TAINTOR & ORTON.

Domestic Oven.

No. 4,145.

Patented Aug. 9, 1845.

FIG. 3.

FIG. 1

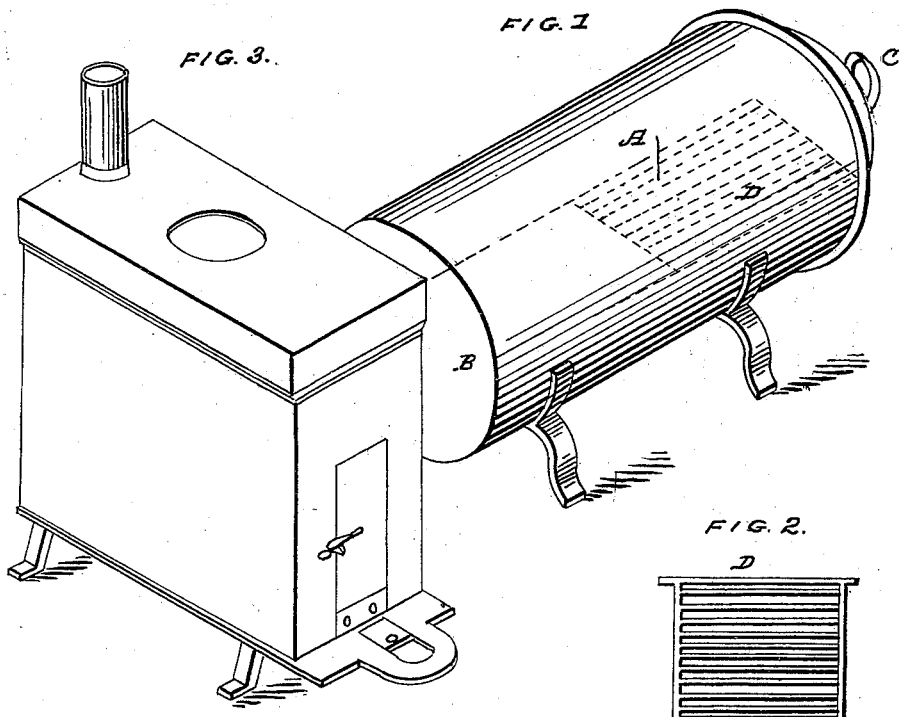


FIG. 2.

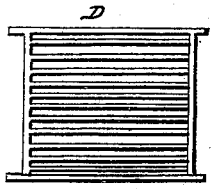
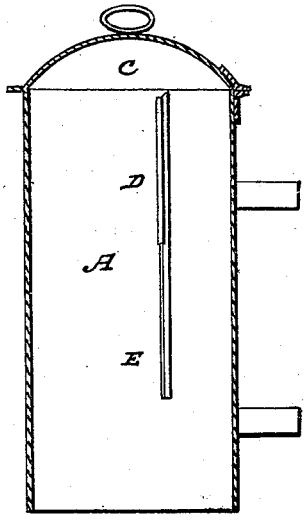


FIG. 4.



UNITED STATES PATENT OFFICE.

WILLIAM TAINTER AND HARLOW S. ORTON, OF PORTER COUNTY, INDIANA.

REFLECTING-BAKER.

Specification of Letters Patent No. 4,145, dated August 9, 1845.

To all whom it may concern:

Be it known that we, WILLIAM TAINTER and HARLOW S. ORTON, of the county of Porter and State of Indiana, have invented a plan and method of using heat by reflection in and through a polished cylinder for the purposes of baking and cooking.

For the purpose of illustrating more fully the form and plan of the apparatus for baking and cooking upon this principle, this specification is accompanied by drawings by reference to which it will be seen that A is the cylinder mentioned the length of which is two feet and the diameter one foot. B, is the open end of the cylinder to be presented in contact with the furnace or at such distance from it as by the degree of heat may be necessary. C is the outer or front end of the cylinder to be lightly closed by a door of concave form.

By reference to drawing No. 2, D is the movable or sliding grate situated about two inches below the center of the cylinder eighteen inches in length on which the articles to be cooked are to be placed as shown in Figs. 1 and 4, D. Drawing No. 3 presents a flat iron furnace proportioned in form and size to the cylinder above described. It is sixteen inches high, thirteen inches wide on the side, and four inches wide on the ends. The top part is a projection of one and a half inch over the sides and ends of the body of the furnace, two inches high with an aperture for boiling purposes, and a small pipe for draft.

The principle of reflection involved in the use of the above described cylinder as understood by the undersigned is: The heat radiating from the surface of the furnace meets the inner and polished surface of the cylinder the rays then being reflected at right angles necessarily pass on to a more remote point in the cylinder and are thence reflected still onward until they meet the concave door and are thence reflected backward toward the mouth of the cylinder. Hence it will be perceived that not the least concavable space in the cavity of the cylinder escapes the reflected heat, and that the above form of constructing an oven or baker is the only one that can secure an equal and uniform effect of heat by reflection.

By this method is obviated the usual difficulty of not being able to bake the entire contents of the oven without burning that part nearest the source of heat.

This baker differs from all others of which the undersigned have any knowledge, and is distinguished from them by its being cylindrical in form and securing the most uniform and the greatest amount of heat from a given quantity of fuel.

It will be readily perceived that by a furnace of the above description two cylinders can be used, one on either side with the same amount of fuel as would be required for one, and by a furnace of square form three or four cylinders can be used with a small addition of expense. The amount of coal necessary for a furnace of the above dimensions for one baking is two quarts, the expense of which will not exceed five mills.

The whole apparatus can be made of any dimensions that may be required and be of the same utility as the one above described. It can be used in summer as well in the open air as in a house and the cylinder can be used with the same convenience by an ordinary stove or fire place as by a furnace.

It will be perceived that by this process of reflection through a polished cylinder, heat may be conducted any convenient distance for the purpose of cooking or warming rooms.

What we claim, is—

Constructing a reflecting baker in the form as above described—that is to say the baker of a cylindrical form having the grate or shelf upon which the articles are to be cooked being placed near the center in the manner above described.

Valparaiso, Porter County, Indiana, July 23, A. D. 1845.

WILLIAM TAINTER.
HARLOW S. ORTON.

Witnesses to the signature of Tainter:
J. HAMELL,
JOHN STEIMAS.

Witnesses to the signature of Orton:
J. BIGELOW,
V. H. GODDARD.