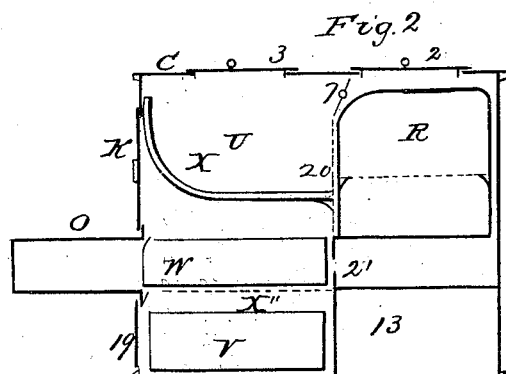
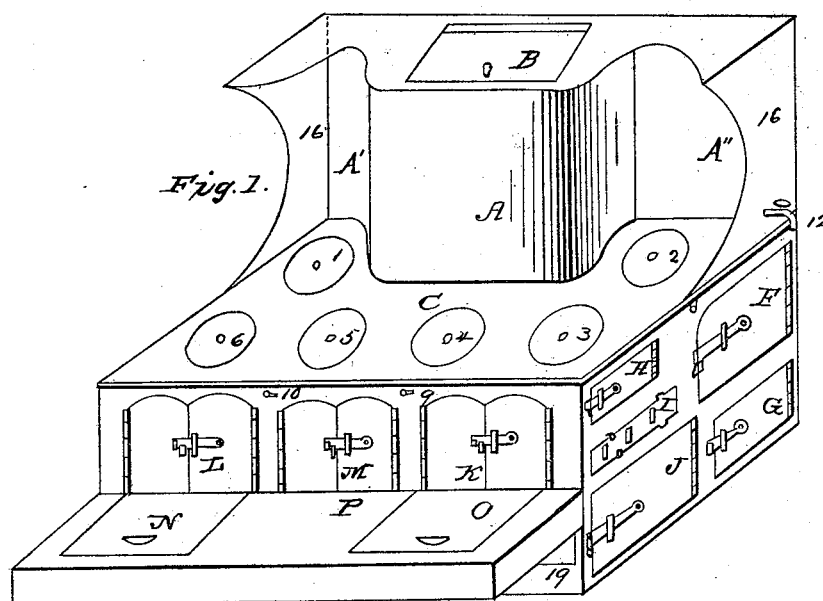


O. SMITH.
Cooking Range.

3 Sheets—Sheet 1.

No. 54,427.

Patented May 1, 1866.



Witnesses
Geo. Johnson
Theodore Lang

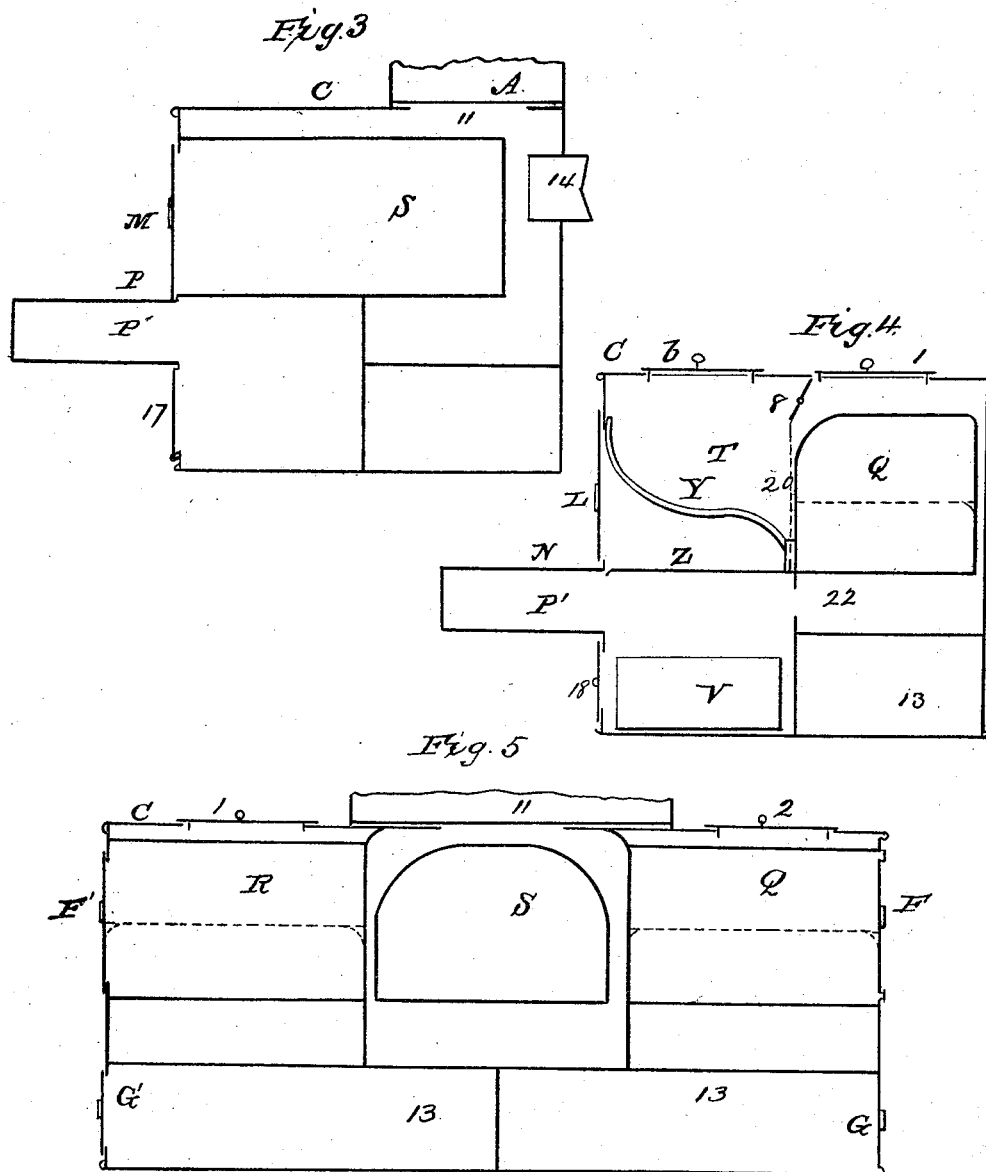
Inventor
Wm O Smith
by her attorney
S. S. Fehnestock

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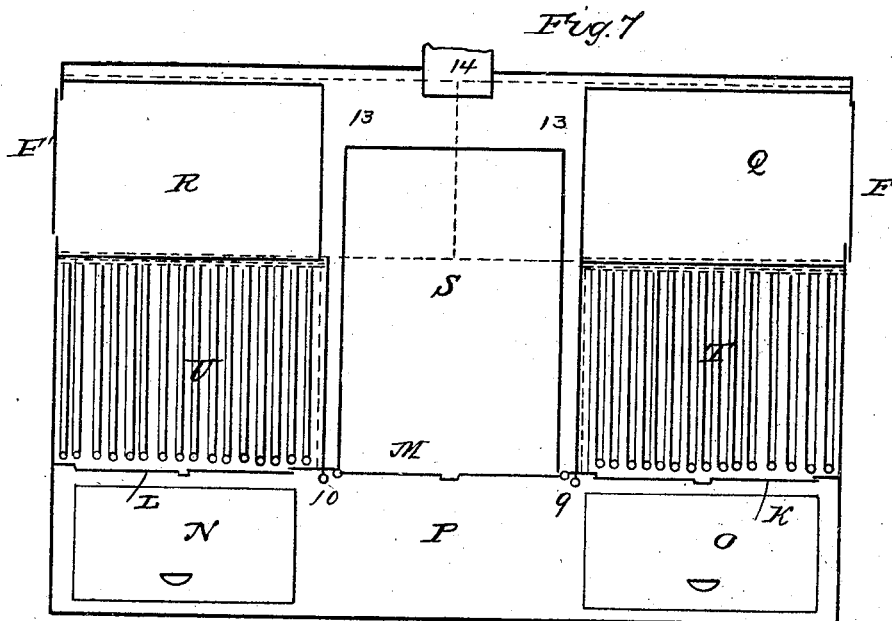
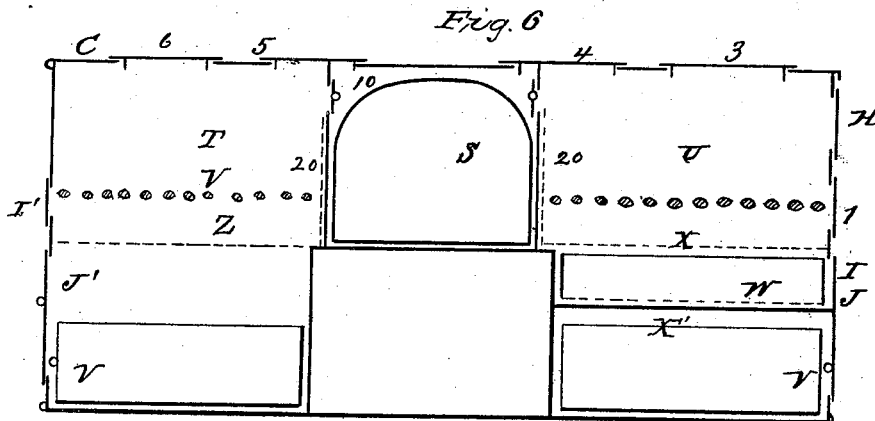
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O. SMITH.
Cooking Range.

3 Sheets--Sheet 3.

No. 54,427.

Patented May 1, 1866.



Witnesses
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Inventor
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UNITED STATES PATENT OFFICE.

MRS. O. SMITH, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN COOKING-RANGES.

Specification forming part of Letters Patent No. 54,427, dated May 1, 1866.

To all whom it may concern:

Be it known that I, Mrs. O. SMITH, of Chicago, in the county of Cook and State of Illinois have invented an Improved Range; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a perspective view of my improved range. Fig. 2 is a transverse vertical section taken through the centers of the covers 2 3. Fig. 3 is a transverse section taken through the center of the range; Fig. 4, a similar section taken through centers of the covers 1 6. Fig. 5 is a longitudinal section (also vertical) taken through the centers of the covers 1 2; Fig. 6, a similar section taken through the covers 3, 4, 5, and 6. Fig. 7 is a horizontal section taken through the upper part, above the hearth, showing the relative position of fire-boxes and ovens.

The object of my invention is to construct a cooking-range of such capacity that it will meet the wants of any hotel, boat, or any place where a great amount of cooking and heating is required, and to so arrange the hot-air chambers around the ovens that the heat from the fire-boxes can be better controlled and made to operate on one or more ovens as required with two fires, being able to use five ovens.

That others skilled in the art may make and use my invention, I will proceed to describe the method of constructing the same, and also the operation of it.

T represents the fire-box constructed for burning coal, having the double grate Y Z, the object of this last or lower one being to catch the small particles of coal which fall through Y. To accomplish this I make the grate Z fine enough to hold the coal, while the ashes and dirt pass through into the ash-pan V beneath.

U represents the fire-box constructed for burning wood, containing the grate X, the common broiling-box W, and the ash-grate X". The object of box W is to hold hot coals on which meats are to be broiled. The ash-grate X" answers as a support for the box W to rest upon and allow the ashes to escape into the ash-box V. The ash-boxes V V beneath fire-boxes U T can be taken out through doors J J'.

S represents the central oven, which is heated

by means of the fire in both or either of boxes U T.

R and Q are the end ovens, constructed similar to each other and heated by the adjoining fire-boxes.

9 and 10, Fig. 1, show the dampers which regulate the heat upon the oven S, and 7 8, Figs. 2 and 4, those regulating the heat upon ovens R Q.

L M K represent the doors in front of the range, which are double, and F G H J, also F' G' J', those at the ends of the range, being single, and constructed in common substantial manner. (See Figs. 5 and 6.)

I I', Fig. 6, show the common outside dampers used in regulating the draft in the fire-boxes T U.

N O show the common hearth-covers, constructed so as to operate in the usual manner.

1, 2, 3, 4, 5, and 6, Fig. 1, represent the common covers used in shutting the furniture-holes in the top of the stove, and P is the hearth, made double, as it were, with an air-chamber, P', between, and of sufficient depth for the box W.

A is the water-heater on top and rear of stove, its double ogee ends terminating with the wings 16, the object of which latter is to protect the walls and economize the heat for the boiler.

The recesses A' A² on each side of boiler give room for two furniture-holes, closed by covers 1 and 2. The water-heater sits over a suitable hole, and is so constructed as to hold a large quantity of water.

B, Fig. 1, shows the lid covering an opening through which water is supplied to heater.

12 is a faucet for drawing water from boiler, and 14, Fig. 3, is the common smoke-pipe.

17 18 19 show the common doors used in cleaning the ashes from the range and giving an under-draft to the fire-boxes when required.

11 is the opening in the top of the range c, over which the heater A rests. (See Figs. 3 and 5.)

In Figs. 2, 4, and 6, 20 shows the metallic or perforated plates forming the lining between the ovens R, S, and Q and the fire-boxes U T, the object of these plates being to give proper protection to the ovens and allow the heat to pass through at a proper temperature to facilitate baking.

13, Figs. 2 and 4, represents two baking-

ovens, which can be used as such or heating ones, as required. They are not detached from the main body or frame of the stove, but are essential parts thereof. The importance of these ovens 13 will be perceived upon a consideration of the fact that the various articles to be cooked require different degrees of heat, and that by means of these ovens, central and end, upper and lower, the requisite provision is made for cooking all kinds of food at the same time, notwithstanding the different degrees of temperature required.

The position and relation of the ovens R S Q and 13 13, particularly as to the fire-boxes U T, I believe is new, S being between them, R and Q directly behind, 13 and 13 also behind, but lower down on lower story. An intense heat may be thrown upon central oven, S, by opening the dampers 9 and 10 between it and the fire-boxes on each side. R and Q can also be regulated by means of dampers 7 and 8. By the use of but one fire in either box the center oven and adjoining ones, R or Q, may be made sufficiently hot for any ordinary baking or cooking purposes. Thus, in my range, five ovens are operated upon by the two fire-boxes, exemplifying a principle or mode of operation and construction which combines in the peculiar position and relation of

each part to the other and of every part to the whole the attainment of the greatest economy of fuel and of space in arrangement with the greatest cooking capacity, constituting it an improvement upon any range or stove now in use.

21 and 22 show openings made to allow the heat to circulate under the ovens R and Q.

Operation: This is similar to other ranges or stoves in use. If the center oven, S, is to be heated by one of the fire-boxes, the damper between that fire-box and the oven will be used in ordinary manner. If the center oven is to be heated by both fire-boxes, dampers 9 and 10 will be used. If the three top ovens are to be used, the dampers 7 and 8 will regulate the heat.

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

The combination of the fire-boxes U T with the ovens R Q S 13 13, when the latter are arranged in relation to the former and to each other as shown and described.

MRS. O. SMITH.

Witnesses:

GEO. L. CHAPIN,
G. V. MOONEY.