

W. E. BLEECKER.  
Cooking Stove.

No. 6,222.

Patented March 27, 1849.

Fig. 1

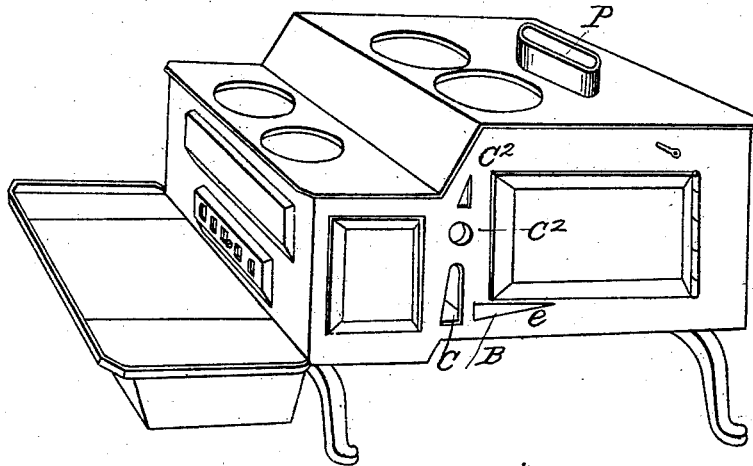


Fig. 2

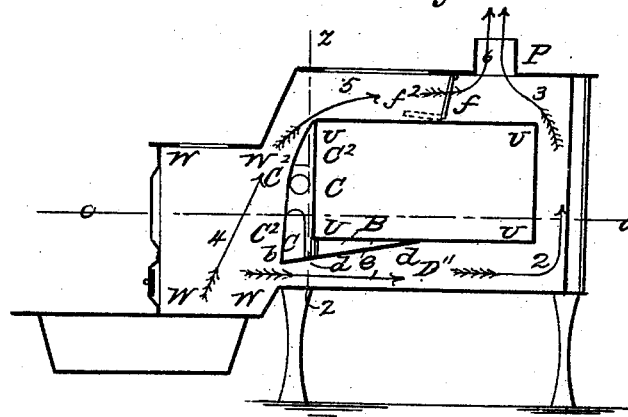


Fig. 4

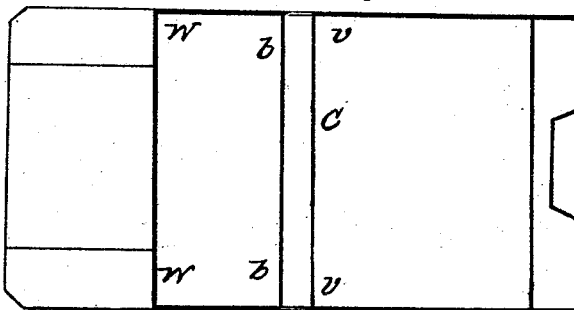
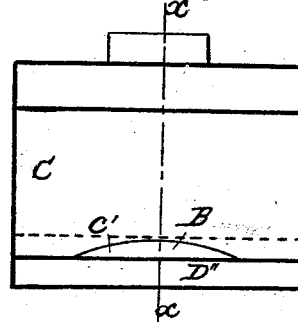


Fig. 3



# UNITED STATES PATENT OFFICE.

WM. E. BLEECKER, OF ALBANY, NEW YORK.

## COOKING-STOVE.

Specification of Letters Patent No. 6,222, dated March 27, 1849.

*To all whom it may concern:*

Be it known that I, WM. E. BLEECKER, of the city and county of Albany and State of New York, have invented a new and useful Improvement in Cooking-Stoves, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a perspective view of the stove. Fig. 2 is a vertical longitudinal section on line *x x* of Fig. 3 Fig. 3 is a vertical transverse section through *z, z*, Fig. 2 Fig. 4 is a horizontal section, on line *o, o*, of Fig. 2.

Corresponding letters refer to corresponding parts in the several figures. The following is a full, clear, and exact description of the same.

The stove consists of a fire chamber W, W, W, W,;—an oven V, V, V, V, behind the fire chamber;—of a flue marked D Fig. 2, a valve *f*, and air chambers B, C combined and arranged in the manner represented, or other modes substantially the same.

The invention or improvement for which a patent is solicited is described as follows.—In the fire chamber *w* Fig. 2 the fuel is deposited and the current of heat and fire passes immediately under the oven, then upward behind the oven, and then forward partially over the top of the oven to the pipe, whence it issues into the chimney, as represented by the arrows 1, 2, 3.

The stove is provided with a damper or valve *f*, which, when open or let down as at *f*<sup>2</sup> diverts the heat and fire directly from the fire chamber over the oven to the pipe P—the draft taking the direction represented by the arrows 4, 5 and 6—said valve being useful in igniting the fuel and in operating the stove, when the process of baking is not required. When closed it is raised as represented at *f* Fig. 2. The objection to stoves of a somewhat similar construction, now in use, is, that the parts of the oven, namely, the front and bottom, most contiguous to the fire-chamber, are too intensely heated: the effect of which is that articles in the front part of the oven are burned in the baking process, while those in the back part, more remote from the fire, are not perfectly cooked. The front part, or front plate of the oven is protected by a common practice of using a guard plate *b, b*, before the front oven plate *v, v*, and admitting cold air through orifice *c*<sup>2</sup> *c*<sup>2</sup>, in Fig. 1, to reduce the temperature at that part. The invention I

have introduced, is the formation of a chamber B under the front part of the bottom of the oven in order to lessen the degree of heat, at that part of the stove, which, like the front, is found to be too highly heated. This is accomplished by the use of a plate *d, d*, Fig. 2, which starts at a point near the center of the bottom of the oven dropping down obliquely, till it meets the front oven plate *v, v*, and continuing still farther till it terminates at the guard plate *b, b*. A triangular chamber B is thus formed under the front part of the bottom of the oven, into which cold air is admitted at each end, by the large aperture in the sides of the stove, Fig. 1.—But in order to promote a free circulation of air, an outlet *c'* is provided to this chamber for the heated air to rise and pass out, while the cold air is constantly renewed. This outlet or opening is made by cutting out a portion of the plate *v, v*, which is merely the extended part of the front oven plate as shown at *c'* Fig. 3. This opening is made in the center of the bottom part of the plate *v, v*, so that the air, in passing out, is compelled to pass through the center where the heat is most intense; and is also useful in assisting to reduce the temperature of the front chamber. The air having passed out of the chamber B through the opening *c'* issues through the front air chamber *c* and out again, at the sides of the stove through orifices *c*<sup>2</sup>. The triangular shape of the bottom air chamber B, as well as the same shaped orifice, supplies the front part of the chamber with the greatest amount of cold air and the volume consequently diminishes as the chamber recedes from the fire. But the position of the plate *d, d*, is useful in contracting the flue D at the place where it is situated, thereby imparting an increased velocity to the current of heat and fire. The inclination of the plate *d, d*, also has a peculiar advantage, by the angle it forms with the bottom oven plate, in giving a direction to the ascending current, in such a manner as to apply to the bottom plate, at the rear, the full force and volume of the current. By this arrangement the front and back part of the oven become, practically, equally and evenly heated, on the bottom, so that articles do not require the trouble and inconvenience of being frequently changed to prevent being unevenly baked.

Fig. 4 presents a horizontal sectional view of the fire chamber W, the space C between

the two plates *v, v*, and *b, b*, the oven and the back flue.

The formation of the other parts of the stove I do not claim to be new. I do not  
5 confine myself to the exact angles or proportions of the drawings.

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

The oblique plate under the forward part  
10 of the bottom of the oven, when this is com-

bined with the air chamber formed by the oblique plate and the forward part of the bottom oven plate, of a cooking stove as herein described.

Albany N. Y. August 7, 1848.

WILLIAM E. BLEECKER.

Witnesses:

HENRY L. WILSON,

JOHN W. SESSIONS.