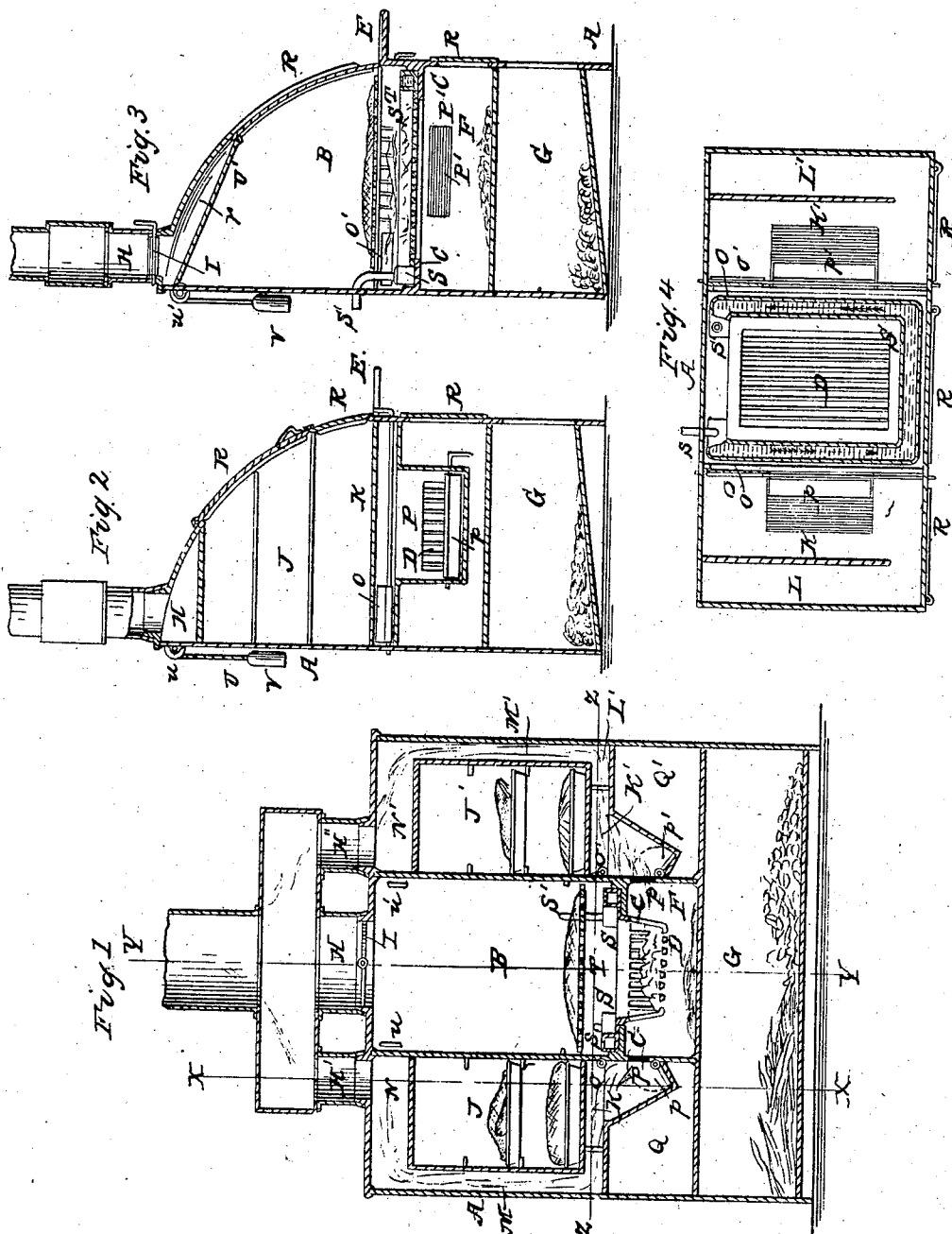


J. VAN.  
Cooking Range.

No. 64,725.

Patented May 14, 1867.



Witnesses:

Geo. H. ...  
Samuel ...

Inventor:  
J. Van ...  
By ...  
att'y.

The drawing in this patent  
is not in print.

## United States Patent Office.

JOHN VAN, OF CINCINNATI, OHIO.

Letters Patent No. 64,725, dated May 14, 1867.

### COOKING-RANGE.

The Schedule referred to in these Letters Patent and making part of the same.

#### TO WHOM IT MAY CONCERN:

Be it known that I, JOHN VAN, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Cooking-Range; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My invention relates principally to an arrangement of broiling-chamber, in connection with bake-ovens, &c., of a stove or range, adapted to avail the heat evolved by the burning fat for the warming of the ovens.

Figure 1 is a vertical longitudinal section of a boiler embodying my invention.

Figure 2 is a transverse section thereof at line *x x*.

Figure 3 is a transverse section at the line *y y*.

Figure 4 is a horizontal section at the line *z z*.

A is the external shell or case of the kind of stove or range technically known as a "broiler," its front being preferably vertical at its lower portion, and rounded backward on top, its middle portion being occupied by the fire-chamber B provided with a ledge, C, for the suspension of a fire-basket, D, and a hearth, E. F is an ash-pit. The entire bottom portion of the broiler may consist of a receptacle, G, for fuel. The top of the fire-chamber opens into a flue, H, for the direct escape of the smoke, when desired. Its flue is closable by a damper, I. J J' are ovens, encircled by flues K, L, M, N, K', L', M', N'. O O' are ports or passages into the flues K K' from that portion of the fire-chamber above the grate. P P' are passages into the flues K K' from that portion of the fire-chamber below the grate. These passages can be closed by means of the dampers *p p'*. The passages O O' are closable by dampers *o o'*, when it is desired that the smoke shall descend through the fire on its way to the flues, so as to avail the heat of the burning fat, and at the same time to avoid the smoking of the meat and the escape of empyreumatic gases into the apartment during the act of broiling. The flues K K', L L', M M', N N', connect by branches H' H'' with the escape-flue. The spaces Q Q' underneath the ovens are occupied by closets for warming plates, drying kindling, and so forth. The fire-chamber, ovens, and closets are provided with doors R. S is a water-jacket or ledge for maintaining a constant supply of hot water. This water-jacket has an inlet pipe, *s*, and a discharge pipe, *s'*, so situated as to cause a complete circulation of water through said jacket in the manner indicated by the arrows in fig. 4. The inlet pipe *s* may be connected to a hydrant, pump, or other source of supply, and the other pipe, *s'*, can discharge the hot water into a suitable tank or cistern. The basket D may be replaced by a flat grate, T, (fig. 3,) for charcoal, when desired, in which case the upper side dampers *o o'* will be opened. The door R of the fire-chamber B is adapted to slide within a groove, *r*, whose curvature corresponds with that of the upper portion of the shell or case A; and said door is suspended on chains or wire ropes U U', which pass over pulleys *u u'*, and the outer ends of these chains or ropes are attached to weights or counterbalances V V'. This provision of the counterbalances enables the operator to elevate or depress the door of the fire-chamber with the least amount of exertion. A boiling-hob may be interposed on one or both sides of the fire-chamber, so as to avail of the heat of broiling for boiling as well as baking.

By the above plan I effect a great saving of fuel over the usual mode of heating the ovens by a special fire, by the use of the intense heat incident to the burning fat which accompanies the act of broiling, and use no more fuel than in a common boiler. By the use of my improved boiler a restaurateur can get along without the customary range or stove.

I claim herein as new, and of my invention—

The arrangement of broiler or fire-chamber B, having both descending and ascending valve-guarded communications O P with the flues K, L, M, of one or more elevated ovens J J', at the discretion of the operator.

In testimony of which invention I hereunto set my hand

JOHN VAN.

Witnesses:

GEO. H. KNIGHT,  
JAMES H. LAYMAN.