No. 669,221. Patented Mar. 5, 1901.

W. T. PEARCE.

COOKING OVEN, STEAM CONDUIT CONNECTION, AND COOKING UTENSIL FOR USE THEREWITH.

(Application filed Jan. 8, 1900.)

(No Model.)

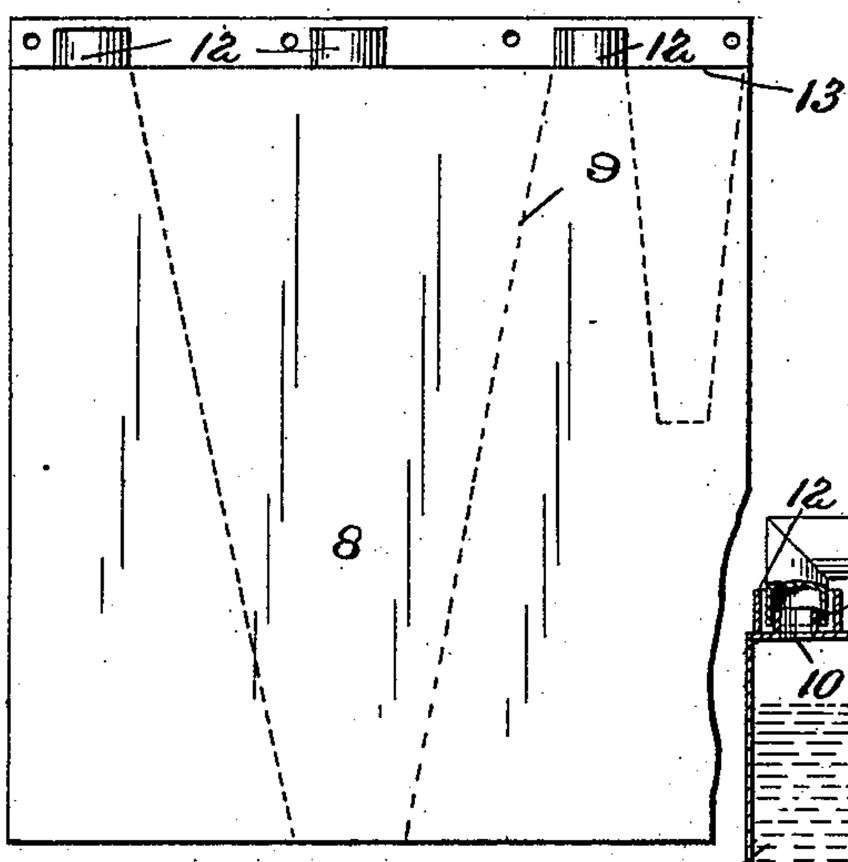


Fig. 3.

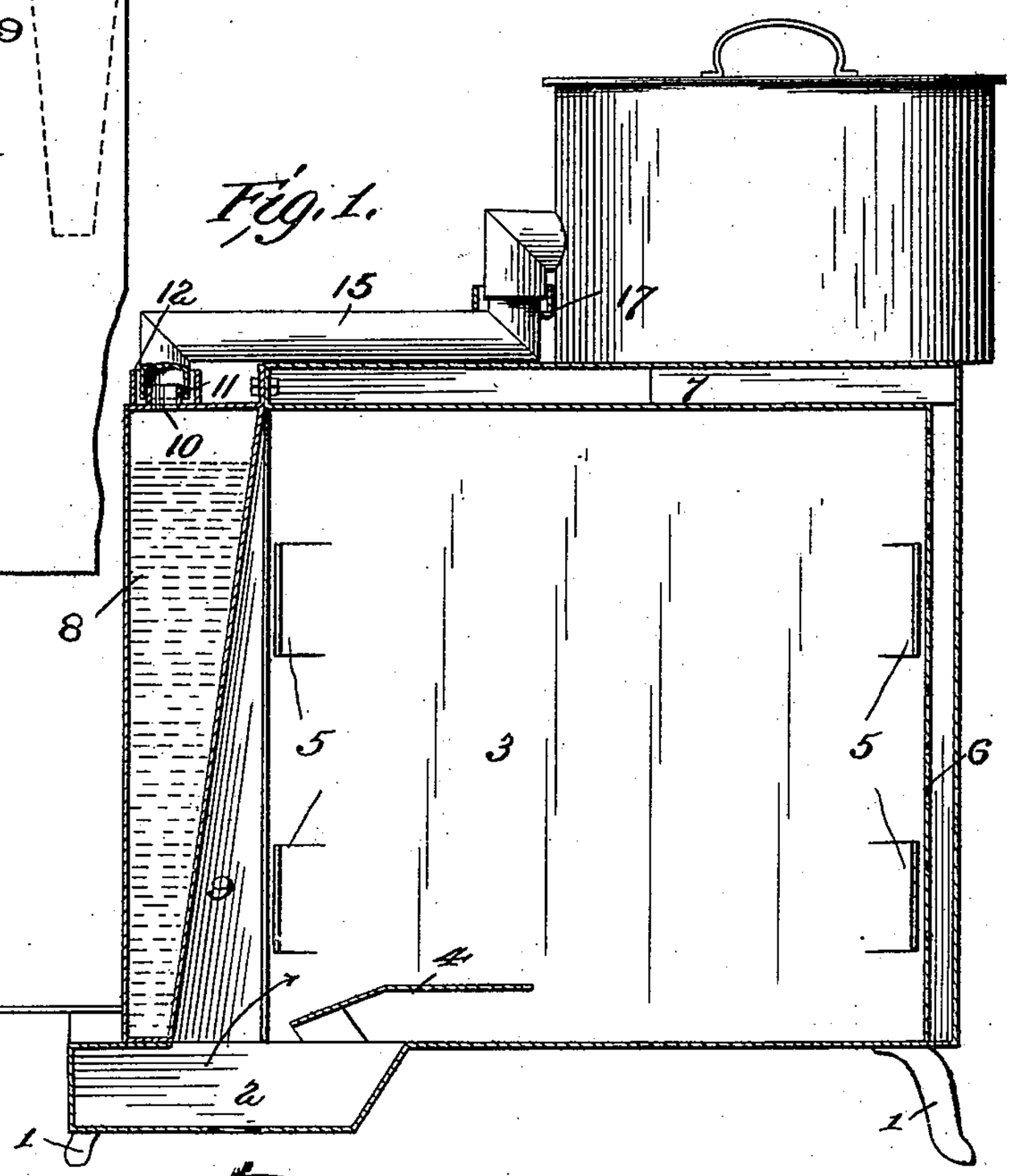
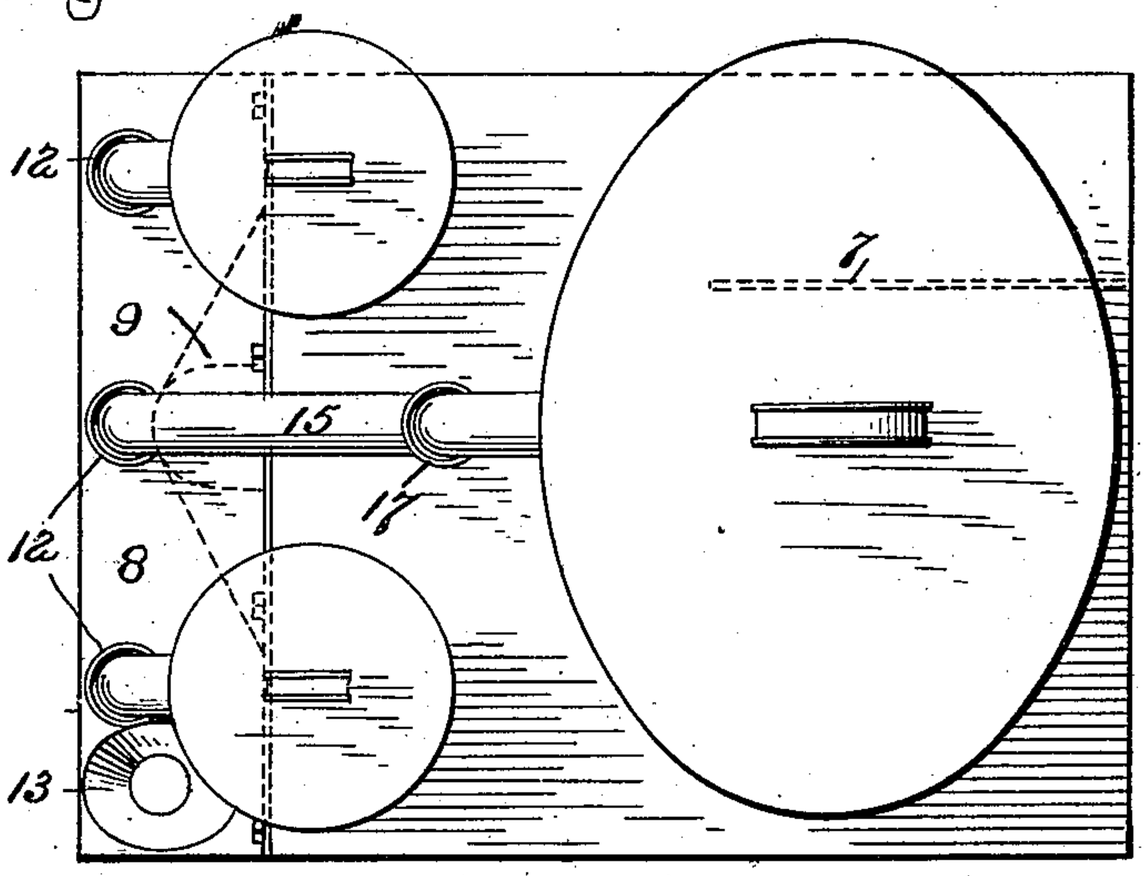


Fig. 1.

Fig. 2.

Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM THOMAS PEARCE, OF SOUTH MELBOURNE, VICTORIA.

COOKING-OVEN, STEAM-CONDUIT CONNECTION, AND COOKING UTENSIL FOR USE THEREWITH.

SPECIFICATION forming part of Letters Patent No. 669,221, dated March 5, 1901.

Application filed January 8, 1900. Serial No. 763. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM THOMAS PEARCE, oven manufacturer, a British subject, and a resident of 116 Bank street, South Melbourne, in the Colony of Victoria, have invented certain new and useful Improvements in Cooking-Ovens, Steam-Conduit Connections, and Cooking Utensils to be Used Therewith, of which the following is a specification.

It is the object of my invention to provide a steaming attachment which may be secured to stoves and which will permit eatables being so treated, while the ordinary baking and boiling of eatables on or in the stove are not impaired or interfered with.

To this end the invention comprises a boiler adapted to be suitably secured to the front of a stove above the fire-chamber thereof, provided with a heating compartment in direct communication with said chamber, the boiler having steam-outlets in the top thereof, and cooking utensils having improved pipe connections to said outlets.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view through a stove, showing the boiler in place thereon and the cooking utensils connected thereto. Fig. 2 is a plan view; Fig. 3, a front elevation of the boiler. Fig. 4 is a detail sectional view showing a cap in place.

The stove herein shown, which is supported on legs 1, has its heating-chamber 2 located at the lower front end thereof. The oven 3, which is in direct communication with the fire-chamber, is provided with a deflector 4 and with the ordinary brackets 5, designed to support removable trays, which are not illustrated in the present drawings. The heated air passes below the deflector and through perforations in the back plate 6 of the oven into a rear flue formed between said plate and the rear plate of the stove and up said flue and over the top of the oven toward the front in a flue formed between the top plate of the stove and the top plate of the oven, around a short vertical partition 7, and is discharged through the rear of the upper flue.

The boiler attachment 8 is substantially rectangular in shape, and it is designed to rest directly upon the top of the fire-chamber with its rear side forming the front wall of the oven. A flange projecting upward from the rear upper corner of the boiler is bolted to the front plate of the stove to hold the boiler in place.

The boiler is intended to be filled with water. To expose the greatest possible space to the action of the fire, an air-space is formed centrally of the rear part of the boiler, which is in direct communication with the fire-chamber. This space is formed by providing in the rear wall of the boiler, centrally thereof, a recess 9, which increases in width toward the top of the boiler, but decreases in depth. The entire rear wall of the boiler is inclined from the bottom outwardly toward the top, which presents a surface to interrupt the ascending heated air from chamber 2. The incline of the bottom of the recess is such that it converges into the wall of the oven at the top of the recess. This air-space is open at its lower end directly into the fire-chamber. The top plate of the boiler is provided with three openings 10, surrounded by inner collars 11 and outer collars 12, of greater height than the inner collars. An opening 13 is also provided in the top, from which an open-ended funnel or tube depends into the boiler to a point below the desired mean water-level to be maintained therein. If the water falls below the lower end of the funnel or tube, steam will arise therethrough, which will act as a warning that the water needs replenishing. As long as the water in the boiler is above the bottom of the funnel or tube it will be sealed against the egress of steam.

The cooking utensils are designed to rest directly upon the top of the stove, and they are provided with short spouts with angular depending ends. A section of pipe 15 may be provided to connect each of the spouts with the openings in the boiler-top. A pipe of this character is provided with an angular depending end designed to fit between the collars 11 and 12, and its opposite end is upturned and surrounded by a cup-flange 17, designed to receive the end of the spout. The spaces formed between collars 11 and 12 and by flange 17 provide water seals to prevent leakage of steam. The water which fills said spaces accumulates from the condensation of steam. Instead of

utilizing the pipe-section 15 the spout may fit directly into the space between flanges 11 and 12. The steam-outlets are covered by caps when they are disconnected from the cooking vessel.

It is of great importance to the practical working of the stove that means be provided to prevent the escape of steam from any of the openings 10, which may be disconnected from a cooking vessel. To provide a steam-tight closure for these openings, caps, such as 20, are provided, which loosely fit collars 11, the flanges of the cap depending into the liquid between collars 11 and 12. As the fit is a loose one, the cap may be dropped in place without difficulty as soon as a cooking vessel is disconnected.

I claim—

1. The combination with a stove having an oven and a water-heating compartment forming one wall thereof, said compartment having a series of steam-outlets in the top, heating means, a series of receptacles adapted to rest upon the top of the stove and pipe connections between said receptacles and steam-outlets, said compartment having a passage in its wall in communication with the heating means, said passage being in open communication with the oven, substantially as described.

2. The combination with a stove having a fire-chamber in the front thereof, of a vertically-arranged boiler located above the same having a water-compartment and an air-compartment therein, said air-compartment increasing in width toward the top of the vertical compartment and decreasing in depth and outlets in the top of the chamber, substantially as described.

3. The combination with a stove having an oven and a water-heating compartment, of a series of steam-discharge spouts leading from the top of said compartment, a series of receptacles adapted to rest upon said stove and pipe connections between said receptacles and said spouts loosely fitting the same, the joints at the ends of the pipe being made steam-tight by the water of condensation, substantially as described.

4. The combination with a stove having an oven and a water-heating compartment with a plurality of steam-discharge openings, of cooking-receptacles detachable steam-tight connections between said receptacles and openings, and loose caps adapted to cover the openings out of connection with a receptacle to prevent the escape of steam, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

WILLIAM THOMAS PEARCE.

Witnesses:

JONATHAN BEAR,

LEOLIE LAWTON BEAR.