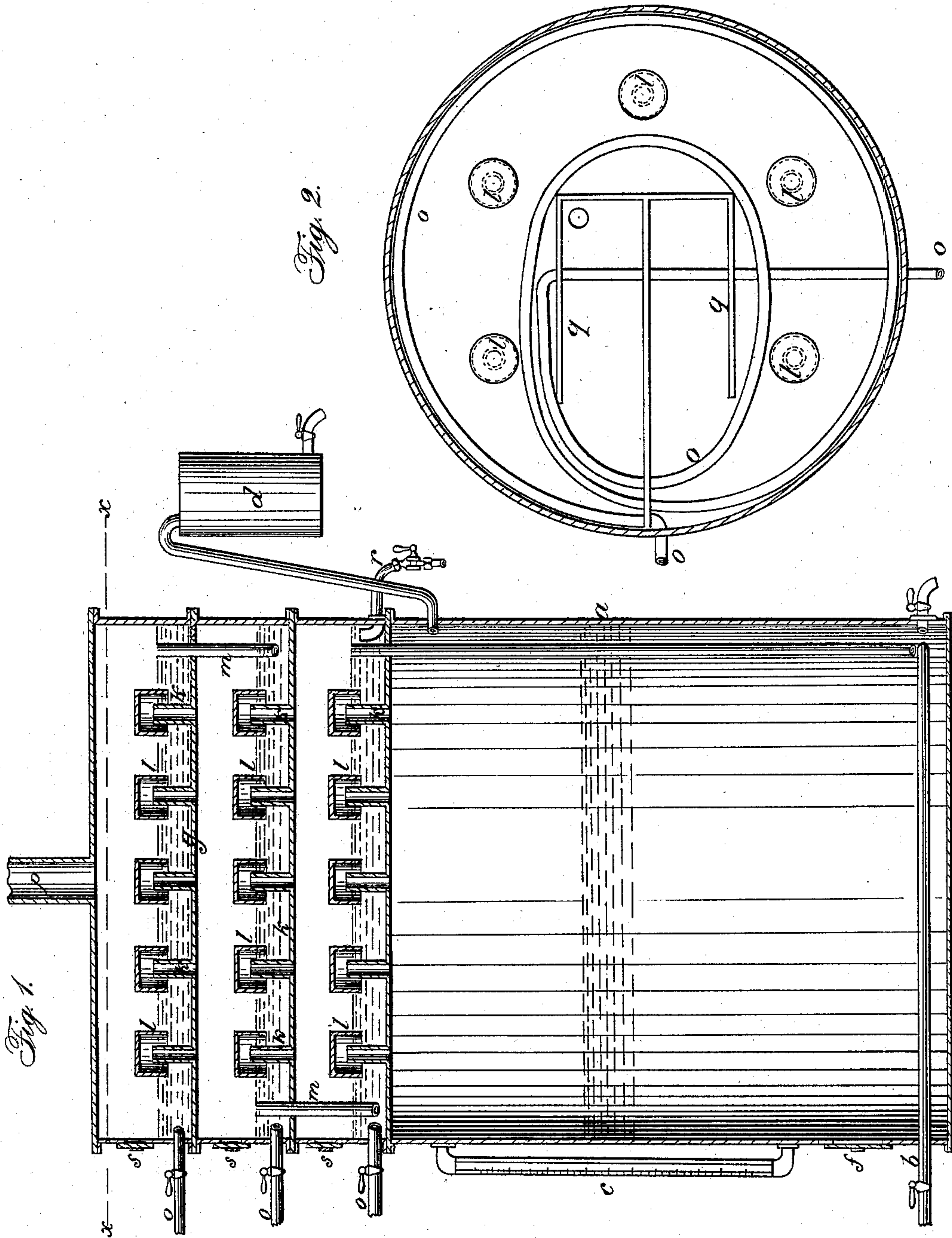


A. FOUBERT.
Alcohol Still.

No. 67,864.

Patented Aug. 20, 1867.



Witnesses:

Chas H Smith
Geo. D. Walker

Inventor:

A. Foubert

United States Patent Office.

ANDRE FOUBERT, OF NEW YORK, N. Y.

Letters Patent No. 67,864, dated August 20, 1867.

IMPROVED APPARATUS FOR DISTILLING SPIRITS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ANDRÉ FOUBERT, of the city and State of New York, have invented and made a certain new and useful Improvement in Distilling Apparatus for Spirits; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is a vertical section of the said still, fitted with my improvement; and

Figure 2 is a plan at the line $x x$.

Similar marks of reference denote the same parts.

The nature of the said invention consists in a rectifying apparatus introduced in the top part of the still itself, said device effecting a partial rectification of the spirit before it leaves the still. This rectifying apparatus is formed of a series of diaphragms, with tubes rising through the condensing liquid upon such diaphragms, and caps to direct the vapors into such liquid.

In the drawing, a is the still, provided with the steam coil b , glass gauge c , testing apparatus d , and charging and discharging pipe and cock e . f is a man-hole, that may be provided for cleaning the still. g , h , and i are diaphragms, set tightly within the still a . Each diaphragm has several short pipes k introduced through it, and rising above the same, the said pipes terminating with caps l . $m m$ are overflow pipes, and n is the return pipe to the still. $o o$ are pipes and cocks, by which the liquid lying upon the diaphragms is more or less refrigerated, so as to maintain the desired temperature of such liquid, by allowing water to run through such pipes. Arm-holes and caps may be provided, as at s , for cleaning or repairing the rectifying apparatus.

The operation is as follows: The still a is filled with the light wine or spirit about two thirds its capacity. Water, on commencing the operation, has also to be admitted upon the diaphragms to near the level of the top of the overflow pipes $m m$. Steam is admitted by the coil b ; and when the alcohol commences to pass over, as determined by the testing apparatus d , the vapors are partially rectified by passing through the tubes k , and below the caps l , and finally away by the pipe p to a rectifying column or condensing apparatus of any usual character. The condensed vapors are returned in the form of water, with little or no spirit, to the still by the pipes $m n$. The temperature of the liquid on the diaphragms g , h , and i is maintained by the water running through the pipes $o o o$. When one charge has been distilled and drawn off, another charge is admitted into the still. The tubes k , with the caps l , may be arranged in rows, as in fig. 1, or in a circle, as in fig. 2; and a division, q , may be made on each diaphragm, to cause the liquid to circulate around said division in passing from one pipe m to the next; and a pipe and cock may be provided at r to draw away the water of condensation, instead of allowing it to run back into the still.

What I claim, and desire to secure by Letters Patent, is—

The still a , into which the diaphragms $g h i$, pipes k , and caps l are introduced, the water being returned to the still by the pipes $m n$, and the temperature of the liquid on the diaphragms being regulated by water flowing through the pipes $o o$, as set forth.

In witness whereof I have hereunto set my signature this twenty-fifth day of February, A. D. 1867.

A. FOUBERT.

Witnesses:

CHAS. H. SMITH,
GEO. D. WALKER.