(No Model.)

S. S. WEBBER.

SHEET FLUE RANGE.

No. 589,882. Patented Sept. 14, 1897.

FIG. I

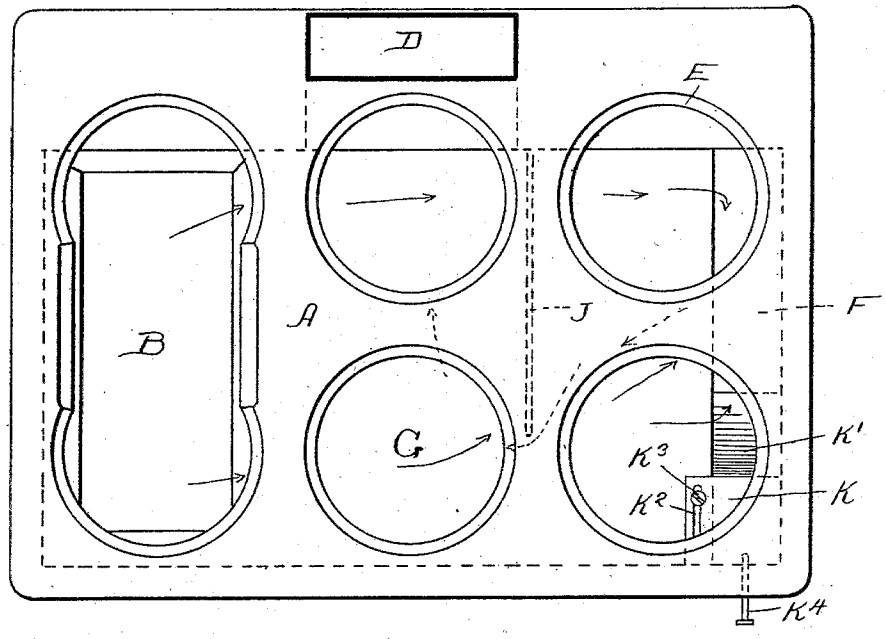
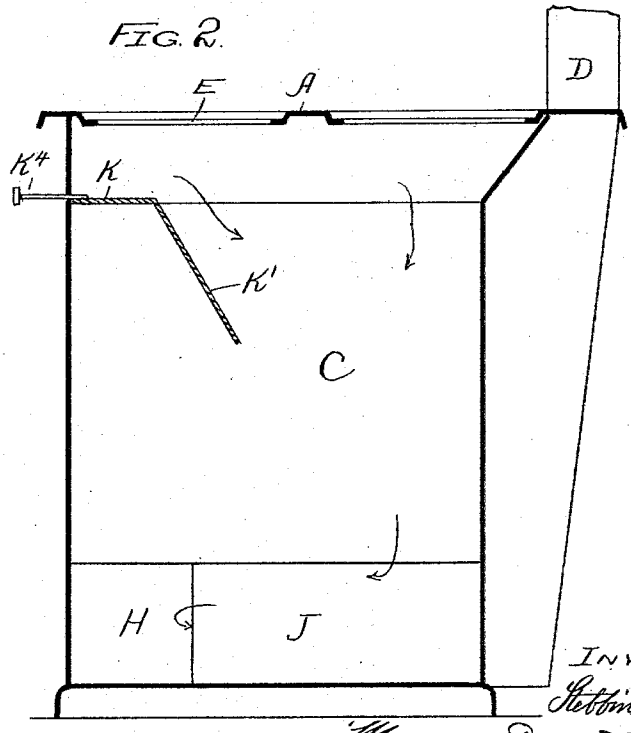


FIG. 2.



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UNITED STATES PATENT OFFICE.

STEBBINS S. WEBBER, OF LA PORTE, INDIANA.

SHEET-FLUE RANGE.

SPECIFICATION forming part of Letters Patent No. 589,882, dated September 14, 1897.

Application filed March 11, 1897. Serial No. 626,954. (No model.)

To all whom it may concern:

Be it known that I, STEBBINS S. WEBBER, a citizen of the United States, residing in La Porte, in the county of La Porte and State of Indiana, have invented a new and useful Improvement in Sheet-Flue Ranges, of which the following is a specification.

In that class of ranges known as "sheet-flue" ranges the usual course of the heat-currents or products of combustion from the fire is over the forward portion of the oven, down through the forward portion of the sheet-flue, thence under the forward portion of the oven, and thence to the exit-pipe at the rear of the stove. This produces an uneven temperature in different parts of the oven, the rear portions being inadequately heated, and such result is due to the fact that the heat-currents take the shortest course from the fire to the exit-pipe, and the course described is rendered the shortest by reason of the presence in the bottom flue of a deflector arranged between the sheet-flue and the exit and extending from the rear wall of the bottom flue toward the front wall in such manner as to compel the currents to pass around the front end of this deflector.

The object of my invention is to obviate this uneven heating of the oven, and I accomplish it by shutting off or closing the forward portion of the sheet-flue by means of a stationary or movable plate or damper, which will compel the heat-currents when they reach the sheet-flue to move toward the rear of the oven. The heat-currents will also by reason of this device move over nearly the entire upper surface of the oven instead of being diverted toward the front, as in the ordinary construction, and in this manner I insure the heating of the rear portions of the oven upon the top, side, and bottom equally with the front portions.

The nature of my invention will be fully understood from the accompanying drawings, in which—

Figure 1 is a plan view of a stove embodying my invention; and Fig. 2 is a vertical section thereof, taken in the plane of the sheet-flue.

In said drawings, A represents the top; B, the fire-pot; C, the oven; D, the exit-pipe; E, the holes for the kettles; F, the sheet-flue; G, the flue over the oven and between it and the top of the stove, and H the bottom flue. In the latter is the guard or deflector J, the position of which is fully shown, particularly at Fig. 1. These parts are all constructed in the ordinary manner.

In the sheet-flue F, I place my invention, which in the form illustrated consists of a plate K, resting at one edge upon the top of the oven and extending over to the outside wall of the flue, and the inner portion of the plate K', I prefer to bend downward, as best shown at Fig. 2, so that while it may serve to compel the heat-currents to move toward the rear of the stove it will accomplish that object without forcing them to seek the rear of the stove while moving over the top of the oven, at least to any harmful extent. The plate K is provided with a slot K^2, through which a retaining-screw K^3 may be passed, and an operating-rod K^4 is attached to it and extends out in front of the stove, so that, if desired, the plate may be moved inward and thus open the front corner of the sheet-flue to the entrance of the heat-currents. Good results will be obtained in either way of using it. Instead of making the plate movable it may be made permanent, if desired.

It will be seen that by the use of this device the heat will pass evenly over all parts of the top of the oven, that in passing down the sheet-flue it will seek the rear half thereof, and when it issues into the bottom flue it will be under the rear corner of the oven, which has heretofore been very inadequately heated.

While I have shown a sliding plate for accomplishing these results, it will be understood that I do not wish to be limited either to a sliding or stationary plate, as obviously the same result may be accomplished by many different constructions, all of which are in the province of my invention.

The arrows in the drawings indicate the direction of the heat-currents.

I claim—

The combination with the oven of a sheet-flue cooking-range, of means whereby the products of combustion may be allowed to pass over substantially the entire surface of the oven and be then deflected to the rear of the stove, such means consisting of a movable plate K, positioned over the sheet-flue at the front thereof and having a downward and rearward extension K′, substantially as specified.

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