

G. DIFFENDERFER.

Domestic Oven.

No. 67,172.

Patented July 30, 1867.

FIG. 1

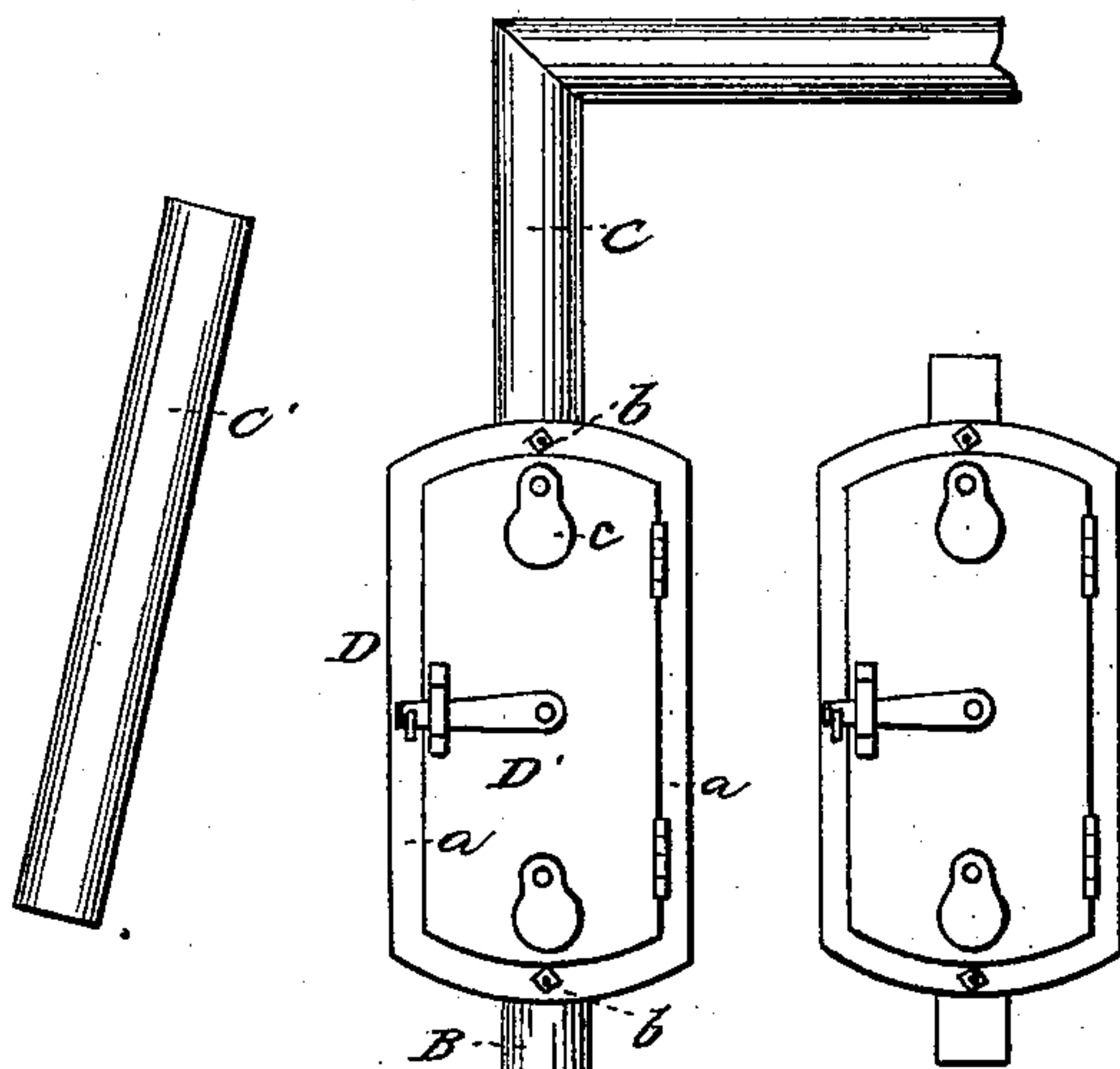


FIG. 2

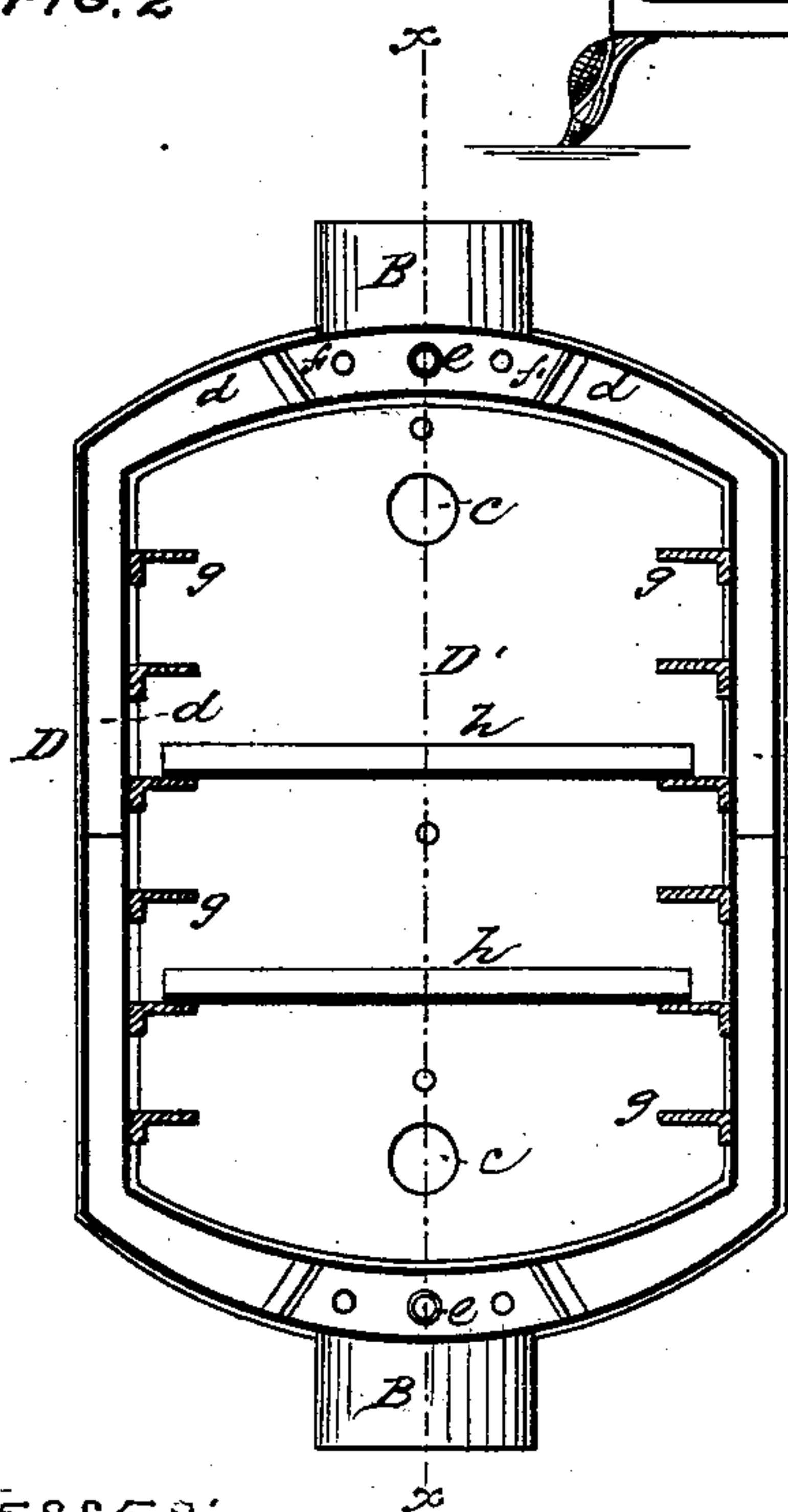
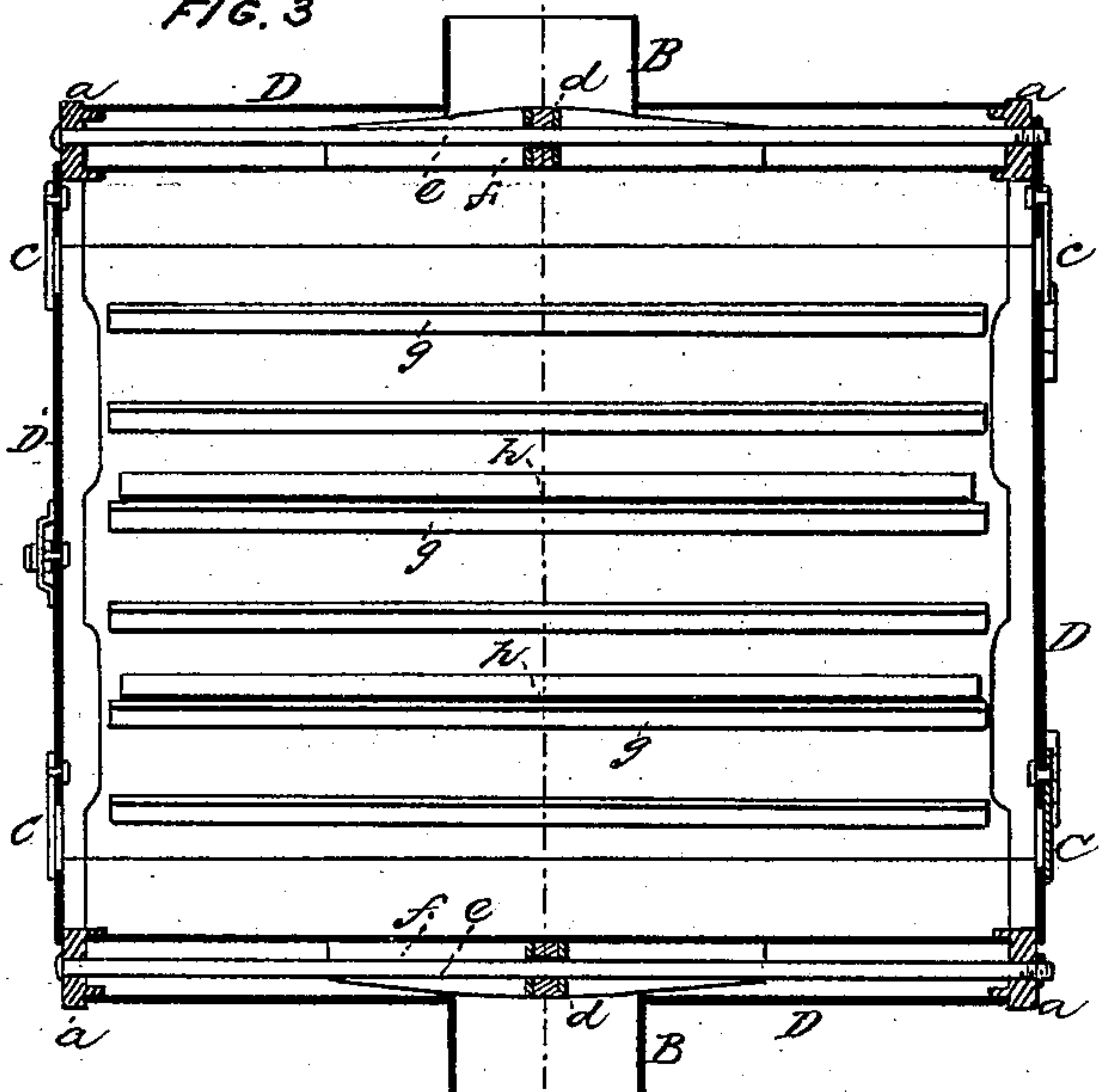


FIG. 3



WITNESSES:

N. J. Campbell
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INVENTOR:

George Diffenderfer
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United States Patent Office.

GEORGE DIFFENDERFER, OF LEWISBURG, PENNSYLVANIA.

Letters Patent No. 67,172, dated July 30, 1867.

PORTABLE OVEN FOR DRYING FRUITS.

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

TO WHOM IT MAY CONCERN :

Be it known that I, GEORGE DIFFENDERFER, of Lewisburg, in the county of Union, State of Pennsylvania, have invented a Portable Fruit-Dryer; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of a common cooking-stove, having my fruit-dryer applied to it; also showing a section of stove pipe, and the fruit-dryer when removed from the stove.

Figure 2 is a vertical transverse section through the centre of the fruit-dryer.

Figure 3 is a vertical longitudinal section through the centre of the fruit-dryer.

Similar letters of reference indicate corresponding parts in the three figures.

This invention relates to a new and improved fruit-dryer, which is so constructed that it is adapted for use upon any ordinary cooking-stove in place of one of the sections of stove pipe, so that when it is not desired to use the dryer, it can be readily removed from the stove, and a section of stove pipe applied in its place, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, fig. 1, I have represented my improved dryer applied to a well-known form of cooking-stove, A, so as to receive through it the heated products of combustion as they pass off to the chimney, and thereby utilize the escaping heat for drying purposes. The dryer consists of a rectangular or other shaped box, D, having double-wall sides, double-wall bottom and top, with hinged doors D' D' applied to its ends, as shown in figs. 2 and 3. These inner and outer walls form a flue or space for the circulation of the heated products of combustion around the interior drying-chamber, and their ends are secured to rectangular frames a a by means of the bolts e e, which frames not only serve to close the ends of the smoke-space between the said walls, but they also stiffen and strengthen the box, and admit of the use of thin sheet iron for the walls. The doors D' D' are hinged on one side to said frames, and latched on the other side thereto. In the middle of the length of the drying-box I introduce a cast-iron frame, d, between the inner and outer walls, and secure it in place by passing the bolts e through it. This frame is designed to serve as a means of strengthening the box between its ends and preventing its sides from collapsing, and it is also used to form a division for the smoke-passage, and a means of securing the smoke-deflectors f f in their places. Being located in line with the short pipes or sleeves B B, this frame d serves as a support for sustaining the weight of the articles put into the dryer upon the stove. The deflectors f f are employed to prevent the heated products of combustion from taking the shortest course from the lower pipe B to the upper escape pipe B, by deflecting these products toward the ends of the dryers, and thus causing the heat to be uniformly distributed throughout this dryer. The pipes B B are short collars, which are adapted for fitting over the collar on the stove A, and for receiving and entering the stove pipe when the lower section of the stove pipe is removed. This dryer thus takes the place of the section C' of pipe when the section is removed. When the dryer is not required, it can be quickly removed, and the section C' applied in its place. Upon the inside of this dryer, and secured to the inner walls thereof, are ledges g g, which may be constructed of angular metal, and so applied as to form rests for the removable drying-boards or pans h, and also guards for protecting the inner walls from wear, by frequently removing and replacing the said pans.

When the stove-pipe section is removed, and the dryer, which I have described, applied in its place, as shown in fig. 1, the heated products of combustion will circulate between the walls enclosing the drying-chamber, and pass off into the smoke pipe above it. The fruit to be dried is spread upon the pans h, and these pans introduced into the drying-chamber one above the other. The doors of the dryer are then closed, and the temperature in the drying-chamber regulated by the admission of air through the valve-openings c c, which are made through the doors, as shown in the drawings.

I am aware that stoves have been constructed with elevated ovens, around which the heated products of combustion pass in their escape to the chimney, and therefore I do not claim broadly the use of elevated ovens. Such contrivances are designed as permanent fixtures for cooking-stoves, for baking and keeping articles warm,

and would not answer my purpose. The improved dryer which I have described is designed to be temporarily applied to a stove in place of one of the stove-pipe sections to be used during the fruit-drying season, and then removed, and the section of pipe substituted in its stead, thus rendering a separate furnace and fire for drying fruit unnecessary, by utilizing the heat which escapes from the stove while cooking. My dryer differs from elevated ovens in many important particulars, and does not require, in its application to a stove, any change in the construction of the latter.

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

A double-wall portable fruit-dryer, which is adapted for application to a stove in place of a portion of the stove pipe, and which is constructed and strengthened substantially as described and shown.

GEO. DIFFENDERFER.

Witnesses:

PAUL GEDDES,
C. D. CLINE.