

I. H. WEST & T. L. CAMP'S

*Apparatus for
Cooking by Steam*
Fig 1

PATENTED
FEB 18 1868

74647

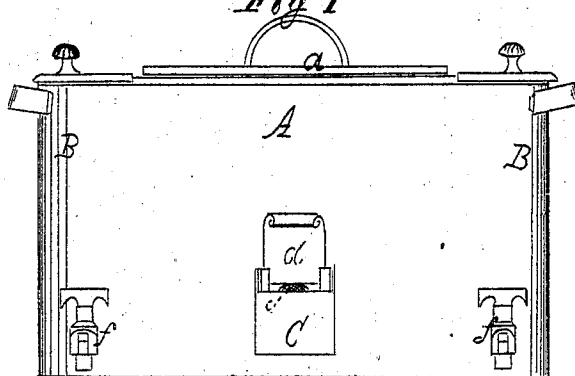


Fig. 2.

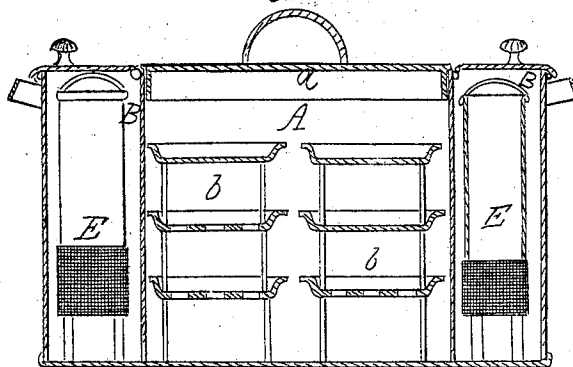
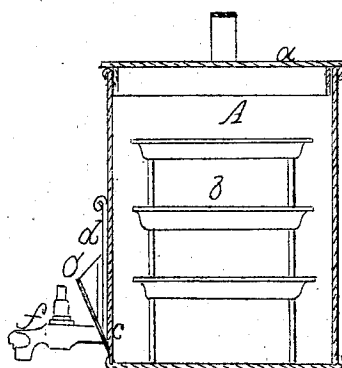


Fig. 3



Witnesses.

J. R. Drake

Geo W. Miatt

I. H. West & T. L. Camp.

*J. Fraser & Co
attys*

United States Patent Office.

ISAAC H. WEST AND TERTIUS L. CAMP, OF EVANS, NEW YORK.

Letters Patent No. 74,647, dated February 18, 1868.

IMPROVEMENT IN CULINARY BOILERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, ISAAC H. WEST and TERTIUS L. CAMP, of Evans, in the county of Erie, and State of New York, have invented a certain new and useful Improvement in Apparatus for Cooking by Steam, and for other uses; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a front elevation of our improved apparatus.

Figures 2 and 3 vertical sections of the same, at right angles to each other.

Like letters of reference indicate corresponding parts in all the figures.

Our invention consists in combining with a closed steaming-chamber an air-passage near the bottom of the same, provided with a slide or register, whereby air is admitted beneath the body of steam to regulate or check it, thereby producing the condensation at the bottom instead of the top of the chamber, and thus effecting a much more uniform and regular action than can be otherwise effected.

The invention consists, also, in the combination with the steaming-chamber thus arranged, of end water-receptacles for insulating the steam-chamber, all as hereinafter described.

In the drawings, A indicates the central steaming-chamber, and B B the end water-receptacles, the whole being combined in one body. The steaming-chamber is covered by a tight cover, *a*, and it is provided inside with suitable stands or shelves, *b b*, for holding the materials to be cooked. Near the bottom of the chamber is made a spout, C, with an opening, *c*, through the side of the chamber, which is preferably covered with wire gauze, and over this shuts a slide or register, *d*, as clearly shown. This arrangement serves not only to introduce water, but also to admit air. A shallow body of water only is employed in generating the steam. When sufficient intensity is attained, the passage *c* is opened by the slide *d* to just the degree desired for the admission of air to check and govern the steam.

The admitting of the air at the bottom of the chamber, as above described, has a special effect upon the steam in cooking. It has a tendency to drive the steam upward through the vegetables, and retain it in the upper portion of the chamber in a stationary body, without driving it through. In ordinary steamers, with no opening, *c*, the pressure of the steam opens the cover and allows cold air to enter at the top, which condenses at that point only, and not at the bottom. In such cases, also, there is a large escape of steam, which is unpleasant. We are enabled to obviate all difficulties of this sort by admitting cold air at the bottom, and gauging its admission, so as to produce just the desired intensity of the steam, without allowing any escape whatever through the cover. This cold air condenses at the bottom instead of at the top, and holds a stationary body of the steam constantly in contact with the vegetables, whereby great uniformity in cooking is produced.

It is found by experiment that substances are thus much more thoroughly cooked than by other steaming-apparatus. It is also found to be very effective in baking bread, &c., which cannot be accomplished by ordinary steaming-apparatus. It is further ascertained that in this apparatus articles thus cooked are not filled with water, as usual, for the reason that there is no surplus of steam raised, but only just sufficient to produce the desired result.

The employment of the end-receptacles B B, surrounding the ends of the steam-chamber with water, insulates said steam-chamber from the surrounding cold air to such a degree as to induce the steam to rise to the top of the steam-chamber and remain there in a body, as before described, which would not be the case were the end-receptacles not used. By thus insulating the steam-chamber, the greatest degree of condensation occurs at the bottom, where the air enters, as before described, and at the thin-covered top, thereby economizing the body of steam to the best advantage. We prefer to apply cocks, *f f*, to draw off the water of the end-reservoirs. We also contemplate the use of perforated pots, E E, in connection with the receptacles, for the preparation of tea and coffee. The tea or coffee is simply placed in the pots and boiled in the chambers, the said pots retaining the grounds or leaves without contaminating the liquid.

We do not claim a spout applied to a chamber or vessel, as we are aware that the same has been applied in many relations. But we are not aware that an opening, *c*, and slide, *d*, have ever been so located and arranged

at the bottom of a steaming-chamber, as to serve to admit air beneath the body of steam, to regulate it, as above described; therefore,

What we claim as our invention, and desire to secure by Letters Patent, is—

The employment, in a closed steaming-chamber, of an air-passage near the bottom of said chamber, for admitting air beneath the body of steam, and a slide or register for gauging the flow of air, the whole arranged as described, and operating in the manner and for the purpose set forth.

We also claim, in combination with the central steaming-chamber A, arranged as above described, the enclosed end-receptacles B B, operating in the manner and for the purpose herein set forth.

In witness whereof, we have hereunto signed our names in the presence of two subscribing witnesses.

ISAAC H. WEST,
TERTIUS L. CAMP.

Witnesses:

R. F. OSGOOD,
GEO. H. MIATT.