

COOKING-STOVE.

No. 172,657:

Patented Jan. 25. 1876.

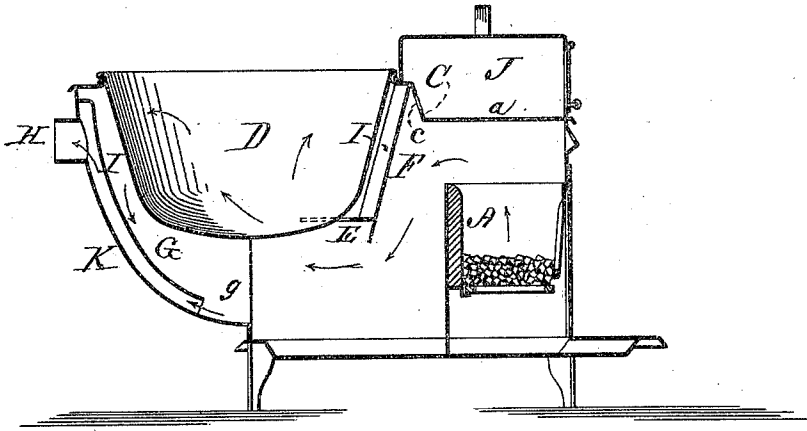


FIG. 11

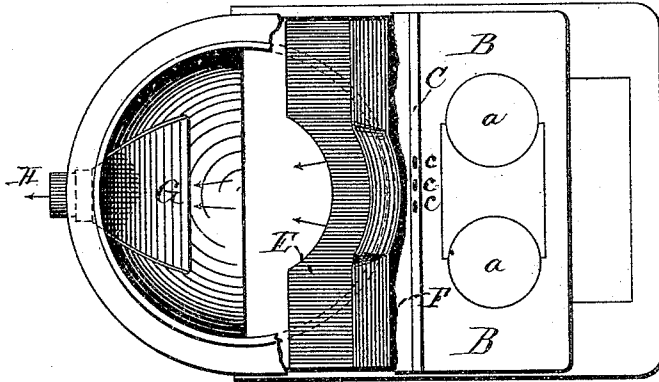


FIG. 21

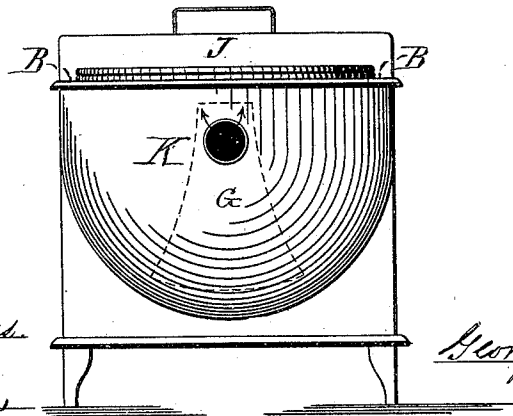


FIG. 3.

WITNESSES:

Edson S. Jones.

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# UNITED STATES PATENT OFFICE.

GEORGE G. RICHMOND, OF PROVIDENCE, RHODE ISLAND.

## IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **172,657**, dated January 25, 1876; application filed March 17, 1875.

### CASE B.

*To all whom it may concern:*

Be it known that I, GEORGE G. RICHMOND, of Providence, in the State of Rhode Island, have invented an Improvement in Stoves, of which the following is a specification:

The nature of my invention consists in an improvement in stoves in which a caldron is employed for cooking or for other purposes, and mainly relates to the proper uniform distribution of the heat around the sides and bottom of the caldron by means of the peculiar arrangement of the flue and its accessories.

Figure 1 is a longitudinal section. Fig. 2 is a plan view. Fig. 3 is a rear elevation.

A is the fire-chamber, as in ordinary cooking-stoves, over which are placed the kettle-openings *a a*. Between the front and rear portions of the top plate B is the inclined offset C, through which are made the ventilating-openings *c c c*. A large circular opening is made in the rear of the top plate to receive the portable caldron D.

In the use of such a caldron for the purpose of cooking, it is absolutely necessary that the heat should be made uniform, or nearly so, upon all sides of the caldron, and also that the heat impinging against the bottom may not be too great.

Caldrons have heretofore been usually located directly over the fire-chamber; but in making a practical combination of a portable caldron with a cooking-stove, where the caldron is desired to occupy the space usually devoted to the oven, the fire-chamber necessarily occupies a location upon one side of the caldron; and it therefore becomes a difficult problem to so convey and distribute the heat around the caldron as to prevent an excess or lack in any part.

I have accomplished this result in a thoroughly practical and efficient manner by placing the downward-deflecting plate F back of the fire-chamber, as shown in Fig. 1, allowing said plate to extend to about the level of the bottom of the caldron. To the lower end of the plate F is attached the horizontal flue-plate E, one side of which abuts against the

side of the plate F, and the other side is cut out in circular form to fit the side of the caldron. At about or below the level of the bottom of the caldron A is located the lower opening of the flue G, which rises behind the caldron, and connects with the outlet H near the top plate.

In operation, the hot air from the fire-chamber will be deflected downward by the plate F, and rise against the flue-plate E, along which it will pass, as shown by the arrows, and at the end of the flue-plate it will rise into the space I I around the sides of the caldron, and gradually pass into the flue G, and thence to the chimney through the outlet H.

By this arrangement the caldron cannot become overheated at any point, since the fire does not act directly upon it, as in the case where the fire-chamber is located under the bottom of the caldron. It may, therefore, be practically used as an ordinary oven with advantage.

In constructing a stove to hold a large kettle or caldron I have made a very desirable improvement by taking the sides and other parts of a cooking-stove, and by simply curving the back plate K am enabled to use the original stove-patterns for casting, having only to change the top and back plates, which involves but slight expense. I am, therefore, able to produce a cheaper stove than would otherwise be attainable when the full set of patterns must be made.

I claim as my invention—

1. The deflecting-plate F and the flue-plate E, in combination with the fire-chamber A and caldron D, substantially as described.

2. The curved flue G, having its outlet H higher than the inlet *g*, and combined, in the manner described, with a caldron, D, so that an air and heat circulating space, I, may exist between the flue G and the side of the caldron D, substantially as described.

GEORGE G. RICHMOND.

Witnesses:

EDSON S. JONES,  
THOS. M. WATSON.