J. A. COPPRIDGE.

BAKING STOVE.

APPLICATION FILED MAY 22, 1909.

957,748.

Patented May 10, 1910.

2 SHEETS—SHEET 1.

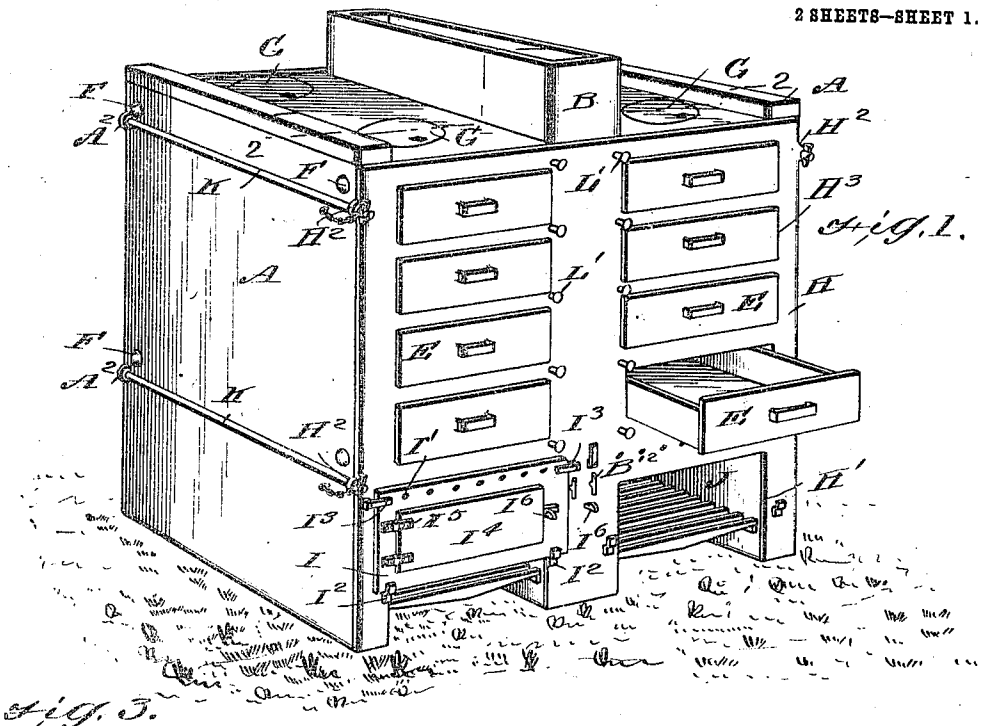

Fig. 1.

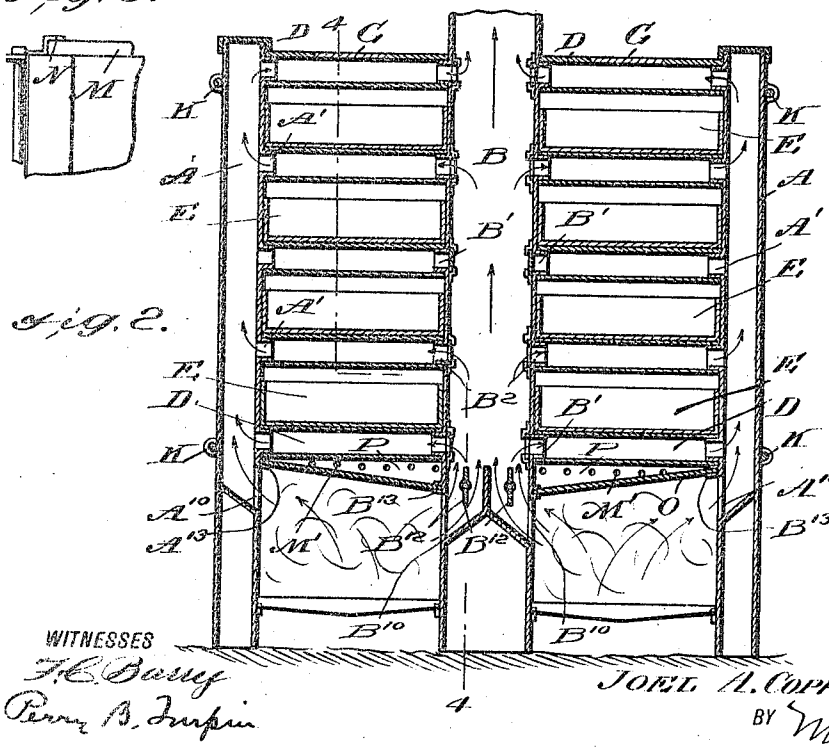

Fig. 2.

Fig. 3.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 4.

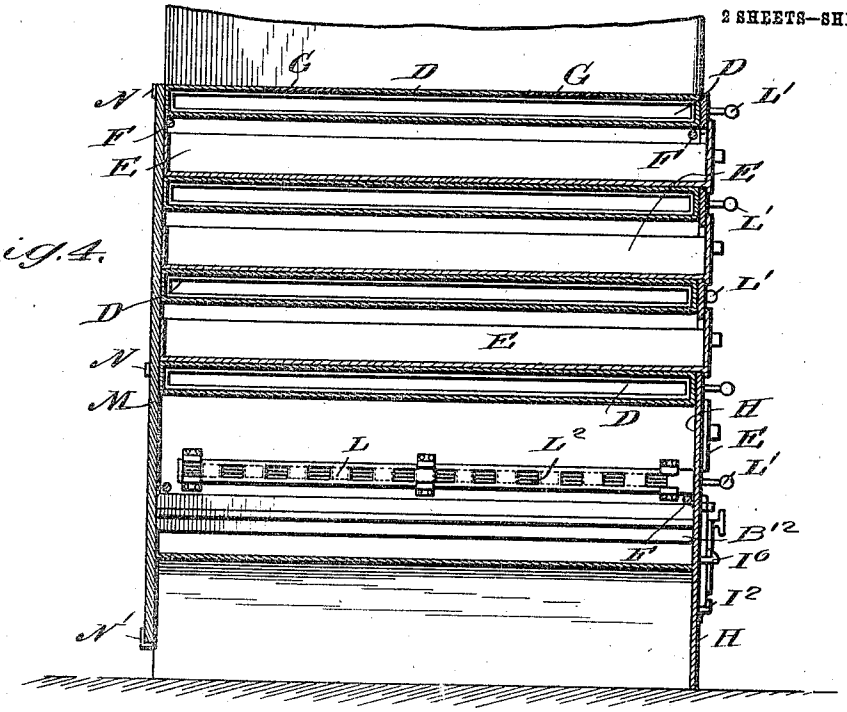

Fig. 5.

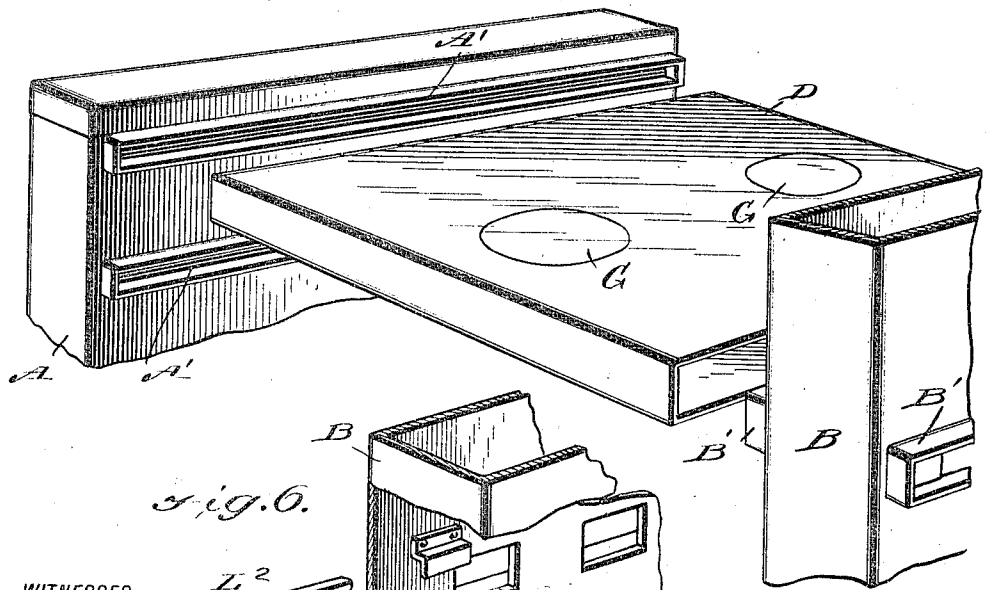

Fig. 6.

WITNESSES

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JOEL A. COPPRIDGE, OF BROWNS SUMMIT, NORTH CAROLINA.

BAKING-STOVE.

957,748. Specification of Letters Patent. Patented May 10, 1910.

Application filed May 22, 1909. Serial No. 497,641.

To all whom it may concern:

Be it known that I, JOEL A. COPPRIDGE, a citizen of the United States, and a resident of Browns Summit, in the county of Guilford and State of North Carolina, have made certain new and useful Improvements in Baking-Stoves, of which the following is a specification.

This invention is an improvement in baking stoves, being especially designed as a stove for use in baking bread and has for an object to provide a simple construction which will be efficient for the purpose, can be easily taken apart and stored in compact form so it will be convenient for camping purposes; and the invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawings Figure 1 is a perspective view of a stove embodying my invention, one of the pans being partially opened, and one of the doors being removed. Fig. 2 is a vertical section of the stove on about line 2—2 of Fig. 1. Fig. 3 is a detail top plan view of one of the rear corners of the stove showing the means for holding the back plate. Fig. 4 is a detail vertical section on about line 4—4 of Fig. 2. Fig. 5 is a detail perspective view showing parts of one of the side flues, and of the central flue, and one of the cross flues extending between said side and central flues, and Fig. 6 is a detail perspective view illustrating one of the damper slides and a part of the intermediate or central flue.

In carrying out my invention I provide upright flues A, A and B, which for convenience of reference I term the side flues A and the central or intermediate flue B, and these flues extend from front to rear of the stove as will be understood from Figs. 1, 4 and 5, and they are provided on their adjacent faces, that is the sides of the flues A and B which face each other, with nipples A′ and B′ which are elongated horizontally and extend nearly the full depth of the flues A and B, and receive the ends of the cross flues D, which connect the side flues and intermediate flue and operate to conduct the products of combustion between said parts in the operation of the invention as will be presently described. The cross flues D form supports for the baking pans E and partitions between which the said pans are located when inserted in the stove as best shown in Figs. 2 and 4 of the drawings. When the side flues and the central flue are in place and connected by the cross flues D, they are held by tie rods F, extending through the stove from side to side and usually passed below the upper cross flue D and below the lower cross flue as shown in Fig. 4 of the drawings.

The upper side of the top flue forms the top plate of the stove and may have suitable openings for the lids G, as shown in Figs. 1, 2 and 4 of the drawings. The front plate H is provided with suitable openings H′ for the door plates I covering the front ends of the fire boxes J, and this front plate H is held to the stove by the rods K, extending through lugs A^2 at the back of the flues A, thence along the outer sides of the flues A and through lugs H^2 on the front plates and secured by keys as best shown in Fig. 1. This construction enables me to secure the front plate firmly in position so it can be readily removed whenever desired.

Openings H^3 are formed in the front plate H, for the introduction of the pans E, and I also provide said front plate with openings for the passage of the damper rods E′ of the damper plates L, the latter having openings L^2 which may be moved into and out of register with openings B^2 in the central flue and communicating with the nipples B′ as will be understood from Figs. 4 and 6 of the drawings. The damper plates L are movable longitudinally in suitable guides B^3 provided on the side plates of the central flue and the damper is stopped when moved in one direction by the back plate M, and when moved in the other or forward direction by the front plate H. These dampers may be manipulated to control the passage of the heat from the side flues below their respective pans thus regulating the baking operation as will be readily understood by those skilled in the art. The back plate M slides down in suitable keepers N, provided on the side flues A, and rests at its lower end in keepers N′ as shown in Fig. 4 of the drawings.

The opening at the lower part of the back of the stove as shown in Fig. 4 may be found useful in manipulating ashes from the back of the stove.

Openings A^{10} are provided leading from the fire boxes J into the side flues, and openings B^{10} likewise lead from the fire boxes J into the central flue A, the openings B^{10}

leading into short flue sections formed at the lower end of the central flue B and controlled by valves B^{12} in the form of butterfly dampers as shown in Fig. 2, by which construction the products of combustion from the fire boxes J instead of passing directly to the central flue B may be cut off and caused to pass out of the openings A^{10} into the side flues for circulation as will be understood from Fig. 2 of the drawings.

Plates O are slidable in suitable guides A^{13} and B^{13} on the flues A and B to the position shown in Fig. 2, and form ventilating flues P below the lower flues D, openings M′ in the back plate and openings I′ in the door plates I admitting air to the ventilating flues P to prevent any undue heating in the bottom pans by reason of their proximity to the fire boxes.

The door plates I rest at their lower edges in keepers I^2, and are held at their upper edges by turn-buttons I^3, so they can be easily removed and replaced, and these plates I are provided with openings and with doors I^4 for closing the same, the doors being suitably hinged at I^5 and latched at I^6, as best shown in Fig. 1 of the drawings.

I claim—

1. The baking stove herein described comprising upright side flues, and an intermediate flue, said flues being provided on their inner adjacent faces with projecting nipples, cross flues extending between the side and intermediate flues and fitting the nipples thereof, a front plate detachably held to the said flues, a back plate detachably held to the said flues, tie rods extending between said plates and securing the same together, pans resting upon their respective cross flues and arranged in upright tiers, the cross flues being also arranged in upright tiers, fire boxes below their respective tiers of cross flues and pans, ventilating flues between the fire boxes and the lower cross flues, door plates fitted to the front plates of the stove and provided with openings and with doors controlling the same, said fire boxes communicating with the side flues and the intermediate flue, valves controlling the communication between the fire boxes and the intermediate flue, and dampers controlling the communication between the intermediate flue and the cross flues all substantially as and for the purposes set forth.

2. A stove substantially as described comprising upright side flues, an upright intermediate flue, said flues being provided on their sides facing each other with projecting nipples, with cross flues connecting the opposite nipples of the central and side flues, dampers controlling the cross flues, fire boxes below the tiers of cross flues for supplying heat to the intermediate and side flues, and pans above the cross flues, substantially as set forth.

3. A stove comprising upright side flues, and an upright intermediate flue, tiers of cross flues extending between the side flues and the intermediate flue and communicating with the side and intermediate flues, dampers controlling the passage of heat through the cross flues, and pans above the cross flues, substantially as set forth.

4. The combination in a stove of an intermediate flue, side flues spaced therefrom, cross flues between the side flues and the intermediate flue and communicating with the side and intermediate flues, said intermediate flue and side flues having openings near their lower ends for the admission of heat, valves controlling the delivery of heat through said openings of the intermediate flue pans above the cross flues, and a source of heat for supplying heat to the intermediate and side flues, substantially as set forth.

5. A stove comprising upright side flues, an intermediate flue, cross flues between the side flues and intermediate flue and communicating with the side and intermediate flues, a back plate held detachably to the side flues, a detachable front plate provided with openings above the cross flues, pans fitting in said openings and extending above the cross flues and a source of heat, for supplying heat to the intermediate and side flues substantially as set forth.

6. A stove comprising side flues, an intermediate flue, said flues having on their adjacent faces projecting nipples, cross flues fitting said nipples and extending between the side flues and the intermediate flue, means tying the side and intermediate flues together whereby to hold the same in connection with the cross flues, a back plate, a front plate having pan openings above the cross flues, pans fitting in said openings, and a source of heat for supplying heat to the intermediate and side flues, substantially as set forth.

7. The combination of an intermediate flue, side flues, cross flues extending between the side and intermediate flues and communicating therewith, dampers controlling the passage of heat through the cross flues, and having forwardly projecting handle rods, a front plate having openings for said handle rods, and also provided with pan openings above the cross flues, and pans fitting in said openings and a source of heat for supplying heat to the intermediate and side flues substantially as set forth.

8. The combination of side flues, an intermediate flue having openings for the admission of heat thereto, and having at its lower end flue sections communicating with said openings, and valves controlling said flue sections, cross flues between the side and intermediate flues, and pans fitting above the cross flues, and a source of heat

for supplying heat to the intermediate and side flues substantially as set forth.

9. A stove comprising side flues, an intermediate flue, cross flues between the side flues and intermediate flue, and detachably connected at their ends with said flues, means binding the side and intermediate flues in detachable connection with the cross flues, a removable back plate, a removable front plate, and drawers fitting above the cross flues, and a source of heat for supplying heat to the intermediate and side flues substantially as set forth.

10. A stove comprising upright side flues, an upright intermediate flue, tiers of cross flues extending between and connecting the side flues and the intermediate flue, fire boxes below their respective tiers of cross flues for supplying heat to the intermediate and side flues, pans above their respective cross flues, and dampers controlling the passage of heat through the cross flues, all substantially as and for the purposes set forth.

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Witnesses:
W. E. SILER,
WM. J. SHERROD.