

J. WILSON.
Cooking Stove.

No. 4,528.

Patented May 16, 1846.

Fig. 1

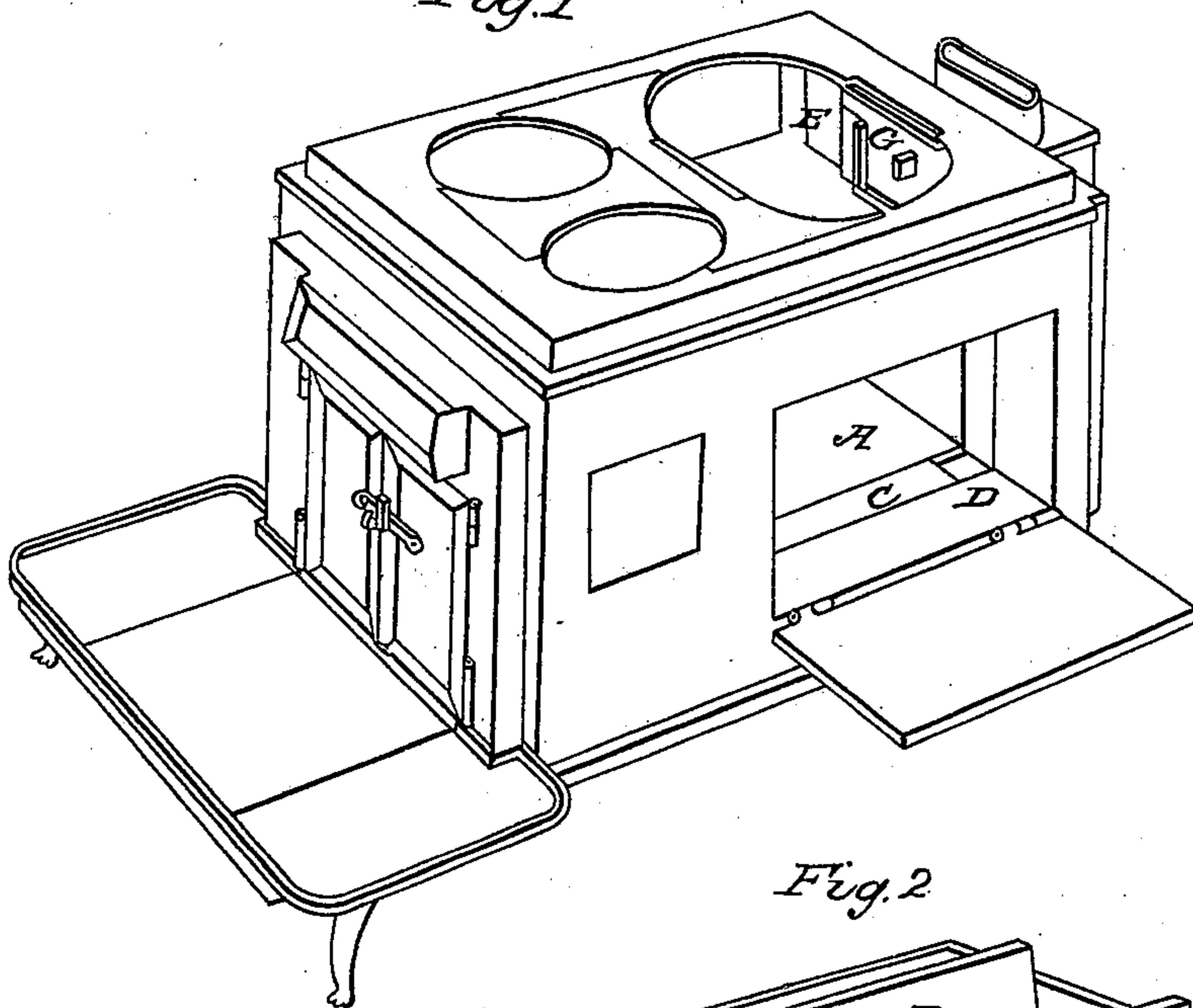


Fig. 2

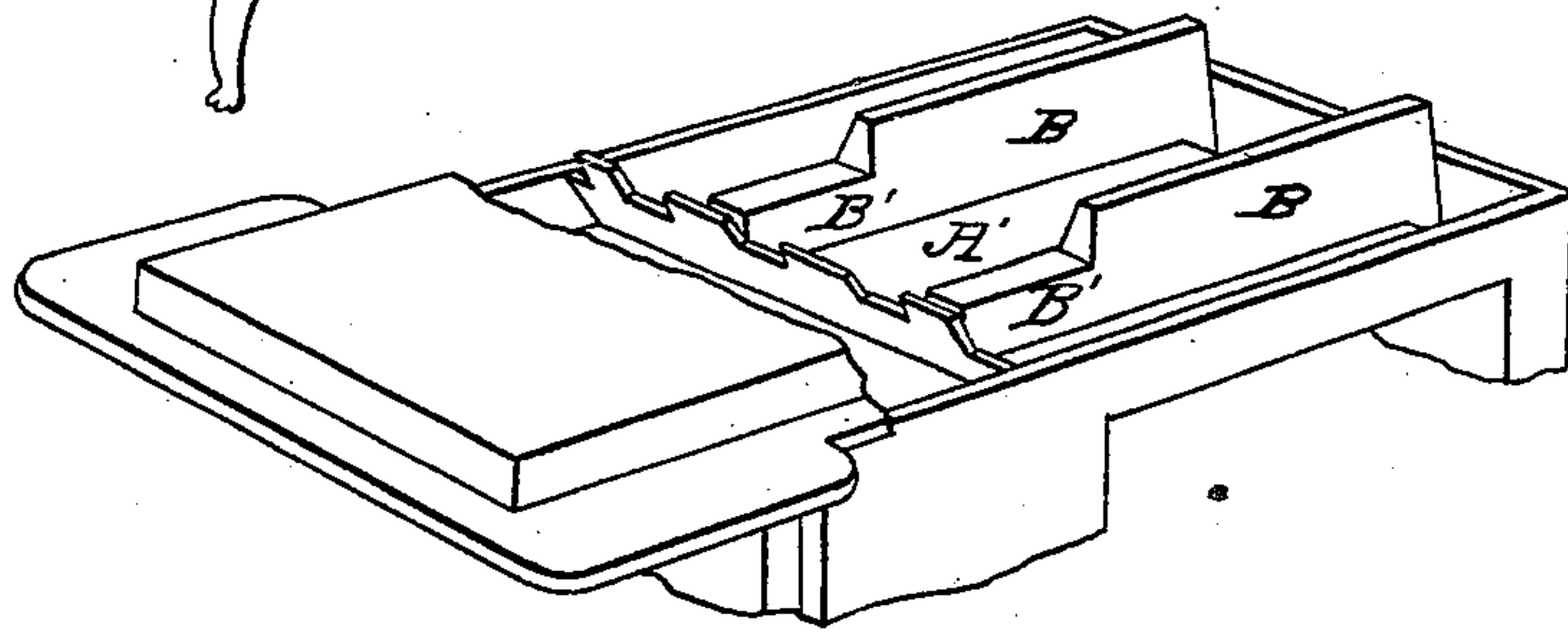
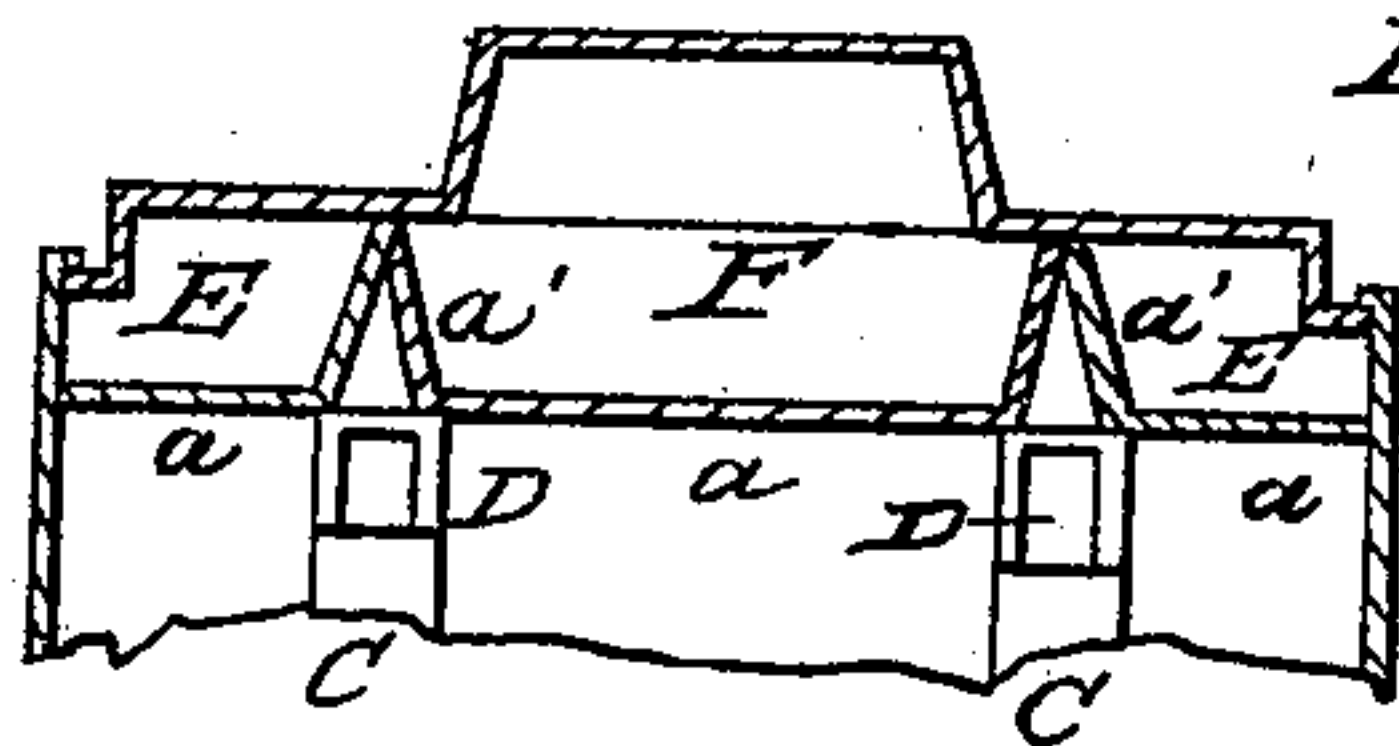


Fig. 3



UNITED STATES PATENT OFFICE.

JAMES WILSON, OF NEW YORK, N. Y.

COOKING-STOVE.

Specification of Letters Patent No. 4,528, dated May 16, 1846.

To all whom it may concern:

Be it known that I, JAMES WILSON, of the city of New York, in the State of New York, have made a new and useful Improvement in Cooking-Stoves and in Roasters to be Used Therewith; and I do hereby declare that the following is a full and exact description thereof.

In its general construction, my stove is similar to some other cooking-stoves now in use, as will be manifest from an inspection of the perspective view of it in the accompanying drawing, in which the situation of the fire-place, the oven behind it and the openings for cooking utensils occupying a flue space above the oven, are represented. The flue space at the back is divided into three parts, in a manner well known, the two outer flues being revertible, or descending, and the middle flue an ascending one leading up to the exit pipe. Between the back of the fire-place and the oven there is a heated-air space formed by using double plates, a device well known. I have, however, so formed and arranged the plates of my stove as to conduct a portion of the air from the heated-air space, above named, to the back part of the oven, into which it is allowed to enter, and thus to communicate heat to that part where it is most needed. I have also so formed the partitions between the respective flues at the rear end of the stove, as to cause them to increase the radiating surface, and to communicate, from this cause an increased portion of heat to the oven.

My improvement in the roaster which I use with this stove consists in the employment of a perforated sheet of metal, usually tin plate, within the body of the roaster, which is to stand at an angle of 45, or 50, degrees, more or less, with the horizon, so as to support in that position, a steak, or other article which is to be cooked; where it is held in place by the projecting edges of the perforations, and is exposed to the direct action of the fire, as well as to the heat reflected by the roaster.

Figure 1, is a perspective view of my stove; Fig. 2, shows the under side of the bottom plate of the oven, that part of the bottom plate of the stove which is under the oven being removed for that purpose.

Fig. 3, is a horizontal section through the back oven plate, and the back plate of the stove, showing the manner in which I form the partitions between the flue spaces. Fig. 4, is a perspective view of my roaster, with its diagonal plate. In each of these figures, where the same parts occur, they are designated by the same letters of reference.

In Fig. 1, A, is the bottom plate of the oven, and A', Fig. 2, the under side thereof. The space between the bottom plate of the oven, and the bottom plate of the stove, is partially divided into three flue spaces, by partitions B, B, Fig. 2, extending from one of them to the other; but these partitions do not consist of a single plate, as in other stoves, but are V-shaped at the part B, the lower angle extending down to the bottom plate of the stove; but at the fore end, as at B', these partitions do not descend to the bottom plate, but terminate in the manner represented, in order to allow of a passage for the draft from the side flues to the middle flue. The spaces between the sides of the partition plates, B, B', are each covered, within the oven, by plates C, Fig. 1, by which they are formed into heated-air flues; these, at their fore ends, communicate with the heated-air space between the back fire plate and the fore oven plate, and are intended to carry a portion of the air heated in that space back to the back part of the oven into which it is to enter. To effect this, the plates C, do not extend entirely to the back of the oven, but terminate at D, having openings through which the heated air enters into the rear part of the oven.

The descending and ascending flues in the rear of the oven are also divided from each other by partitions that are V-formed; the back oven plate being cast in the form shown at a, a, a', a', in the section, Fig. 3. By this means I greatly increase the heating surface of the said plate, and, consequently, the temperature at the back of the oven.

E, E, are the descending flues, and F, is the ascending flue in the rear of the stove.

G, is a damper which when opened allows of a direct passage from the fire-chamber to the exit pipe, in a manner well known.

In Fig. 4, which represents my improved roaster, H, is a plate of tin, or other sheet metal, placed at an angle of 45 degrees, more

or less, with the horizon. This plate I perforate with rows of holes, *b*, *b*, the rows being alternately punched from opposite sides of the plate, which has the effect not
5 only of forming the plate into ridges, but raises a bur on the face, by which a steak, or other article to be cooked, is effectually retained in place notwithstanding the oblique position of the plate, while the
10 gravy runs down between the ridges and through the perforations, into the tray, or bottom, of the roaster.

The general course of the draft in my stove is the same with that of others pre-

viously made, and does not, therefore, form 15 any part of my claim to novelty; but

What I do claim as new, and desire to secure by Letters Patent, is—

The manner described of forming the partitions between the descending flues, and the 20 ascending flue in the rear of the oven, by means of which I increase the radiating surface of the rear oven plate, and augment the temperature of that part.

JAMES WILSON.

Witnesses:

FRANKLIN BROWN,
JACOB FREDK. KUHLE.