

(No Model.)

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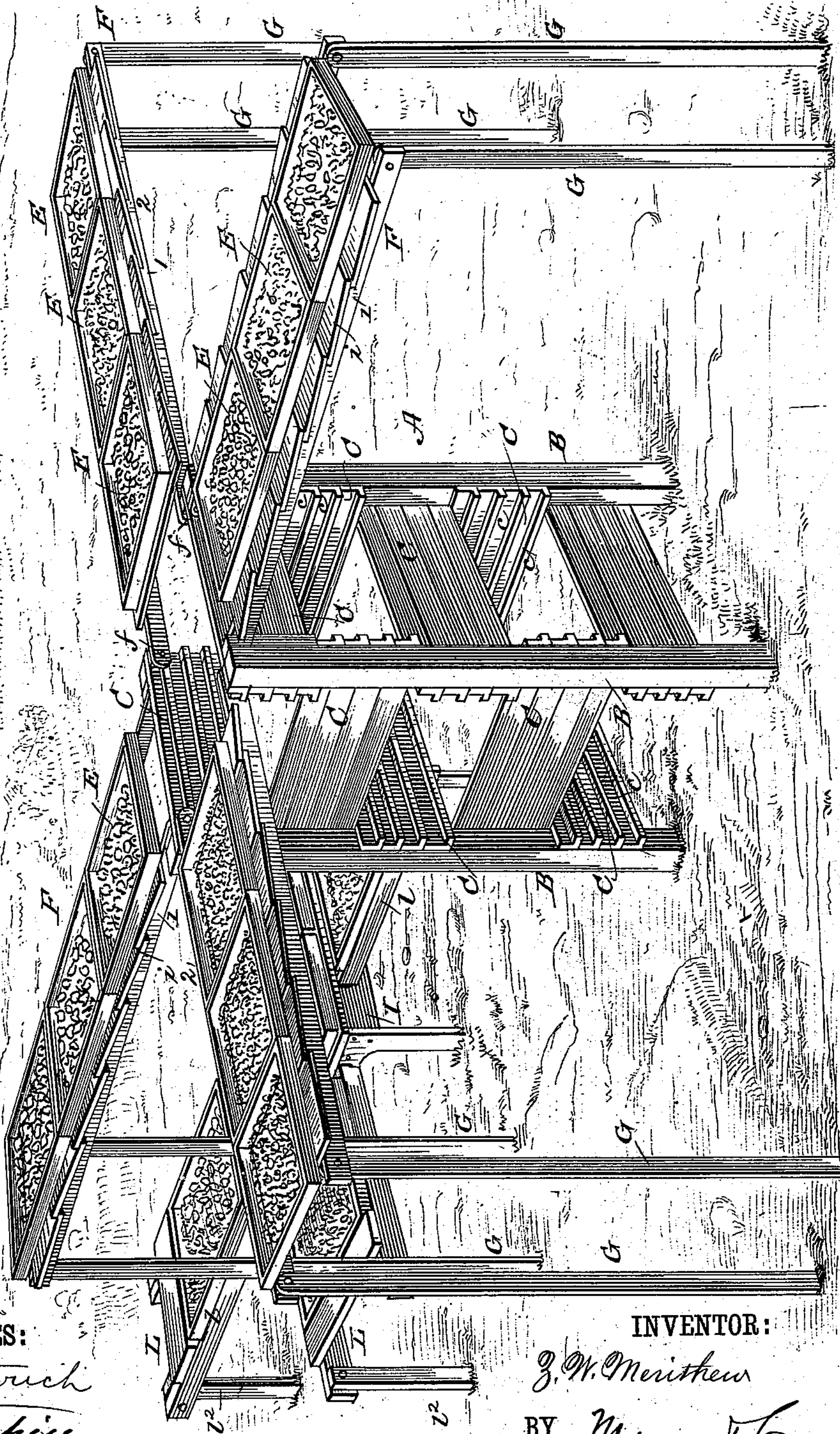
Z. W. MERITHEW.

FRUIT DRIER.

No. 382,617.

Patented May 8, 1888.

Fig. 1.



WITNESSES:

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P. B. Surpin.

INVENTOR:

Z. W. Merithew

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(No Model.)

3 Sheets—Sheet 3.

Z. W. MERITHEW.

FRUIT DRIER.

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Fig. 3.

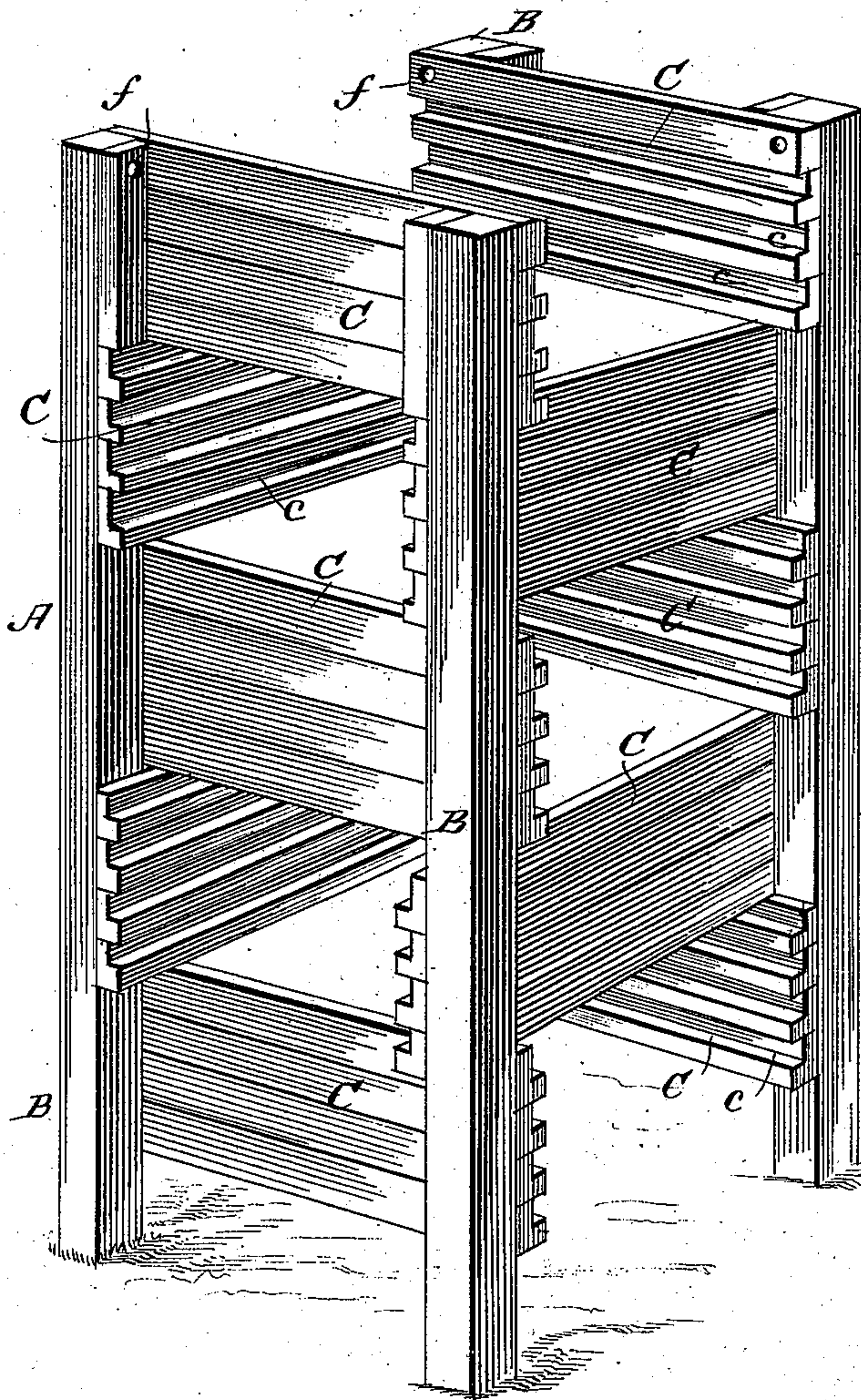
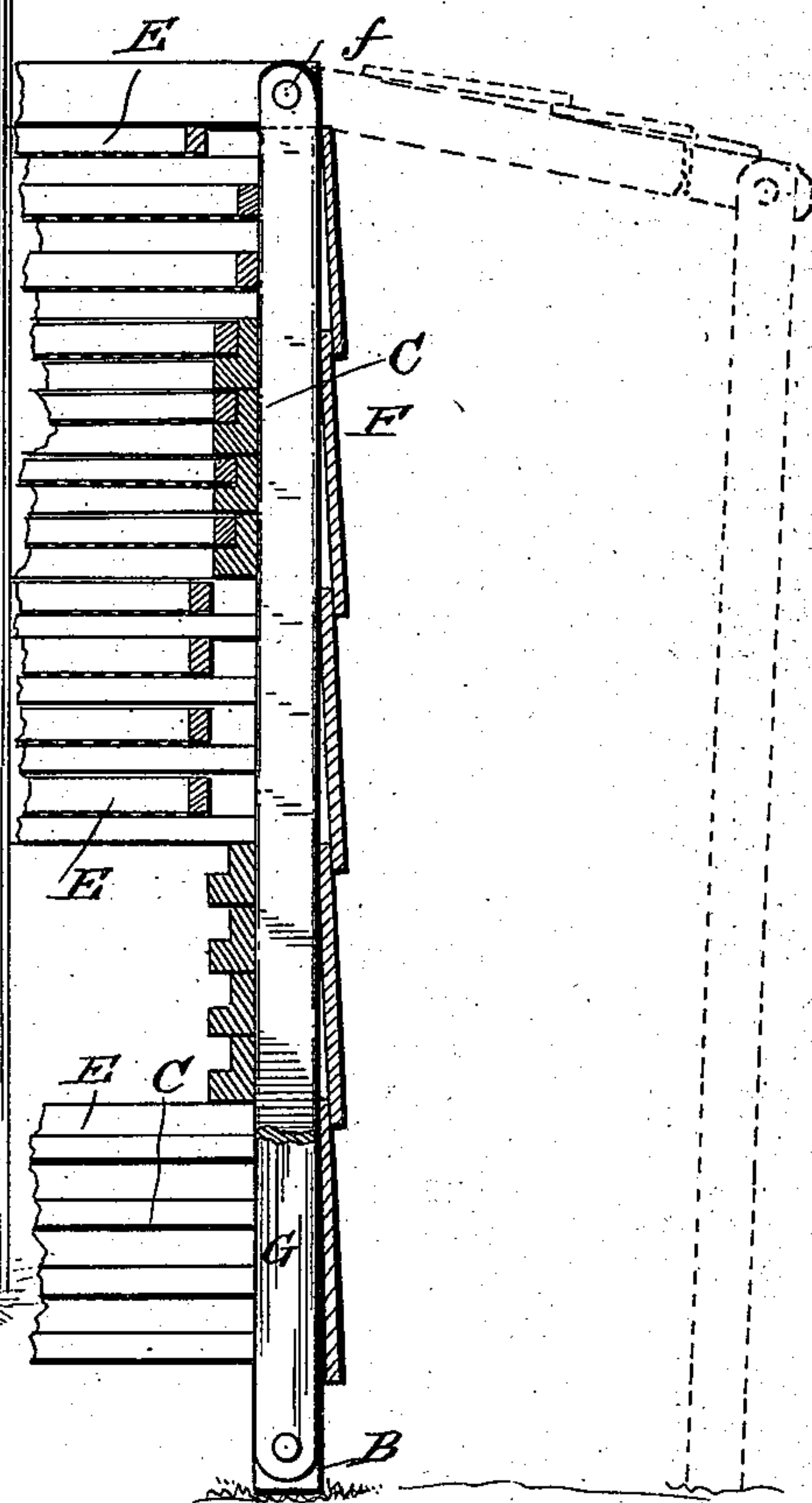


Fig. 4.



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UNITED STATES PATENT OFFICE.

ZACHEUS WELLS MERITHEW, OF GRAND VIEW, INDIANA, ASSIGNOR OF
ONE-HALF TO LOREN F. GAGE, OF SAME PLACE.

FRUIT-DRIER.

SPECIFICATION forming part of Letters Patent No. 382,617, dated May 8, 1888.

Application filed October 18, 1887. Serial No. 252,704. (No model.)

To all whom it may concern:

Be it known that I, ZACHEUS WELLS MERITHEW, of Grand View, in the county of Spencer and State of Indiana, have invented a new and useful Improvement in Fruit-Driers, of which the following is a specification.

My invention is an improved fruit-drier intended especially for open-air drying, and seeks among other improvements to provide a simple construction by which ample scaffold-room may be provided for the fruit in good drying time or weather, and perfect inclosure of such fruit may be effected through the aid of such scaffolding in bad weather.

The invention consists in certain features of construction and novel combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my apparatus open, as when in use. Fig. 2 is a perspective view of the apparatus closed, as when the fruit is inclosed. Fig. 3 is a detail perspective view of the main frame or support, the sides being removed. Fig. 4 is a partial vertical section of the apparatus, showing one of the sides closed in full lines and open in dotted lines. Fig. 5 is a perspective view illustrating the connection of the scaffold-frames with the removable top, and Fig. 6 is a horizontal section of the main frame or support.

The main frame, or it may be termed the "support," A, is formed of four vertical corner-posts, B, which are connected together by cross-bars C, which cross-bars are secured to the inner sides or edges of said posts in order to provide recesses at D, in from the outer edges of the posts, which recesses receive the framing and folding uprights of the hinged sides in the closed position of such parts. This support A has guides or ways at *c* for the trays E, which guides are by preference formed in the connecting-bars C, before described. It is preferred to arrange the guides for the trays in a plurality of series, embracing about four sets of guides in a series, and arranging the guides of each series at right angles to those of the adjacent series, as shown most clearly in Fig. 3. This arrangement has especial advantages, resulting in the first place in greater strength and rigidity in the main frame, and

also facilitating the insertion and removal of the trays by arranging the inlets of the guides of the support in four different directions, thus disposing a number of inlets for the trays in convenient relation to each of the hinged sides. Thus the trays may be conveniently moved from any one of the sides, which also serve as scaffolds for the fruit, and inserted into the main frame or support.

The sides F are arranged on each of the four sides of the support A and are alike in construction, being hinged or pivoted at *f* at their upper ends to the support or main frame, and having the folding uprights G hinged at one end to their lower or outer ends, and capable of being folded in under the sides when the apparatus is closed, as shown in Fig. 2, or out to form uprights supporting the outer ends of the sides, as will be understood from Fig. 4. Each of these sides is preferably constructed as shown, consisting of the frame-bars 1, the weather-boards 2, secured thereto, and the bars pivoted to such frame-bars 1 and forming the uprights G.

The trays E may be of any suitable construction, being fitted to the guides or ways of the support A, as shown.

The sides may be closed, as shown in Fig. 2, in which case their framing and uprights are received in the recesses D; or such sides may be opened, as shown in Fig. 1 and illustrated in Fig. 4, and be supported horizontally, or approximately so, by their uprights G, arranged as indicated in dotted lines, Fig. 4. When so opened, I place two of the trays of fruit on each of the sides, removing such trays from the support, as will be understood, the top tray in the support being left therein, as it will be exposed to the sun, as will be understood, the top I being removed, as shown in Fig. 1. This top comprises a top plate or board, *i*, side boards, J, having slots or openings *j*, and depending portions K, which serve as legs for such top when it is removed from the main frame or support.

The side boards, J, of the top or cap form depending portions, which overlap the sides when the sides are closed and the top is in place, and so serve to lock such sides in closed position.

The scaffold-frames *L* have horizontal bars *l* fitted at one end to enter openings *j*, and provided at such end with notches *l'* in their under sides, which engage the bottom walls of the openings *j*, as will be understood from Fig. 5. Near their other ends the bars *l* are connected by a cross-bar, and have bars *l''* pivoted to them, so they may be turned into the plane of said bars *l*, or at right angles thereto, to form legs, as will be understood from said Fig. 5.

Manifestly, the scaffold-frames may be engaged at their inner ends with the top by simply resting their inner ends thereon; but I prefer the construction of notches *l'* and openings *j*, as thereby a firmer and better connection is secured.

When the top is removed and the scaffold-frame *L* connected therewith, it, with such frames, together with the support and the sides, opened as described, will serve to support the trays of fruit, which may be removed from the main frame and placed on such parts, as shown in Fig. 1, where it will be subject to the influence of the sun, and so be quickly dried.

To house or shelter the fruit, as may be desired in the case of a sudden storm, it is only necessary to replace the trays in the main frame or support, close the sides, remove the scaffold-frames from the top, and place such top on the main frame, as shown in Fig. 2.

In case wet weather interferes with sun-drying the drier may be placed over a trench in the ground, a plate of sheet-iron being placed between the trench and the drier, and fire be built in the trench.

It will be noticed that the sides and top employed for providing the scaffold-room for the trays also serve to inclose and shelter said trays when so desired.

Having thus described my invention, what I claim as new is—

1. In a fruit-drier, the combination of a main frame or support, ways therein for the fruit-trays, the trays fitted to said ways and movable thereon into and out of the drier, the sides fitted to the main frame and hinged at their upper ends to said frame, whereby they may be turned in to close said frame or out to form scaffolds whereon to support and expose the trays, and supports whereby said sides

may be held elevated when opened, substantially as and for the purposes specified.

2. In a fruit-drier, the combination of the main frame or support having ways for the fruit-trays, the removable top, the sides hinged at one of their ends to the support, and uprights for securing the other ends of the sides elevated, substantially as set forth.

3. In a fruit-drier, the combination of the main frame or support, the sides hinged thereto, and consisting of the frame-bars *1* and the weather-board sections secured to the outer sides of said bars, and the upright bars hinged at one end alongside the frame-bars *1*, whereby the said uprights may be turned up alongside the frame-bars and against the weather-boards, all substantially as and for the purposes specified.

4. In a fruit-drier, the main frame having guides or ways for the fruit-trays, such guides being arranged in a number of series, each of such series being arranged at right angles to the adjacent ones, combined with the sides hinged at one end to the main frame, whereby they may be turned outward from said frame, and supports for the outer ends of said sides, substantially as set forth.

5. In a fruit-drier, the combination of the main frame or support having ways for the fruit-trays, the removable top, and the adjustable sides arranged to be opened to form scaffolds whereby to support the trays for open-air drying, substantially as set forth.

6. In a fruit-drier, substantially as described, the removable top provided with side boards having openings *j*, combined with the scaffold-frames having their bars *l* fitted at one end to enter said openings, and having such ends notched on their under sides at *l'*, substantially as set forth.

7. In a fruit-drier, the combination of the main frame or support, the sides hinged at one of their ends to said main frame or support, and the cap or top fitted on the support or main frame and having depending portions overlapping the sides in the closed positions thereof, substantially as set forth.

ZACHEUS WELLS MERITHEW.

Witnesses:

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J. L. HATFIELD.