjacent or overhead rooms.

Cold air is introduced into the case A to be heated through openings P in the lower part of the said case, the said openings to be provided with regulating-dampers P'.

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

1. In a drier, a series of horizontal tray-supporting bars on opposite sides of the drier, pivoted at their ends to vertical bars, one of said supporting-bars in each series being pivoted to the sides of the drier, whereby the said supporting bars may be adjusted to different angles and inclined in opposite directions, substantially as set forth.

2. In a drier, the combination, with a series of horizontal tray-supporting bars on opposite sides of the drier, pivoted at their ends to two vertical bars, and the central bar of each series pivoted centrally to the side of the drier, of a series of trays resting at their ends on said supporting-bars, whereby the front and rear longitudinal edges of the upper and lower trays respectively may be adjusted to fit against opposite sides of the drier to direct the volume of heat through the trays from either side, as may be desired, substantially as set forth.

3. In a drier, the combination, with a series of horizontal tray-supporting bars on opposite sides of the drier, pivoted at their ends to two vertical bars, the central supporting-bar of each series being pivoted to the side of the drier, of the series of trays resting on said bars, and a damper constructed to shut off the volume of heat from the under side of the lower tray and direct it in front or in rear of the trays, according to the direction in which they are inclined, substantially as set forth.

4. The combination of the two series of tray-supporting bars, pivoted at their ends to the vertical bars, and the central supporting-bars, pivoted centrally to the sides of the drier, with the two independently-adjustable damper-plates below the drier, for shutting off the volume of heat or admitting it alternately to the opposite sides of the trays, according to the direction in which they are inclined, substantially as set forth.

JOSEPH N. PARKER.

Witnesses:
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