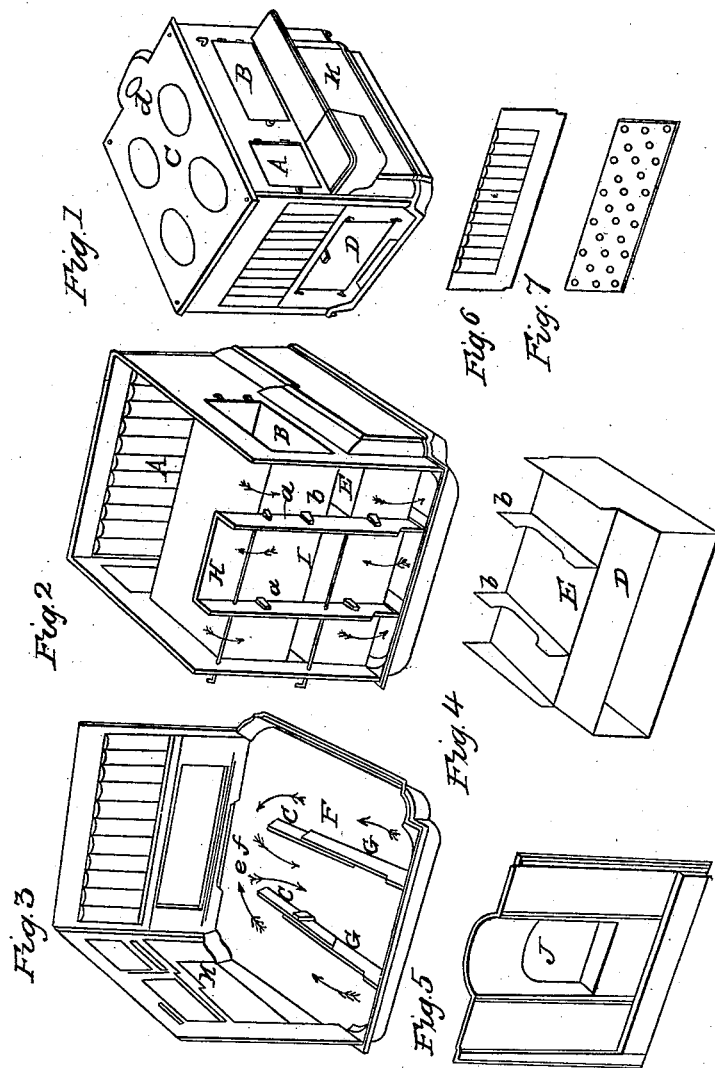


B. A. BEARDSLEY.

Cooking Stove.

No. 7,923.

Patented Feb. 4, 1851.



UNITED STATES PATENT OFFICE.

B. A. BEARDSLEY, OF WATERVILLE, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 7,923, dated February 4, 1851.

To all whom it may concern:

Be it known that I, BACKUS A. BEARDSLEY, of Waterville, in the county of Oneida and State of New York, have invented a new and useful Improvement in Cooking-Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which forms part of this specification, and in which—

Figure 1 represents a view in perspective of my stove; Fig. 2 is a similar view with the top and back plate detached; Fig. 3 is a similar view of the bottom plate, the front plate, and one side plate; Fig. 4 is a view of the lower oven; Fig. 5 is a view of the back plate; and Figs. 6 and 7 are similar views of the back plate and grate plate of the fire box.

My invention consists in constructing a cooking stove in such manner that the heated air and gaseous products of the combustion of the fuel are more equably and perfectly distributed under the bottom of the lower oven, thereby causing a more even heating of the oven bottom, and that the distribution of the heat can be varied to accommodate it to the draft of the chimney under different circumstances. At each side of the same oven I also fit an air box whose interior communicates with the flue space beneath the oven and which tend to keep the sides of the oven at the proper temperature without the use of side flues.

The cooking stove I have represented is of a square form, its exterior being formed of plates which inclose a fire-box in which the fuel is burned, an upper oven by the side of the fire box, a lower oven which extends beneath the upper oven and fire-box, and the various flues through which the gaseous products of the combustion of the fuel are made to circulate before passing to the stove pipe or chimney. The fire box A is situated at the front of the stove and is fitted with a perforated plate (Fig. 7) which separates the chamber containing the fuel from an ash chamber beneath. The upper oven B, which is situated at the side of the fire chamber, is separated therefrom by the plate represented at Fig. 6. It is separated from the top plate C of the stove by a flue space through which the smoke and flame passes to the back of the oven. This oven is also separated from the back plate of the stove by a similar flue space. The lower oven D is separated from the upper oven and from the ash chamber

by a flue space E which extends up to the front plate of the stove in which the lower oven door is situated. A similar flue space F is formed in the bottom plate beneath the bottom of the lower oven, and the flue space at the back of the upper oven is extended downward to communicate therewith. This back flue space is divided into three portions by means of two partitions *a a*. The flue space above the lower oven is also divided into three portions by partitions *b b* which extend forward from the back partitions *a a*. The flue space beneath the lower oven is divided in the same manner by the partitions G G. These are each formed of two pieces the one of which *c* can be drawn forward or pushed back to alter the effective length of the partition and thus regulate the space through which the smoke passes. The middle portion of the back flue space is fitted with two valves H I which can be placed either in an erect position as shown at Fig. 2, or can be turned down. The back plate of the stove as shown at Fig. 5, has a recess J in it, corresponding in position with the central division of the flue space at the back of the stove, and the portion of the top plate above this recess has an opening *d* formed in it to which the smoke pipe is fitted.

When the stove is in operation and the valves H I occupy the positions in which they are represented at Fig. 2, the flame and smoke from the fuel burning in the fire chamber pass beneath the top plate, which is fitted with suitable pot holes, to the back flue space; they here pass down the two outer divisions following the course of the arrows in Fig. 2 to the bottom of the stove, on arriving at this point they pass as indicated by the arrows in Fig. 3 toward the front of the stove; the two currents here meet in the space *e*, and thence passing into the central division return backward to the central division of the back flue space which conducts the united currents upward to the exit pipe. If the lower valve I be opened, the currents pass through the outer divisions of the flue space E above the lower oven, and return through the central division to the back of the stove; and if the upper valve H be opened, the flame passes directly to the exit hole *d* without circulating through the flues. As the draft varies in different situations and under different circumstances, it is essential in order that the lower oven

should be equably heated that the effective length of the partitions G G in the lowermost flue space should be varied; this is effected by introducing a hook through an opening *f* made in the front plate of the stove and either drawing the adjustable plates *c c* forward, or pushing them backward, as may be found necessary to produce the desired effect.

10 In order to protect the sides of the lower oven from the cooling action of the atmosphere a recess K is cast in each side plate of the stove, this recess is separated from the oven by a plate but communicates with the bottom flue space, so that the heated gases and smoke circulating therein can enter these recesses and keep the sides of the oven

warm without the necessity of the draft being carried past them.

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

The construction of the adjustable or sliding partitions (G and G, Fig. 3) by which the draft of the stove, and the distribution of the heated air under the bottom of the lower oven is varied and controlled at pleasure, adjusting the same to the particular place and circumstances of each stove. The whole being arranged and constructed substantially as set forth and described.

BACKUS A. BEARDSLEY.

Witnesses:

WM. BAKER,

COMFORT BATES.