

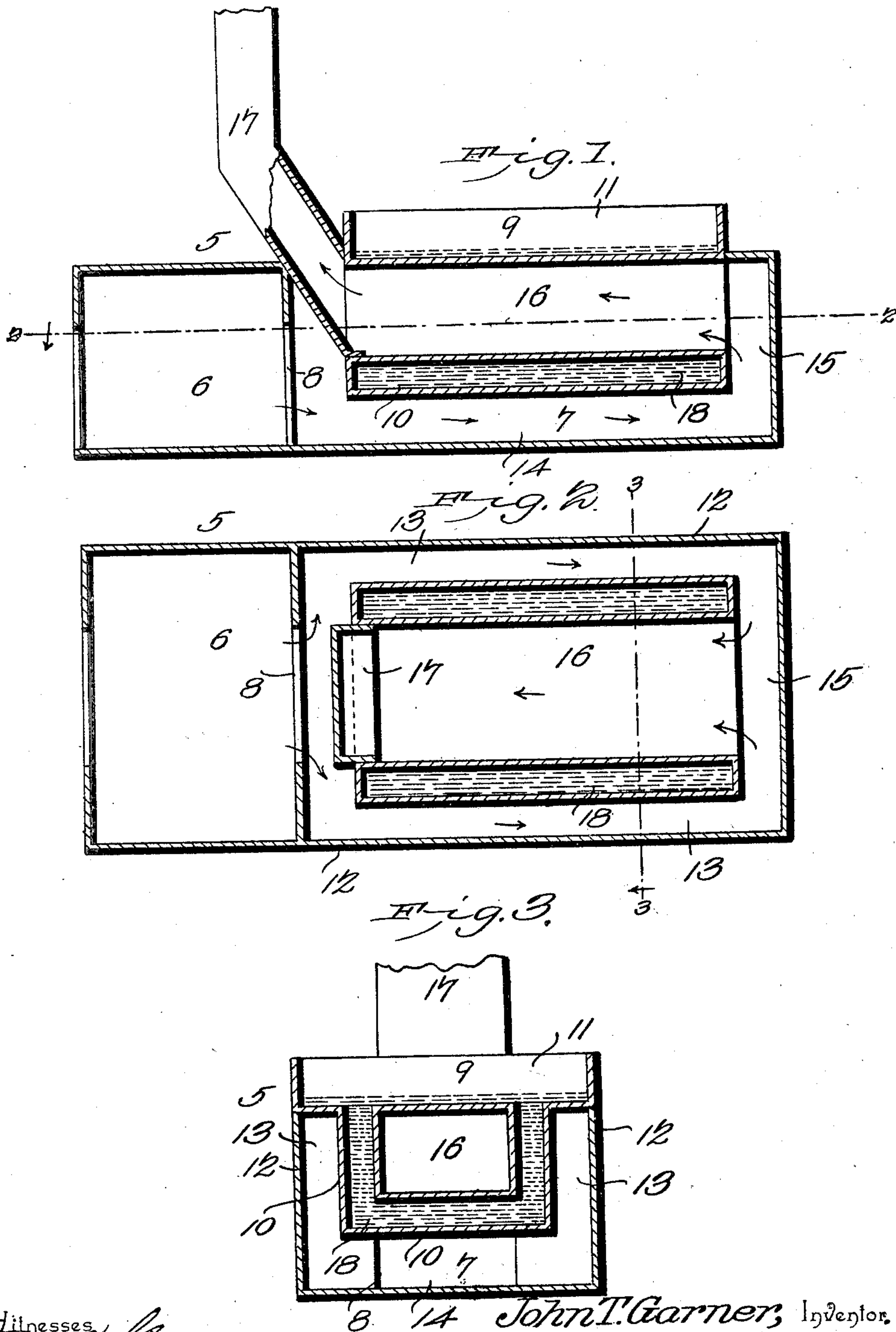
No. 704,679.

Patented July 15, 1902.

J. T. GARNER.
CANNING APPARATUS.

(Application filed Mar. 31, 1902.)

(No Model.)



Witnesses
E. J. Stewart
J. T. Garner

John T. Garner, Inventor.
by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

JOHN THOMAS GARNER, OF GRAYROCK, TEXAS.

CANNING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 704,679, dated July 15, 1902.

Application filed March 31, 1902. Serial No. 100,846. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMAS GARNER, a citizen of the United States, residing at Grayrock, in the county of Franklin and State of Texas, have invented a new and useful Canning Apparatus, of which the following is a specification.

My invention is an improved canning apparatus, by means of which fruits and vegetables may be preserved in hermetically-sealed cans, my invention relating particularly to the construction of the furnace or heater and the boiler on which the cans filled with fruits or vegetables are placed for the purpose of boiling or heating their contents and of expelling the air from the cans prior to sealing them; and my invention consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is a vertical longitudinal central sectional view of a canning apparatus embodying my improvements. Fig. 2 is a horizontal sectional view of the same, taken on a plane indicated by the line 2 2 of Fig. 1. Fig. 3 is a vertical transverse sectional view of the same, taken on a plane indicated by the line 3 3 of Fig. 2.

In the embodiment of my invention I provide a furnace or heater 5, which may be constructed of brick, metal, or other suitable material and which comprises a combustion-chamber 6 and a heating-chamber 7, which communicates therewith, as at 8. The upper side of the heating-chamber is open, and in the same is placed a boiler 9. The boiler is preferably of rectangular form, as here shown, and comprises the lower portion 10, which extends downwardly in the heating-chamber, and the upper portion 11, which is in the form of a pan or tray and is open on its upper side. The upper portion 11 of the boiler extends laterally on opposite sides beyond the sides of the lower portion 10, and the upper portion 11 rests upon and is supported by the side walls 12 of the heating-chamber. The length and breadth of the lower portion 10 of the boiler are less than the corresponding dimensions of the heating-chamber, and the depth of the lower portion of the boiler is less than that of the heating-chamber, so that flues 13 are formed between the sides of the said lower portion 10 of the boiler and the side walls of

the heating-chamber. A flue 14 is formed between the lower sides of the lower portion 10 of the boiler and the heating-chamber, which flue 14 communicates at its front end with the fire-box 6, as at 8, and a flue 15 is formed between the proximate rear ends of the heating-chamber and the lower portion of the boiler, which flue 15 communicates with a longitudinally-disposed flue 16, that is formed in and extends forwardly through the lower portion 10 of the boiler and at its front end communicates with a smoke-pipe 17. A water-space 18 is formed in the lower portion of the boiler between the sides of the latter and the sides of the flue 16. Thereby the boiler is provided with heating-surfaces of maximum area and the same becomes highly heated by the flames and heated products of combustion which pass from the fire-box rearwardly through the flues 14 and 13 under and at the sides of the lower portion of the boiler and from thence forwardly through the flue 16 to the smoke-pipe. A suitable quantity of water is kept in the boiler to fill the water-space 18 thereof and to partly fill the upper portion thereof, in which upper portion the cans are placed on suitable trays. It will be understood that the contents of the cans become heated, that the same may be cooked to the required extent to cause them to be preserved, and that after the tops have been secured on the cans and before the vents thereof have been sealed the contents of the cans may be heated to the extent required to expel the air therefrom and enable the vents to be sealed, thus hermetically sealing the cans. The two operations of heating or cooking the contents of the cans and of expelling the air therefrom may be proceeded with simultaneously. In practice my improved apparatus is preferably of such size as to enable several operatives to use the same, so that a number of cans may be treated successively.

I do not desire to limit myself to the precise construction and combination of devices herein shown and described, as it is evident that modifications may be made therein without departing from the spirit of my invention.

Having thus described my invention, I claim—

1. In combination with a furnace having a fire-box and a heating-chamber in rear of and

communicating therewith and having its upper side open, a boiler disposed in, closing the upper side of the heating-chamber and having an upper portion to overhang and
5 bear upon the sides of the heating-chamber and thereby support the boiler, the latter being further provided with a lower portion of less length, breadth and depth than the corresponding dimensions of the heating-chamber,
10 ber, whereby flues are formed between the sides and bottoms of the lower portion of the boiler and the heating-chamber, the boiler being further provided with a return-flue extending therethrough and communicating
15 with a smoke-exit, whereby a water-space is formed in the boiler around the said return-flue, substantially as described.

2. In combination with a furnace having a fire-box and a heating-chamber in rear of and
20 communicating therewith and having its upper side open, a boiler disposed in the heating-chamber, closing the upper side thereof,

having an upper portion forming a tray to overhang and bear upon the sides of the heating-chamber and thereby support the boiler, 25 the latter being further provided with a lower portion of less length, breadth and depth than the corresponding dimensions of the heating-chamber, whereby flues are formed between the sides and bottoms of the lower 30 portion of the boiler and the heating-chamber, the boiler being further provided with a return-flue extending therethrough and communicating with a smoke-exit, whereby a 35 water-space is formed in the boiler around the said return-flue, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN THOMAS GARNER.

Witnesses:

J. M. GARNER,

W. A. WILLIAMS.