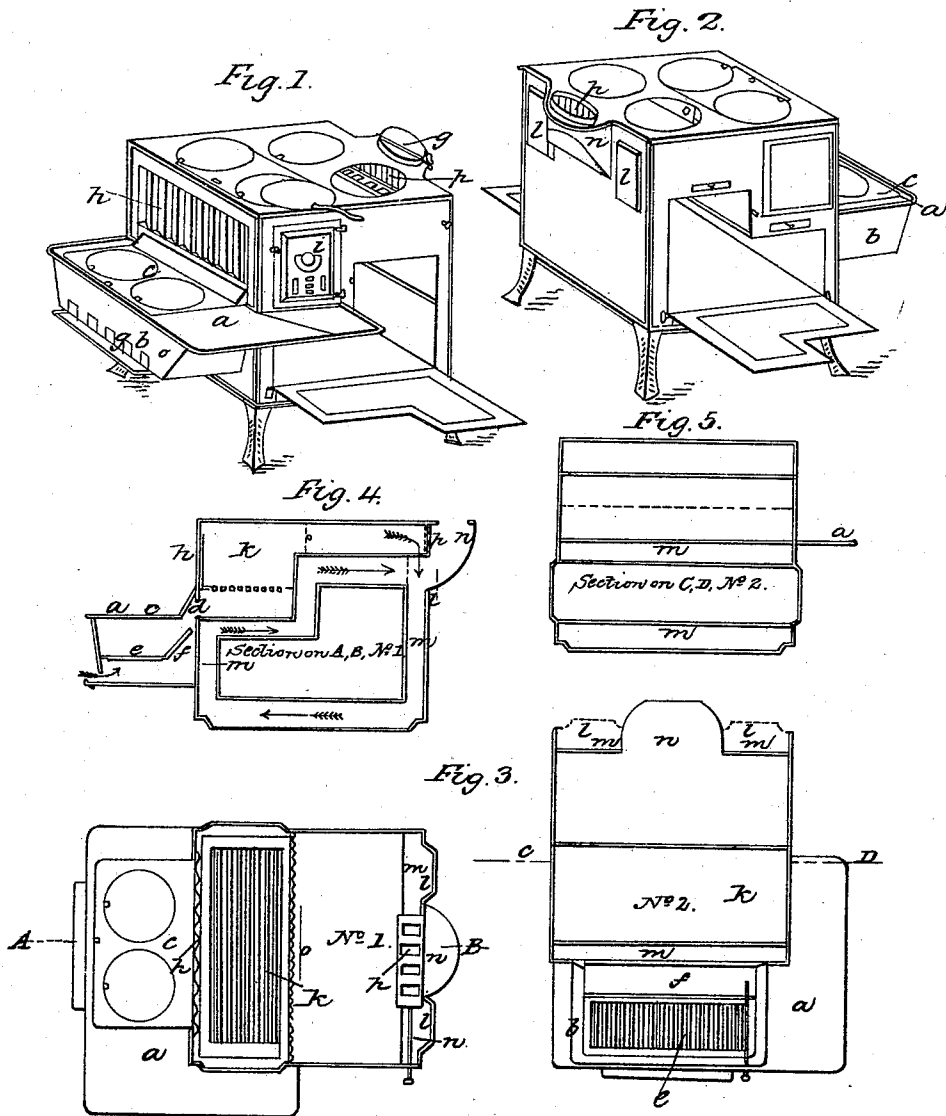


J. T. DAVY.
Cooking Stove.

No. 3,939.

Patented March 12, 1845.



UNITED STATES PATENT OFFICE.

JOHN T. DAVY, OF TROY, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 3,939, dated March 12, 1845.

To all whom it may concern:

Be it known that I, JOHN T. DAVY, of Troy, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which forms a part of this specification, in which—

Figure 1 is a perspective view showing the front of the stove. Fig. 2 is a perspective of the back thereof. Fig. 3, No. 1, is a horizontal section; No. 2 is a section horizontal with the hearth plate removed, and showing the fire chamber, &c., under it. Fig. 4 is a vertical section at the line A—B of No. 1, Fig. 3. Fig. 5 is a vertical transverse section on the line C—D of No. 2, Fig. 3.

The nature of my invention consists in conveying the smoke and heat in the flue in an entire sheet round the oven and rarifying the air near the termination thereof so as to cause a brisk draft; and in forming the stove so as to produce the greatest economy of space and use of fuel.

I construct the main body of my stove in the form of a cube, which is placed on legs at a proper height; onto the front of this I affix a hearth (*a*), one end of which extends around to one side of the stove. A recess (*b*) is formed in this hearth, which is deeper than that merely used for ashes, and serves for a fire chamber; above this a hearth plate (*c*) is put on, which has two boiler holes in it, and which can be removed and replaced by a gridiron for boiling; the edge of the gridiron, as well as the hearth plate, next to the body of the stove is turned upward, as shown at (*d*), Figs. 1 and 4. This covers an aperture along the front of the stove and forms a flue from the fire chamber under the hearth into the stove, as shown by the arrow in Fig. 4. At a little distance from the back of the recess, on a level with the grate (*e*) therein, there is an axis from which a plate (*f*) projects upward like a turning damper; this is turned up into a vertical position when the ashes from the fire chamber in the stove is scraped down and allows them to fall down under the grate (*e*) behind; apertures are formed in the front of the recess at (*g*) for the admission of air below the grate, which can be closed by a common sliding damper.

The front of the stove, above the hearth just described, is corrugated at (*h*) for the purpose of radiating heat in roasting before it, and at the end, where the hearth extends around there is a door (*i*) that enters the fire chamber (*k*); this fire chamber occupies about one-fourth part of the cubical part of the stove; the products of combustion pass directly back the whole width of the stove, to the back thereof; it then divides at the back and passes downward on each side of a center flue (*n*) hereafter to be described, the back of the stove having two projections (*l*) at that point to enlarge the flue; it then continues down flue (*m*), under the oven, along the bottom of the stove to the front; it thence ascends to the bottom of the fire chamber, runs back between its bottom and the oven, and then rises at the back of the fire chamber, which is of corrugated metal, and heats and rarifies the air at that point; this I deem of the greatest importance in creating a draft; it then turns back and makes its exit through the small pipe (*n*) into the chimney in the usual way. A plate (*o*) is fixed at the point where the flue commences beside the fire chamber; this causes the flame to reverberate around the boilers and distributes the heat more equally.

The oven extends the whole size of the lower part of the stove (bounded by the flue) the back rising up behind the fire chamber, as shown in the drawing. This construction and combination of parts makes an equal dispersion of heat all around the oven.

The top plate of the stove has four boiler holes in it at equal distance apart.

A damper (*p*) is constructed at the point where the pipe (*n*) crosses the descending pipe which admits the smoke and heat directly into the chimney without passing around the oven; there may also be a throttle valve (*q*, Fig. 1) in the collar which checks the draft and stops the consumption of fuel.

Having thus fully described my improvement, what I claim therein as new and desire to secure by Letters Patent, is—

The turning plate (*f*) in combination with the grate of the fire chamber (*b*) for the purpose of conducting the ashes from the fire chamber above, under the grate.

JOHN T. DAVY.

Witnesses:

JOSEPH FRANCIS,
J. J. GREENOUGH.