

C. A. CURRAN

FRUIT DRIER.

No. 255,602.

Fig. 1.

Patented Mar. 28, 1882.

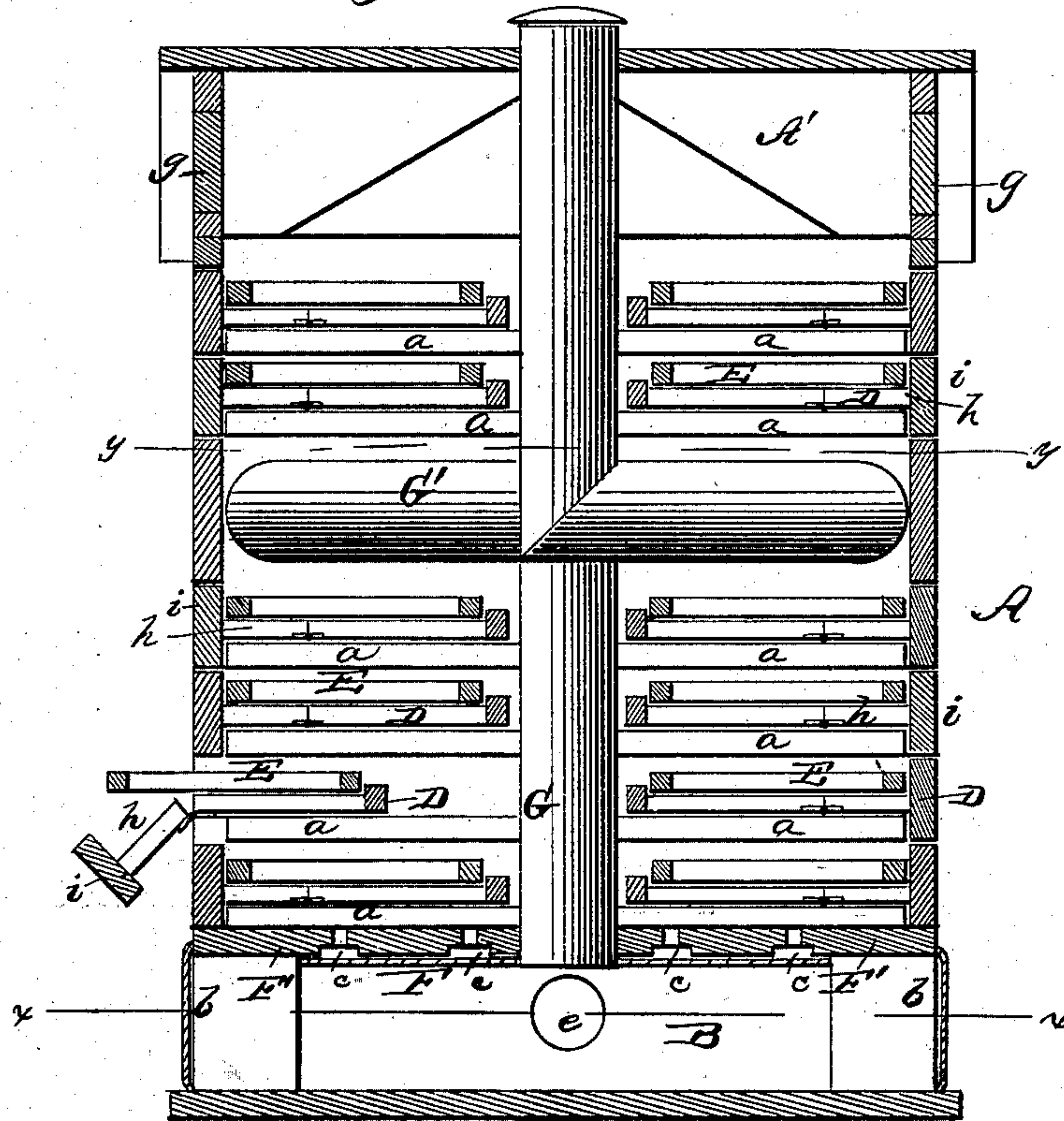
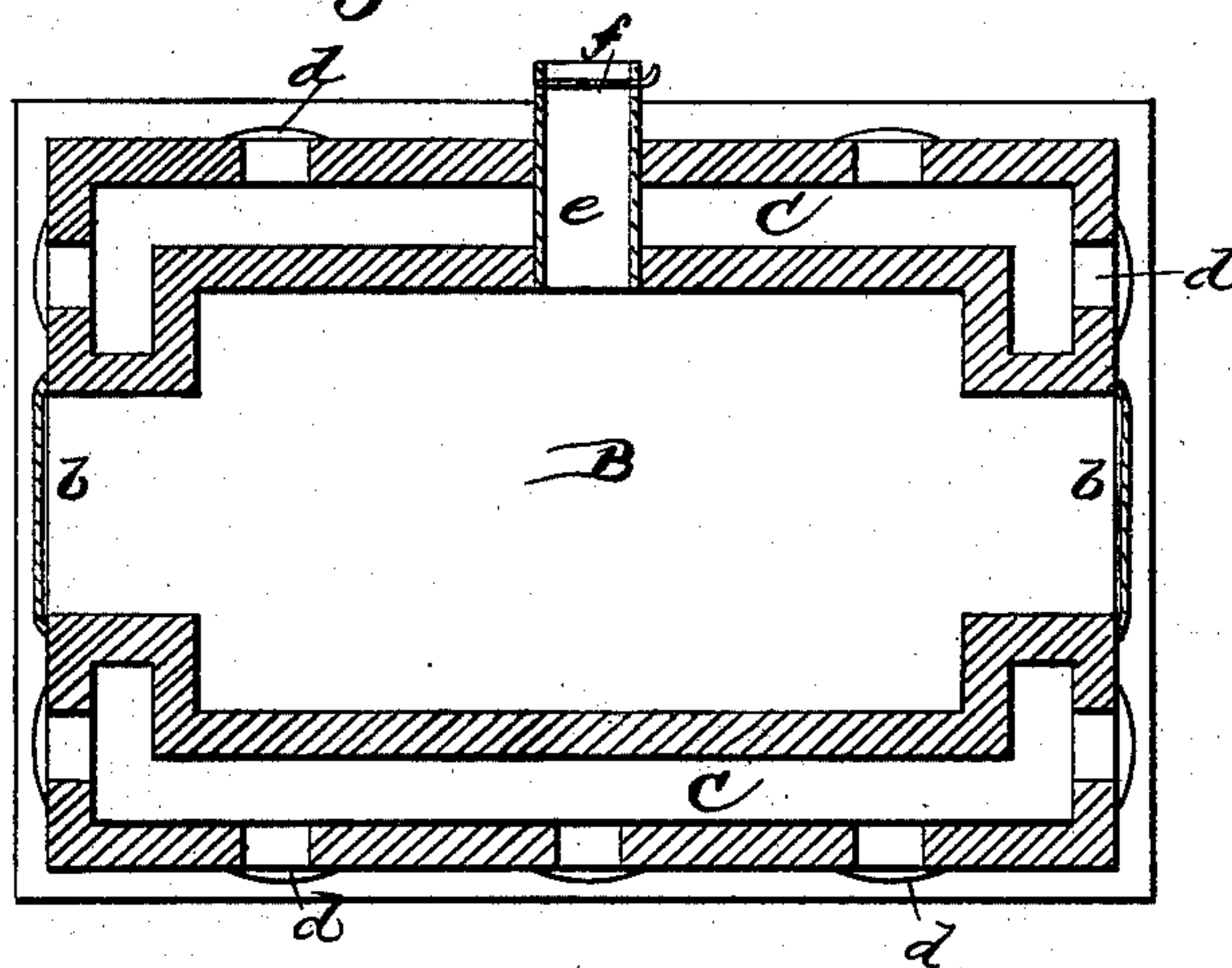


Fig. 2.



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(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

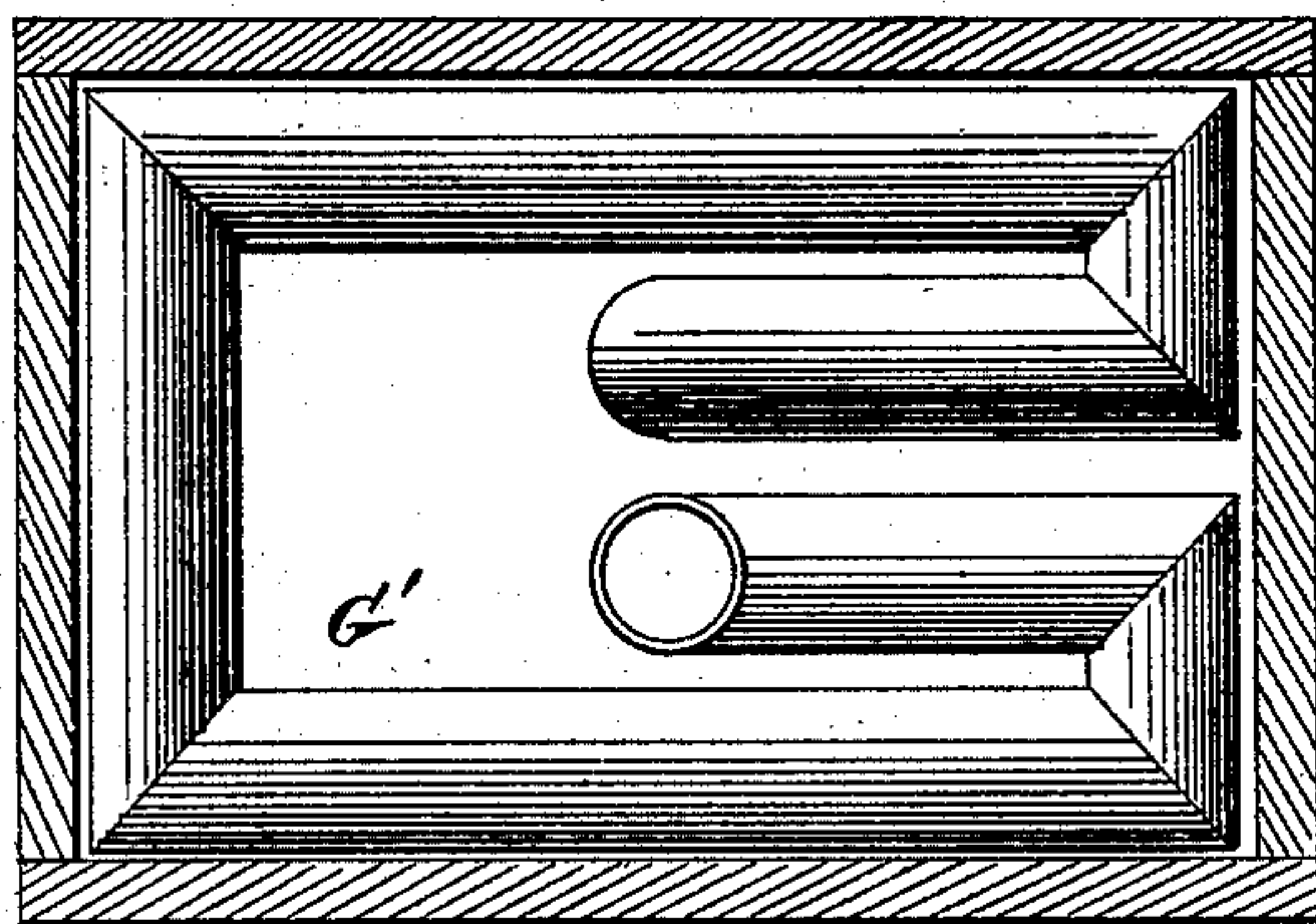
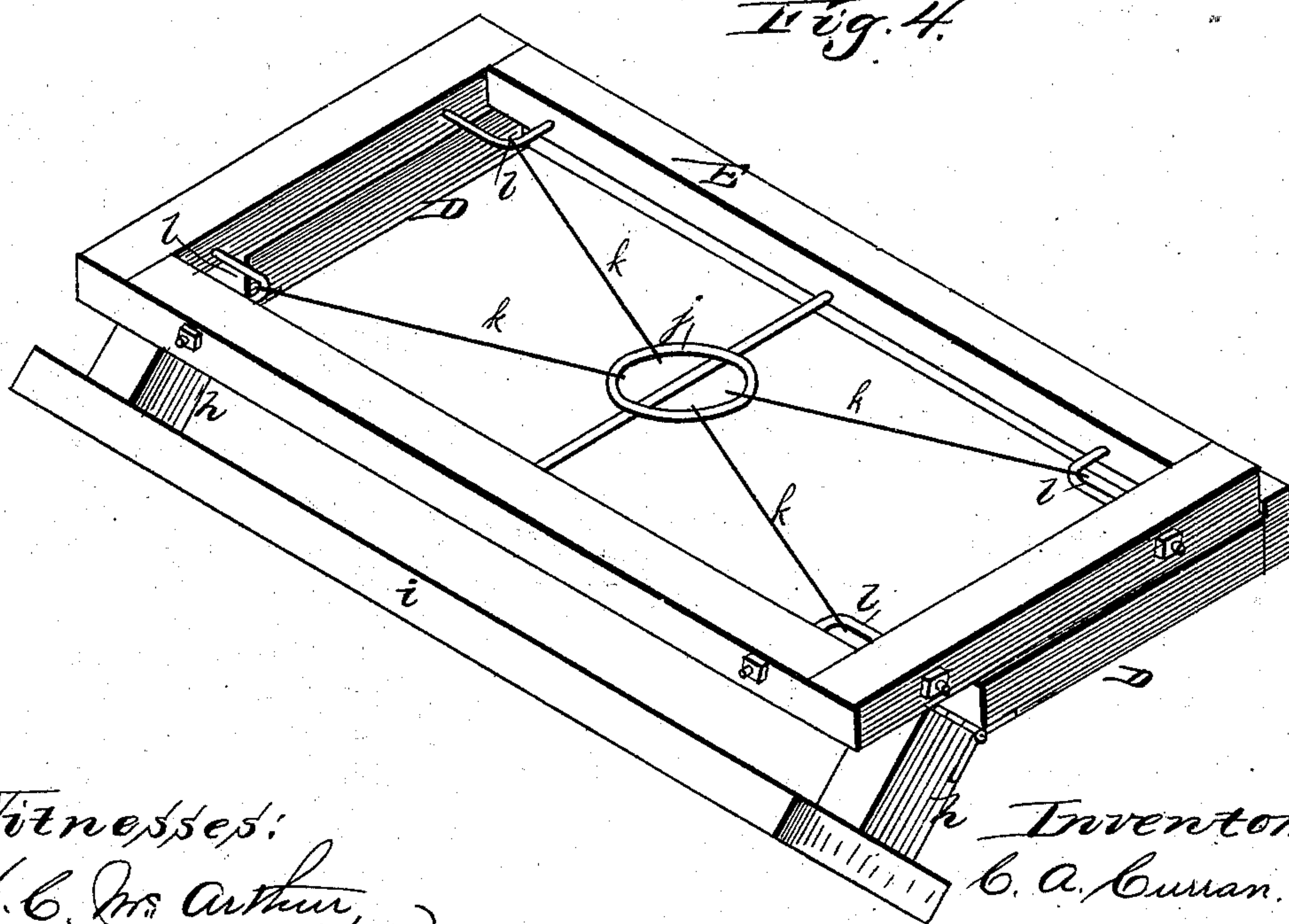


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES A. CURRAN, OF ALBANY, OREGON.

FRUIT-DRIER.

SPECIFICATION forming part of Letters Patent No. 255,602, dated March 28, 1882.

Application filed January 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHAS. A. CURRAN, of Albany, in the county of Linn and State of Oregon, have invented certain new and useful
5 Improvements in Fruit-Driers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which
10 form part of this specification, in which—

Figure 1 is a longitudinal vertical section. Fig. 2 is a horizontal section on the line *x x*, Fig. 1; Fig. 3, a horizontal section on the line
15 *y y*, Fig. 1; and Fig. 4 is a perspective view of the slide and tray.

My invention relates to means for drying fruit and vegetables; and my object is mainly to furnish an apparatus which will effect the
20 drying of the substances rapidly and uniformly, and which is so constructed that hot or cold air can be used, and the same distributed over a very large surface and regulated in a convenient manner.

In carrying out my invention I employ a furnace at the base of the apparatus, which is
25 provided on two sides with doors, and on two sides with air-channels and air-inlet passages having regulating caps or dampers. I also employ inside of the body of the drier a smoke-
30 pipe communicating with the furnace, and also with the external air through the roof. I also employ removable frames having hinged sections and doors, and adapted to support the
35 trays on which the substances to be dried are supported, and I construct the trays with supporting-spiders, which are provided with means for tightening them.

The following is a description of my improvements.

40 A designates the body of the drying-house constructed of two side walls and transverse connecting-bars suitably mounted on the walls which inclose the furnace B and the air circulating channels C C on opposite sides thereof.
45 The side walls of the body A are provided with narrow horizontal rests *a*, forming supports for removable frames D, on which the fruit-trays E are placed.

The furnace-chamber B is provided with
50 doors *b* at its ends, a covering-plate, F, and a second cover, F', through which are holes for

the upward escape of heated air. The said holes communicate with the two channels C C by means of grooves *c*. The sides and ends of the outer walls inclosing the channels C C
55 have openings through them for the admission of air, which openings are provided with suitable dampers, *d*, for regulating the admission of the air. There is also a short horizontal
60 pipe, *e*, which passes through one of the channels C provided with a damper, *f*, for regulating the admission of air to the furnace-chamber B.

G designates a pipe rising from the top of the furnace-chamber B, and communicating
65 with a horizontal coiled heating-drum, G', arranged in the body A of the drier and suitably sustained therein, and from this drum G' rises an outlet-pipe for the products of combustion, which passes out through the center of
70 pitched roof A'. The heat from the outflowing products of combustion is radiated in all directions from the drum and its pipes and uniformly distributed throughout the drying-apartment. I provide openings through the side
75 and walls of the roof A for the escape of the vitiated and damp air, which openings have doors *g* applied to them for regulating the outlet of the air, and for closing them on that side
80 of the apparatus against which the wind blows.

The frames D, which are supported on the rests *a*, are rectangular and have short hinged sections *h*, and also narrow doors *i*, applied to their front ends. When the frames are in their
85 places the top and bottom edges *ab*ut so as to tightly close the ends of the body A. The hinged sections *h* of the frames D will drop down when these frames are partly withdrawn from the drying apartment, and allow the fruit
90 on the trays E to be inspected. It is obvious that very little cold air will enter the apartment A when a frame, D, is partly withdrawn from it, owing to the doors *i* being made very narrow.

Each tray E is a rectangular frame adapted
95 to rest upon a frame, D, and provided with a spider consisting of a central ring, *j*, a cross-bar for supporting the same, diagonal wires *k*, connected to it and also to angular corner-
100 pieces *l*, which are provided with nuts on their ends by which the entire spider can be tightened when necessary. This spider is designed

to support the wire-cloth on which the fruit is put to dry.

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

1. The combination of the sectional hinged frame D and the door *i* applied to this frame, for the purpose specified.
2. The combination of the tray-frame, the spider stretched therein, the angular corner-

pieces, and the tightening-nuts, substantially as described.

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

CHARLES A. CURRAN.

Witnesses:

T. P. HACKLEMAN,
D. R. N. BLACKBURN.