(No Model.) 2 Sheets—Sheet 1.

M. J. RICHMOND.

FRUIT DRIER.

No. 507,846. Patented Oct. 31, 1893.

Fig. 1.

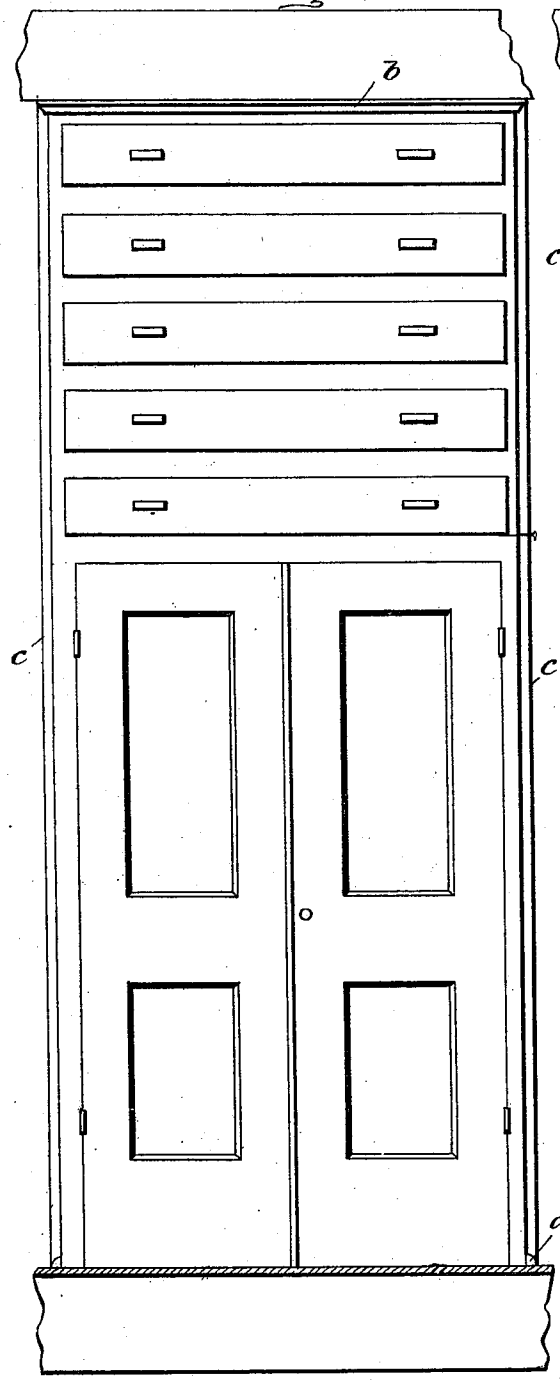
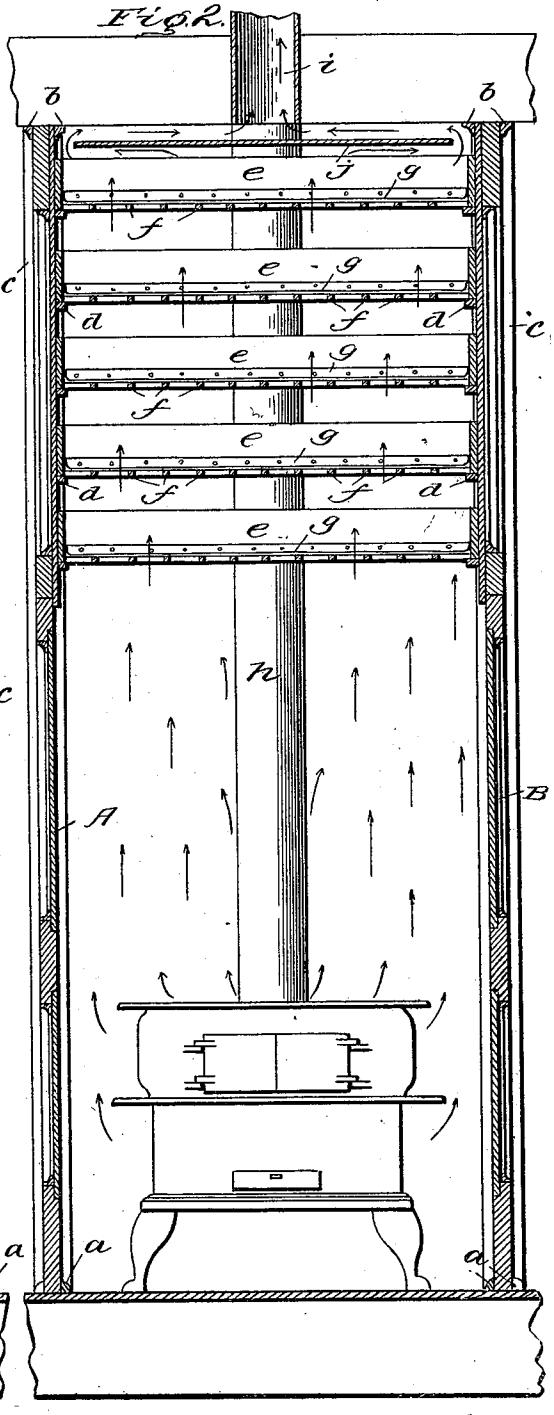


Fig. 2.



Witnesses
Chas. D. Johnson
G. M. Copenhaver

Inventor
Mary Jane Richmond
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her Attorneys

(No Model.) 2 Sheets—Sheet 2.

M. J. RICHMOND.

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Fig. 3.

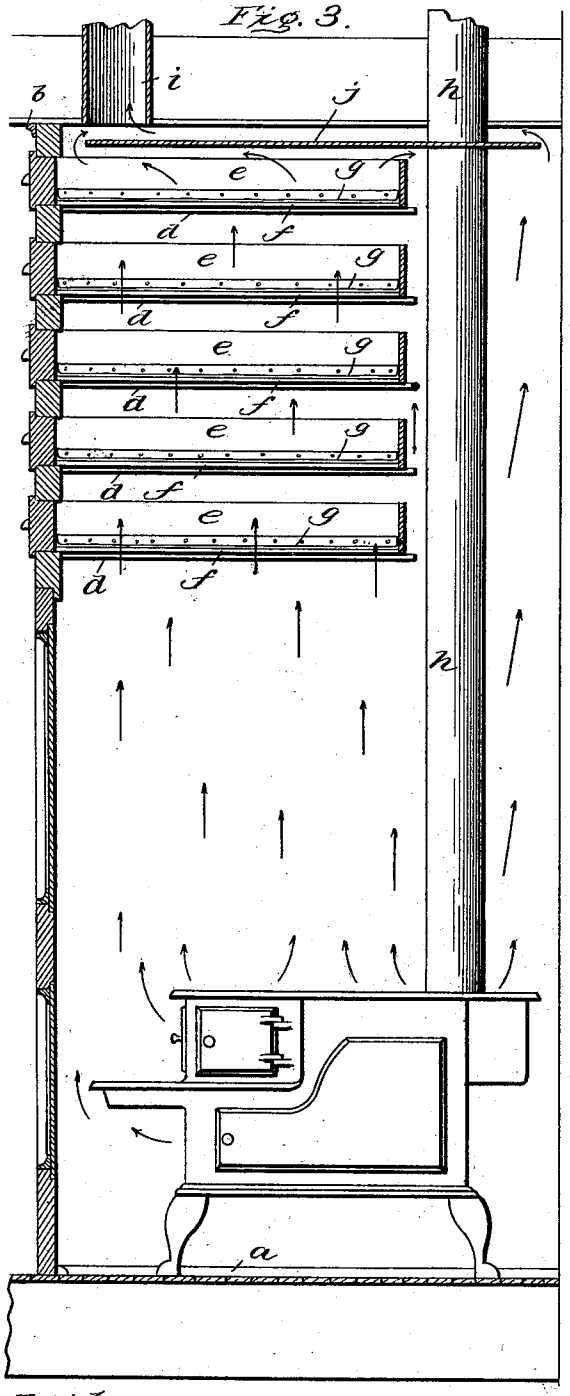
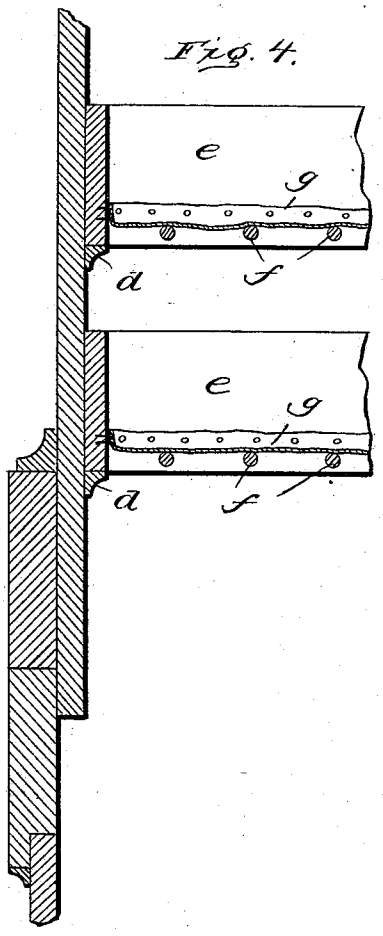


Fig. 4.



Witnesses
Chas. A. Johnson
G. M. Copenhaver.

Inventor
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Her Attorneys

UNITED STATES PATENT OFFICE.

MARY JANE RICHMOND, OF REPUBLIC, MISSOURI.

FRUIT-DRIER.

SPECIFICATION forming part of Letters Patent No. 507,846, dated October 31, 1893.

Application filed April 17, 1893. Serial No. 470,739. (No model.)

To all whom it may concern:

Be it known that I, MARY JANE RICHMOND, a citizen of the United States, and a resident of Republic, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Fruit-Driers, of which the following is a specification.

In the construction of my fruit drier I have made provision for the erection of a closure on the floor of a room in which the wall and ceiling will form one side and top of such closure. This structure can be easily and quickly put together and taken apart. It is designed to inclose the fruit containing trays, the cooking stove and its smoke pipe, so that it may be used in the kitchen without interfering with the cooking, and serve as a fender for the stove in the summer season and thus greatly decrease the uncomfortable condition of the room from the heat of the stove. The parts can all be framed of flooring lumber, and the floor, the wall and the ceiling provided with cleats or strips which serve as guides and fixed joints for holding the structure in place in erecting it against the wall, so that the latter shall form one side of the closure. In the winter season the closure can be removed and its parts packed away or used as a closet in the room. This closure is provided with doors at the front and doors at the side for access to the fire and cooking.

In the accompanying drawings I have shown my fruit drier and heat fender in front view in Figure 1 as erected against the wall between the floor and the ceiling. Fig. 2 is a vertical section of the same. Fig. 3 is a vertical section taken at right angles to the line of the section of Fig. 2; and Fig. 4 shows an enlarged detail view of the tray and muslin bottom supported on round base.

In the drawings the structure is shown as composed of flooring stuff and boards cut to suit. The lower part incloses the stove and has two of its sides formed with doors A and B which afford access to the cooking stove. Its two opposite sides are fitted in floor guides formed by cleats *a* fastened to the floor, as seen in Fig. 2. The upper part has its two corresponding sides fitted in ceiling guides formed by cleats *b*, fastened to the ceiling. The back of the closure is formed by the wall and the side joints are closed by wall cleats *c*. The inner side walls of the top part are provided with cleats or ways *d* on which the trays *e* are supported and the bottom of the trays are formed of slats *f* with wide spaces between them to allow the passage of the hot air up through the fruit which is spread on a muslin cover *g* tacked on the sides of the tray over the slats. These trays do not extend back to the wall but leave a back space for the smoke pipe *h*, which passes up through the ceiling and out into the air. The hot air flue *i* from the closure also passes through the ceiling into the outer air. The trays are fitted with hand pulls to be drawn out at the front; and between the upper one and the ceiling is a horizontal board J which prevents the heated air from passing directly to the escape flue and causes it to be distributed uniformly within the closure.

An important advantage of my fruit drier is that the closure as used with the kitchen stove, forms a fender for confining the heat thereof and makes the room more comfortable in warm weather, so that the stove can be used either for cooking or for drying fruit or for both.

In erecting the closure the sides are slid into the grooves or guides formed by the floor and ceiling cleats, and the front parts may be secured to the sides by screws or by hooks and eyes. By sliding the sides into their respective floor and ceiling guides against the back wall I am enabled to fit them between the ceiling guides and with a lapping joint on the lower section so that the jointing will be complete when the sides and front are put up. The inclosing of the stove pipe within the drier gives the advantage of utilizing all the heat of the stove when drying the fruit and of confining all the heat within the closure in the summer and the heat of the kitchen thereby kept within endurable limits for the occupants of the house. In ordinary farm houses this cook stove closure serving also as a fruit drier, is a very desirable gain not only for the comfort of the family, but as a matter of considerable economy in the construction and use of fruit driers.

The tray frames are made of light strips, and the bottom slats *f*, are made of half inch

strips placed four inches apart and canvas or muslin *g* stretched over them and tacked on the tray sides to form the bottom of the tray to hold the fruit and allow the tray bottom to have large openings for the free flow of air up through the muslin bottom. The muslin may be stretched over and supported upon round wooden bars so as to uncover the whole surface of the muslin to the drying action of the hot air, as shown in Fig. 5.

I claim as my improvement—

In a fruit-drier, a portable casing-structure comprising three sides, open at the top and at the bottom, two of said sides having doors, a series of removable trays above said doors, and an imperforate draft-deflecting board above said trays, in combination with the fixed floor, the ceiling and the wall provided with cleats adapted and arranged to form guides for the open sides and ends of said casing structure and co-acting with the latter to form a closure, the ceiling within the closure having an opening for the escape of the fumes and hot air, and an opening for the smoke-pipe of a stove within said closure, as shown and described.

In testimony whereof I have hereunto signed this specification in the presence of witnesses.

MARY JANE RICHMOND.

Witnesses:

VIOLA VILES,

B. A. CHASTAIN.