

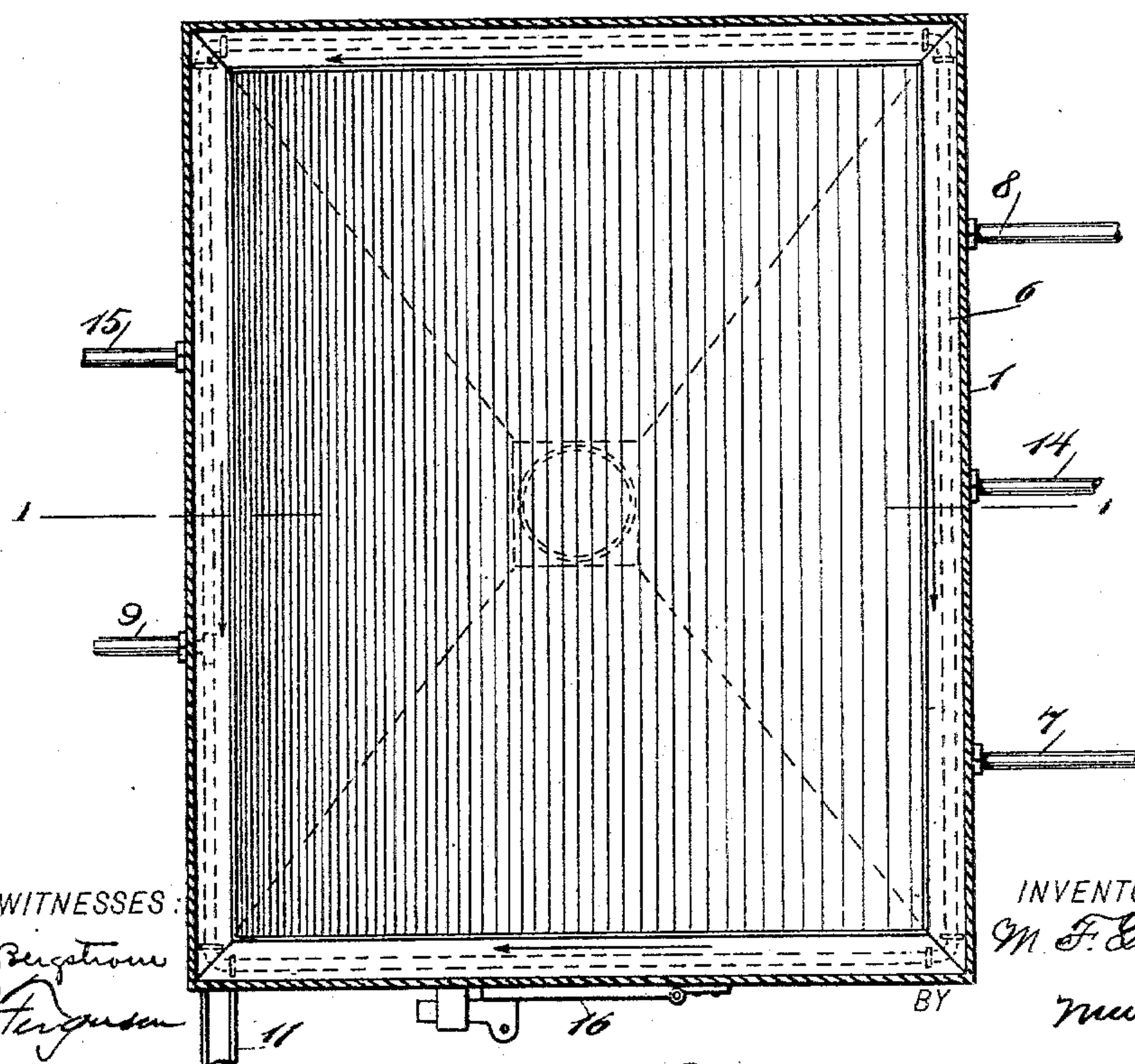
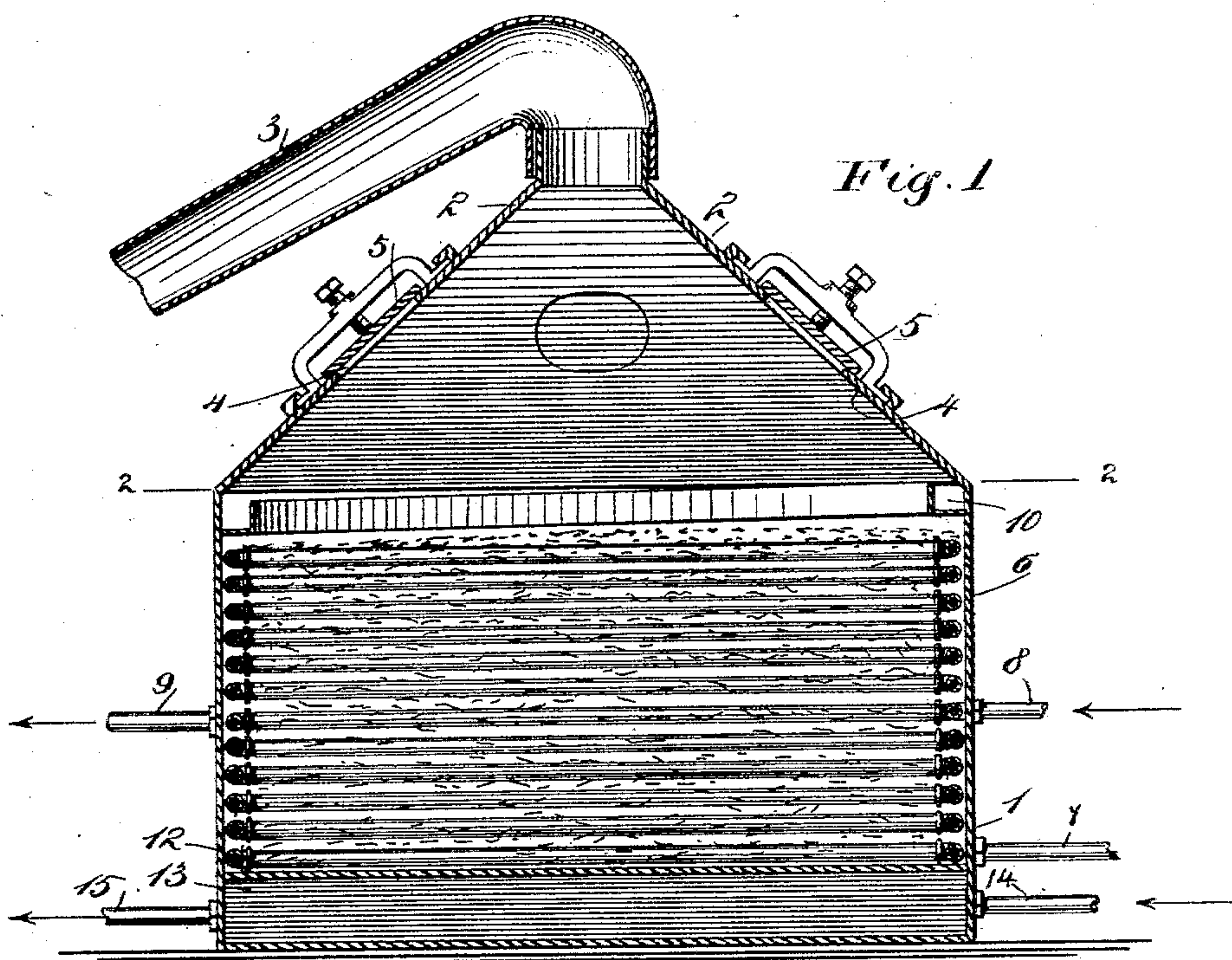
(No Model.)

M. F. QUINN

APPARATUS FOR MANUFACTURING CALCIUM ACETATE.

No. 596,826.

Patented Jan. 4, 1898.



WITNESSES:

Johna Bergstrom
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INVENTOR

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ATTORNEYS.

Fig 2

UNITED STATES PATENT OFFICE.

MARTIN F. QUINN, OF STRAIGHT, PENNSYLVANIA.

APPARATUS FOR MANUFACTURING CALCIUM ACETATE.

SPECIFICATION forming part of Letters Patent No. 596,826, dated January 4, 1898.

Application filed March 20, 1897. Serial No. 628,488. (No model.)

To all whom it may concern:

Be it known that I, MARTIN F. QUINN, of Straight, in the county of Elk and State of Pennsylvania, have invented a new and Improved Apparatus for the Manufacture of Acetate of Lime, of which the following is a full, clear, and exact description.

This invention relates to apparatus for the manufacture of acetate of lime; and the object is to provide a simple apparatus by means of which the process of manufacture may be carried out at a comparatively small cost.

I will describe an apparatus embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a section on the line 1 1 of Fig. 2 of an apparatus embodying my invention, and Fig. 2 is a section on the line 2 2 of Fig. 1.

The apparatus comprises a shell 1, preferably of steel and having vertical side and end walls. The roof 2 extends upward from the sides and ends of the shell at an angle of about forty-five degrees, and at the apex it is provided with an opening from which a pipe 3 leads. This pipe 3 is intended to convey the alcohol fumes to a suitable condenser. The roof 2 is provided with a series of manholes 4, having covers 5, that may be clamped securely in place. Extended around the inner side of the shell 1 is a coiled heating-pipe 6. This pipe 6 has two inlets 7 and 8, one being arranged above the other, the object being to equalize the heat carried through the pipe. A single outlet 9 is provided for said pipe.

Extended around the inner side of the shell 1 and near its connection with the roof is a trough 10, designed to receive condensation that may run down from the roof during the process of treating the lime. This condensation will be carried off through a pipe or trough 11, that leads outward from the trough 10.

Arranged below the floor 12 of the shell 1 is a steam-jacket 13, having an inlet 14 and an outlet 15. This steam-jacket will extend over the entire area of the bottom of the shell.

In operation a mixture of lime and crude liquor is received from a retort and is run into the apparatus for the purpose of separating the alcohol from the acetate of lime. When the material is within the apparatus, steam is forced through the coil 6, and this will cause the alcohol to separate in a vapor from the lime, and this vapor will ascend and discharge through the pipe 3 into the condenser. The condensed steam that may arise will strike against the inner side of the roof-plates and flow down into the trough 10, from which it will discharge. After the alcohol shall have been taken from the lime the manhole-covers will be removed and the steam again forced through the pipe 6 until such time that the acetate of lime is reduced to a certain consistency. Then steam is forced through the steam-jacket 12 to further reduce the lime. When the process is completed, the door 16 in the end of the shell 1 should be opened to allow the lime to cool in order that a man may go inside the shell and shovel out the lime into a suitable car for transportation to a kiln to be thoroughly dried for the market.

It will be seen that the whole operation of separating alcohol from acetate of lime and preparing the lime for the kiln is done in this one apparatus, thus saving handling, waste, and labor. If occasion may require, both the steam-coil and the steam-jacket may be used together.

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

1. An apparatus for the manufacture of acetate of lime, comprising a shell of metal having vertical side and end walls, roof-plates extended upward at an angle from said side and end walls, the said shell being adapted to contain lime as received from a retort an opening through the top of said roof, a pipe communicating with said opening for conveying away the alcoholic fumes, the said roof being provided with manholes having covers, a steam heating-coil extended around the sides and ends of said shell at its upper portion, the said coil having two inlet-pipes and one outlet-pipe, a steam-jacket at the bottom of the casing, a trough extended around the sides and end of the shell near its junc-

tion with the roof-plates, and an outlet for said trough, substantially as specified.

2. An apparatus for the manufacture of acetate of lime, comprising a shell for containing lime as received from a retort, a pitched roof on the shell having an outlet for alcoholic fumes, a trough extended around and within the shell at the junction of the walls and roof, a steam heating-coil arranged around

and close to the inner surface of the side and end walls, and a steam-jacket extended over the entire area of the bottom of the shell, substantially as specified.

MARTIN F. QUINN.

Witnesses:

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