

J. FINCK.

Range.

No. 4,550.

Patented May 30, 1846.

Fig. 1

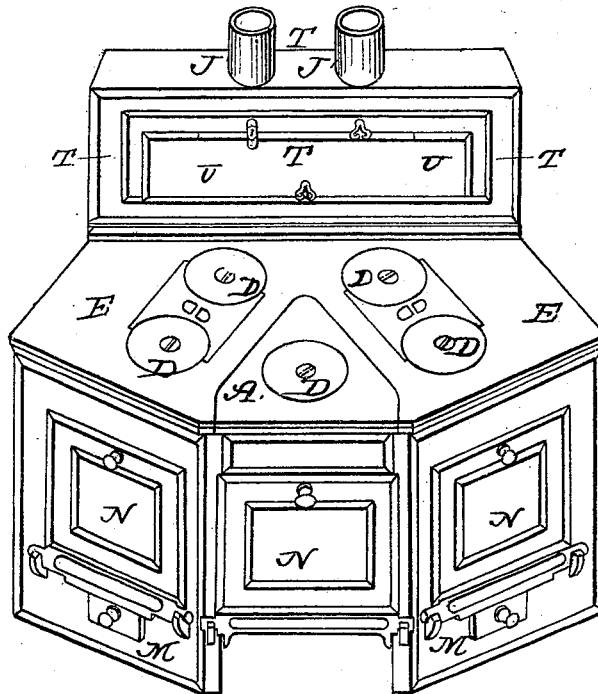


Fig. 3

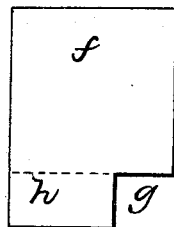
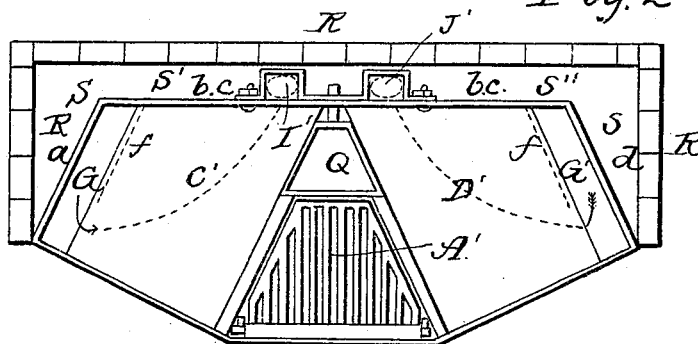


Fig. 2



# UNITED STATES PATENT OFFICE.

JULIUS FINK, OF PHILADELPHIA, PENNSYLVANIA.

## COOKING-RANGE.

Specification of Letters Patent No. 4,550, dated May 30, 1846.

*To all whom it may concern:*

Be it known that I, JULIUS FINK, of the city of Philadelphia, in the State of Pennsylvania, have made certain new and useful Improvements in Cooking - Ranges, which range is similar in its character in some respects to that for which I obtained Letters Patent of the United States under date of April 10, 1844; and I do hereby declare that the following is a full and exact description of my improved range.

It is a point of much importance to construct a range in such manner as that it may readily be removed from one fire-place to another with little or no disturbance of the brick work, or occasion for expensive setting. In my improved range I have accomplished this object by constructing it with end, or jamb plates of cast iron and also with a back plate of the same metal; the escape flues, of which there are two which pass into the chimney being cast with, or subsequently attached to, the back plate.

In my improved range the front is in the form of a segment of a polygon, and there are two ovens standing obliquely to each other and leaving a triangular space between them as in the range on which this is an improvement, but the two ovens, I now make of equal depth, each extending from the front to the back plate thereof; but, as under this arrangement the triangular space between said ovens, would be inconveniently deep from front to back, if occupied entirely by the fire chamber, I truncate the back angle and usually occupy that portion of the space, by inserting therein a water back. But where this is not desired, the space may be employed as an air heating chamber in conjunction with the vacant spaces at the back and sides of the range.

In the accompanying drawings Figure 1 is a perspective representation of my improved range, taken directly in front thereof; and Fig. 2 is a top view of it with the top plate removed.

E E is the top, or boiler plate of my range, having lift out pieces D, D for the insertion of cooking utensils and a movable plate A which is flush with the plate E E and which covers the fire chamber A' Fig. 2.

C' and D' are the top plates of the ovens, and serve to show the form and extent of each. The form of the front of the range

is such as to make these ovens rectangular

in their horizontal section in front and they extend back to the back plate *b c b c* of the range.

Q is the water back or air heating space in the rear of the fire chamber.

R R represents the brick work of the jambs and back of the fire place; and for the purpose of economizing heat, I intend to employ the space S, S, between this brick work and the jamb and back plates *d* and *b c* of the range as a hot air chamber, inclosing them, of course, at the top for that purpose. This air heating space I also increase by means of a vertical plate T, T, Fig. 1 which extends up from the back plate *b c b c*; and upon this I place a horizontal plate T' that shall close the chimney flue at that part, the exit pipes I' and J' passing through said plate T into the chimney. In the plate T T I place a long door U, U, which is to be kept closed whenever any unpleasant vapors from cooking are disengaged; but by opening it at other times to such extent as may be deemed proper, a large portion of the air which is heated by the top plate of the range, will commingle with that which has been heated in the air chambers, and may be conducted with it into any apartment where it may be desired.

The gaseous products of combustion escaping from the fire chamber A pass over the top oven plates C', D', and through descending flues at G G' in a manner common in cooking stoves, and then pass under the lower plates of the oven to the ascending flues I', J', cast along with, or affixed to the back plate *b c* of the range; the direction of the draft under the ovens is indicated by the arrows and dotted lines on the top plate; the air that descends through the flues G, G', is compelled to enter the bottom flues near the front of the range, the plates which constitute the inner sides of the flues G G' extending down to the hearth, or to the bottom plate of the range at the part immediately below that marked with the dotted lines *f f*, but not so at the fore part. Fig. 3 shows one of these side plates *f*, in which the space *g*, which is toward its front is that through which the heated air enters the lower flue, and the part *h*, that which extends down to the bottom of the lower flue space. M M are stoppers by the removal of which the flue spaces below

the oven may be cleaned out, and N, N, doors of the common kind giving access to the ovens and to the fire chamber.

5 Having thus fully described the construction of my improved range, and shown the manner in which the respective parts thereof are made to operate, what I claim therein as new and desire to secure by Letters Patent is—

10 The particular manner in which I have arranged and combined the two ovens, the

fire chamber, and the water back, or air heating space between said ovens, and the respective flues as herein set forth. I do not claim either of these features as new in 15 itself, but I do claim them as new, and as preëminently useful in their combined capacity.

JULIUS FINK.

Witnesses:

JOHN THOMPSON,

I. C. KRETSCHMAR.