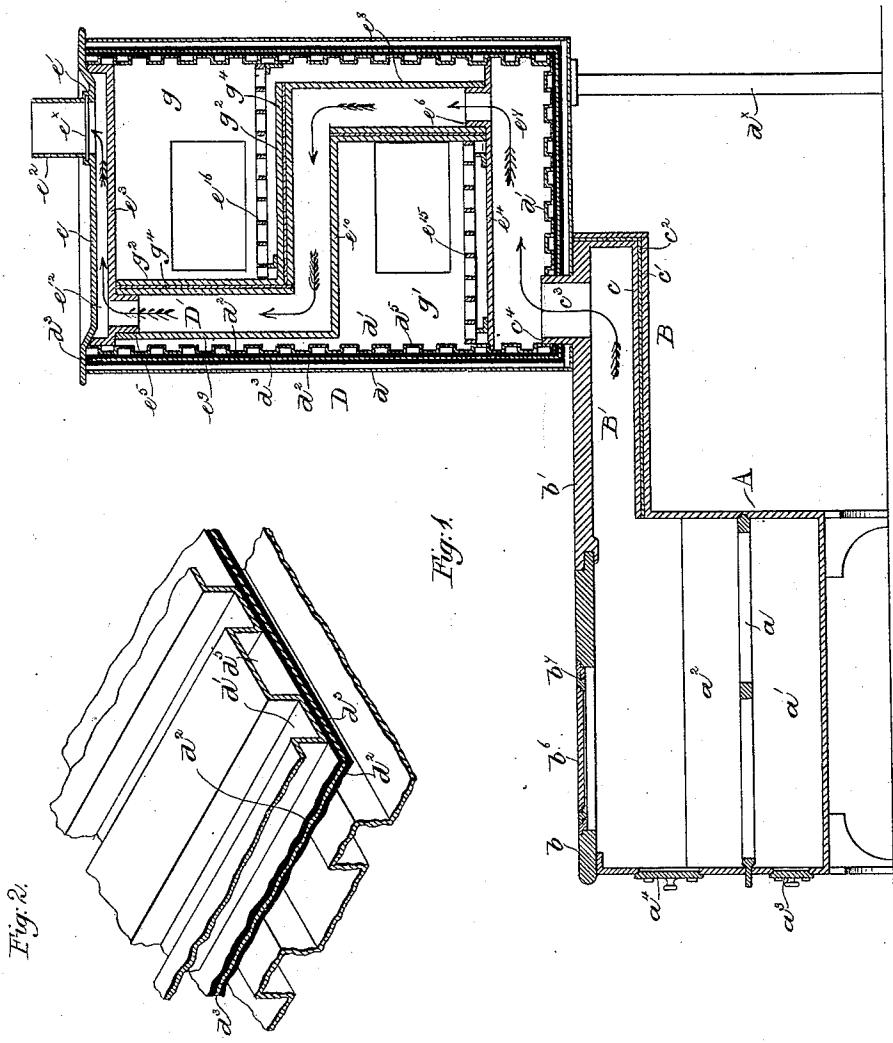


(No Model.)

S. J. McDOWELL.
PORTABLE COOKING APPARATUS.

No. 428,569.

Patented May 20, 1890.



Witnesses:
Howard F. Eaton.
Franklin L. Emery.

Inventor:
Samuel J. McDowell,
by Leroy Gregory, Atty.

UNITED STATES PATENT OFFICE.

SAMUEL J. McDOWELL, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF
TO WILLARD O. ARMES, OF SAME PLACE.

PORTABLE COOKING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 428,569, dated May 20, 1890.

Application filed November 11, 1887. Serial No. 254,915. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. McDOWELL, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Portable Cooking Apparatus, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 In another application, Serial No. 238,104, filed May 13, 1887, I have shown and described a portable cooking apparatus comprising a roasting-oven, a steaming section or boiler, and a casing containing two ovens provided with 15 a flue arranged in said oven, so that the products of combustion will pass around them on the way to the chimney.

This present invention relates to the construction of the casing containing the said 20 ovens, it being herein shown as connected to a fire chamber or stove.

The particular features in which my invention consists will be pointed out in the claims at the end of this specification.

25 Figure 1 shows a vertical section of a cooking apparatus embodying my invention, and Fig. 2 a detail to be referred to.

The stove A may be of any desired construction, it being shown as divided by the 30 grate a to form an ash-pit a' below and a fire space or chamber a² above the said grate, the said ash-pit and fire-space having suitable doors a³ a⁴, respectively.

The top of the stove is shown as made in 35 two sections b b', of fire-brick, soapstone, or other refractory material, the said sections being shown as "halved in" or "rabbeted" and supported by the ends and sides of the stove, the section b having an opening for the 40 kettles and pots, the said opening being herein shown as closed by a cover b⁶, fitted in removable rings b⁷, the said rings permitting kettles of various sizes to be placed in the opening over the fire space or chamber a².

45 The stove A has extended from it a section B, which forms with the section b' a flue or passage B', the section B being made, as shown, of two metal sheets or plates c c', and an intervening layer c², of asbestos or other non- 50 heat-conducting material, to prevent the radiation of heat from the lower side of the flue

or passage B'. The section b' is shown as provided with an opening c³, constituting an outlet for the passage or flue B', the said section having a collar c⁴ around said opening 55 and extended up into a casing D, herein shown as partially supported by the leg d^x, the collar c⁴ being shown integral with the section b'. The sides and bottom of the casing D are made of two plates or sections d d', and preferably two or more layers or sheets d² of asbestos or other non-heat-conducting material, and an intervening sheet or plate d³ of metal, the plates or sections d d' being preferably corrugated, as shown in Fig. 2, the corrugations extended or lying substantially at right angles to one another, and forming chambers d⁵ between them and the layers or sheets of asbestos, as clearly shown in Fig. 2, the sheets of asbestos being indicated by the full black 60 lines in Fig. 1. In Fig. 1 the plate d' only is corrugated. The sides of the casing support a top plate e, provided with an opening encircled by a flange e', to which may be fitted the chimney-pipe e², (shown as integral with 65 the flange e',) the said chimney having a slide-damper e^x. Secured to the sides, or otherwise supported above the bottom of the casing, is a plate e⁴, forming a passage e⁷ below it, the said plate having an opening from which, as 70 herein shown, is extended upward a flange e⁶. The flange e⁶ is embraced by the lower end of a vertical section e⁸, joined by a horizontal section e¹⁰ to a vertical section e⁹ of a pipe or flue D', the section e⁹ being at the opposite 75 side of the casing to the section e⁸, the said pipe or flue dividing the casing into two baking-ovens g g'. The section e⁹ embraces at its upper end a flange e⁵ of a plate e³, secured to the sides of the casing, the said plate forming 80 with the top plate e a passage e¹², connecting the section e⁹ with the chimney e². The bottom and left side of the oven g' is provided with plates g², between which and the plate and pipe section e⁹ is interposed a layer g⁴ of 85 asbestos or other non-heat conductor. The bottom and right side of the oven g is also provided with plates g³ and layer g⁴ of asbestos. The bottom and left side of the oven g' and the bottom and right side of the oven g 90 are more exposed to the direct action of the products of combustion passing through the 95

flue D' than the upper sides of the said ovens, and ordinarily the said ovens would be unequally heated, it being hotter at the bottom than at the top of the said ovens.

5 The double thickness of plate and the layer of asbestos between serve to dampen or reduce the heat at the bottom part of the ovens, thus producing a substantially even temperature or uniform heat throughout the said ovens.

10 The products of combustion from the fire-space a^2 pass through the flue B', passage e^7 , and flue D' into the passage e^{12} , from whence they pass into the chimney, the draft of the said chimney being controlled by the damper e^8 .

15 I have herein shown the casing D as divided into two ovens; but it is evident that the said casing may be enlarged and the pipe-sections extended to form three or more ovens.

Each oven is provided, as shown, with a 20 grating e^{15} and door e^{16} .

I have herein shown the outlet c^3 as located at one side of the casing D and communicating therewith through the bottom; but it is evident that the said outlet may be connected 25 through either side of the casing or near the center of the bottom of the said casing.

I claim—

1. In a cooking or heating apparatus, a casing D, composed of two corrugated sheets or 30 plates $d d'$, and an intervening layer of non-

heat-conducting material, the corrugations of one sheet or plate extending substantially at a right angle to the corrugations of the other, substantially as described.

2. In a cooking or heating apparatus, a casing D, composed of two corrugated sheets or plates $d d'$, two intervening layers of asbestos, and a sheet or plate between the layers of asbestos, the corrugations of one sheet or plate extending substantially at a right angle to the corrugations of the other, substantially as described. 35

3. The combination, in a cooking apparatus, of a casing D, composed of two corrugated sheets or plates $d d'$, the corrugations being 40 at right angles to each other, and an intervening layer of non-heat-conducting material, with a stove A, having an extension B, composed of sheets or plates $c c'$, and an intervening layer c^2 of non-heat-conducting material, and a non-conducting top b' , provided with an opening and surrounding collar, substantially as described. 45

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

SAMUEL J. McDOWELL.

Witnesses:

J. H. CHURCHILL,
B. DEWAR.