I. A. ROBINSON.

CULINARY BOILER.

No. 189,877. Patented April 24, 1877.

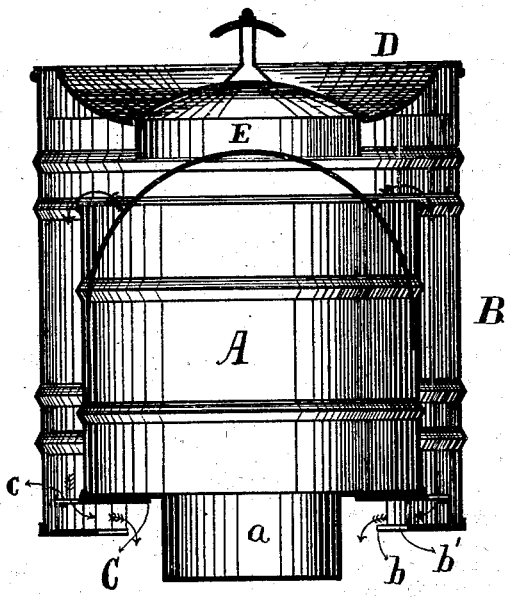


Fig 1

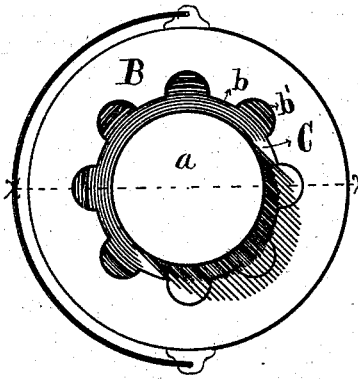


Fig 3

Fig 5

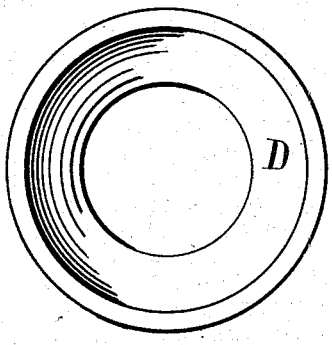


Fig 2

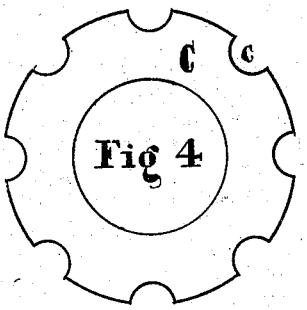


Fig 4

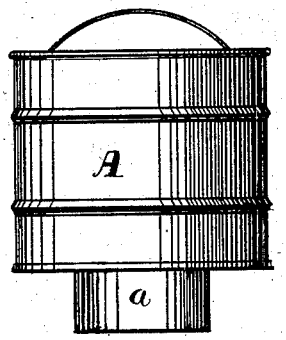
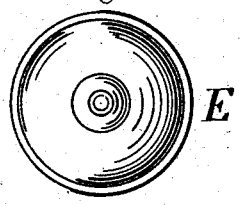


Fig 6



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UNITED STATES PATENT OFFICE.

ITHAMER A. ROBINSON, OF DE KALB, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOSEPH F. GLIDDEN, OF SAME PLACE.

IMPROVEMENT IN CULINARY BOILERS.

Specification forming part of Letters Patent No. **189,877**, dated April 24, 1877; application filed January 29, 1877.

To all whom it may concern:

Be it known that I, ITHAMER A. ROBINSON, of De Kalb, in the county of De Kalb and State of Illinois, have invented a new and useful Improvement in Culinary Boilers, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a vertical section of my improved boiler, taken on the line *x x*, Fig. 3; Fig. 2, a side elevation of the interior vessel; Fig. 3, a bottom view; Fig. 4, a plan view of the diaphragm or disk at the bottom of the outside vessel; and Figs. 5 and 6, plan views of the covers.

The object of my invention is to provide a boiler for culinary purposes in which all the steam is conducted into the fire-chamber, so that none escapes into the room.

The invention consists in an exterior case put around the boiler, and provided with a diaphragm at its bottom, through which perforations are made to permit the steam to escape through the stove-hole into the fire-chamber. It also consists in the construction of the cover in two parts, one of which is annular, and depressed from its outer edge inward; and it further consists in special features of construction, as will be hereinafter more fully described.

In the drawings, A represents a vessel similar in construction to an ordinary boiler, being provided with a contracted extension, *a*, at its lower end to set in the stove-hole in which it is intended to be placed. The vessel A, which is intended to contain the article to be cooked, is placed within another larger vessel or casing, B. This exterior vessel or casing B is considerably larger than the interior, so that there is free space above the latter and between the walls of the tube. A hole, *b*, is cut in the bottom of the casing B, which is somewhat larger than the contracted bottom *a* of the interior vessel.

A false bottom or diaphragm, C, is placed in the exterior vessel B, and suitably attached to the latter, so as to be supported a little above the real bottom, as shown in Fig. 1 of the drawings. This diaphragm is also cut out at its center, to receive the bottom *a* of the vessel A, and is therefore left in the shape of an annular disk. In the outer edge of this disk, outside of the vessel A, and between it and the vessel B, apertures *c* are cut, which open into the annular space between the two bottoms of the exterior vessel B.

The top of the vessel A is intended to be left open, but the vessel B must be tightly covered. I prefer to construct this cover in two parts, one of which, D, is annular in form, and just fits the casing B, and is cut away at its center, as shown in Fig. 5 of the drawings. This annular section is also gradually depressed from outer to inner edge, so that all drip falling thereon will be conducted within the casing. The second section, E, is made like an ordinary cover, and fits the opening in the annular section D, the two together constituting a close cover for the exterior vessel B. This sectional construction of the cover makes it convenient to inspect the interior of the vessel A, or put articles into it without removing the entire cover.

If desired, recesses *b'* may be made in the bottom of the vessel B, around the central opening, to facilitate the escape of steam into the fire-box.

The operation of my invention is as follows: The vessel A, containing the articles to be cooked, and water, is placed within the vessel B, its lower portion *a* projecting down through the central aperture in the diaphragm C, which it is intended to fit, and the vessel rests upon and is supported by this flange, as shown in Fig. 1 of the drawings. When set over the boiler-hole in a stove or range in this position, the annular portion of the bottom of the vessel B rests upon the stove-plate surrounding the opening, while the projecting bottom *a* extends down into this opening; but, being smaller than the latter, it is evident that there will be direct communication through the apertures *c*, between the interior of the stove and the free space above, between the two vessels. The top of the vessel B being closed, the steam rising from the vessel A cannot escape upward through the latter, and will consequently be drawn down through the openings *c* in the diaphragm C into the fire-box, as indicated by the arrows in Fig. 1 of the draw-

ings, thereby preventing all escape of steam and offensive odors into the room.

So long as the top of the vessel B is closed, there is no draft whatever up through it, and therefore no smoke or gas will enter it from the fire-box. The draft will be in the other direction, and will effectually carry off all vapors arising during the process of cooking.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The exterior vessel or casing B, having a central opening, *b*, in its bottom, and provided with a false bottom or diaphragm, C, having apertures *c* around its outer edge, substantially as described.

2. The interior vessel A, in combination with the exterior casing B and perforated diaphragm C, all constructed and operating substantially as and for the purpose set forth.

3. The sectional cover, composed of the annular part D, depressed from the outer edge, as described, and the central portion E, substantially as and for the purpose set forth.

ITHAMER A. ROBINSON.

Witnesses:

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