

C. A. MOFFATT.

Fruit Dryer.

No. 108,616.

Patented Oct. 25, 1870.

Fig. 1.

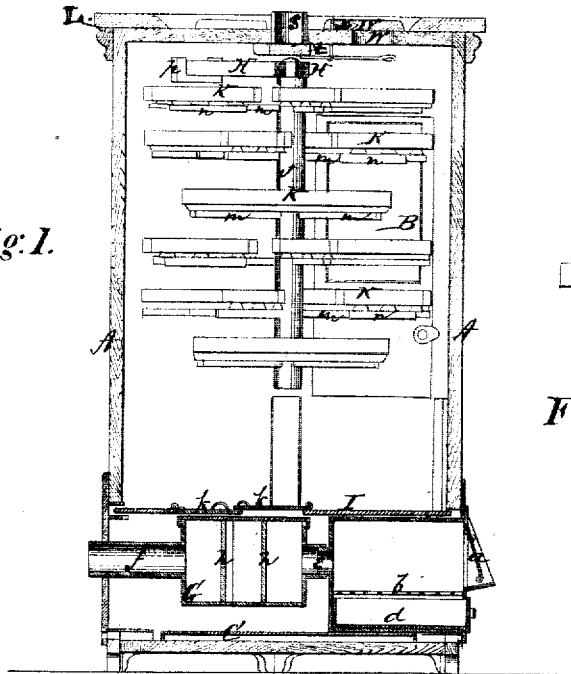


Fig. 3.

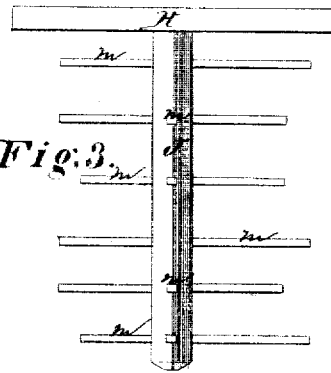


Fig. 2.

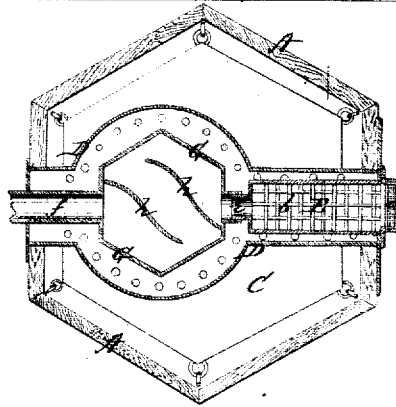
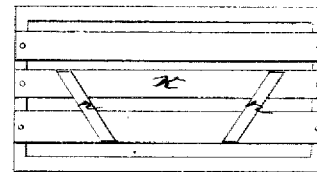


Fig. 4.



Witnesses.

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CHARLES A. MOFFATT, OF INDIANAPOLIS, INDIANA.

Letters Patent No. 108,616, dated October 25, 1870.

IMPROVEMENT IN DRIERS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, CHARLES A. MOFFATT, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and valuable Improvement in Heater and Drier; and I 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 my heater and drier in longitudinal vertical section;

Figure 2 is a horizontal section of the same;

Figure 3 is a side view of the revolving rack; and

Figure 4 is a bottom view of a drying-box or shelf.

The nature of my invention consists in the construction and arrangement of a "heater and drier," designed to be used as a room-heater, iron-heater, and a drier for clothes, fruit, cigars, or other articles.

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.

A represents the outer casing, which is made in hexagonal form, as shown in fig. 2, of any suitable dimensions, and provided on one side with a door, B, having a glass window.

The casing A is provided with a metallic bottom, C, upon which is placed a drum, D, of the shape shown in fig. 2, that is, at one end it is rectangular in form, then a large circular portion, and then a smaller square portion.

This drum extends entirely across the bottom C, and in the rectangular part a furnace, E, is inserted through the side of the casing.

The furnace E is also rectangular in form, and provided with door *a*, grate *b*, and ash-pan *d*, as shown in fig. 1.

From the rear of the furnace E a small pipe, *e*, leads into a hexagonal heat-generator, G, placed within the circular portion of the drum D, and from said generator another pipe, *f*, leads out through the other side of the casing.

The generator G does not rest upon the bottom C, but is supported or suspended by means of the pipes *e f*, so that its top will be nearly up to the top I of the drum D.

Within the generator G are placed curved or S-shaped flanges *h h*, as shown in fig. 2, forming a tortuous passage for the heat and smoke, so that all the gases may be consumed before passing up the chimney, and also retaining the heat a longer time before it passes out.

The space of the bottom C, between the furnace E and the drum D, and also between said drum and the generator G, and under the generator, is perforated with a number of holes, to allow the cold air from below to pass up and become heated by radiation from the sides of the furnace, and the bottom sides and top of the generator, said heated air then passing up-

ward through doors *k k*, in the drum-top I, into the casing A.

At the upper end of the casing A are placed, on the inside, two small blocks, *p*, notched or cut out at their upper ends to form a rest for the cross-bar H, in the center of which is placed a shaft, J, extending downward through the center of the casing.

This shaft is so attached on the under side of the cross-bar H that it can turn or revolve, and a number of arms, *m m*, are attached horizontally to said shaft in a spiral form, two and two, that is, two arms always at the same height or level.

On the arms *m m* are placed the boxes or shelves K K, made in any suitable manner to contain the articles to be dried.

On the under side of each box K are placed two inclined slats, *n n*, as shown in fig. 4.

The box is put on in the following manner:

It is raised above the two arms upon which it is to rest until it comes close to the shaft, when it is let down on the arms, the slats *n n* fitting on the outside of the arms. It will readily be seen that the box cannot be drawn off from the arms without first being raised up.

The casing A is covered by a lid, L, having a small tube, *s*, in the center, with a hot-air damper, *t*, by which means hot air or evaporation of steam can be let out, more or less, as may be desired.

There are also other openings, *w*, in the lid L, which openings are provided with sliding covers *x*.

This machine may be used as a room-heater by letting the hot air escape into the room. As a flat-iron heater, by opening the doors *k k* and placing the irons on the top of the generator G. As a clothes-drier, by hanging the clothes on the arms *m m*, or as a drier for any article by using the boxes K K.

Having thus fully described my invention,

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

1. The hexagonal heat-generator G, suspended by means of the pipes *e f* within the drum D, and provided with curved flanges *h h*, all substantially as and for the purposes herein set forth.

2. The revolving rack J *m*, constructed as described, and suspended from the cross-bar H, in combination with the boxes K K, provided with slats *n n*, all substantially as and for the purposes herein set forth.

3. The combination of the casing A with door B, perforated bottom C, drum D, furnace E, generator G, rack J *m*, boxes K, and lid L, all constructed and arranged substantially as and for the purposes herein set forth.

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

CHAS. A. MOFFATT.

Witnesses:

CLARK OTIS,
HARRY FOWLER.