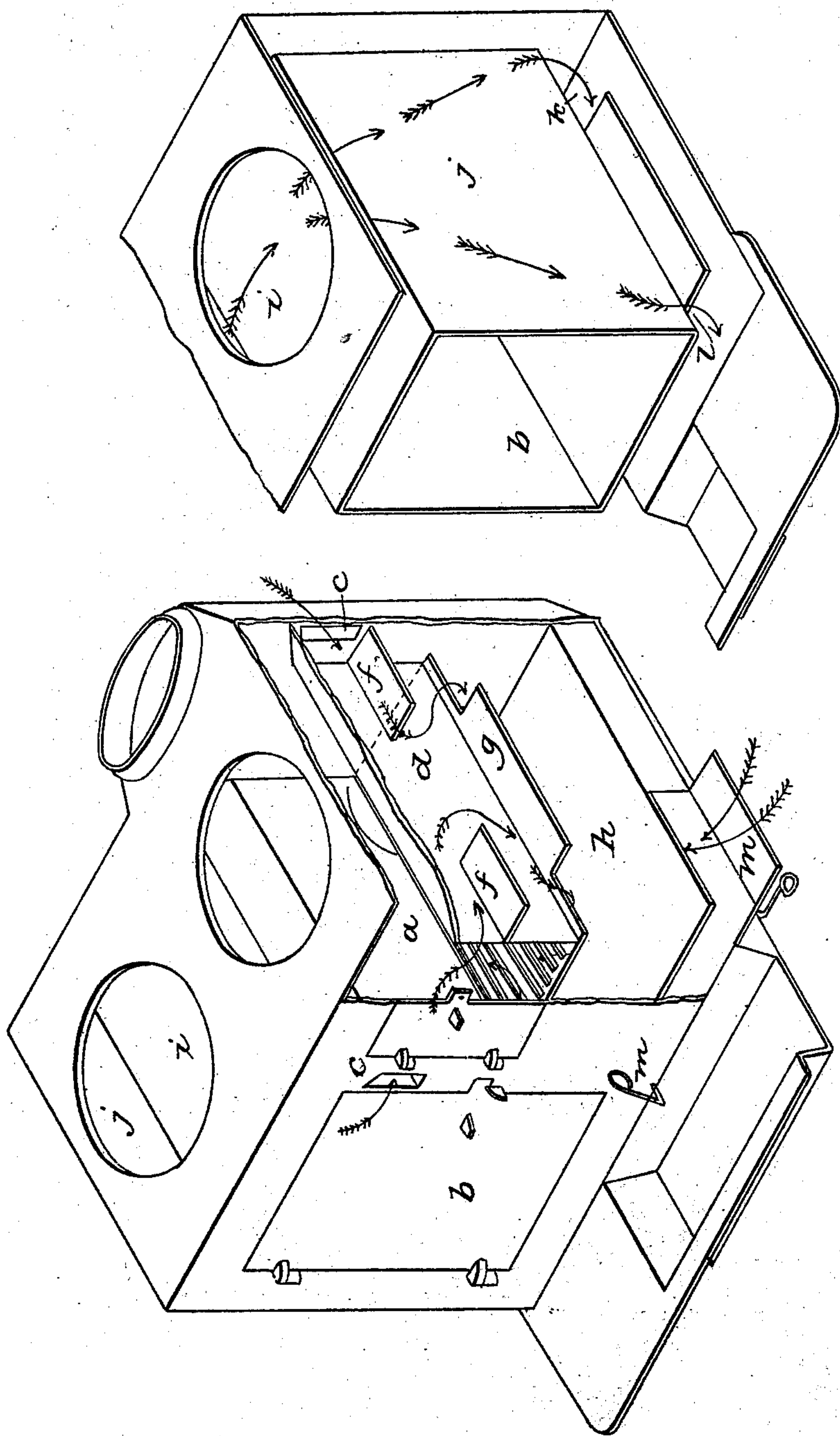


E. YOUNG.
Cooking Stove.

No. 8,160.

Patented June 17, 1851.



UNITED STATES PATENT OFFICE.

ELIAS YOUNG, OF CINCINNATI, OHIO.

COOKING-STOVE.

Specification of Letters Patent No. 8,160, dated June 17, 1851.

To all whom it may concern:

Be it known that I, ELIAS YOUNG, of Cincinnati, Hamilton county, Ohio, have invented new and useful Improvements in Cooking-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation, thereof, reference being had to the annexed drawing, making part of this specification.

My object is the equable and thorough appropriation of the heat, to the various oven surfaces, without any infraction of the boiling surface of a stove in which the fire chamber is placed in the middle, a form rendered very desirable from the great economization of heat, and the ease with which a portion only of the stove may be employed, but a form which possesses the one serious defect of inordinate heat in some portions of the ovens. This defect I have remedied by the devices herein described by which the direct heat of the fire is modified, and the current of hot gases so disposed as to equally distribute the heat to the front, back and ends of the stove.

In the perspective drawing hereto annexed, the stove is separated by section immediately in the plane of the partition between the oven and the air jackets, and having one end plate and part of the front plate removed to expose the various passages.

(a) is the fire-place.

(b) are the ovens, one on each side thereof.

(c) are apertures for the induction of external air to spaces (d), one on each side of the fire place between that and an oven. The plates (f) in these spaces compel the cool air which enters the apertures (c) to flow toward the center of the stove and the plates (g) intercepting the current of air in its descent to the space below the fire couples it to seek the sides of the stove, so

that after reducing the temperature of, and abstracting heat from the center of the stove, it reverts back to that part of the stove it had cooled at its entrance and restores the equilibrium at that part, whence entering the ash pit (h) it passes into the fire by four separate currents of already partially heated air.

(i) are flues passing from the fire over each oven, thence at (j) down the ends of the ovens, where it divides into two streams, one stream passing through the aperture (k) at the back and the other stream passing through the aperture (l) at the front. The aperture (l) is made considerably less than the aperture (k,) because being a more direct cut to the escape aperture, there is a more powerful draft therethrough, so that by duly proportioning the two apertures the heat may be exactly balanced at front and back.

By the dampers (m) in the central escape flue, the circulation of heat may be confined to one side or shut entirely off if desired.

Having thus described the nature of my invention what I claim therein as new and desire to secure by Letters Patent, is—

The cold air passages substantially as here arranged to wit, having each an external aperture near their upper part on each side, beneath which projects a plate (f) which carries the air to the center of the stove, whence by a second plate (g) beneath the middle of the passage, it is again deflected to the outer ends of the passage (thus counterbalancing the cooling effects at its entrance) when it is distributed in hot blasts to the fire.

In testimony whereof, I have hereunto set my hand before two subscribing witnesses.

ELIAS YOUNG.

Witnesses:

GEO. H. KNIGHT.

E. SINGER.