

Cook Stove:

Patented Aug. 10, 1858.



UNITED STATES PATENT OFFICE.

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SAME PLACE.

COOKING-STOVE.

Specification of Letters Patent No. 21,171, dated August 10, 1858.

To all whom it may concern:

Be it known that I, JOHN L. STEWART, of Nashville, in the county of Davidson and State of Tennessee, have invented a new and
5 Improved Cook-Stove; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

10 Figure 1 is a vertical section of a cook stove constructed according to my invention. *x, x*, Fig. 3, shows the plane of section; Fig. 2 is a vertical section of ditto, taken in the line *y, y*, Fig. 3, and Fig. 3 is a plan or top
15 view of ditto; Fig. 4 is a horizontal section of a portion of ditto. *z, z*, Fig. 1, indicates the plane of section.

Similar letters of reference indicate corresponding parts in the several figures.

20 In connection with ordinary sunken recesses, provided in the top of stoves, for cooking vessels to rest in, and for preventing smoke gas, &c., escaping into the room when the vessels are removed.

25 My invention consists in the providing of flues or passages around and below said sunken recesses, for the purpose of compelling the heated flame or current to come in contact with the entire outer surface of said
30 sunken recesses, and thus facilitate the heating of cooking vessels, and consequently hasten the cooking operations, and prevent the waste of heat which generally occurs from the rapid direct escape of the flame
35 or heated current through the chimney flue.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

40 *A*, represents the fire chamber of the stove which may be of quadrilateral form provided with an ash box *B*, and supported by legs *a*. The sides of the fire chamber may be lined with fire brick as usual.

45 On the top of the fire chamber *A*, the oven *C*, is placed. This oven extends the whole length of the fire chamber and it is formed with double walls or plates *c, c*, so as to admit of a flue *D*, all around it. The plates

c, c, project outward horizontally at the lower part of the oven at each side and the
50 upper or outer plate has circular chambers *d*, in it at each side of the oven, any proper number being used. These chambers *d*, do not extend down to the lower or inner plate. A space is allowed between them, and
55 the flue *D*, between the horizontal portions of the plates *c, c*, is divided by a plate *E*, one at each side. The outer edges of the plates *E*, do not quite touch the plate *c*. At the
60 outer ends of the horizontal portion of the flues *D*, a space *e*, is left so that the flue will not be obstructed, and the plates *E*, have openings or recesses formed in them to allow the chambers to pass through and allow
65 a space *f*, around the chambers *d*, as shown clearly in Fig. 4.

F, is the smoke pipe attached to the upper part of the flue *D*, and the lower plate *c*, is made to slide directly over the fire chamber, said plate being provided with oblique
70 lips *g*, which fit over the upper edges of the fire chamber or box, as shown clearly in Fig. 1.

The oven is provided with a fire brick bottom *h*, which resists the action of the
75 fire and it is designed to have it sufficiently thick so that the oven directly over the fire chamber will not be unduly heated, and the heat all around the oven equalized so that one part will not be heated more than another
80 part.

From the above description it will be seen that the heat and products of combustion pass entirely around the chambers *d*, the heat being directed to and concentrated
85 around said chambers by the plate *E*. The vessels therefore that are fitted within said chambers will be subjected to a requisite degree of heat, and as there is no communication between the flue and the external air,
90 none of the products of combustion can escape from the stove, but all pass around the oven into the smoke pipe *F*. The fire therefore in the chamber *A*, cannot be cooled down by the admission of cool air above it, as is now the case when the lids of an or-

dinary cook stove are removed from the holes and vessels taken off or adjusted therein. Neither can smoke, gas, etc., escape into the room. Either wood, bituminous or anthracite coal, or coke may be used for fuel.

I do not claim the placing of an oven over the fire chamber of a stove, for such arrangement may be seen in many cook stoves, but Having thus described my invention, what

I claim as my invention and desire to secure 10 by Letters Patent, is—

In connection with the sunken recesses *d*, the use of flues or passages *D, e, f*, substantially as and for the purposes set forth.

JOHN L. STEWART.

Witnesses:

E. A. RAWORTH,
T. O. HANIS.