

(No Model.)

W. D. SPECK.

DRIER.

No. 344,208.

Patented June 22, 1886.

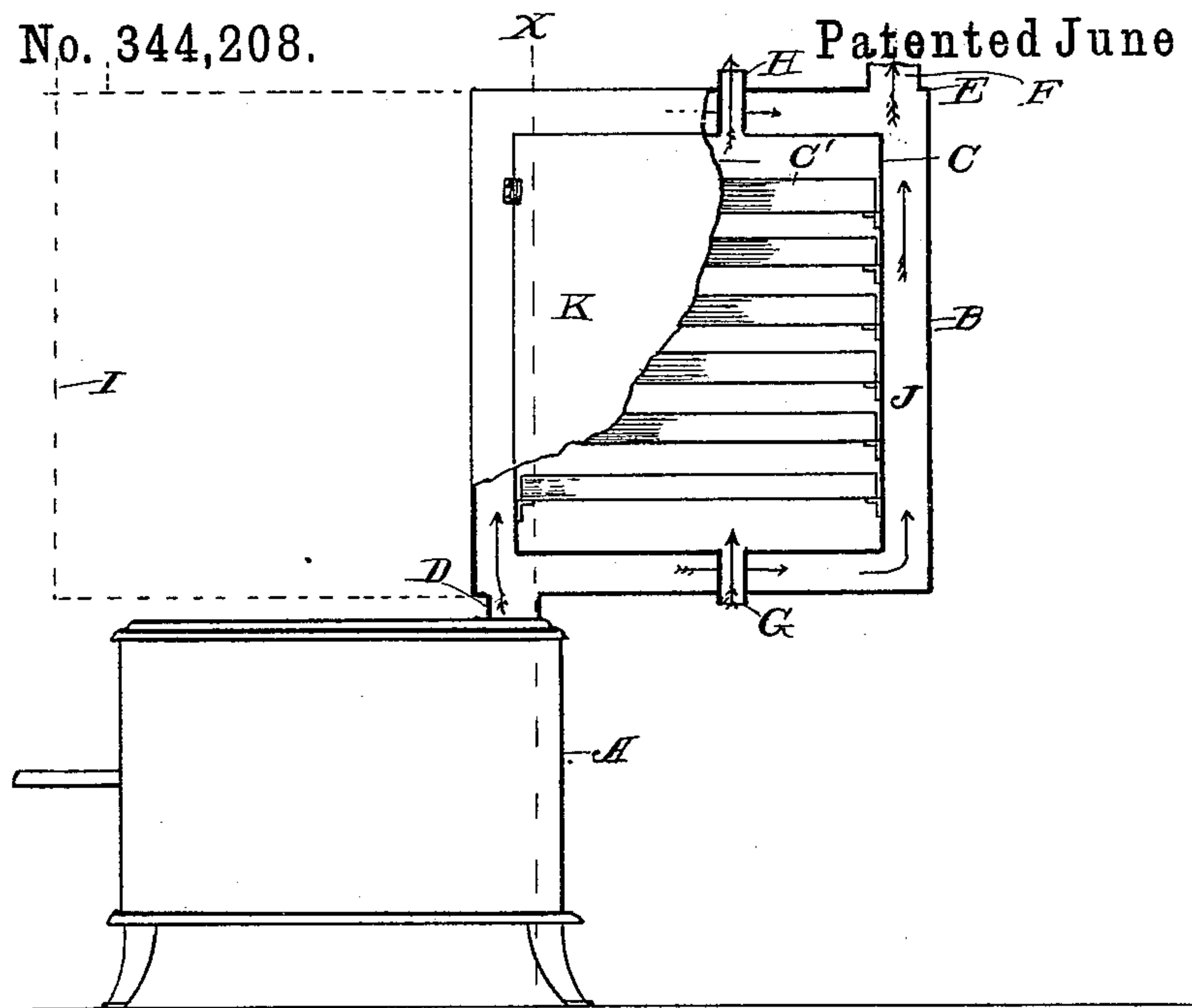
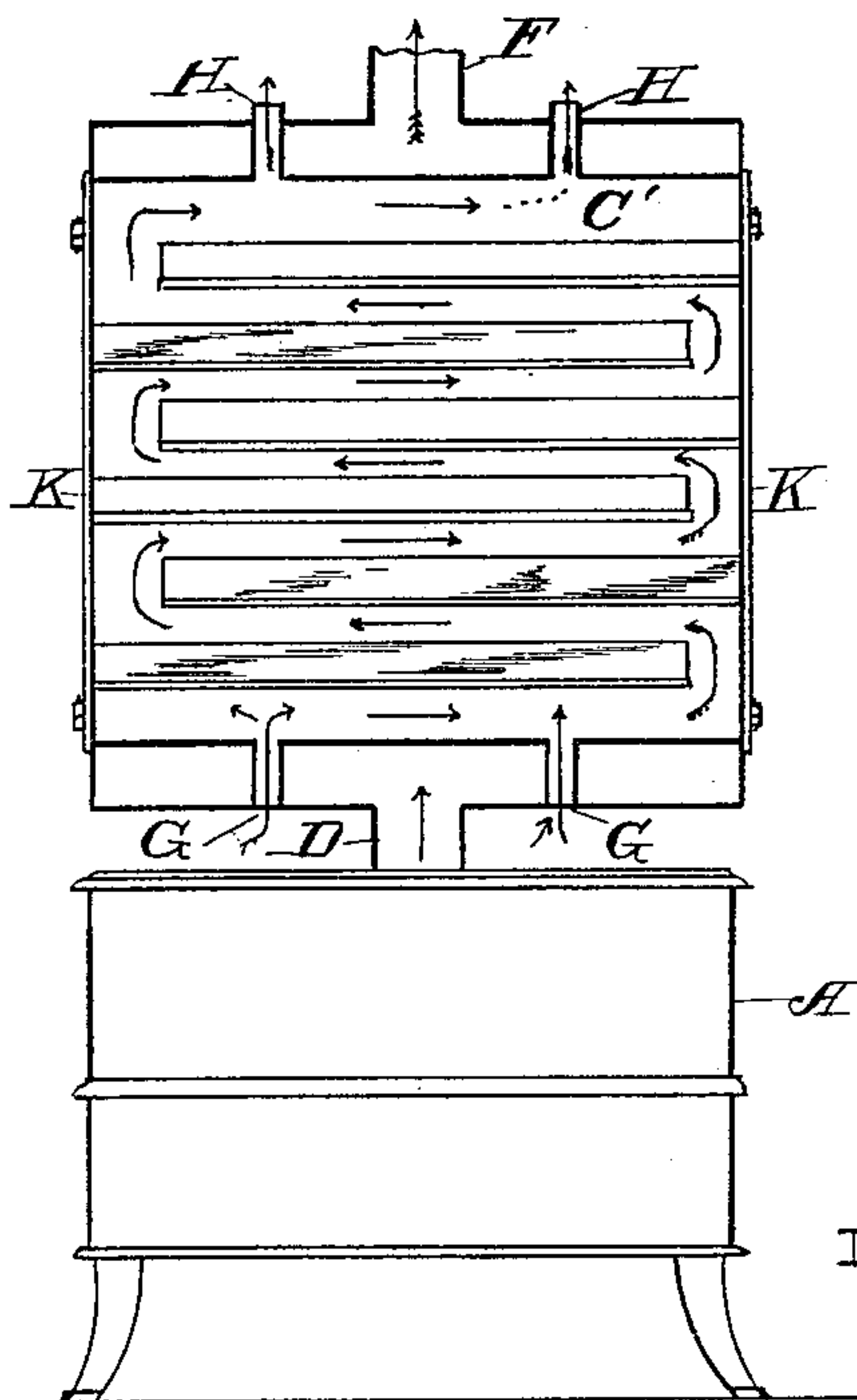


Fig. 1. X



WITNESSES:

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Fig. 2.

By

UNITED STATES PATENT OFFICE.

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DRIER.

SPECIFICATION forming part of Letters Patent No. 344,208, dated June 22, 1886.

Application filed January 15, 1886. Serial No. 188,680. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. SPECK, of Roxbury, in the county of Franklin and State of Pennsylvania, have invented a new and useful Improvement in Heaters and Driers, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side view of a stove with my improved heater and fruit-drier, partly in section, thereon; and Fig. 2, a transverse vertical section of the same through line X.

This invention relates to an improvement in heaters and fruit-driers, consisting of a sheet-metal drum provided with openings at the lower and upper parts, so disposed that it may be placed upon the pipe-opening of the stove, with the pipe extending from the upper opening having an inner drum so disposed as to receive grates or trays, so that the smoke and heat may pass through the device around this inner apartment, and thus the entire device be heated regularly and evenly. A fresh-air pipe opens into the inner apartment through the lower part of the device, and has an outlet at the upper part, so that cold air may be introduced into the drying-apartment, which becomes heated, and thus carries off the moisture from the fruit or material that is being dried, all of which will now be fully set forth in detail.

In the accompanying drawings, A represents an ordinary stove, having thereon a sheet-iron drum, B, of any convenient size, provided with the inner apartment, C. This drum B is placed upon the stove connected therewith by means of an opening over the pipe-rim D, to receive at one of its lower ends the smoke and heat from the stove, which, passing around the inner apartment, C, pass out through the opening E into the usual stove-pipe, F, attached thereto at the upper corners and on the side opposite to the inlet-pipe D. Communication is had with the inside of the drum and inner apartment by means of doors K on opposite sides. Within this inner apartment, C, provision is made for the reception of a series of grates or trays, C', to receive the fruit or other material to be dried. Thus the inner apartment, C, is thoroughly and evenly heated; but at the same time the smoke and

gas are entirely shut off from the part within the trays; and in order that the moisture evaporating from the fruit may be carried off, I provide a tube, G, extending through the lower part of the drum into the inner apartment, and a corresponding tube, H, through the upper part of the drum, leading from the inner apartment, C, by means of which fresh air may be received and heated as it passes through the inner apartment, which effectually removes the dampness and moisture therefrom. In order that this fresh heated air may be equally distributed through the inner apartments over the trays or grates, the alternate trays are placed in the device from opposite sides, which necessitates the passage of the air around the trays from the alternate ends of the adjoining trays.

It is obvious that this heater may be attached to a stove in different ways—as, for instance, when it is desired to economize the heat from the stove, and the said stove is not in use for other purposes, it may be reversed upon the stove and placed in the position indicated by the dotted lines I, and thus the lower part of the drum will receive a part of its heat directly from the upper face of the stove. Again, instead of using the heat and smoke from the stove and permitting it to pass from the drum, the opening, as attached to the stove, may be connected to a steam-pipe, permitting the steam to pass around through the drum, which answers all the purpose of the device as attached to the stove where it is desired to use the device simply as a heater; but to warm the room the doors at the sides may be removed and the grates detached, and answer all the purposes of a device of this character.

Having described my invention, what I claim as new is—

1. The combination, in a heater and fruit-drier, of the drum B, having the doors K, one on each side, and the inner apartment, C, and provided with the trays C', arranged to have an air-passage at their alternate ends, and with the tubes G and H, for the passage of the fresh air through the device over the grates, and openings D at the lower part, to connect with the stove A, and opening E at the upper part, to connect with the pipe F, so that the smoke and heat may pass through

the drum around the inner apartment, and fresh air will circulate around the alternate ends of the trays, the whole arranged as and for the purpose substantially as herein set forth and described.

2. In combination with a heater, A, a reversible drier, B, having a hot-air induct at one end and an exit at the opposite upper end, and provided with side doors and interior trays arranged so as to have a passage at their alternate ends, and air induct and educt

passages, as described, whereby said drier can be placed directly over the heater or swung round so as to have its body off the heater, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand, this 2d day of January, 1886, in the presence of witnesses.

WILLIAM D. SPECK.

Witnesses:

GEORGE ZULLINGER,
R. M. FIELDS.