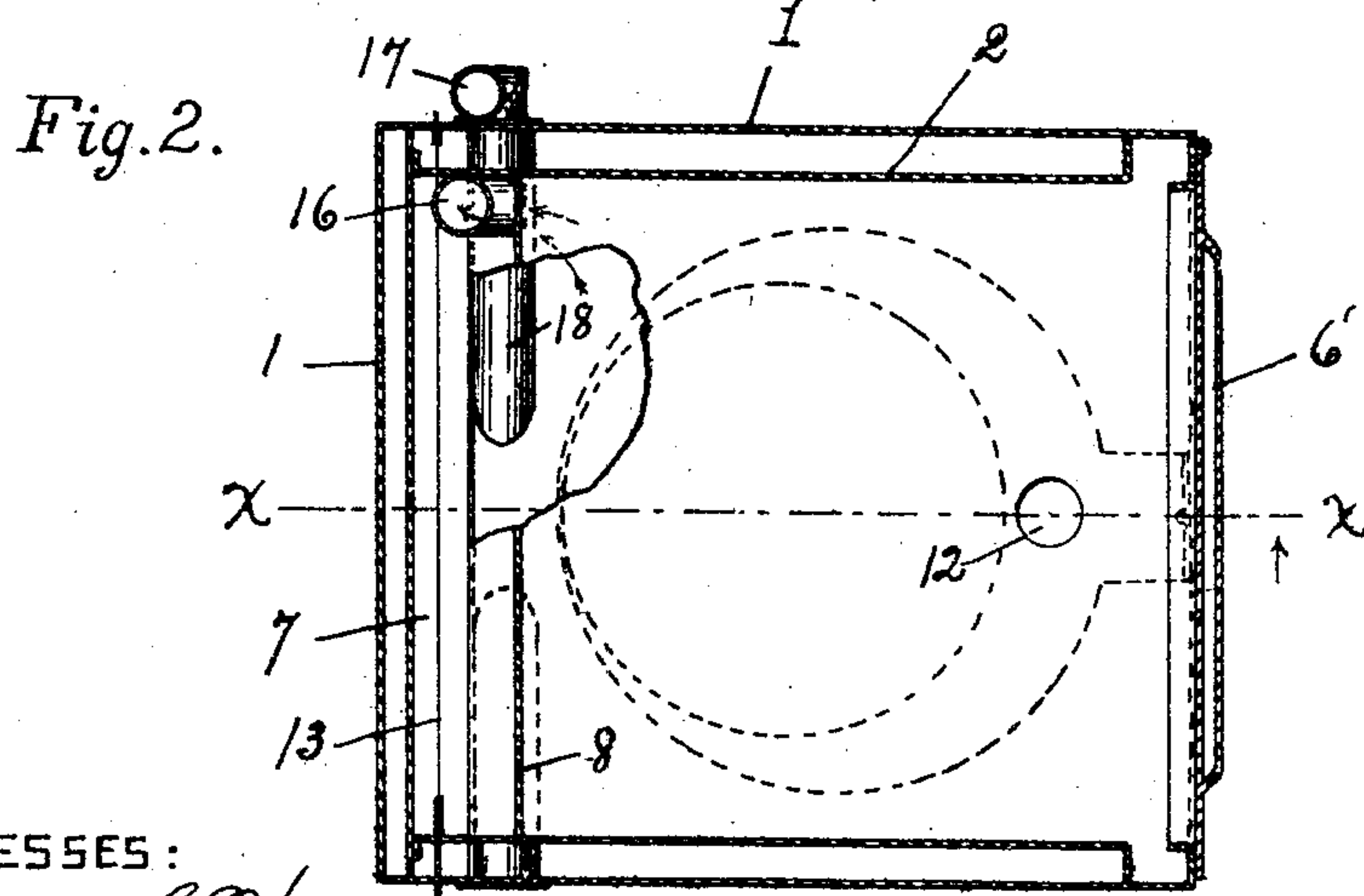
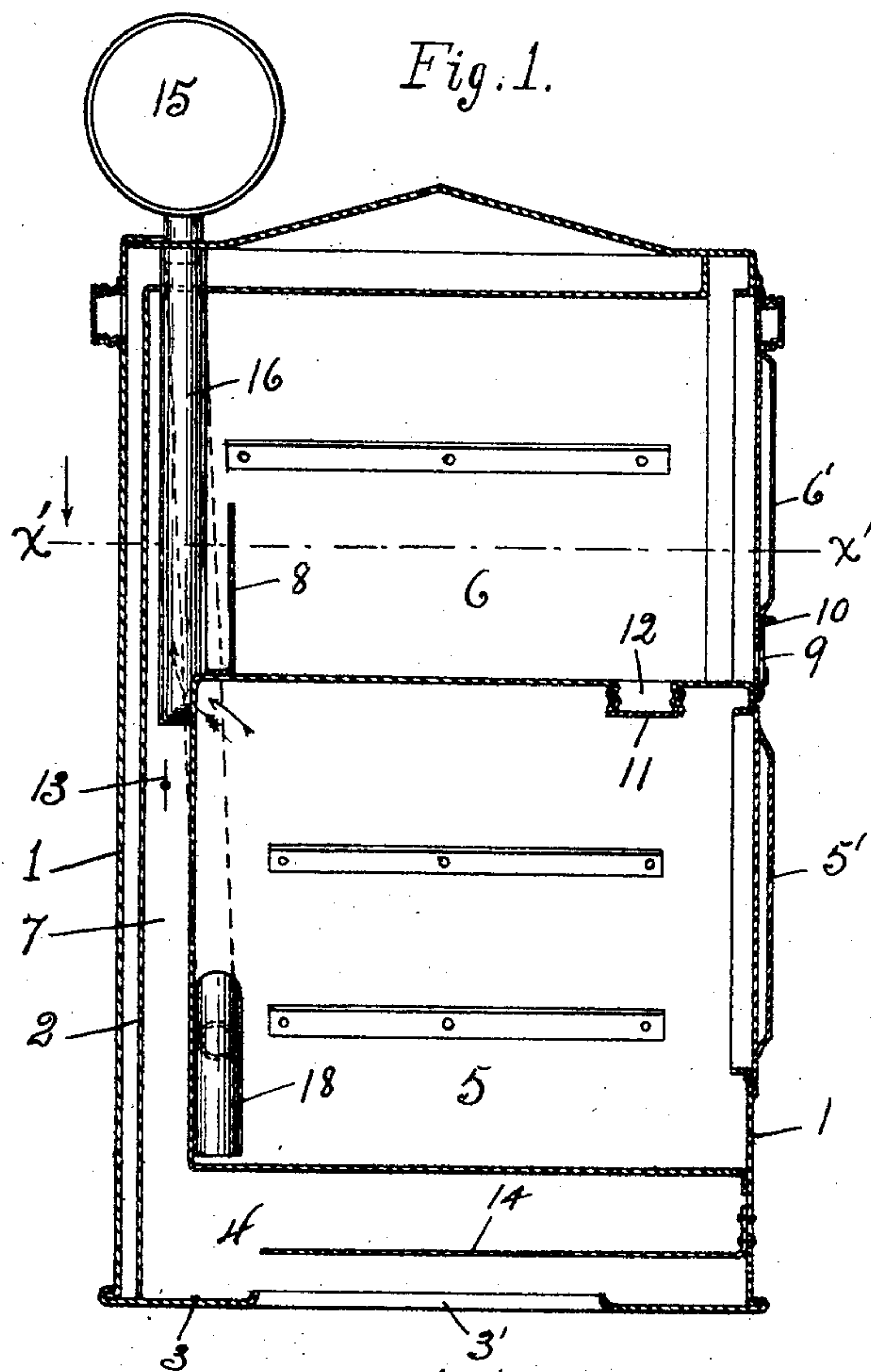


No. 785,764.

PATENTED MAR. 28, 1905.

H. S. ROBINSON.
COMBINED STEAM COOKER AND HOT AIR OVEN.
APPLICATION FILED APR. 25, 1904.



WITNESSES:

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HARRY S. ROBINSON, OF TOLEDO, OHIO.

COMBINED STEAM-COOKER AND HOT-AIR OVEN.

SPECIFICATION forming part of Letters Patent No. 785,764, dated March 28, 1905.

Application filed April 25, 1904. Serial No. 204,740.

To all whom it may concern:

Be it known that I, HARRY S. ROBINSON, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in a Combined Steam-Cooker and Hot-Air Oven; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in cooking apparatus of the class adapted to combine both a steam-cooker and hot-air oven; and it has for its object to provide a cooking apparatus of improved and simplified construction that is composed of a series of superimposed vessels or compartments, a portion of which are steaming-compartments and the other portion baking-compartments, the latter having communication with the fire-chamber to permit the heated air to pass thereto.

The invention is fully described in the following specification and shown in the accompanying drawings, in which—

Figure 1 is a central vertical section of an apparatus comprising my invention, taken on the dotted line xx in Fig. 2; and Fig. 2 is a cross-sectional view of the same, taken on the dotted line $x'x'$ in Fig. 1 and showing a portion of the partition between the compartments broken away.

Referring to the drawings, 1 represents the outer casing, 2 the lining or inner casing, and 3 the bottom, of a vessel embodying my invention, the latter having an opening 3' therein to adapt it to set over a blaze. The portion of the vessel inclosed within said parts is shown as being divided into three superimposed compartments, 4 being the fire-chamber, 5 the steaming-chamber, and 6 the baking-oven, the latter two being provided with the doors 5' and 6', respectively. A flue or passage-way 7, which is disposed at the side of the vessel between the lining 2 and compartment 5 and is preferably shown as extending

the entire width thereof, establishes communication between the fire-chamber 4 and baking-oven 6, thereby enabling the heated air arising from the fire to ascend to said latter compartment. A partition 8, which is disposed within the compartment 6 at the mouth of the flue 7 in parallelism therewith, is secured therein for the purpose of directing the products of combustion to the upper part of said chamber. In order to insure a free circulation of the heated air from the chamber 4 to the oven 6, an elongated horizontally-disposed opening 9 is provided in the lower portion of the door 6' substantially the entire width thereof, the said opening acting in conjunction with the partition 8 in causing the heated air to be evenly distributed within the oven, inasmuch as the heat products after striking the upper casing are compelled to pass to the lower portion of the compartment to find an exit therefrom. The size of the opening 9 is controlled by means of a slide-damper 10, which is adapted to be moved to partially close said opening, and thus regulate the draft or to tightly close the same.

Should it be desired to convert the oven 6 into a steaming-compartment, the stopper 11 may be removed from the opening 12, provided in the partition separating the compartments 5 and 6, and thereby admit steam to said latter compartment, the damper 10 first being closed to confine the steam. While it is not necessary to close the flue 7 when the oven 6 is converted into a steamer, as the limited quantity of hot air which enters the chamber 6 when the opening 9 is closed freely commingles with the steam, this may be done, if desired, by providing a damper 13 within said flue, as shown.

Secured within the fire-chamber 4 and projecting over the opening 3' is a baffle-plate 14, which prevents the direct contact of the flame with the under side of the steam-chamber 5 and causes it to be directed toward the flue 7.

A steam-condensing vessel 15 is mounted above the oven 6 and has communication with the upper part of the compartment 5 through the tube 16 and with the lower portion thereof through the drainage-pipe 17, which has its

lower end loosely inserted within the obliquely-disposed filling-tube 18, projecting within said compartment.

5 The use of the condenser 15 may be eliminated, however, if desired, as it is found that the steam arising from the water in the bottom of the chamber is sufficiently condensed by reason of the hot air circulating around the casing of said chamber, thereby causing
10 the water of condensation to gather on the sides thereof and return to the water in the bottom of the chamber.

It is obvious that such changes in the form, proportion, and minor details of construction
15 of the parts as fairly fall within the scope of my invention may be made without departing from the spirit or sacrificing any of the advantages thereof.

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

1. In an apparatus of the class described, a fire-chamber having an opening therein for receiving the blaze of a fire, a steaming-compartment arranged immediately over said fire-chamber and adapted to hold a supply of water in its lower portion, an oven arranged immediately above said steaming-compartment, a flue leading to said oven from said fire-chamber and extending around a portion of said
30 steaming-compartment, a partition in said oven adjacent to the outlet of said flue for causing the heated air to be directed to the up-

per part thereof, and a damper-controlled opening provided in the lower part of said oven
35 opposite said partition for the purpose described.

2. In a cooker, the combination of a fire-chamber, a steaming-compartment and a baking-oven in superimposed position, communication between said fire-chamber and oven, a
40 partition within said oven adapted to direct the heated air to the upper part thereof, and an opening at the lower portion of one of the sides of said oven for the exit of heated air,
45 substantially as described.

3. In a vessel of the class described, the combination of a fire-chamber, a baking-oven having communication with said chamber, a steaming-compartment interposed between
50 and entirely separated from said former compartments and adapted to receive a supply of water in its lower portion, a baffle-plate in said fire-chamber adapted to direct the flames away from the under side of said steamer,
55 and an opening in said oven for the exit of heated air therefrom and a damper for regulating said opening.

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

HARRY S. ROBINSON.

Witnesses:

H. G. BORGESS,
SYLVIA BLACK.