No. 786,803. PATENTED APR. 11, 1905.

J. C. GARNER.

CANNING AND COOKING APPARATUS.

APPLICATION FILED SEPT. 10, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

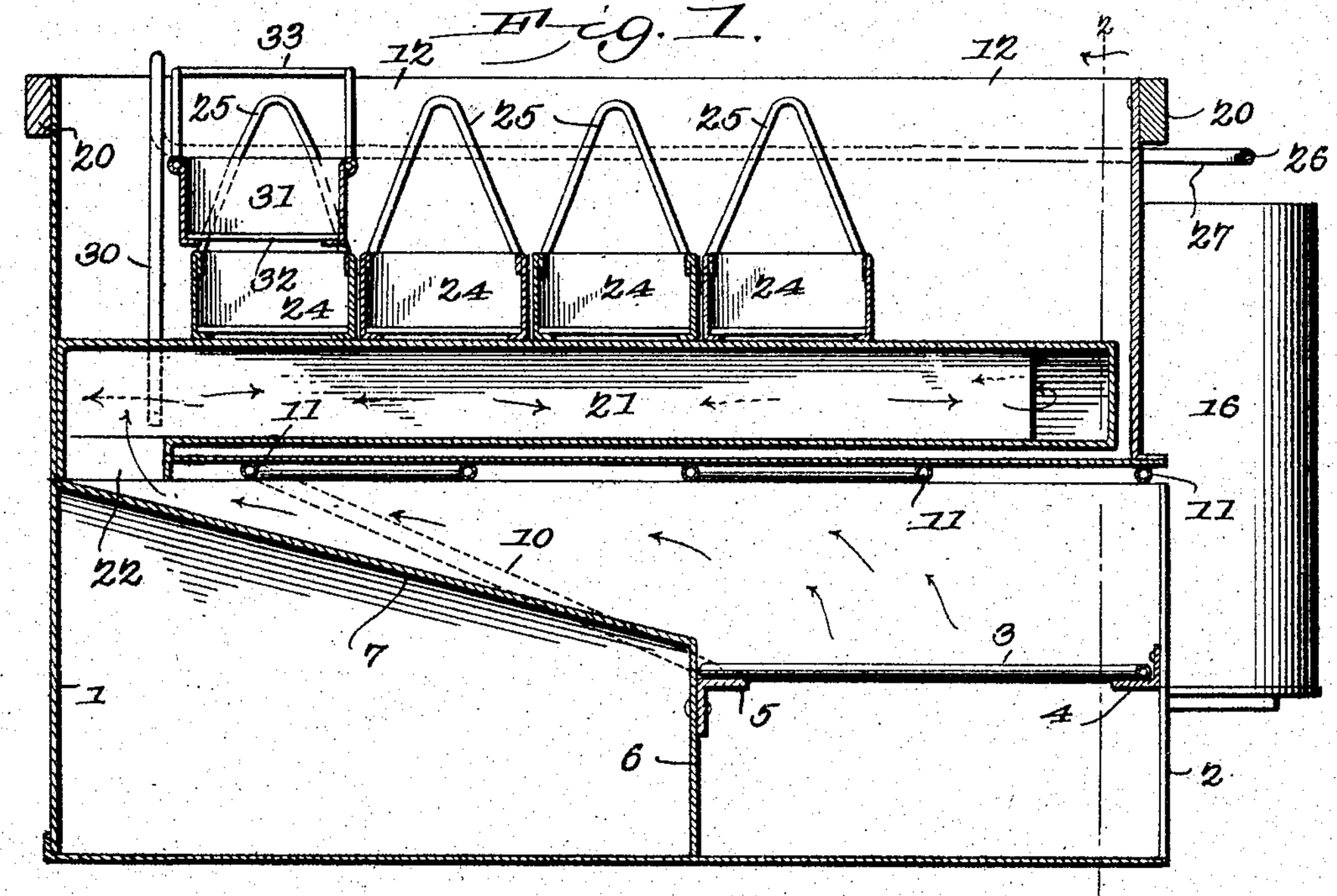
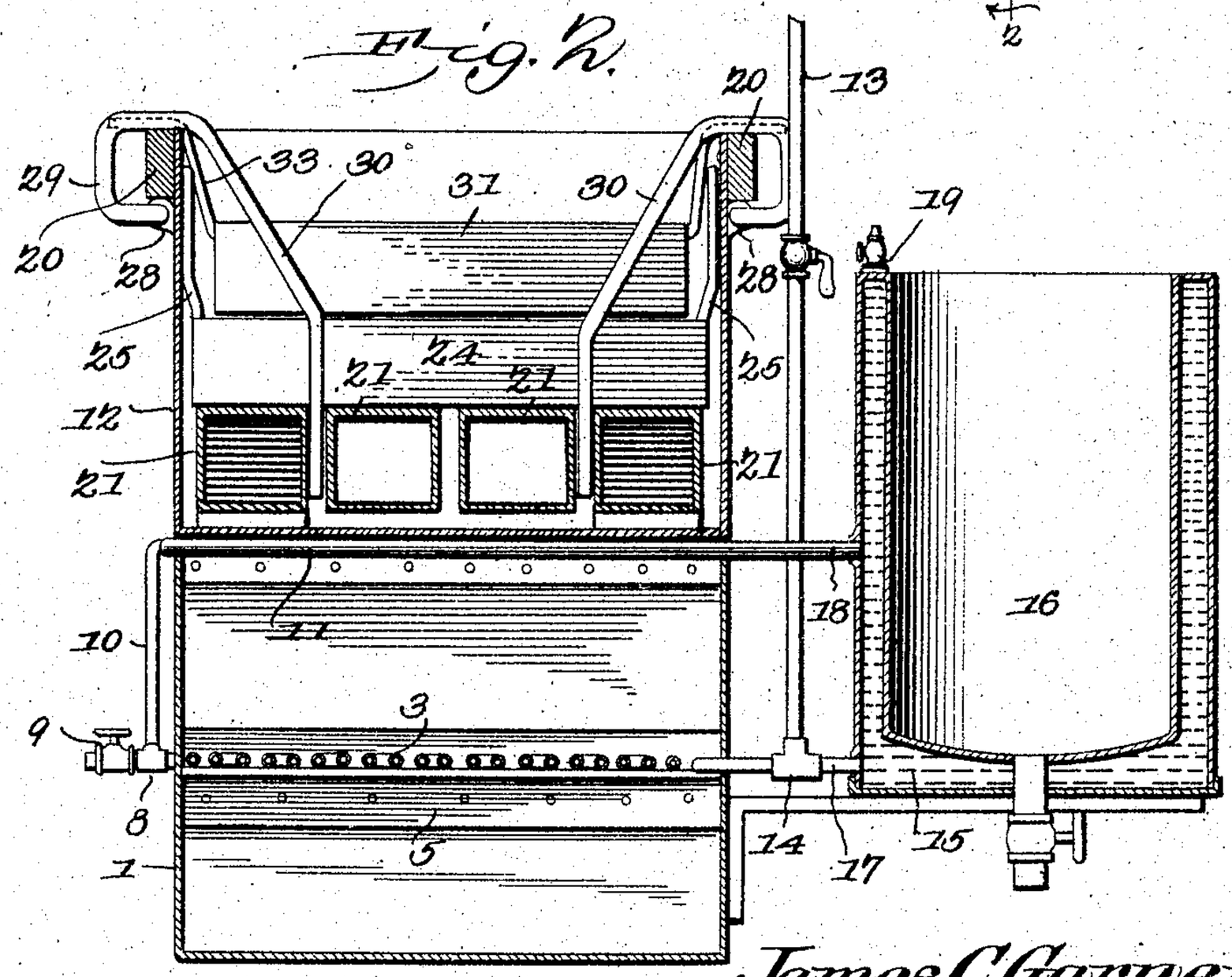


Fig. 2.



Witnesses
E. W. Stewart
H. C. S. Shepard

James C. Garner,
Inventor,
by C. A. Snow & Co
Attorneys

PHOTO-LITHOGRAPHED BY SACKETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 786,803. PATENTED APR. 11, 1905.

J. C. GARNER.

CANNING AND COOKING APPARATUS.

APPLICATION FILED SEPT. 10, 1904.

2 SHEETS—SHEET 2.

Fig. 5.

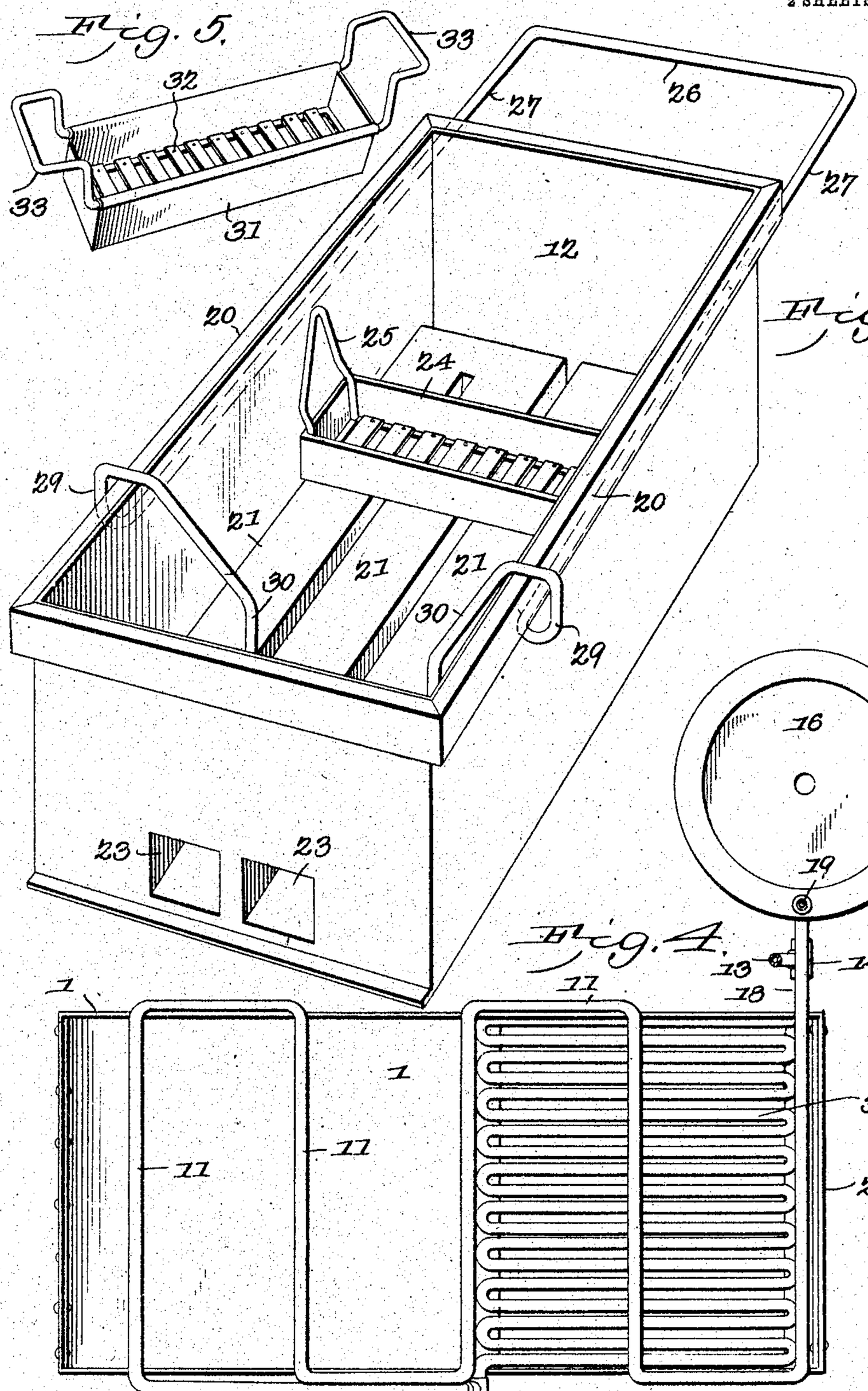


Fig. 3.

Fig. 4.

Witnesses

E. C. Stewart

H. C. Shepard.

James C. Garner, Inventor,

by C. A. Snow & Co.

Attorneys

No. 786,803. Patented April 11, 1905.

UNITED STATES PATENT OFFICE.

JAMES CHARLIE GARNER, OF GRAYROCK, TEXAS.

CANNING AND COOKING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 786,803, dated April 11, 1905.

Application filed September 10, 1904. Serial No. 224,012.

To all whom it may concern:

Be it known that I, JAMES CHARLIE 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 and Cooking Apparatus, of which the following is a specification.

This invention relates to cooking apparatus, and is designed to provide an improved steam cooking apparatus particularly adapted for cooking fruit, vegetables, and the like preparatory to canning the same and to arrange the device for use in canning factories, where a large cooking capacity is required.

It is furthermore designed to conveniently effect a proper heating of the boiler and to provide for conveniently shifting the cooking-receptacles within the boiler without individually handling the same.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a cooking apparatus embodying the features of the present invention. Fig. 2 is a cross-sectional view on the line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of the boiler. Fig. 4 is a plan view of the furnace. Fig. 5 is a detail perspective view of one of the draining-receptacles.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The furnace 1 of the present apparatus may have any suitable or preferred form and will ordinarily be formed of sheet metal, said furnace being open throughout its top and provided with an open front 2. Within the front of the furnace is a grate 3, formed by a pipe-coil supported at its front upon a suitable cross-bar 4 and at its rear upon a cross-bar 5, carried by the fire-wall 6, rising from the bottom of the furnace and terminating about midway between said bottom and top. Another fire-wall or flue-plate, 7, inclines upwardly and rearwardly from the top of the fire-wall 6, so as to direct the flames and products of combustion to the top of the furnace after they pass over the bridge-wall 6. One end of the grate-coil 3 pierces the adjacent side of the fire-box of the furnace at the rear end of said fire-box and is provided with a T-coupling 8, which is provided at its outer end with a blow-off valve 9 for convenience in blowing out accumulations of scale, &c., within the grate-coil. A pipe 10 leads rearwardly and upwardly from the T-coupling 8 and then coils back and forth across the open top of the furnace, as indicated at 11, from the rear to the front thereof, so as to form a pipe-coil support for the boiler 12. Water is supplied to the grate-coil through a supply-pipe 13, which is connected to the coil by a T-coupling 14 at that end of the grate which is opposite the blow-off valve 9, and said T-coupling is connected to the water-jacketed portion 15 of a scalding-tank 16 by means of a short pipe 17, and the front member of the pipe-coil 11 is extended laterally beyond the furnace, as at 18, and communicates with the water-jacket at a point above the connection of the grate-coil, thereby to complete the circuit from the water-jacket through the grate and the coils 11 back to the water-jacket. A suitable vent-valve 19 is provided in the top of the water-jacket to reduce the temperature of the water whenever desired.

The boiler 12, which is supported upon the top of the furnace, is formed of sheet metal, has an open top, and is surrounded at its upper edge with a marginal rim or flange 20. Within the lower portion of the boiler and spaced from the bottom, sides, and front end thereof is a set of flue-coils 21, the inlet 22 of each flue being at the rear of the boiler and intersecting the bottom thereof directly over the rear portion of the inclined baffle-plate 7, so as to receive the smoke and products of combustion and carry the same back and forth through the flue and then discharge the same

through the open rear end 23 of the flue, which pierces the back of the boiler. The flues are spaced from the bottom, sides, and front end of the boiler to insure an effective heating and proper circulation of the water within the boiler. The boiler is of a size to accommodate a plurality of cooking-receptacles 24, each of which is in the nature of a pan having a slatted or open-work bottom and provided at each end with a loop or bail-shaped handle 25 for convenience in depositing the pan or receptacle in the boiler and lifting it out of the boiler. Each pan rests upon the top of the flues 21 and is of a length to slide readily between the side walls of the boiler, it being designed to introduce each cooking-receptacle at the front of the boiler and then move the same successively toward the rear of the apparatus when successive receptacles are introduced.

For convenience in sliding the cooking-receptacles toward the rear end of the apparatus there is provided a shifting device in the form of a yoke-shaped handle 26, embracing the boiler and projected at the front thereof for convenient access, each side bar 27 of the handle working beneath the rim or flange 20 of the boiler and slidable through a tubular guide 28, carried externally by the longitudinal walls of the boiler, the rear end of the arm being bent into a loop 29, embracing the adjacent rim or flange 20, from which the rear end of the arm is extended inwardly and downwardly, as at 30, to constitute a finger which is projected into the interspace between two of the flues 21, whereby upon drawing the handle 26 forwardly the cooking-receptacles in the boiler will be shifted forwardly, so as to make room for another receptacle in rear of the receptacles which have been previously placed in the boiler.

It will here be explained that the length of the boiler and the number of cooking-receptacles employed will be so related that the contents of each receptacle will be properly cooked when it reaches the front of the boiler under the successive shifting actions of the shifting device 26, the several receptacles of course being introduced into the boiler at predetermined intervals of time.

In Fig. 5 there has been illustrated a draining pan or receptacle 31, which has a slatted or open bottom 32 and is provided at opposite ends with looped angular handles or brackets 33, which are designed to engage the upper edge of the boiler and support the draining-receptacle over the cooking-receptacle, so as to receive the contents of each receptacle when removed from the boiler and permit of the liquid draining back into the boiler.

In using the present apparatus the fruit or vegetables to be canned are first scalded in the tank 16, after which they are peeled and introduced into the cans, the latter then being topped with the usual vent left open, and then the cans are placed in the receptacle 31, which is supported upon the top of the boiler, as shown in Fig. 1, above the surface of the water therein, so as to be subjected to the heat of the steam to exhaust the air from the can. After being thus treated for a brief predetermined time the cans are removed and the vent sealed, after which the sealed cans are placed in the receptacles 24 and lowered into the bottom of the boiler, where they remain for a predetermined period, so as to be effectually cooked.

Having fully described the invention, what is claimed is—

1. In a cooking apparatus, the combination with a furnace, of a boiler, a series of cooking-receptacles removably contained within the boiler and slidable therein, and means slidably mounted upon the boiler to shift the cooking-receptacles within the boiler.

2. In a cooking apparatus, the combination with a furnace, of a boiler, a series of cooking-receptacles, removably contained within the boiler and slidable therein, and means to slide the receptacles consisting of an endwise-slidable yoke-shaped frame embracing the boiler and provided with members projected in the boiler for engagement with one end of the series of receptacles.

3. In a cooking apparatus, the combination with a furnace, of a boiler, a series of removable cooking-receptacles contained within the boiler and slidable therein, the upper edge of the boiler being provided with an outer annular rim, and means to slidably shift the series of receptacles within the boiler consisting of an endwise-movable yoke-shaped frame embracing the boiler beneath the rim thereof and provided with loops slidably embracing the rim and having members projected into the boiler from the loops and lying at one end of the series of receptacles for engagement therewith to shift the receptacles by an endwise movement of the frame.

4. In a portable cooking apparatus, the combination of a fire-box having an open top, a pipe-coil grate, a pipe-coil rack across the open top of the fire-box and connected to the grate, a scalding-tank connected to the two pipe-coils, and a removable boiler supported upon the pipe-grate with a smoke-flue within the boiler, one end of the flue piercing the bottom of the boiler in communication with the fire-box, and the other end of the flue piercing one of the sides of the boiler.

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

JAMES CHARLIE GARNER.

Witnesses:

B. J. TALLESON,

J. W. HAZLEWOOD.