W. L. CULVER.
COOKING RANGE OR STOVE.

Patented May 16, 1893. No. 497,709. Hig.I. Eig.II. Walter L. Culver.
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## United States Patent Office.

WALTER L. CULVER, OF ST. LOUIS, MISSOURI.

## COOKING RANGE OR STOVE.

SPECIFICATION forming part of Letters Patent No. 497,709, dated May 16, 1893.

Application filed August 12, 1890. Serial No. 361,821. (No model.)

To all whom it may concern:

Be it known that I, Walter L. Culver, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Cooking Ranges or Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My improvement consists in features of novel construction hereinafter described and claimed.

Figure I is a vertical section at I—I, Fig. II. Fig. II is a vertical section at II—II, Fig. I. The body of the stove has a bottom 1, top 2, front wall 3, rear wall 4 and end walls 5. The form of the body is non-essential. 6 is the ash-pit. 7 is the oven. The oven is attached to the walls 3 and 4, but there is flue space between, on the other sides of the oven. 8 is a horizontal plate attached at its periphery to the walls 3 and 4 and to one of the walls 5. The other side of the plate 8 is attached to the upright wall 9. The plate 8 is parallel with the bottom of the oven but a distance therefrom leaving a flue space between. Beneath the plate 8 is a chamber 10 that may be

There is a flue space, as usual, between the top of the oven and the top 2 of the range. The products of combustion pass from the fire-chamber 11 through the space 12, over the oven, then downward through the flue 13 between the side of the oven and the side 5 of the range, then through the flue 14 between the oven bottom and the plate 8, then through the vertical flue 15 between the oven and the upright plate 9. The flue 15 communicates at the rear, with the chimney through a passage 16. At the rear part the flues 14 and 15 are separated by a vertical plate 17 against

used as a heating chamber.

which works a damper 18 for regulating the area of the opening 19 between the flues (14 and 15).

20 is a damper rod fixed to the damper and 45 passing through the front wall 3 or back wall 4. The plate 17 acts as a deflector to carry the products of combustion forward and so oblige them to traverse a greater part of the flue 15. The damper 18 gives means for in-50 creased forward deflection of the gases, more or less, as may be desired.

21 is a usual orifice leading directly from the space 12 to the chimney, and 22 is a damper by which the orifice is closed to force the 55 products of combustion around the oven.

23 are openings in the plate 24 closed by lids 25 that may be removed for purpose of cleaning the flue 15.

I claim herein as new and of my inven- 60 tion—

The combination of the bottom, top, front wall, rear wall having a passage leading to the chimney, end walls, oven attached to the front and rear walls leaving a space between 65 the top and an end wall, providing a top flue and a descending flue, the horizontal plate leaving a space beneath the oven providing a bottom flue, the upright plate leaving a space providing an ascending flue connected with 70 the chimney through the passage in the rear wall, the vertical plate, separating the bottom flue, and the ascending flue, and an adjustable damper having a rod extending through the body; the damper providing means for 75 regulating the area of the opening between the bottom flue and the ascending flue; substantially as described.

WALTER L. CULVER.

In presence of— THOMAS KNIGHT, A. M. EBERSOLE.