D. STUART.
Cooking-Stove.

No. 204,112. Patented May 21, 1878.

Fig. 1.

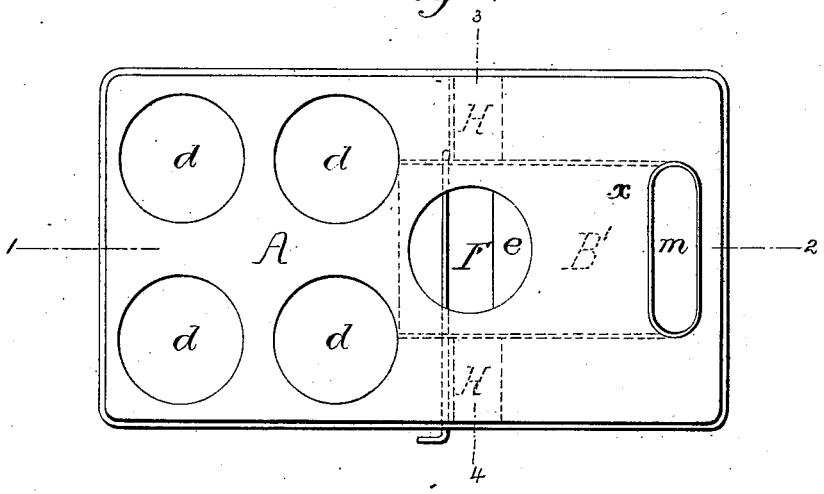


Fig. 2.

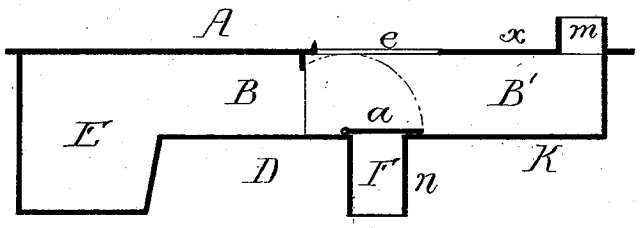
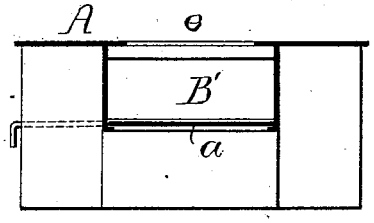


Fig. 3.



Witnesses
Harry Smith
Thomas McElwain

Inventor
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by his Attorneys
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UNITED STATES PATENT OFFICE.

DAVID STUART, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND RICHARD PETERSON, OF SAME PLACE.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **204,112**, dated May 21, 1878; application filed January 2, 1878.

To all whom it may concern:

Be it known that I, DAVID STUART, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Cooking-Stoves, of which the following is a specification:

The object of my invention is to increase the cooking capacity of a cooking-stove, and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a plan view of a flat-top cooking-stove with my improvement; Fig. 2, a vertical section on the line 1 2 of sufficient of the stove to illustrate my invention; and Fig. 3, a transverse section on the line 3 4.

A is the top plate of the stove; D, the upper portion of the oven; E, the upper portion of the fire-place; B, the upper flue between the top plate and the oven; B′, a flue forming a communication between the flue B and the outlet *m;* H H, diving-flues, (shown by dotted lines in Fig. 1,) and F, the rear flue communicating with flues beneath the oven and with the flue B′.

It has not been deemed necessary to illustrate or describe the lower portion of the stove, as it is similar to other stoves of the class to which my invention relates.

At the point where the flue F meets the flue B′ there is the usual damper *a*. If the latter be depressed, as shown in Fig. 2, the products of combustion will take a direct course through the flue B to the outlet *m*, and when the damper is elevated they will pass down the diving-flues H H, and after traversing beneath the oven will pass up the rear flue F and thence to the outlet *m*, as in ordinary stoves of this class.

In the top plate of the stove there are the usual four boiler-holes *d*, and in addition to the latter there is a fifth boiler-hole, *e*, directly above the vertical flue F.

The flue B′ is partly contained within a projection, K, which extends to a greater distance than usual from the rear plate *n* of the stove, so that the outlet *m* may be set back to afford room for the fifth boiler-hole and for a plane surface, *x*, between the said boiler-hole and the outlet, onto which surface the culinary vessels may be pushed.

When the damper *a* is raised, which is always the case when the stove is in full operation, the heat where the products of combustion pass from the rear flue F into the flue B′ is so intense that a culinary vessel adjusted to the boiler-hole *e* is subjected to a temperature as great, or nearly so, as those adjusted to the boiler-holes immediately above the fire-place.

By extending the projection K and the top plate so far back from the rear plate of the stove additional surface is presented for culinary purposes; and as the top plate on each side of the projection is exposed to the air beneath, the rear of the said plate presents a surface having different degrees of temperature at different points, so that culinary vessels may be adjusted to positions where they can be subjected to any desired temperature.

I am aware that cooking-stoves have been constructed with rear extensions, and that a single boiler-hole has been arranged in front of the outlet branch and partly above the rear vertical flue.

While I do not claim, broadly, these features, I would remark that heretofore the flues of stoves having the said boiler-hole have been so constructed that the products of combustion passing from the vertical flue toward the outlet were directed away from the said hole, whereas in my improved stove the boiler-hole *e*, horizontal flues B B′, and vertical flue F bear such relation to each other that the products of combustion passing through the latter flue must impinge against a culinary vessel adapted to the boiler-hole *e*.

I therefore claim as my invention—

The combination, in a cook-stove having a rear extension, K, of the top flue B of the stove, the flue B′ of the extension K, the latter flue forming a continuation of the former with the vertical rear flue F, terminating abruptly at the two flues B B′, and the boiler-hole *e*, situated directly above the said flue F, all as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID STUART.

Witnesses:

RICHARD L. GARDINER,

HARRY SMITH.