E. DILDAY.

Fruit Drier.

No. 97,174. Patented Nov. 23, 1869.

Fig. 1

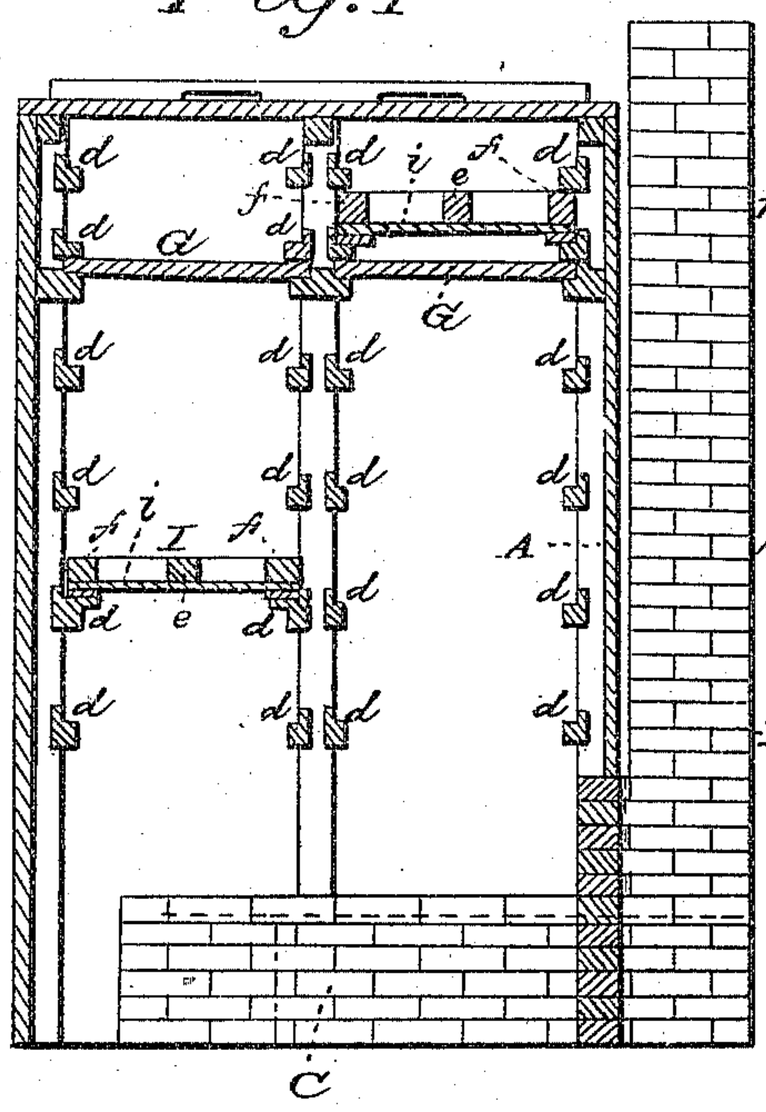


Fig. 2

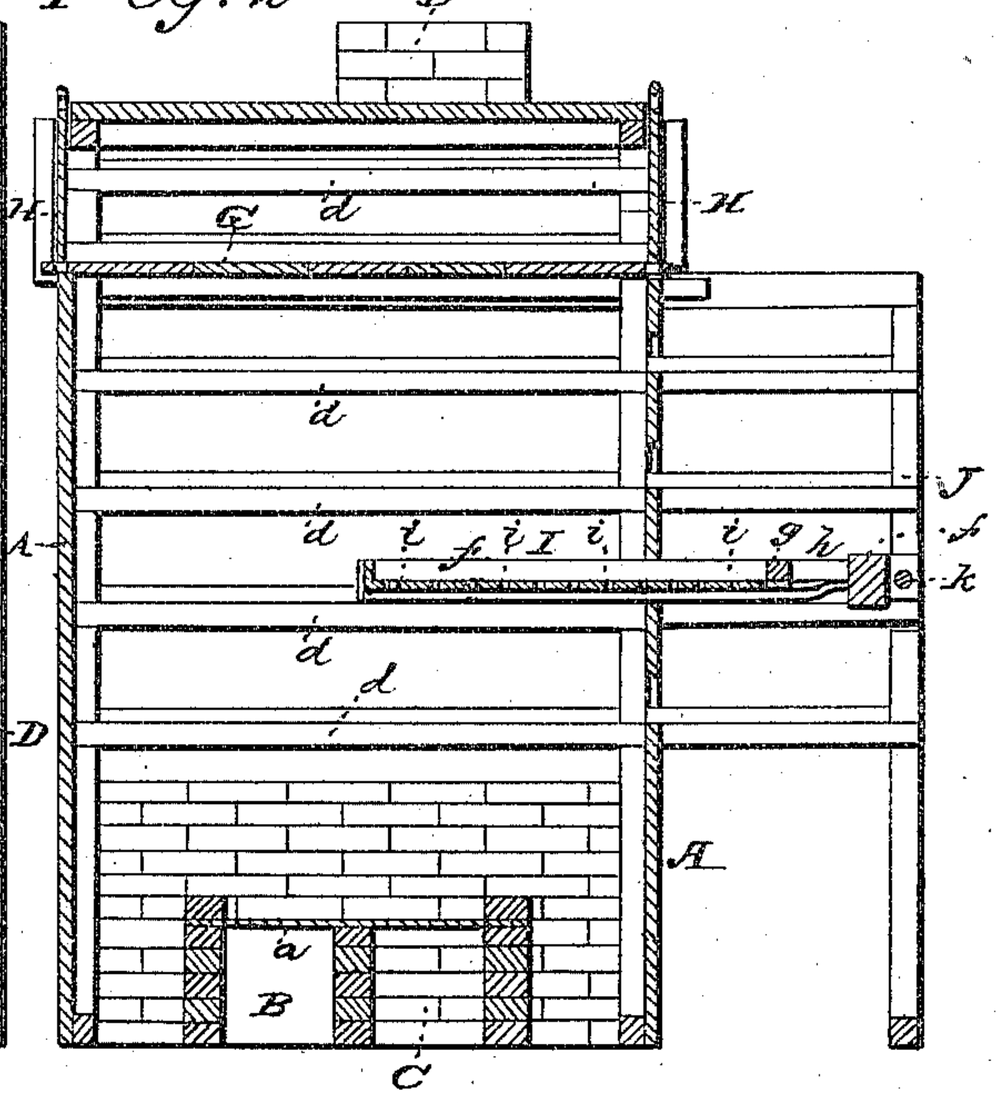


Fig. 3

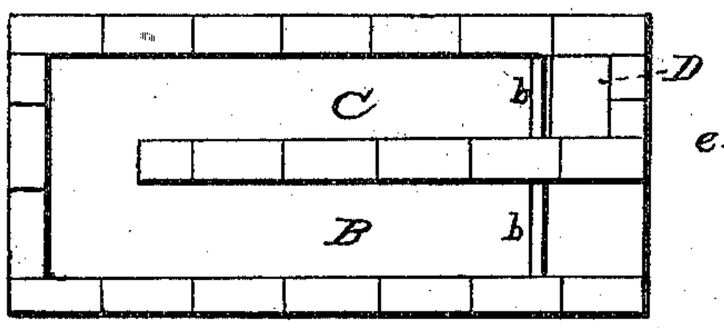


Fig. 5

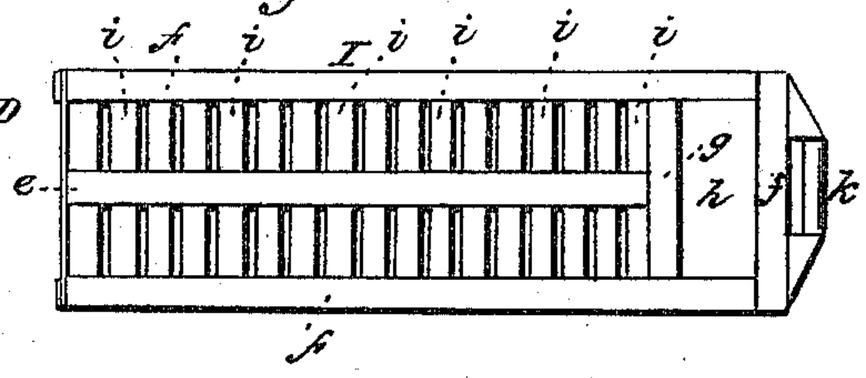
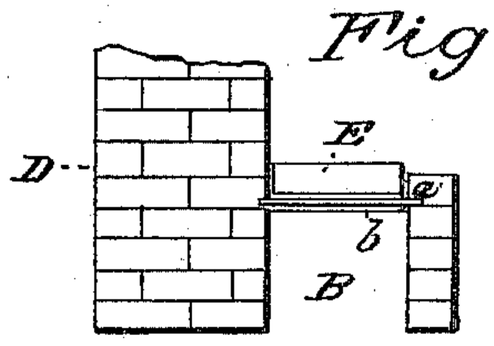


Fig. 4



Witnesses

le. L. Bues.

H. C. Mary

Inventor

E. Dilday.

per Alexander & Mason

Attys.

UNITED STATES PATENT OFFICE.

ELIAS DILDAY, OF SOUTH PASS, ILLINOIS.

FRUIT-DRIER.

Specification forming part of Letters Patent No. **97,174**, dated November 23, 1869.

To all whom it may concern:

Be it known that I, E. DILDAY, of South Pass, in the county of Union, and in the State of Illinois, have invented certain new and useful 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, making a part of this specification.

The nature of my invention consists, first, in the construction of a furnace for a dry-house which will not dangerously heat the walls of the building, but will throw the heat up through and around the compartments or divisions in which the drawers of fruit are placed for drying, without damage by fire or smoke, drying the fruit much better and quicker than by any other method now in use, with less fuel; second, in the construction of a dry-house with two compartments—one for fresh-cut fruit and one for fruit partly dried; third, in the manner of constructing the drawers which are to hold the fruit while drying.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a vertical cross-section, and Fig. 2 is a longitudinal vertical section of my dry-house and furnace. Fig. 3 is a bottom view of the furnace. Fig. 4 is an outside view of the entrance to the furnace and the chimney, and Fig. 5 is a plan view of the fruit-drawer.

A A represent the walls of the dry-house, made of any material and of any dimensions desired.

In the lower portion of the dry-house is built the furnace B, extending from one end of the house to within a suitable distance of the other end, and connects with the flue C, which runs back and communicates with the chimney D, built at the side of the mouth of the furnace.

The furnace B and flue C are covered with a sheet-iron covering, *a*, which laps on each side of the flue and furnace about one inch, and about the same distance at each end, resting at the front end upon a bar, *b*, of iron at its junction with a stone, E, which covers the mouth of the furnace, as seen in Fig. 4. The bar *b* should be of sufficient width and strength to support the chimney D at its junction with the flue C. After the covering *a* of sheet-iron one course of brick should be laid round upon the the edge to hold it firmly in its place.

The dry-house A is, by means of partitions G G, divided into a lower and an upper compartment, the lower compartment being for the purpose of placing freshly-cut fruit, while the upper one is to place partly-dried fruit. The partitions G G are made in sections, and can be moved out or in at pleasure, so as to regulate the temperature in the upper compartment.

Within both compartments of the dry-house are placed series of guides *d d*, for holding the drawers in place, said guides being so arranged as to form places for two series of drawers, as shown in Fig. 1. The lower set of drawers should, however, not be less than two feet from the top of the furnace B.

At the upper end of the dry-house, on both front and rear sides, are slides H H, which may be entirely closed, partially opened, or entirely taken away, so as to regulate the temperature in the dry-house.

The front side of the dry-house is provided with openings above each set of guides *d d*, through which openings the drawers I I are inserted; but on the front side of the dry-house is erected frame-work J, so arranged that said drawers may be drawn out or partially out of the dry-house, and remain on this frame-work, so as to change or otherwise attend to the fruit on the drawers.

The drawers I I are constructed in the following manner: A frame, *f*, is made with a cross-piece, *g*, a suitable distance from the front end, leaving an open space, *h*, as seen in Fig. 5. Running longitudinally in the center of the frame *f*, from said cross-bar *g* to the rear end of the frame, is a bar, *e*, and slats *i i* are nailed or otherwise secured at the bottom, said slats being placed a suitable distance apart. At the front end of the frame *f* is formed a handle, *k*.

The dry-house thus constructed may be made of any dimensions desired, with one or more furnaces, and any number of rows of drawers, from one or more sides.

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

1. The dry-house A, constructed as described, and divided into two compartments by means of the movable partitions G G, and having slides H H and guides *d d*, all substantially as and for the purposes herein set forth.

2. The combination and arrangement of the dry-house A, furnace B, flue C, chimney D, frame J, and drawers I I, all constructed as described, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of September, 1869.

ELIAS DILDAY.

Witnesses:
MARY E. PIERCE,
WM. B. FISHER.