

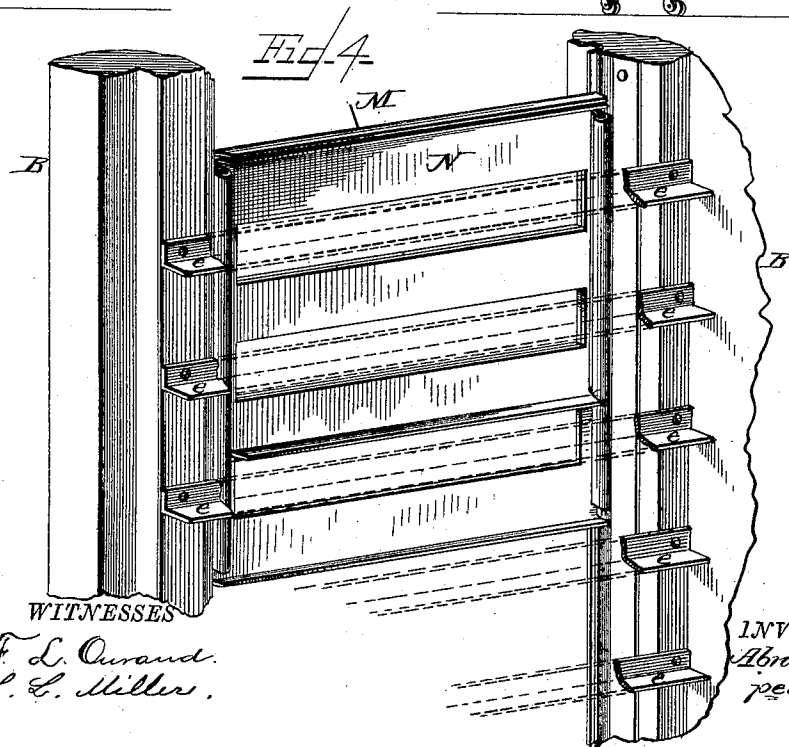
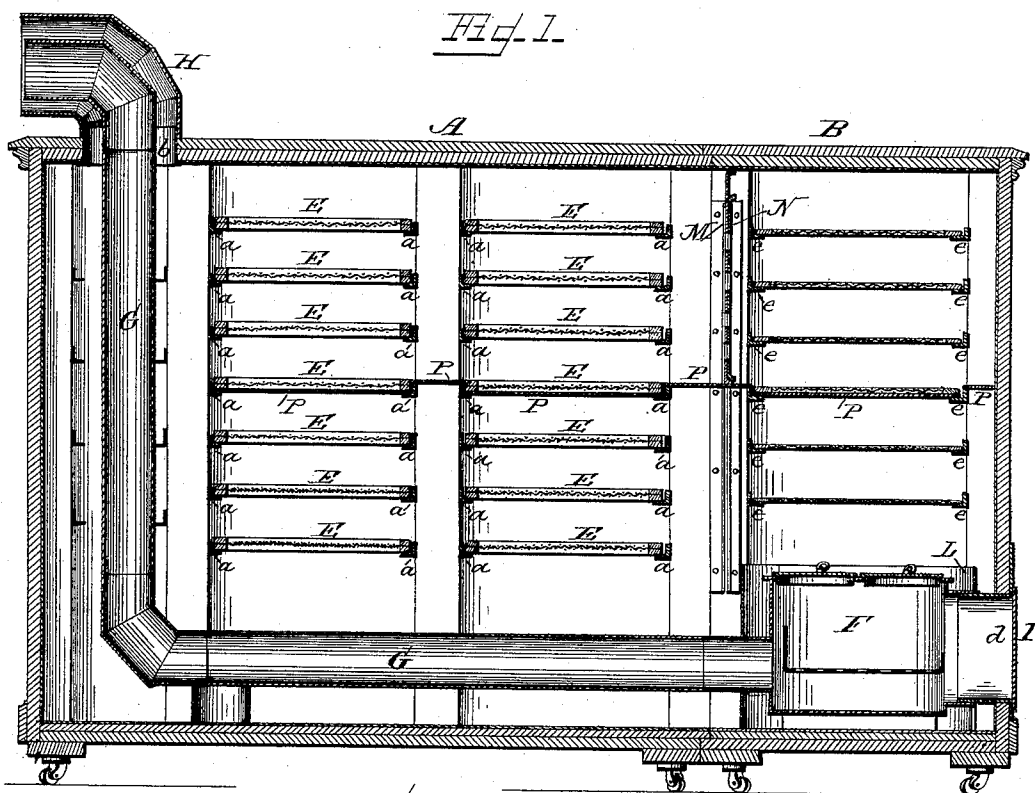
(No Model.)

2 Sheets—Sheet 1.

A. COLEMAN.
DRYING APPARATUS.

No. 322,041.

Patented July 14, 1885.



WITNESSES
F. L. Ourand.
L. L. Miller.

INVENTOR
Abner Coleman,
per Chas. H. Fowler.

Attorney

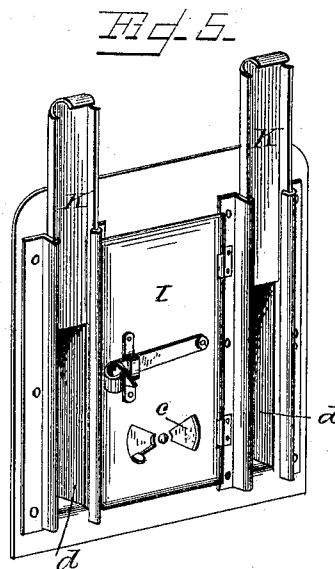
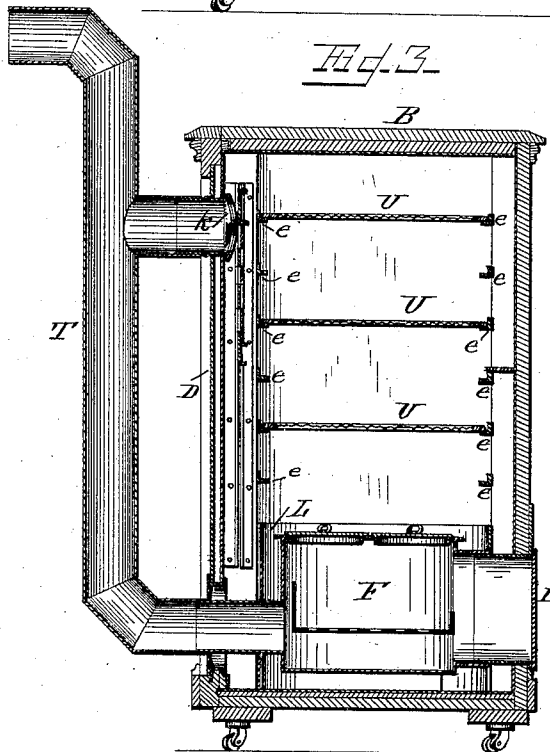
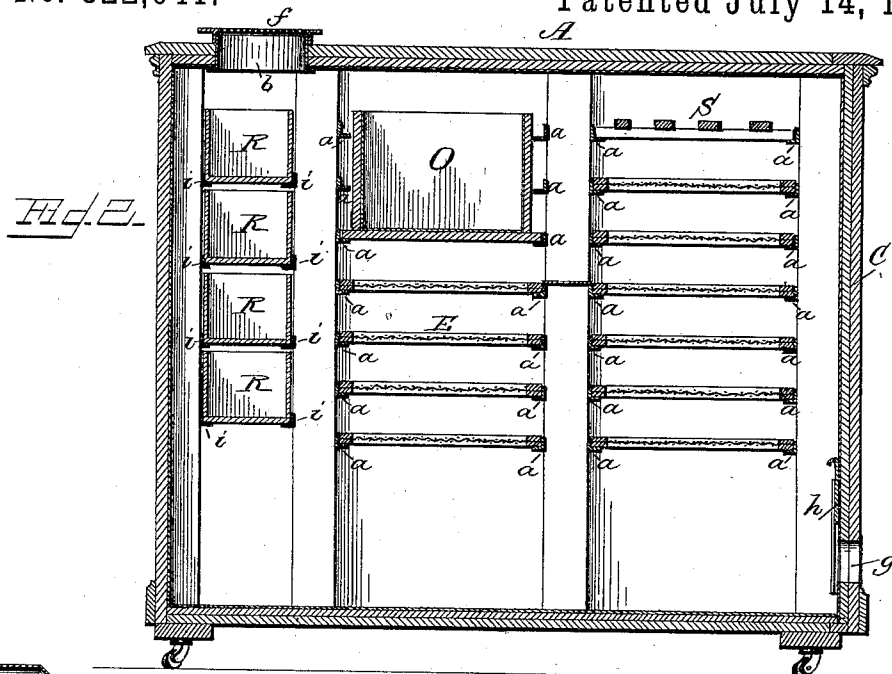
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2 Sheets—Sheet 2.

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DRYING APPARATUS.

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WITNESSES
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UNITED STATES PATENT OFFICE.

ABNER COLEMAN, OF NEWARK, NEW JERSEY.

DRYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 322,041, dated July 14, 1885.

Application filed June 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, ABNER COLEMAN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Combined Portable Fruit-Drier, Baker, and Safe; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings represents a longitudinal section of my invention, showing it in use as a fruit drier or evaporator; Fig. 2, a similar view of the section, constituting the drying-chamber in use as a provision-safe; Fig. 3, a similar view of the section, constituting the furnace-room or oven, with pipes connected thereto to adapt it for use in baking or cooking; Fig. 4, a detail view of the interior side of the furnace-room or oven, showing the double sliding plates; and Fig. 5, a detail view in perspective of the slide-valves, hinged door, and damper of the furnace room or oven.

The object of the present invention is to provide an apparatus, simple in construction, that is capable of use as a fruit drier or evaporator, a furnace or oven for baking purposes or for roasting meats or fowls, and as a domestic safe for provisions, milk, butter, &c.

The invention is designed as an improvement on the construction shown in my former patent, granted July 30, 1878, No. 206,421; and the object thereof is to provide the furnace room or oven with double sliding plates for controlling the escape of the heated air into the drying-chamber, and a pipe extending along the chamber and communicating with the stove, so as to more perfectly distribute the heat. A further object of the invention is to provide the drying-chamber and furnace-room or oven with deflecting-plates, which act as cut-offs to confine the heated air to certain portions of the drying-chamber and furnace room or oven; also, to provide means whereby the chamber and oven or room when in use separately may be converted, respectively, into a provision-safe and a furnace for baking and cooking purposes. These several

objects I attain by the construction substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents the main section, which constitutes the drying-chamber when used in connection with the section B, as shown in Fig. 1.

The sections A B are detachably connected together in any suitable manner, and the inner ends of each are provided with removable doors C D, respectively, so that the ends may be closed when the sections are used independently of each other. The section A has secured upon its interior a series of cleats, *a*, for supporting a number of suitably-constructed racks, E.

When the section A is in use as a drying-chamber, the racks serve as trays for the fruit; but when the section is in use independent of the section B, and as a domestic safe, as shown in Fig. 2, the racks serve as shelves, and, if found necessary, every alternate rack may be removed to increase the space between them.

The section B, which I term the "furnace-room or oven," is provided with a suitable stove or heat generating device, F, having connected thereto a smoke-pipe, G. This smoke-pipe extends horizontally and lengthwise of the drying-chamber and near the bottom thereof, and thence upward through an opening, *b*, to which is detachably connected a curved elbow, H, said elbow surrounding the projecting end of the pipe G.

The pipe G is made in sections, so as to be taken apart when not required for use, and the projecting end thereof, as well as the elbow H, may be turned, as in my former patent, to bring them in the direction of the wind, the elbow surrounding the curved end of the pipe producing a suction-draft.

The outer end of the section B is provided with an opening communicating with the interior of the stove F, for the purpose of supplying it with fuel, said opening being closed by a hinged door, I, which is provided with a suitable damper, *c*.

The stove F is surrounded by a plate, L, which forms an air-space around the stove, said space being supplied with air through openings *d* in the end of the section B upon each side of the door I, as shown in Fig. 5.

These openings communicate with the air-space around the stove, and the supply of air is regulated by suitable slide-valves, K.

The plate L has a twofold purpose, in that it prevents direct radiation from the stove against the interior sides of the section B, while at the same time it confines the cold air on its entrance in the space between the plate and stove, and more effectually relieves it of its moisture.

The inner or open end of the section B is provided with two vertically-sliding plates M N, each having a series of alternately-arranged transverse openings and slats, the openings in the plate M being controlled by the slats in the plate N. The admission of heated air to the drying-chamber may be effected at either the top, bottom, or center, as circumstances require, when the deflecting plates P are in use. These slides act in connection with the deflecting plates P, which also act as cut-offs to divide the space in the sections A B.

As will be noticed in Fig. 1, the plates P are arranged so as to reduce the drying-chamber to one-half its original size, and the sliding plates M N, being located above the deflecting plates, confine the heated air to the lower half of the sections A B. The plates P rest on the cleats *a* and on cleats *e* in the section B, and are removable and adjustable, so that the interior of the sections A B may be reduced to any size, in order to confine the circulation of the heated air to any given space.

When it is desired to use the section A as a safe, the two sections A B are separated, and the former converted into a receptacle for cooked or uncooked provisions, milk, butter, canned fruit, dishes, and other articles. This I accomplish by removing the smoke-pipe G and the elbow H and closing the opening *b* by a wire-gauze or perforated cap, *f*, and also closing and fastening the door C, said door having a suitable opening, *g*, for ventilating the safe, which is closed by a slide, *h*.

The section A is provided with a series of transverse cleats, *i*, for supporting a suitable number of drawers, R, for containing knives, forks, or other articles, thus utilizing the space formerly occupied by the vertical or upright portion of the smoke-pipe when the section was in use as a drying-chamber, an ice-box, O, being also provided, and a clothes-press, S.

The section B, when used for baking or cooking purposes, is provided with a suitable smoke-pipe, T, connected to the short sections of pipe projecting through the door B.

The pipe, as will be seen, communicates with the stove and with the interior of the

section at or near its top to allow the escape of the heated air, when desired, the escape-opening being controlled by a valve, *k*.

The section B is provided with a suitable number of removable shelves, U, supported by the cleats *e*, upon which anything may be placed to keep warm, or for other purposes.

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

1. In a drying apparatus, the combination of two sections, one of which forms the drying-chamber, and the other the furnace-room or oven, which is provided with double sliding plates, having transverse slats and openings in one of its sides, and a smoke-pipe extending from the stove into and along the drying-chamber and thence upward through an opening, and an elbow to create a suction-draft, said sections being provided with removable deflecting-plates, substantially as and for the purpose set forth.

2. A furnace-room or oven constructed with one open side, whereby it is adapted for attachment to a drying-chamber, said room or oven having a series of double sliding plates in the open side provided with a series of transverse slats and openings to control the escape of the heated air into the chamber, as and for the purpose specified.

3. A furnace-room or oven adapted for attachment to a drying-chamber and provided with a smoke and hot-air pipe communicating with the stove and with the interior of the room, at or near its top, to carry off the fumes in cooking, and a plate surrounding the stove to form an air-space, and one or more openings provided with valves for supplying air to the air-space, substantially as and for the purpose specified.

4. In a drying apparatus, the combination of two sections having their inner ends provided with removable doors and removably connected together to form, respectively, a drying chamber and a furnace-room, said room having means for attaching suitable pipe for converting it into a furnace for baking and cooking purposes, and the drying-chamber having a series of cleats arranged in vertical rows for receiving drawers, and ice-box, and racks to form shelves when the section is in use as a safe, substantially as and for the purpose set forth.

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

ABNER COLEMAN,

Witnesses:

C. A. NEALE,

H. C. HUNTEMANN.