No. 717,419. Patented Dec. 30, 1902.

L. L. LAWRENCE.

CANNING APPARATUS.

(Application filed May 28, 1902.)

(No Model.) 2 Sheets—Sheet 1.

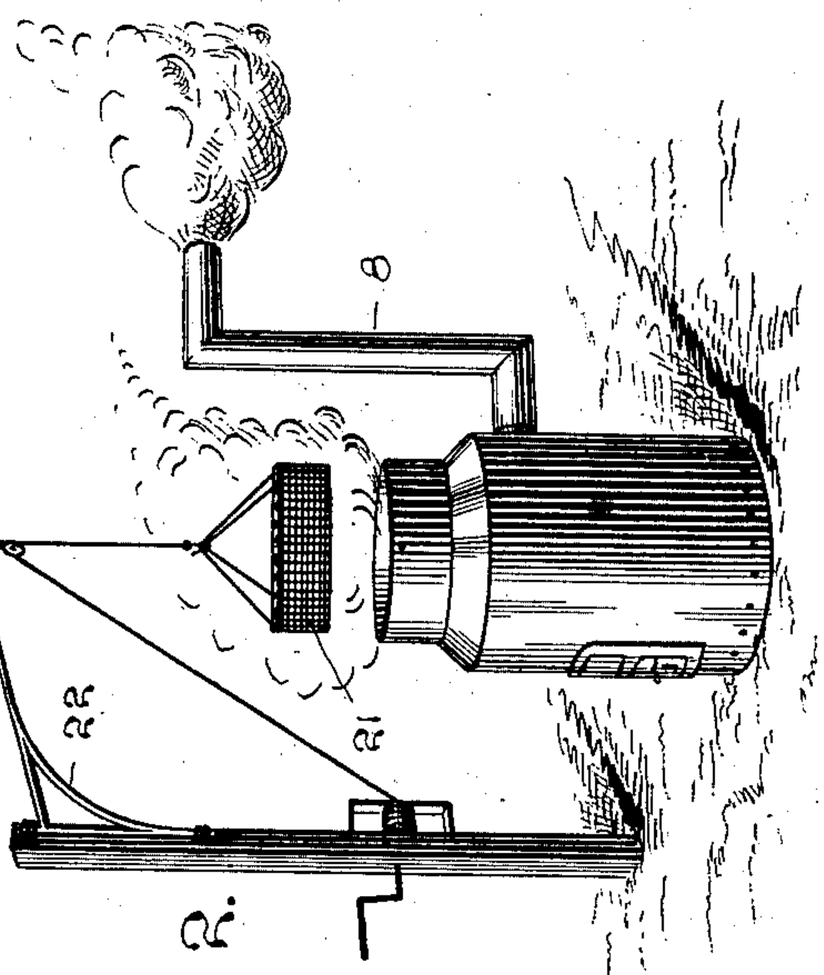

Fig. 2.

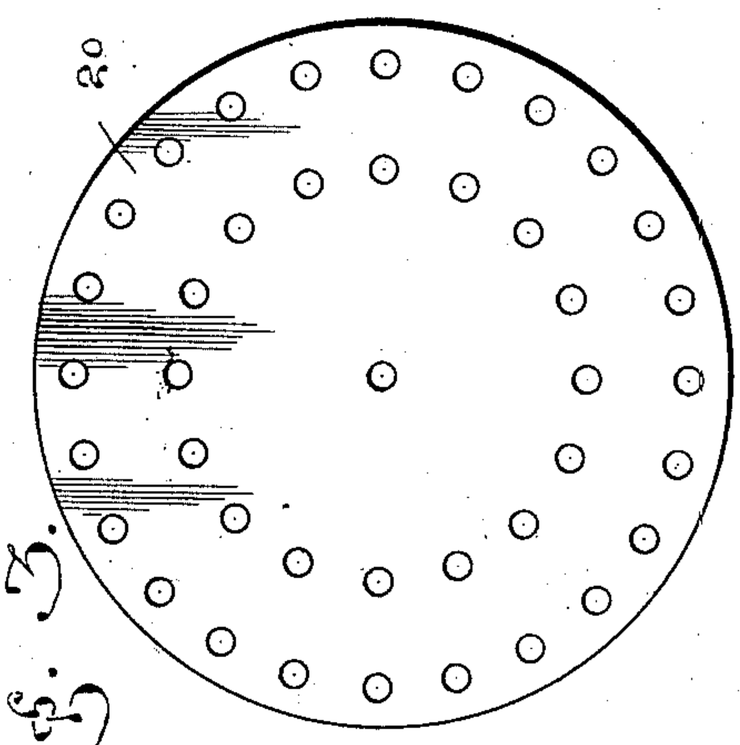

Fig. 3.

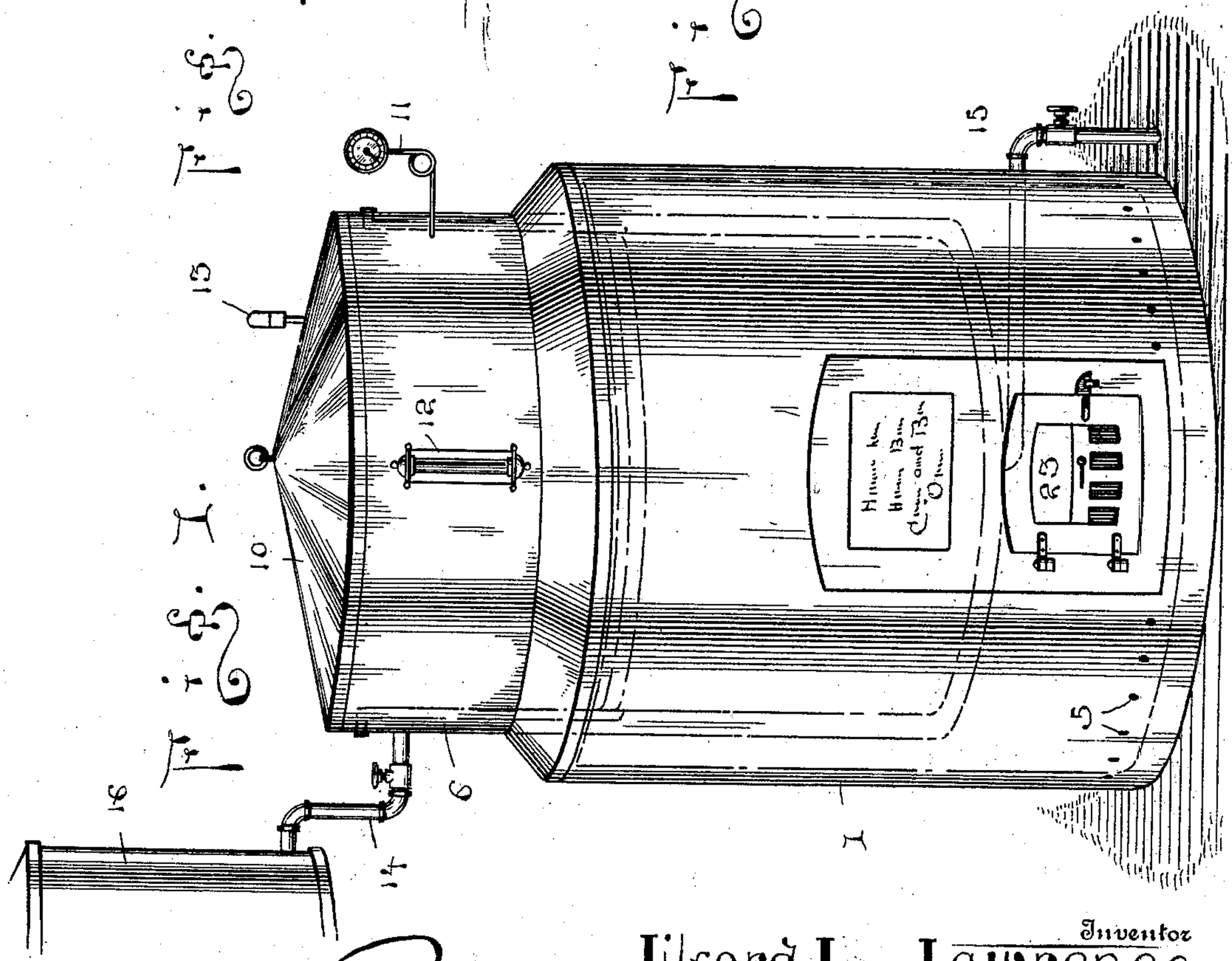

Fig. 1.

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Fig. 5.

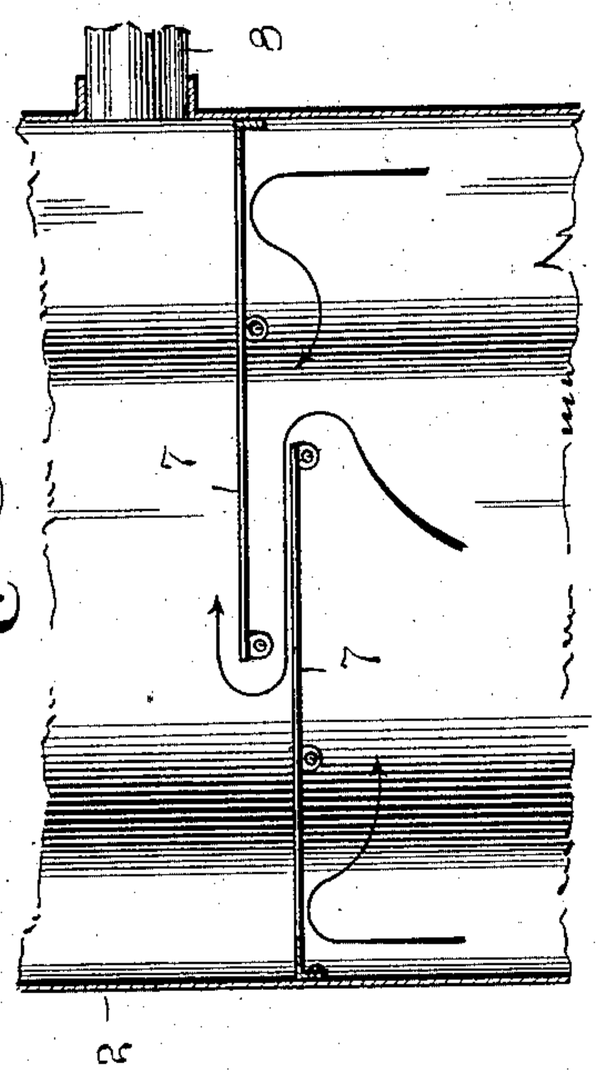


Fig. 6.

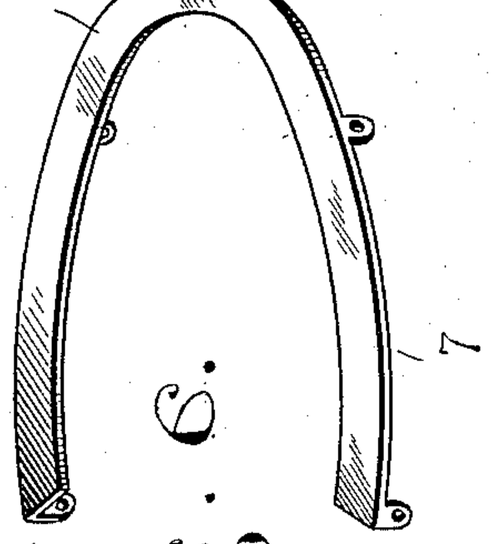
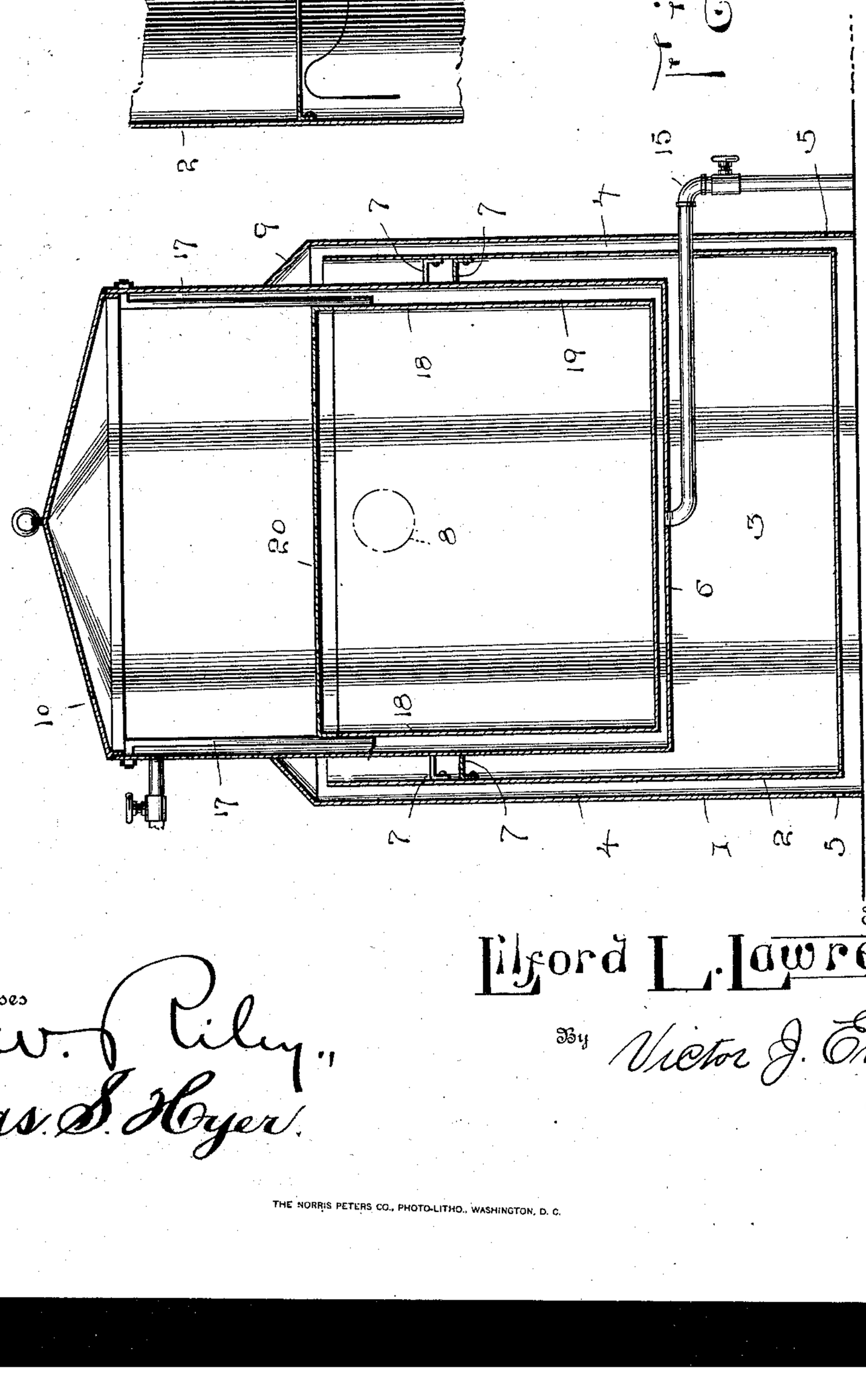


Fig. 4.



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UNITED STATES PATENT OFFICE.

LILFORD L. LAWRENCE, OF EDGEFIELD JUNCTION, TENNESSEE.

CANNING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 717,419, dated December 30, 1902.

Application filed May 28, 1902. Serial No. 109,406. (No model.)

To all whom it may concern:

Be it known that I, LILFORD L. LAWRENCE, a citizen of the United States, residing at Edgefield Junction, in the county of Davidson and State of Tennessee, have invented new and useful Improvements in Canning Apparatus, of which the following is a specification.

My invention relates to new and useful improvements in canning or preserving apparatus for use in putting up fruit, vegetables, and other perishable matter for future use.

The object of the invention is to provide a simple apparatus adapted to be operated at slight cost and which is especially adapted for use by small farmers and gardeners, thereby obviating the necessity of shipping the material to a canning establishment, and thus permitting the fruit to be preserved unspoiled and as soon as picked.

With the above and other objects in view the invention consists in the novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a front elevation of the apparatus. Fig. 2 is a detail view thereof reduced, showing the same in use. Fig. 3 is a plan view of the cap for the float of the apparatus. Fig. 4 is a vertical section through the apparatus. Fig. 5 is an inner elevation of a portion of the lining of the casing, showing the deflectors secured thereto. Fig. 6 is a detail view of a deflector detached.

Referring to the figures by numerals of reference, 1 is a cylindrical casing or jacket within which is supported a lining 2, closed at the bottom and forming a fire-box 3. An air-chamber 4 is formed around and under the lining, and air is admitted thereto through apertures 5, formed in the casing 1, near the bottom thereof. A cooling-vat 6, cylindrical in form, is arranged within the lining and the bottom thereof is located above the fire-box. Semicircular deflectors 7 are secured between the sides of this vat and the lining 2, and they so overlap as to cause the products of combustion to encircle the vat before passing out through the chimney or pipe 8. The unconsumed particles passing over the top of lining 2 are mixed with air admitted through holes 5 into chamber 4 and consumed, thereby insuring practically perfect combustion and giving the maximum heat.

The vat 6 extends above the jacket or casing 1 and is connected to the top thereof by an inclined air-tight flange 9, extending over the lining 2. A cover 10 is bolted or otherwise secured in an air-tight manner to the vat, and a steam-gage 11, water-gage 12, and safety-valve 13 may be employed. A valved water-inlet 14 opens into the upper portion of the vat and a valved outlet 15 is arranged at the bottom thereof. By means of the inlet water may be readily admitted from the tank 16 to maintain the proper quantity, and the outlet admits of the water being quickly drawn off should too great an amount be contained in the apparatus.

L-shaped pipes 17 are bolted to the sides of the vat, near the top thereof, and extend down to opposite sides of the top of a cylindrical float 18. This float is of such size that a compartment 19 is formed therearound for the reception of water discharged into the vat. A protecting perforated cap 20 is mounted upon the float, as shown in Fig. 4.

Primary combustion is effected in the fire-box 3 by the introduction thereinto of suitable fuel, and the admission of air to the said fire-box is had through the openings in the door 23 and controlled by an ordinary form of damper.

In operation a steel basket 21 is filled with cans and is then lowered by means of a crane 22 into the vat 6, from which the cover 10 has been removed. The basket is deposited on cap 20 and the cover replaced or not, according to the material in the can. The pipes 17 serve as air-passages by means of which the air can pass to or from the interior of the vat 6. The contents of the vat are heated by the fire in the box 3, the products of combustion passing back and forth under the deflectors 7, and finally out through the pipe 8. After the contents have been properly cooked they are gradually cooled by admitting cold water via pipe 14.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without

departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make all such changes as fairly fall within the scope of the invention.

Having thus fully described the invention, what is claimed as new is—

1. The combination with a casing having air-inlets, of a lining therein open at the top and having a fire-box, a vat suspended within the lining, and means intermediate the lining and vat for deflecting the products of combustion.

2. The combination with a casing having air-inlets, of a lining therein surrounded by an air-chamber and having a fire-box, said lining being open at the top whereby unconsumed products of combustion may be there mixed with air from the air-chamber, and a vat supported within the lining and forming an outlet therearound for the products of combustion.

3. The combination with a casing having air-inlets, of a lining therein surrounded by an air-chamber and having a fire-box, said lining being open at the top whereby unconsumed products of combustion may be there mixed with air from the air-chamber, a vat supported in the lining and above the fire-box, and curved deflectors inclosing the vat and secured to the lining.

4. The combination with a casing having a lining therein and a fire-box in the lining; of a vat supported in the lining, a float in the vat, and means for supplying and withdrawing water from the vat.

5. The combination with a casing having heating means therein; of a vat suspended above said means, a float in the vat, means for supplying and withdrawing water to and from the vat, and a cap to the float.

6. The combination with a casing having heating means therein, of a vat, a water inlet and outlet therefor, a cover, a float in the vat, a perforated cap therefor, and outlet-pipes at the sides of the float.

7. The combination with a casing having air-inlets, of a lining therein surrounded by an air-chamber and having a fire-box, said lining being open at the top whereby unconsumed products of combustion may be there mixed with air from the air-chamber, a vat, a water inlet and outlet therefor, a cover, a float in the vat, a perforated cap therefor, and outlet-pipes at the sides of the float.

In testimony whereof I affix my signature in presence of two witnesses.

LILFORD L. LAWRENCE.

Witnesses:

A. F. WHITMAN,

CHAS. M. SKIPWITH.