

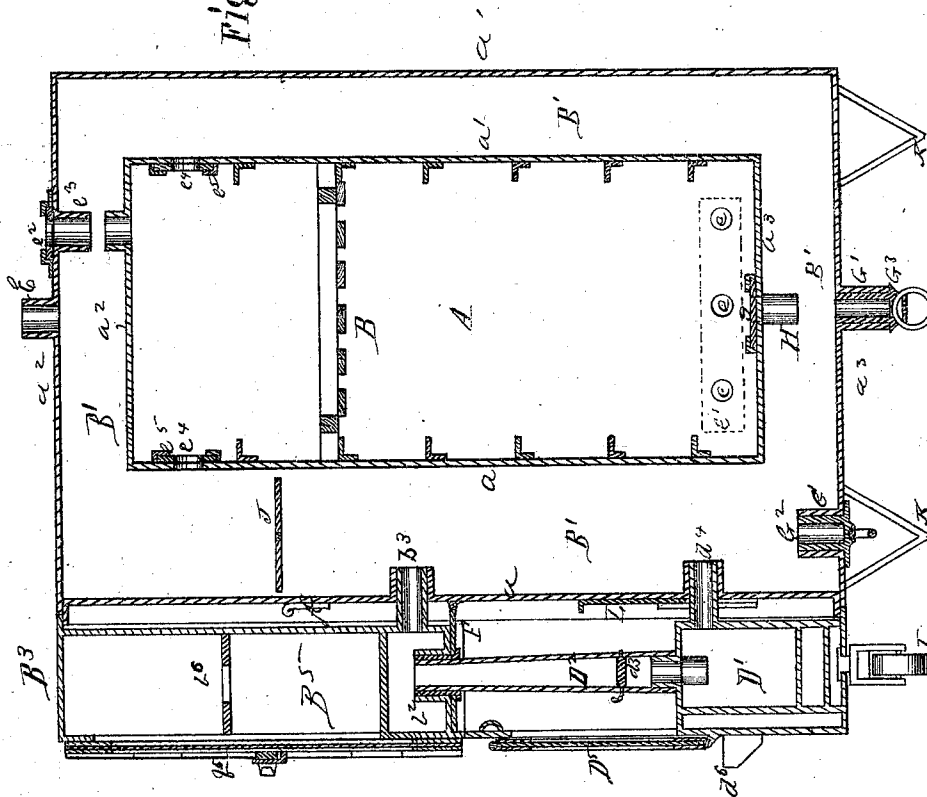
S. C. BARTH.

Improvement in Fruit Driers.

No. 124,658.

Patented March 19, 1872.

Fig. 1.



Witnesses
E. H. Bates.

D. D. Kane

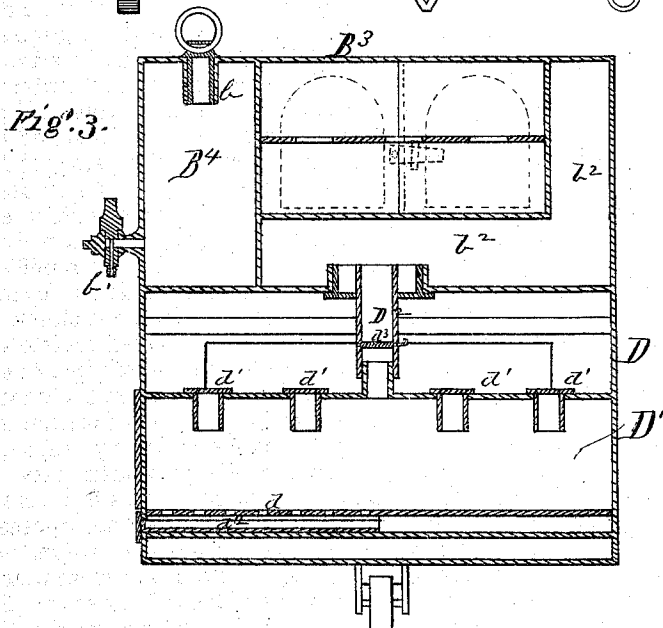
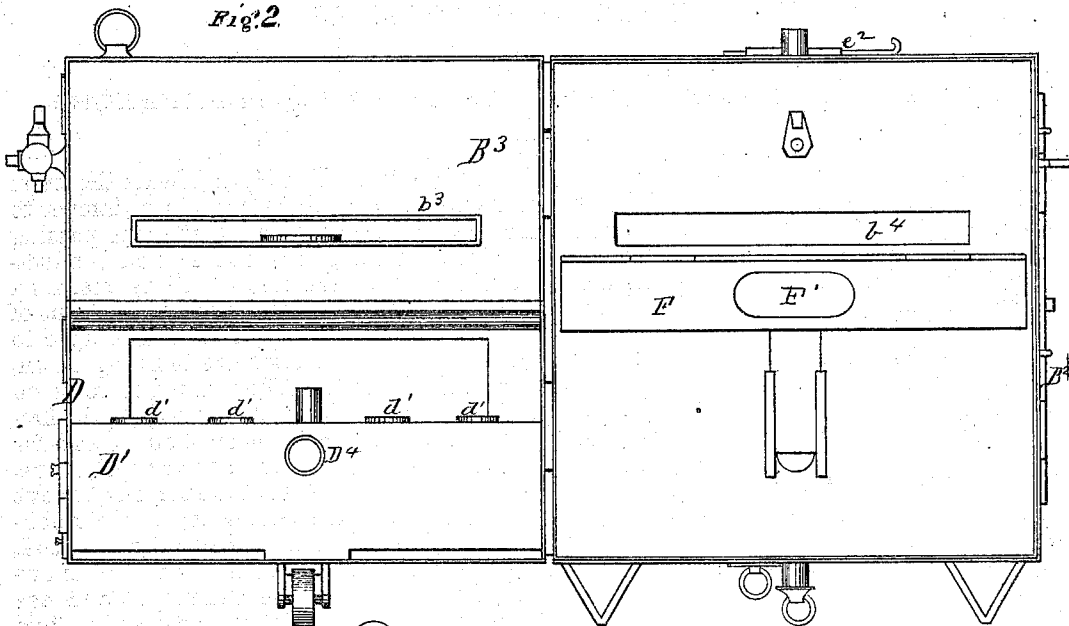
Inventor.
S. C. Barth.
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UNITED STATES PATENT OFFICE.

SEBASTIAN C. BARTH, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN FRUIT-DRIERS.

Specification forming part of Letters Patent No. 124,658, dated March 19, 1872; antedated March 2, 1872.

To all whom it may concern:

Be it known that I, SEBASTIAN C. BARTH, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and valuable Improvement in Combined Heater and Drier; and do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a vertical transverse section of my invention. Fig. 2 is a plan view of my invention with casings B³ D swung back from drier. Fig. 3 is a vertical longitudinal section through casings B³ D.

This invention has relation to heating apparatus; and the novelty consists in the peculiar construction and arrangement of the component parts of an apparatus, whereby the same is rendered available for the purposes of drying fruit and clothes, heating water, cooking and baking, and warming apartments.

In the accompanying drawing illustrating this invention, A represents a capacious chamber for drying fruit, vegetables, clothes, &c. It is furnished with shelves B to hold the fruit and vegetables, for which rods may be substituted to hold clothes; and it is inclosed within double walls *a a¹ a² a³* at the sides, top, and bottom, between which is the flue B¹. The front of said chamber is provided with glass doors B², which open and close on hinges. B³ represents a casing, hinged to one side of the drier-casing. One end is occupied by a water-boiler, B⁴, furnished with a supply-tube, *b*, and discharge-cock *b¹*. The remainder of said casing constitutes an oven, B⁵, underneath, and at one side of which is a heating-flue, *b²*. The horizontal section of this flue communicates with the flue B¹ by means of a wide tube, *b³*, which is secured to the casing B³, and fits an opening, *b⁴*, in outer wall *a*. D designates the fire-casing, having about the same dimensions as the casing B³, and likewise hinged to the drier-casing. It is located directly underneath casing B³. The lower half of the fire-casing is occupied by a fire-box or stove, D¹, of which *d* is the grate, *d¹* the lids, and *d²* the ash-pan. D² represents a flue-pipe, which ascends from

the fire-box to the flue *b²*, and heats the oven and water-boiler. *d³* represents a damper to the flue D². *d⁴* represents a flue-pipe passing from the fire-box to the flue B¹, and conducting the heat to the latter. D⁵ represents a glass door, which serves to close the front of the upper part of casing D, and is hinged to the front of said casing so as to swing downward and upward. When down, it rests on projections *d⁶*. When the door is open, the fire-box may be used in the same manner and for the same purposes as an ordinary cook-stove. When the door is closed, the apartment above the stove may be advantageously used for baking meats, bread, and other articles of food. The oven inclosed within the casing B³ is furnished with one or more shelves, *b⁶*, and has glass doors *b⁵* in front. The heat within this oven is not very great, consequently it is more useful for the purpose of warming and raising dough, warming plates in winter time, &c., than for baking. The heat from the fire-box or stove circulates around the fruit and clothes drying chamber through the passages B¹, and finally escapes from the top of the casing by means of the pipe E. *e* represents apertures or perforations through the back wall of the casing of the fruit-drier for the admission of air. *e¹* represents a perforated slide, by means of which the perforations *e* may be closed or opened. *e²* designates a perforated register-slide, applied to a register-opening or pipe, *e³*, through which heated air escapes from the chamber A into a room for the purposes of warming it. This pipe may be extended to any length, so as to conduct heat to distant apartments. The moisture and vapor which arises from the fruit while it is undergoing the drying process escapes into the flue B¹ by means of valves or openings *e⁴*, which are opened and closed, as required, by means of perforated slides *e⁵*. F represents a door, hinged to the side of the drier-casing directly underneath the casing B³. An opening, F¹, is made in this door for the pipe D² to pass through. G G¹ represent open tubes at the bottom of the drier-casing, having communication with the flue B¹, and closed by cups G² G³. H represents tubes from the bottom of the chamber A into the flue B¹. They are located directly above the tubes G¹, and are furnished with a perforated register-slide, *g*. I designates a caster-wheel, secured to the bottom of the fire-

casing to support it and allow it to be easily swung around on its hinges. J represents a damper, located in the flue B¹, to regulate the draught. K represents legs or supports to the drier-casing. L represents a slide, designed to close the opening in the side of the drier-case for the pipe d⁴. f represents a latch to hold up the door F when raised, as hereinafter described.

The apparatus, as described and shown, comprises all the material elements of my invention in combination.

The casings B³ and D, being hinged to the drier-casing, may be swung in or out. When it is wished to use the apparatus with an ordinary cooking-stove, the pipe d² is to be removed, and the fire-casing swung around behind the drier-casing. The cooking-stove is then arranged underneath the casing B³, and communication provided between the stove and flue b² by a section of pipe. The slide L is then pushed down to close the opening below it. A second change is made by swinging the casing B³ back also, raising the door F to close opening b⁴, and fastening it with a latch, f; then removing cup G², and elevating the drier-casing onto the back part of the stove, letting the stove-pipe enter the tube G. In this position the apparatus must be supported by suitably-arranged braces.

The drier may be made small in size, and elevated above the stove, or even located in a room above, wherein it will radiate heat to warm it.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the drying-chamber A and flue B¹, hinged or movable casing B³ containing oven B⁵, boiler B⁴, and flue b² b³, hinged or movable casing D containing stove or fire-box D¹, tubes D² and d⁴, substantially as and for the purpose specified.

2. The combination and arrangement of the drying-chamber A, flue B¹, and casing B³ containing oven B⁵, flue b², and boiler B⁴, substantially as specified.

3. The fruit or clothes-drier, having the chamber A surrounded by flue B¹ inclosed within double walls, tubes G G¹ H e³, openings e, slides or registers e¹ e², and openings e⁴, substantially as described.

4. The door F and slide L, in combination with the casings D B³, substantially as and for the purposes herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SEBASTIAN C. BARTH.

Witnesses:

JOSEPH T. SMITH,
JOHN YOUNG.