

(No Model.)

2 Sheets—Sheet 1.

G. W. CRAWFORD.
COMBINED CRATE AND FRUIT DRIER.

No. 496,819.

Patented May 2, 1893.

Fig. 1.

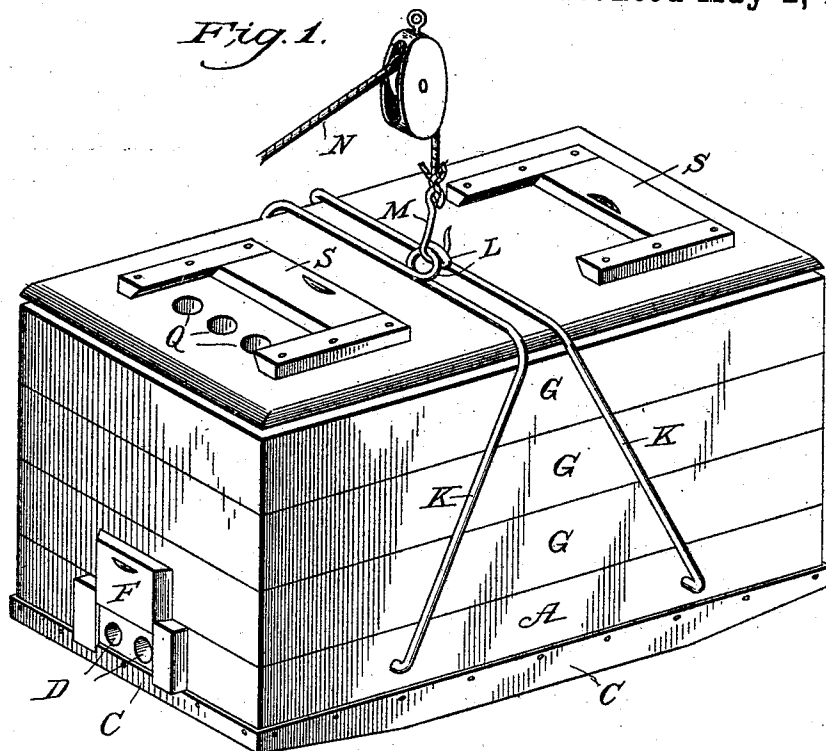
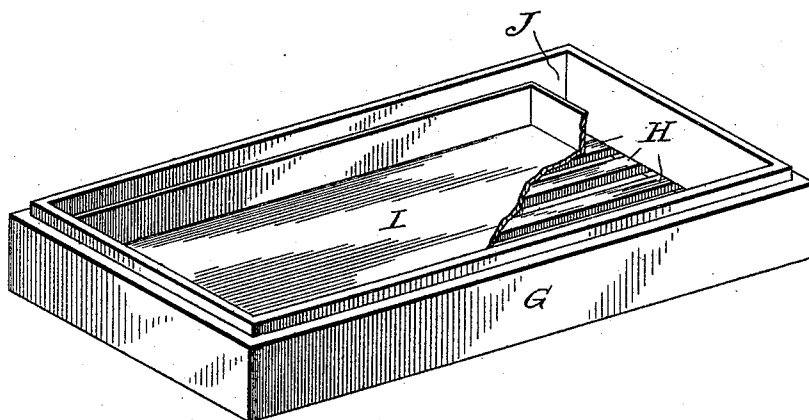


Fig. 3.



Witnesses

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

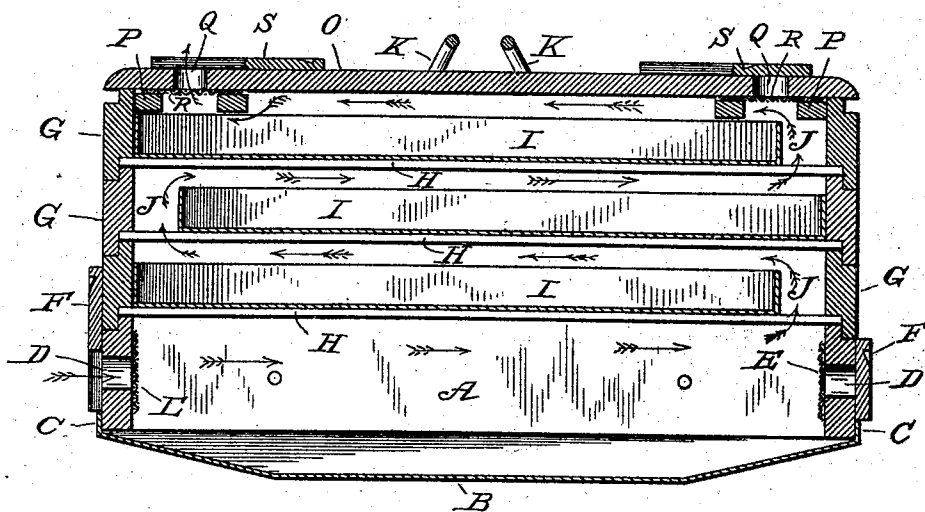
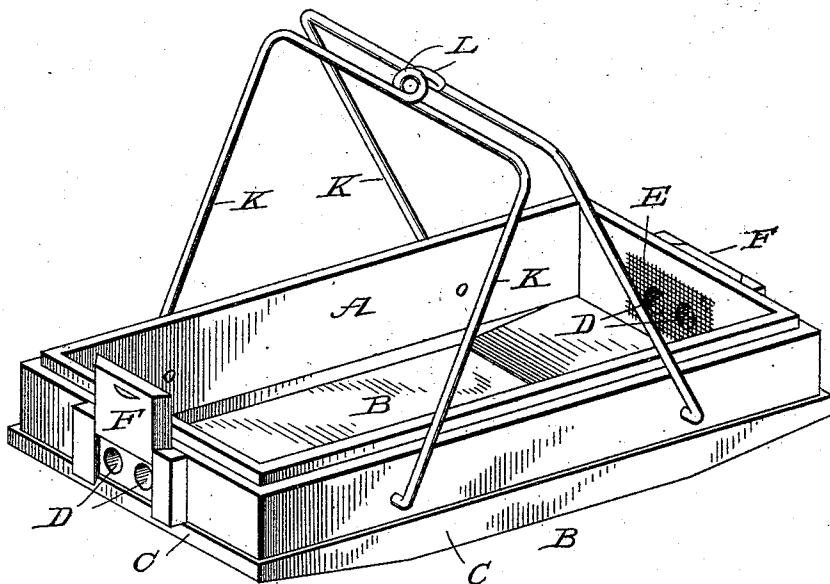


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE W. CRAWFORD, OF STILLWATER, OKLAHOMA TERRITORY,
ASSIGNOR OF ONE-HALF TO E. C. GRAVES, OF SAME PLACE.

COMBINED CRATE AND FRUIT-DRIER.

SPECIFICATION forming part of Letters Patent No. 496,819, dated May 2, 1893.

Application filed July 27, 1892. Serial No. 441,396. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CRAWFORD, a citizen of the United States, residing at Stillwater, in the county of Payne and Territory of Oklahoma, have invented a new and useful Combined Crate and Fruit-Drier, of which the following is a specification.

My invention relates to a combined crate and fruit-drier adapted to be suspended over a furnace, range, or fire in position to receive the heat therefrom, the object of my improvement being to provide a construction whereby a circulation of air is created through the crate, the current passing over each layer of fruit contained therein.

In carrying out my invention, I employ a base or carrier provided with suitable bails by which the crate may be suspended, and upon this base or carrier I arrange a tier of sections, fitted together so as to form a complete and compact crate, the top section being provided with a cover or closure. Within these sections I arrange a series of horizontal trays, supported by the slatted bottoms of the sections, and longitudinally adjustable in the same to allow the direction of the current of air to be altered and regulated at will. I also provide the base or carrier at opposite ends with inlet openings and the top or cover with outlet openings, said openings being provided with slides whereby either or all of them may be closed as required.

The objects and advantages of my invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings: Figure 1 is a perspective view of a crate and drier embodying my improvements, suspended in operative position. Fig. 2 is a longitudinal sectional view of the same, showing the direction of the circulation of air when the lower left-hand inlet-openings are open. Fig. 3 is a detail view of one of the sections detached. Fig. 4 is a similar view of the base or carrier detached.

A represents the base or carrier, which is provided with a tin or sheet-metal bottom B, in the form of a pan, the vertical edges or flanges C of which are secured to the sides of the base. The ends of the base are provided with inlet-openings D, covered by wire gauze

E, and fitted with slides F, whereby said openings or either of them may be closed.

The sections G are arranged above and are carried by the base, the upper edges of said sections being exteriorly rabbeted, and their lower edges being interiorly rabbeted, whereby the said parts fit together and form substantially air-tight joints. The upper edges of the base or carrier are similarly rabbeted to receive the lower edge of the lower section.

The sections are provided at their bottoms, or near their lower edges, with the parallel slats H, upon which, when desired, large fruit may be supported directly without the use of trays.

The trays I, which are used for small fruits, vegetables, &c., are preferably imperforate, as shown, and are arranged in the sections upon the slatted bottoms, said trays being somewhat shorter than the sections so that when placed therein and pushed at one end close to the corresponding end of the section, an air-passage, such as shown in Fig. 2 at J, will be formed between the opposite end of the tray and the adjacent wall of the section.

Attached to the sides of the base or carrier are the lower ends of the pivoted bails K, the looped or closed ends of which are adapted to be swung over the top section, said bails being provided at their centers with eyes L to be engaged with a hook M upon the lower end of a supporting-cord N.

Upon the upper side of the top section is fitted the cover or lid O, provided near its ends with depending cleats P, which fit against the inner surfaces of the ends of said top section. This lid or cover is provided, near its ends with outlet-openings Q, covered by a wire gauze R, and provided with slides S, similar to those described in connection with the base or carrier.

In Fig. 1 I have shown a cable or cord connecting the centers of the bails and passing over a pulley which may be suspended from any suitable support, whereby the crate may be suspended in a position to receive the heat from a furnace or drying fire.

In Fig. 2 I have shown one of the slides in the base or carrier elevated so as to allow the entrance of air through the inlet-opening ordinarily concealed thereby, and by reference

to the said figure, it will be seen that the lowermost tray is arranged close to that end of the section which is adjacent to said inlet-opening, whereby the heated air which enters the latter is caused to pass longitudinally under the lower tray and vertically through the air-passage at the opposite end thereof. The second tray is arranged with its end in contact with the opposite end of its section from the said inlet-opening, whereby the current of air, after ascending through the said air-passage is again caused to traverse the entire length of the crate above the lower tray in order to reach the air-passage which is formed between the end of its second tray and the adjacent end of its section. In the same way all of the trays are arranged, namely, with their opposite ends in contact with the ends of the sections, so that the current of heated air is caused to pass over each tray in turn, finding outlet finally at the opposite end of the lid or cover from the air-passage which is arranged between the end of the top tray and its containing section. The upper edge of each section, including the base, is in a horizontal plane whereby the under surface of the lid or cover will fit solidly upon the same and form a tight joint, and thus the lid may be fitted upon the upper side of the base or either section, thereby enabling any desired number of sections to be used.

This device is adapted to be suspended over a stove, furnace, or fire, and by means of the cable N may be elevated or lowered to regulate the heat.

The bails are of sufficient size to accommodate the extreme number of sections, but a less number may be employed, when desired, the cover or lid being applied to the top section.

The sections are interchangeable, thereby avoiding the necessity of selecting them as they are applied, and enabling them to be changed at intervals, if necessary, to bring certain trays nearer to or remove them farther from the heat as the drying process progresses, or, as the particular fruit occupying the different trays demand.

By providing ventilating apertures at both

ends of the base and lid or cover, and providing each aperture or group of apertures with an independent closure, the direction of the current of air through the drier may be changed at will, to suit the number of sections employed and to expedite the process of drying.

Having thus described my invention, I claim—

1. In a device of the class described, the combination, of a base section, provided with a metallic pan C and having vent openings, independent interchangeable superposed sections, and a lid or cover fitting over and closing the upper side of the top section, substantially as specified.

2. In a device of the class described, the combination of a base section provided in its opposite ends with inlet openings provided with individual closures, intermediate interchangeable superposed sections, and a lid or cover fitting and closing the upper side of the uppermost section and provided at opposite ends with outlet openings provided with independent closures, substantially as specified.

3. In a device of the class described, the combination with a base section having rabbeted upper edges and inlet apertures, of interchangeable superposed sections having oppositely-rabbeted upper and lower edges, and provided with slatted bottoms or partitions, a lid or cover fitting and closing the upper side of the uppermost section, and imperforate trays arranged upon the several bottoms or partitions of the superposed sections and shorter than said sections to permit of longitudinal adjustment to form oppositely-disposed air passages, whereby the air is caused to travel over or above each tray and its contents, the base section and the lid or cover being provided at both ends with apertures having independent closures, substantially as specified.

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

GEORGE W. CRAWFORD.

Witnesses:

A. T. NEILL,
E. C. GRAVES.