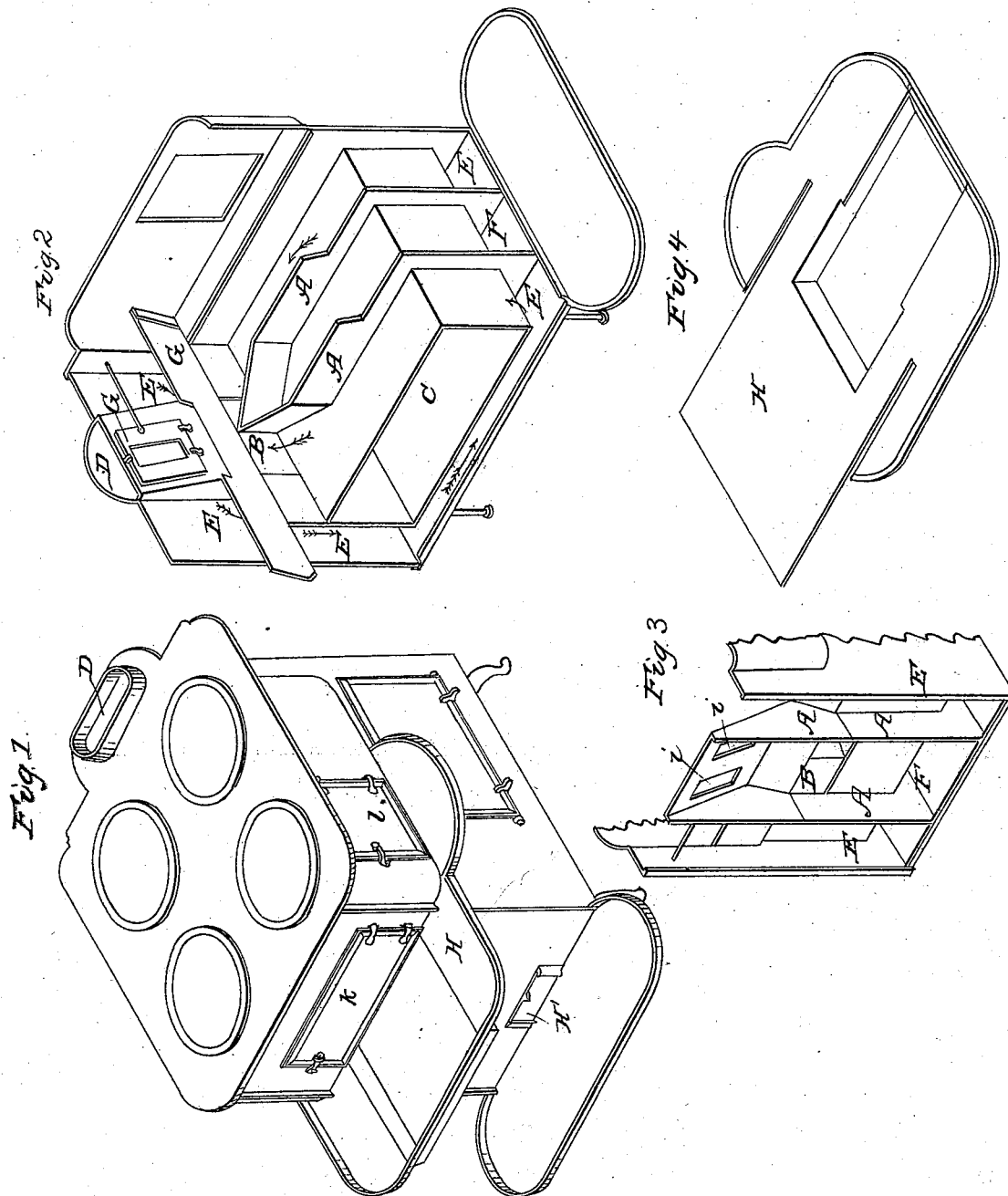


D. G. STAFFORD.

Cooking Stove.

No. 4,711.

Patented Aug. 26, 1846.



UNITED STATES PATENT OFFICE.

DAVID G. STAFFORD, OF SYRACUSE, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 4,711, dated August 26, 1846.

To all whom it may concern:

Be it known that I, DAVID G. STAFFORD, of Syracuse, in the county of Onandaga, and State of New York, have invented certain Improvements in Cooking-Stoves; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

The nature of my invention consists in extending a hot air chamber entirely around the central portion of the oven of a cooking stove separating the fire chamber from the oven, and dividing the flue spaces from the fire chamber into two equal parts extending entirely around the sides of the oven, which arrangement diffuses the heat from the fire chamber, prevents its centralization, and causes every portion of the oven to be equally acted upon, and by means of a valve communicating with the air chamber, the temperature of the oven can be reduced and regulated by the admission of cold air.

In the accompanying drawings Figure 1 is a perspective elevation of my improved cooking stove; Fig. 2 is a perspective elevation of the same, with some of its plates removed for the purpose of showing the internal arrangement of the flues and air chamber; Fig. 3 is a perspective elevation of the rear of the stove, the rear and top plates being removed; Fig. 4 is a perspective view of the hearthplate of the fire chamber.

A, A, are the division plates that surround the oven C, and separate the air chamber F, from the flue spaces E, E; the division plates diverge from a point at the rear end of the upper oven plate and extend entirely around the oven, distant from each other about one-third the width of the stove.

H, is the hearth plate of the fire chamber, which rests upon the division plates A, A, and on the ledges *i, i*, on the side plates of the stove, *k, l*, are the fire doors of the stove. G, is the bridge plate resting on the rear end of the hearth plate H, and forming the rear end of the fire chamber.

The smoke and hot gaseous products of combustion pass from the fire chamber to the chimney or discharge flue through the side flues E, E, in the direction of the arrows, viz: From the fire chamber the smoke and flame passes over the bridge plate G, (on each side of the central discharge flue D,) descend the side flues E, E, at the rear of the oven which continues under the oven, up the front and over the top of the same, (between the hearth plate and the upper oven plate) and are brought together and discharge themselves into the central discharge flue D, through the aperture B. G', is a sliding valve closing the apertures *i, i*, in the central flue D, communicating with the fire chamber, through which the gaseous products of combustion may be allowed to pass directly to the discharge flue D, when it is not desired to heat the oven, instead of being discharged through the flues E, E, and heating the oven in their passage.

The air chamber F, passes from the union of the division plates A, A, (at the rear end of the upper plate of the oven), and passes entirely around the oven between said plates, and leads into the central discharge flue D. H', is a sliding valve in the front plate of the stove communicating with the air chamber F, for the purpose of regulating and reducing the temperature of the oven by the admission of cold air.

What I claim as my invention and desire to secure by Letters Patent, is—

The extension of the hot air chamber F, entirely around the central portion of the oven for the purposes herein set forth, viz.: dividing the flue space leading from the fire chamber into two lateral parts E, E, and separating the fire chamber from contact with the oven, for the more equally diffusing heat to every portion of the same, and the reducing and regulating the temperature of the oven by means of the valve H', substantially as herein set forth.

DAVID G. STAFFORD.

Witnesses:

JOHN H. VOORHEES,
AMOS STAFFORD.