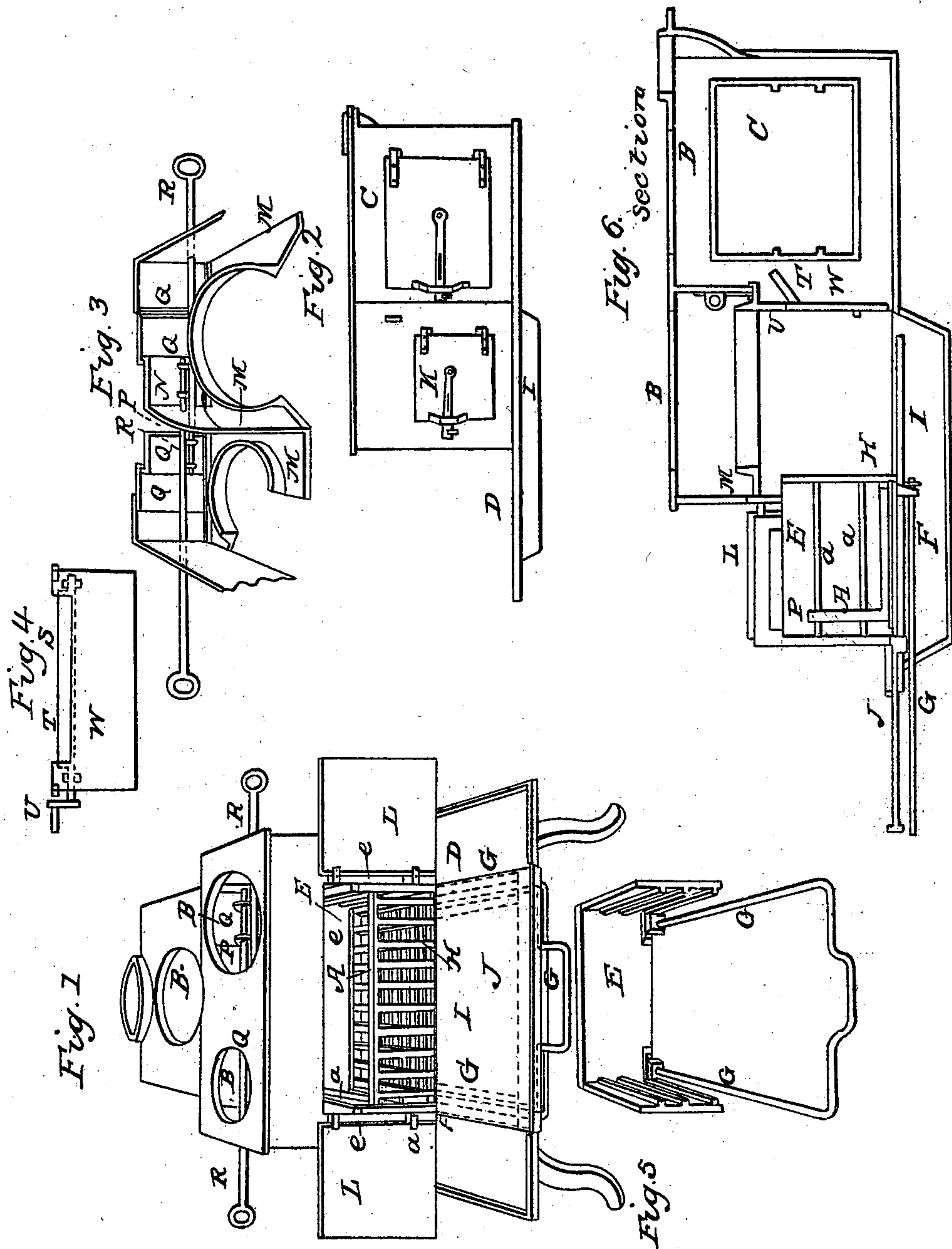


N. WALKER.
Cooking Stove.

No. 493.

Patented Dec. 1. 1837.



UNITED STATES PATENT OFFICE.

NATHANIEL WALKER, OF DIGHTON, MASSACHUSETTS.

COOKING-STOVE.

Specification of Letters Patent No. 493, dated December 1, 1837.

To all whom it may concern:

Be it known that I, NATHANIEL WALKER, of Dighton, in the county of Bristol and Commonwealth of Massachusetts, have invented useful Improvements in Cooking-Stoves, or, in other words, an Improved Cooking-Stove, and that the following is a full and exact description of the said stove and of the improvements therein as invented or improved by me, viz:

The said stove is or may be adapted either to the burning of wood, peat or coal, and may be constructed of any convenient size. The front part of the stove contains the fire place, or grate A, and place, B, Figures 1 and 6, for boilers, and is a parallelogram, with its greatest length in front or from side to side, and narrower from its front to its back side. Back of this, but attached to it and constituting a part of the stove is the oven C, Figs. 2 and 6. The said stove rests upon an iron hearth D Figs. 1 and 2. The fire room or place for the reception of fuel is in the front of the stove and is so constructed that a grate may be inserted for burning coal or peat, or the grate may be removed and an iron plate inserted for burning wood.

The grate A, Figs. 1 and 6, for burning coal or peat rests upon flanges or small iron projections *a* upon the sides of certain plates *e* hereafter described and may be removed at pleasure. The said plates are three in number, viz: one at each end and one at the back, making however a connected whole or box E, with the flanges aforesaid, upon which the grate rests, or is suspended. This box, containing the grate as aforesaid rests upon grooves or ways F, and the whole may be drawn out from the stove by means of rods G Figs. 1 and 5 fastened at the back of the same, so that the stove may be fitted for burning coal by merely inserting the box containing the grate. The iron plates may be lined or used without lining. This part of the stove the inventor denominates a sliding coal grate.

When it is desired to prepare the stove for burning wood, an iron plate, with proper interstices for air, is or may be inserted, after the sliding coal grate is removed. The wood plate rests upon or is suspended upon certain flanges made in the main plate of the stove at its sides. There are several of these flanges, which may be used for elevating or lowering the plate so as either to in-

crease or diminish the quantity of fuel or amount of fire at pleasure. Below the grate is an iron rack or sifter H which lies between the grate and the ash pit, and slides with the sliding coal grate.

The ash pit I, Figs. 1 and 2 and 6 is a deep box or pit below the level surface of the hearth, which is irremovable, being an indentation of the hearth itself. In front there is a sheet of iron or an iron plate J Figs. 1 and 6 covering the front part of the ash pit, which slides upon a groove, and is used to regulate the draft of air into the grate or fire room. There is a small door K at the side of the stove opening into the fire room, which is used only when wood is to be burned in the stove. The front doors L are in two parts and may be employed also to regulate the heat. They are to be opened whenever the sliding coal grate is to be removed and are necessary for this purpose.

Directly over the fire room is a horizontal center plate M, Figs. 3 and 6, extending the whole length and breadth of the fire room, which divides the fire room into two chambers, an upper and a lower, in which plate there are two circular orifices or flues intended to receive the bottoms of the boilers. The circle of the flue, is not complete, but the front of the plate is so cut that a place is left open for the passage of the flame and heat up the front of the stove by the doors into the upper fire chamber, which passes around the boilers back into the smoke flue. By this means the fire is made to perform a double service to the same boilers. Resting on this horizontal center plate is a perpendicular partition, N Fig. 3 extending from that to the top of the stove, by which the upper fire chamber is divided into two small apartments. Behind each of said upper chambers is a flue, P Figs. 1 and 3, for the passage of the fire and smoke, both or each of which may be wholly or partially closed by means of movable folding slides or dampers Q. These are moved at pleasure by drawing or pushing a wire or rod R to which the iron slide is attached—one on each side of the stove.

Below the horizontal center plate and near its top is a narrow valve S Fig. 4 or opening for the passage of heat from the lower fire chamber. To regulate this valve is a revolving or swivel damper T Figs. 4 and 6, turned by means of a crank U, by means of which this valve may be com-

pletely or partially closed. By means of this damper, the heat upon the oven may be regulated, and by means of this the dampers before mentioned either of the fire chambers
5 may be completely insulated, and the whole fire and heat directed upon one boiler, or the heat may be made to pass around the oven without passing above the horizontal center plate.
10 Back of the main body of the stove is that part containing the oven C and which has been before described. There is a passage for the fire and heat under the oven, over it and at its front and back side. The two
15 ends, at one of which is the oven door are permanently affixed to the body of the stove. On the top of the main body of the stove are two orifices B B Fig. 1 corresponding with those in the horizontal center plate at
20 Fig. 3 for the reception of the boilers. There is also an orifice B''' in the plate over the top of the oven which may be used for any culinary purpose. Behind this is the usual orifice for the smoke pipe.
25 An iron plate, W, Fig. 4, is placed between

the lower fire room and the oven, which may be raised by means of the hand. This plate may be thus raised whenever it is desired to remove the ashes, that may accumulate
below the oven.

What the inventor claims as new and original, and invented or discovered by himself is—

The movable sliding box and grate, for burning coal constructed as before described,
35 the particular manner of dividing the fire room into an upper and lower chamber, the dividing the upper fire chamber into two apartments, for the purpose of insulating
40 either chamber, and directing the whole power of the fire into either chamber, by means of the dampers before described, and the manner of affixing the sliding plate between the fire room and the oven by which
45 the bottom of the oven is made accessible.

NATHANIEL WALKER.

Witnesses:

H. G. V. COLBY,
C. BABBITT.