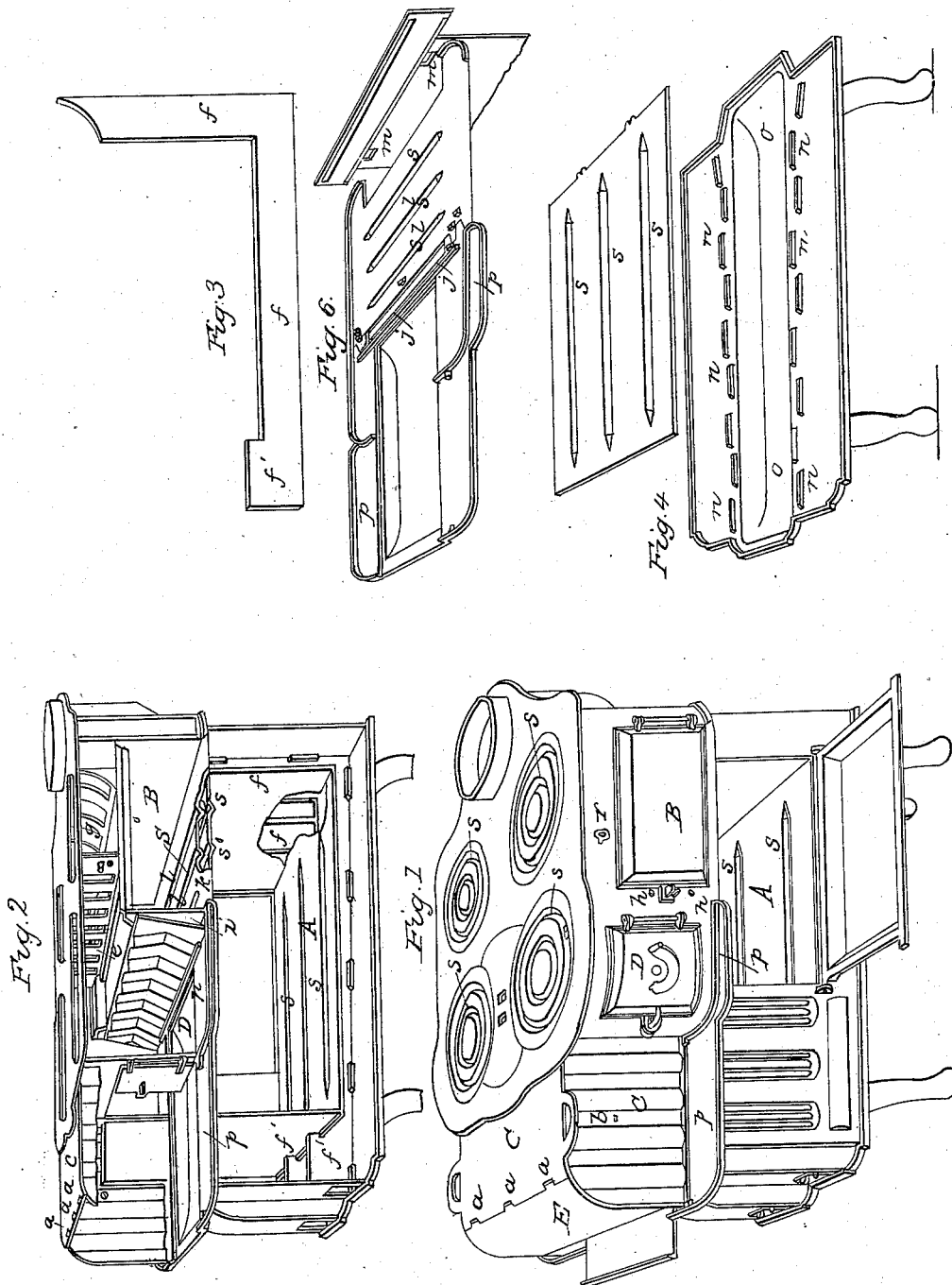


J. C. HERMANCE.

Cooking Stove.

No. 3,628.

Patented June 13, 1844.



UNITED STATES PATENT OFFICE.

JOHN C. HERMANCE, OF SCHENECTADY, NEW YORK.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **3,628**, dated June 13, 1844; antedated June 7, 1844.

To all whom it may concern:

Be it known that I, JOHN C. HERMANCE, of the city of Schenectady, in the county of Schenectady and State of New York, have invented certain new and useful Improvements in Stoves for Cooking; and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawings, Figure 1 is a perspective view of my stove.

Fig. 2 is a similar view with the side plate removed.

Fig. 3 is one of two flue-plates which divides the rear end, the bottom, and a portion of the front flue-space into three compartments.

Fig. 4 is the bottom plate of the stove. *n n* are studs to receive the two flue-plates *ff*, and *o o* is a sink in it, made to increase the capacity of the middle flue-space, which receives the draft from the other two.

Fig. 5 shows the plate which forms the hearth *pp* of the stove, and that also which constitutes the bottom *ll* of the upper oven.

Fig. 6 is a part of the back plate *qq* of the ovens.

My stove has two ovens, one above the other, as in many others.

A is the lower and B the upper oven.

D is the fire-chamber in front of the upper oven.

C is a compartment situated in front of the fire-chamber, and which may be used for roasting, baking, or other culinary operations. This part may be removed at pleasure, as it rests upon the hearth and is held in place by its flanges and by the back edge of its upper plate being passed under the projecting rim of the fore part of the top plate of the stove. Its front piece E is hinged at *a a a* and can readily be turned back.

b b are holes to admit a spit for roasting.

At *e*, Fig. 2, there is a sliding slat or latticed damper, the sliding part being divided into two at the center, each half having a handle *r* on the side of the stove, by which it may be opened or closed. This situation of the damper between the front and rear boiler-holes gives a perfect command of the draft under the respective boilers. The center rear flue is also furnished with a sliding latticed damper at *g* to afford, when desired, a direct passage through the boiler-space to the stove-pipe. When this damper is closed, the draft

is forced down the outer descending flues and under the lower oven, as in other stoves.

To prevent the warping or cracking of the oven-plates and of the boiler-hole covers, I form angular grooves in them, making the depression on one side equal to the projection on the other. These grooves and projections are shown at *s s* and have been found effectual in producing the desired end.

As a means of equalizing the heat in the bottom of the upper and the top of the lower oven, I provide an air-chamber between the two, through which a current of air highly heated is allowed to pass slowly. This I effect by giving to it to a small extent the character of a flue, although it is not actually such.

Hot-air chambers, I am aware, have been formed between two ovens so situated; but where heated air is merely admitted and has no motion but that which is due to its expansion it is not possible for it to communicate much heat to the oven-plates.

My hot-air space is formed in the following manner: There are, as in many other stoves, double plates at the fire-back, as seen at *i*, Fig. 2. Through the side plates of the stove there are holes for the admission of air into this space, as shown at *h h*, Fig. 1. A slot or opening *jj*, Fig. 5, is included within the space *i*, and this leads into the heated-air chamber between the bottom plate of the upper and the top plate of the lower oven. This chamber or space is shown at *k k*, Fig. 2, a breach being made in the plate *ll* (which is the bottom plate of the upper oven) for that purpose.

Fig. 6 is a part of the back plate of the two ovens, and in this are shown two small openings *m m*, which lead from the heated-air chamber into the two rear descending flues, and a current of heated air through it is thus established, the external air being admitted through the openings *h h*, which air is highly heated by the fire-back, is slowly passed through the heated-air chamber through the influence of the small openings *m m*, and then circulates around the ovens with the heated air from the chamber of combustion.

Having thus fully described the manner in which I construct and arrange the respective parts of my stove, what I claim therein as new, and desire to secure by Letters Patent, is—

The manner of arranging the heated-air space between the upper and lower ovens,

causing a current of highly-heated air to pass through it by making perforations through the back oven-plate, in the manner set forth.

I do not claim the use of a heated-air chamber or either of the other devices herein named; but I limit my claim to the use of a heated-air chamber under the combination

and arrangement thereof described and represented in this specification.

JOHN C. HERMANCE.

Witnesses:

THOS. P. JONES,
WM. BISHOP.