(No Model.)

2 Sheets—Sheet 1.

G. R. MOON.

COOKING OVEN.

No. 547,176. Patented Oct. 1, 1895.

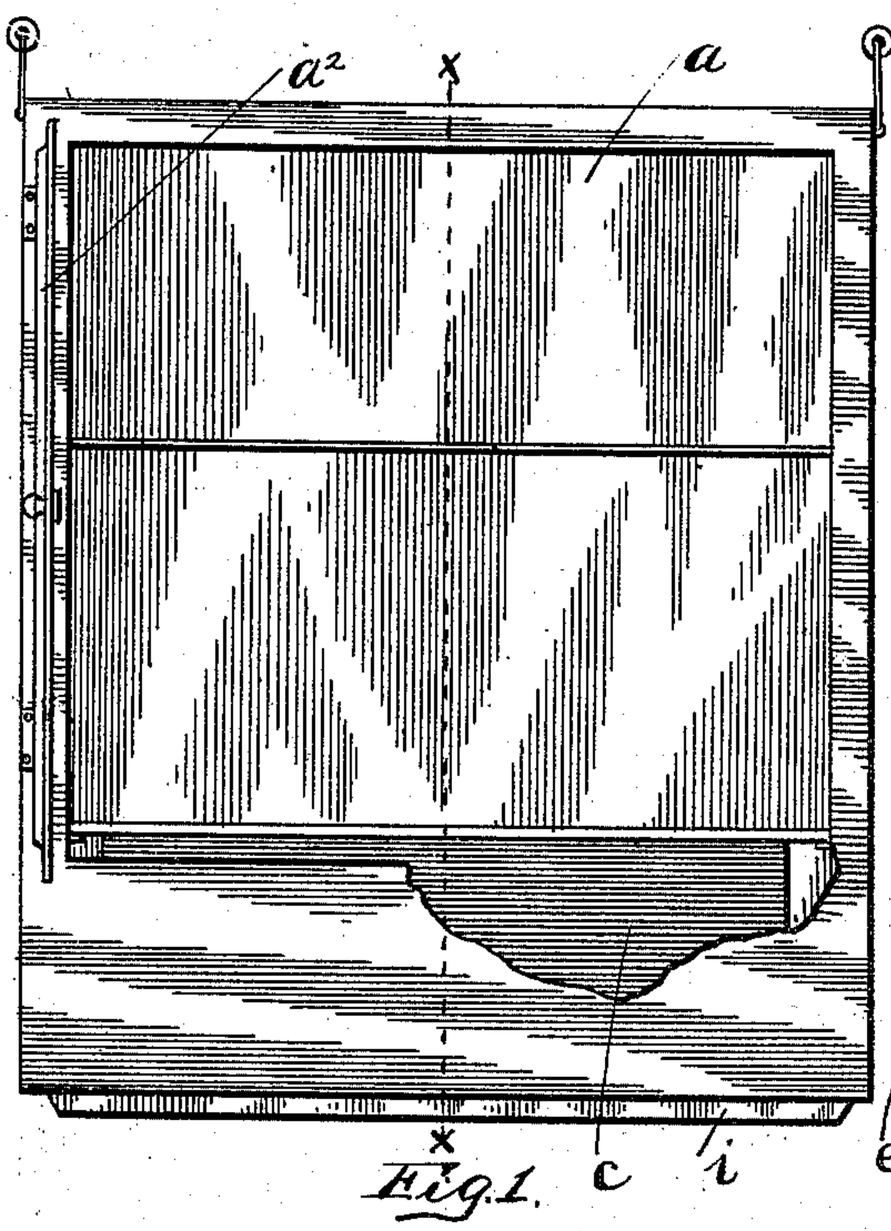

Fig. 1.

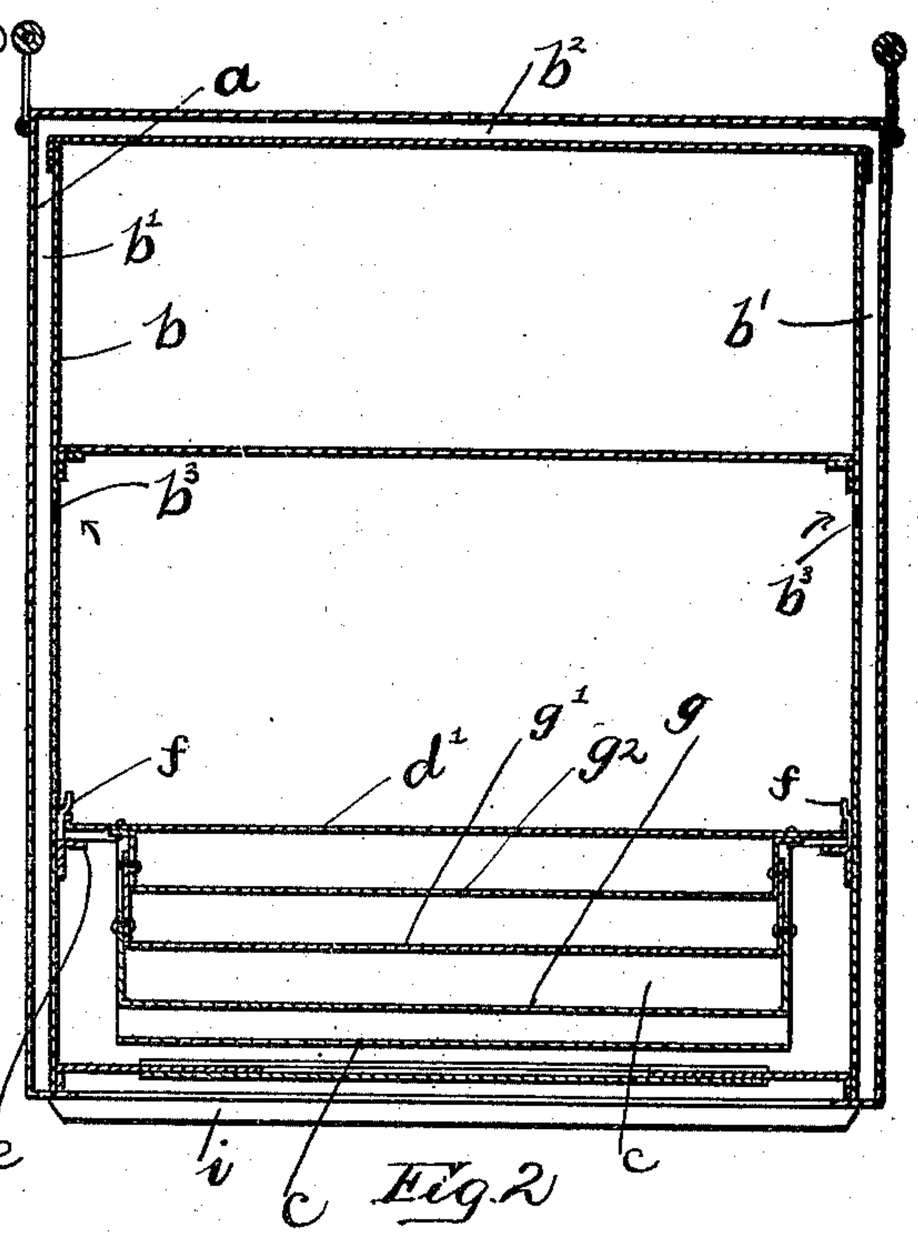

Fig. 2.

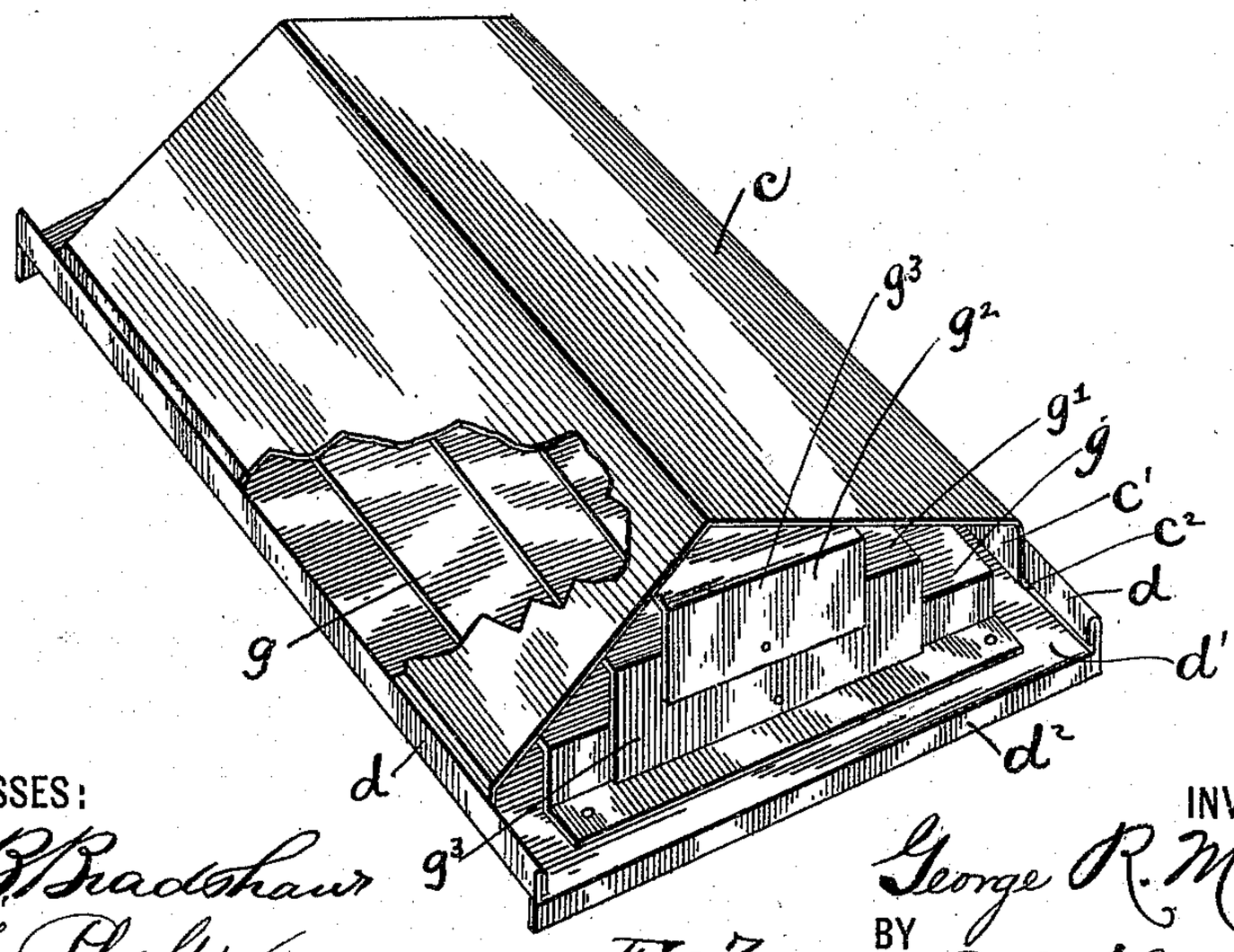

Fig 3

WITNESSES:

H. B. Bradshaw

A. L. Phelps

INVENTOR

George R. Moon

BY C. C. Shepherd

ATTORNEY

ANDREW B. GRAHAM, PHOTO-LITHO. WASHINGTON, D.C.

(No Model.) 2 Sheets—Sheet 2.

G. R. MOON.

COOKING OVEN.

No. 547,176. Patented Oct. 1, 1895.

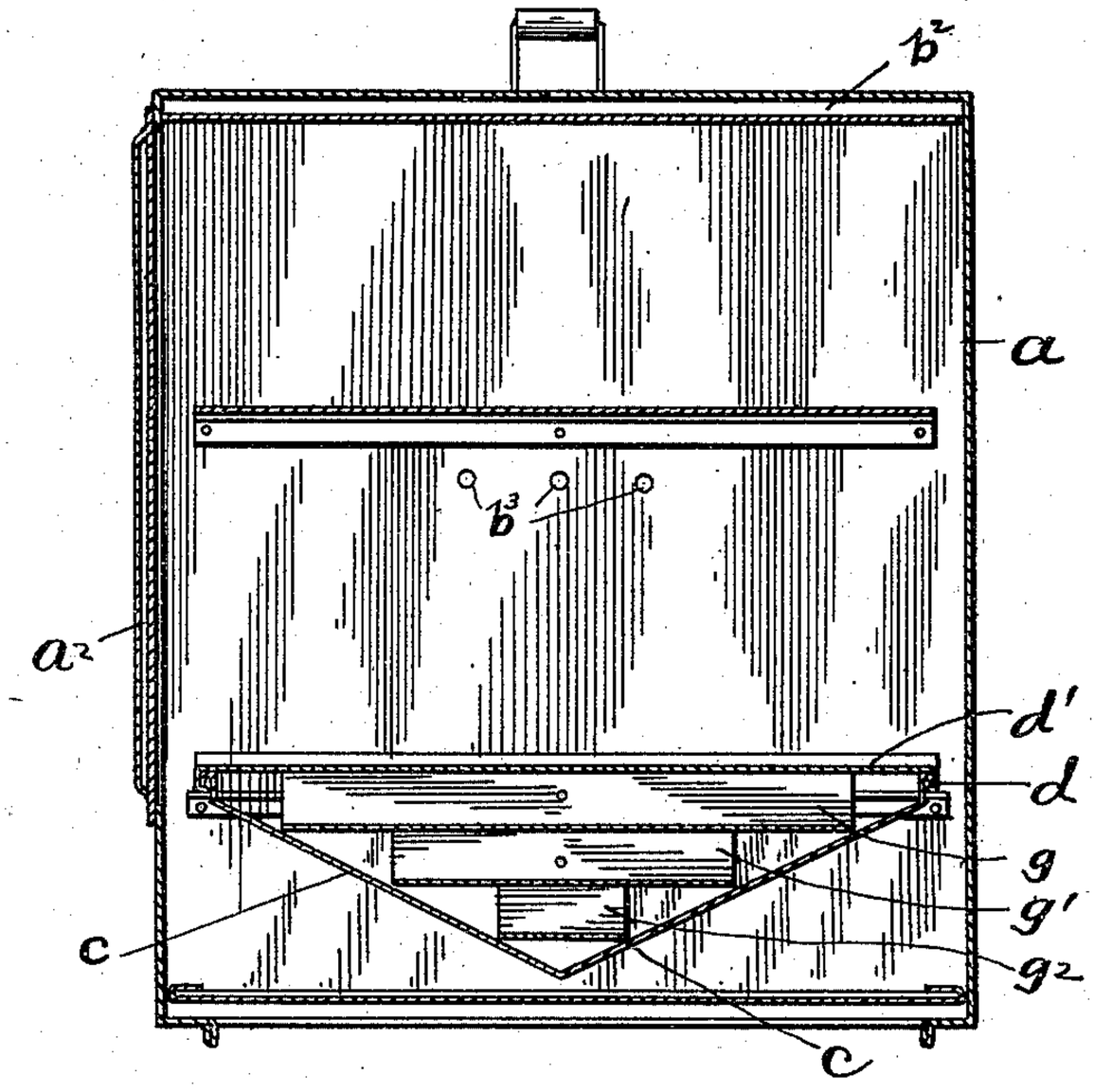

Fig. 4

WITNESSES:

H. B. Bradshaw

A. L. Phelps

INVENTOR

George R. Moon

BY

C. C. Shepherd.

ATTORNEY

ANDREW B. GRAHAM, PHOTO-LITHO. WASHINGTON, D.C.

UNITED STATES PATENT OFFICE.

GEORGE R. MOON, OF COLUMBUS, OHIO.

COOKING-OVEN.

SPECIFICATION forming part of Letters Patent No. 547,176, dated October 1, 1895.

Application filed July 8, 1895. Serial No. 555,181. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. MOON, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Cooking-Ovens, of which the following is a specification.

My invention relates to the improvement of cooking-ovens, and has particular relation to the improvement of that form of oven set forth in my former Letters Patent, No. 415,649, granted under date of November 19, 1889.

The objects of my present invention are to simplify the construction of the oven and thereby reduce the cost of manufacture of the same, to provide improved means for equalizing the distribution or radiation of heat throughout the oven, and to produce other improvements in details of construction, which will be more fully pointed out hereinafter.

These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of my improved cooker, showing for the sake of clearness a portion of the front wall thereof broken away. Fig. 2 is a central vertical section of the same on line $x\,x$ of Fig. 1. Fig. 3 is a detail view in perspective of the heat distributer or equalizing deflector, and Fig. 4 is a central vertical section taken at right angles with the view shown in Fig. 2.

Similar letters refer to similar parts throughout the several views.

In the construction of my improved oven I employ the external casing a, of sheet metal or other similar material, the latter being provided on its forward side with a doorway a' and door a^2, adapted to close the same.

b represents an internal casing, which extends from the back to the front of said external casing and results in forming, as shown in the drawings, vertical side chambers b', which communicate at their upper ends through the medium of a top chamber b^2, which is between said internal and external casing, as shown. b^3 represents openings, which are formed at suitable intervals in the wall of the internal casing b, and which serve to provide means of communication between the interiors of said casings b and a.

In the construction of my improved heat-equalizer I provide an angular deflector-plate c, the wings of which are arranged, as shown in the drawings, to form conjointly an obtuse angle, and the outer edge portions of said wings are formed with upturned side flanges c', the latter being hooked into engagement, as indicated in the drawings at c^2, with the downturned side hooks or hook-flanges d of a horizontal top or cover plate d'. The plate d' is of greater length than the plate c and has its upturned ends d^2 supported on oppositely-located brackets e on the inner sides of the casing b. The ends of the plate d' are removably held in position on said brackets by means of spring-strips f, the lower ends of which are secured to the inner walls of the inner casing and the upper end portions of which are sprung outward and adapted to engage, as shown, with the upturned edges of said plate ends.

For the purpose hereinafter described I provide between the plates d' and c a series of equalizing-plates connected with and supported from each other. These equalizing-plates, which are indicated at g, g', and g^2, respectively, consist of parallel horizontally-arranged plates, which are provided with upturned ends, such as are indicated at g^3, and said plates gradually decrease in width from the uppermost plate downward. The upturned ends of the equalizer-plate g are secured, as shown in the drawings, to the under side of the plate d', while the corresponding ends of the plates g' and g^2 are secured, respectively, to the ends of the plates g and g', the bodies of said plates being separated, as shown in the drawings.

From the arrangement of the equalizing-plates which I have described herein it will readily be seen that the narrower plate g^3 is brought immediately above the apex or meeting-point of the wings of the deflector-plate. As is common in this class of ovens, my improved oven is adapted to be supported centrally over the burner on a gasoline or other stove or heating contrivance, and in order to support said oven slightly above the stove-top, and consequently above the burner cover or

grating, I provide the under side of my improved oven with parallel ribs or cleats *i*, the lower edges of which are adapted to rest on the stove-top.

In utilizing my improved oven the heat from a stove-burner is imparted most directly to the apex or ridge of the angular deflector-plate *c* and is spread therefrom up each of the inclined wings of said plate to the sides of the oven. Although the heat thus imparted to said deflector-plate is greater at its first point of contact, it will be observed that at this point the heat will meet with the resistance of all of the equalizing-plates in addition to the plate *d'*. Owing to the addition in width and substantially-pyramid arrangement of the equalizing-plates, it is obvious that this resistance to the heat is greatly decreased as the intensity of the heat is decreased by spreading from its first point of contact. In this manner it is evident that a substantially-equal distribution of the heat over the plate *d'* from the burners may be attained, with the result that the oven will be heated uniformly, thus insuring superior results in the use of said oven.

It is obvious that the construction which I have described is such as to admit of my improved oven being produced at a reasonable cost of manufacture and that the same will be of great utility.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a cooking oven provided with an open bottom, the combination with the outer and inner casings thereof, of a horizontal plate *d'* supported in said inner casing, an angular deflecting plate depending from said horizontal plate, and a series of horizontally arranged heat equalizing plates supported between said horizontal plate and the angular deflecting plate, said heat equalizing plates increasing in width from the lower one of the series to the upper one, and the narrowest plate being immediately over the apex of the angular deflecting plate, substantially as and for the purpose specified.

GEORGE R. MOON.

In presence of—
C. M. VOORHEES,
C. C. SHEPHERD.