

H. G. DAYTON.

Alcohol Still.

No. 53,581.

Patented Apr. 3, 1866.

Fig. 1.

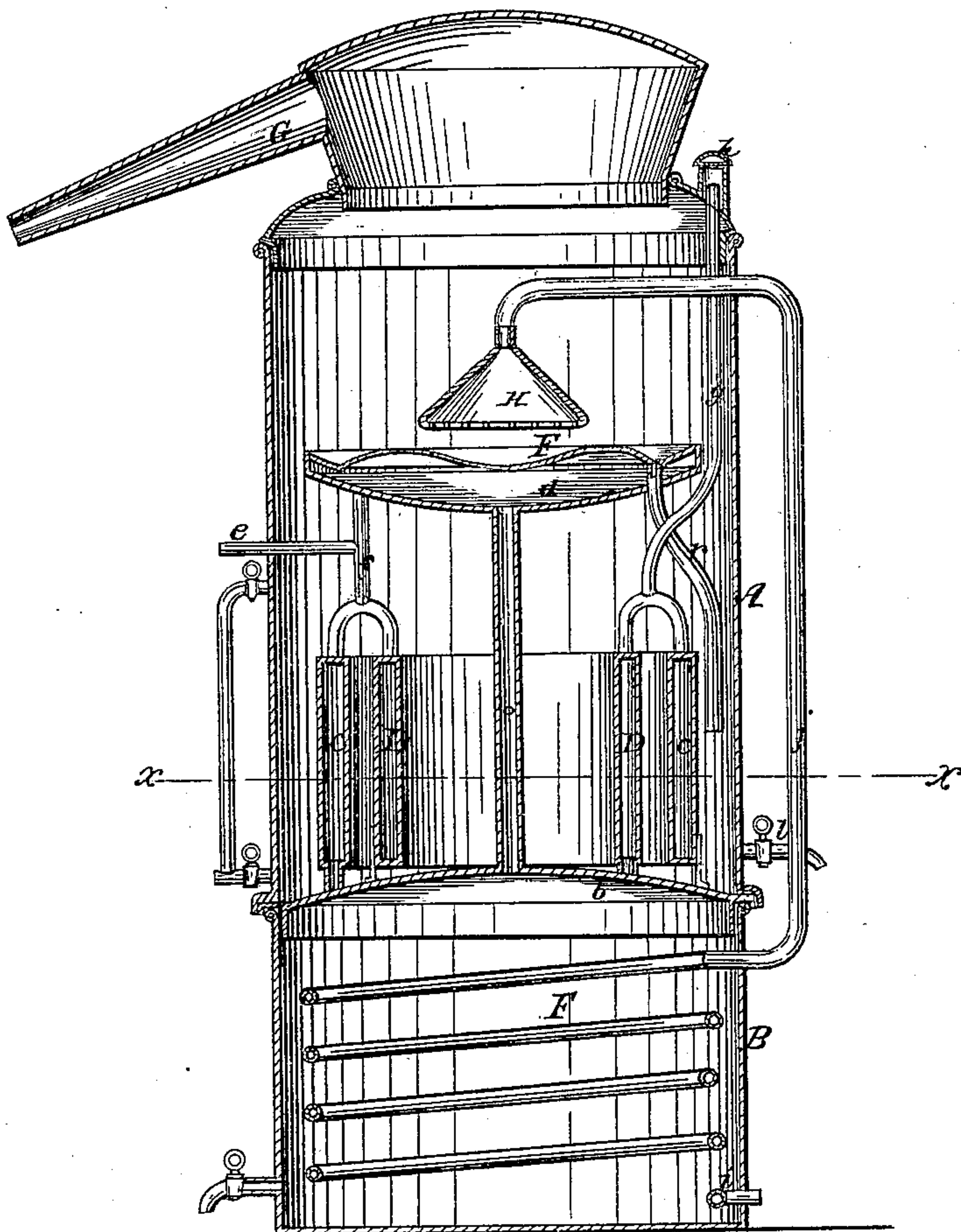
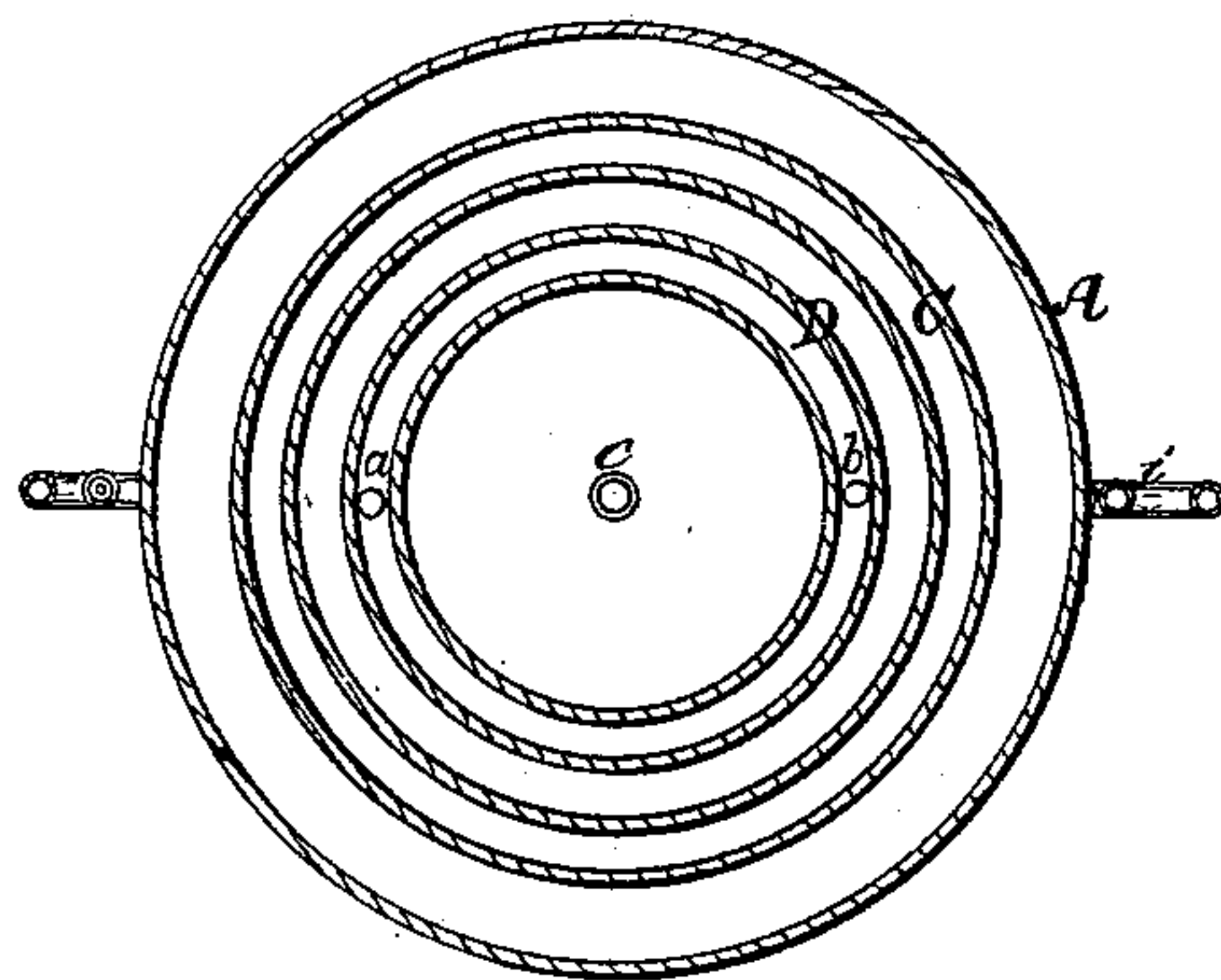


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

H. G. DAYTON, OF MAYSVILLE, KENTUCKY.

IMPROVED APPARATUS FOR DISTILLING SPIRITS.

Specification forming part of Letters Patent No. 53,581, dated April 3, 1866.

To all whom it may concern:

Be it known that I, H. G. DAYTON, of Maysville, in the county of Mason and State of Kentucky, have invented a new and Improved Distilling Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a vertical central section of this invention. Fig. 2 is a transverse section of the same, the line *x x*, Fig. 1, indicating the plane of section.

Similar letters of reference indicate like parts.

This invention relates to a distilling apparatus which is particularly intended for re-distilling ordinary spirit for the purpose of refining, by a continuous operation, the low-wine being carried off during the process of distilling.

My apparatus is composed of a still, A, made of wood, sheet metal, or any other suitable material, and set on the top of a drum, B. Said drum communicates, through pipes *a b*, with a series of annular concentric steam-chambers, C D, and through a pipe, *c*, with a suitable steam-jacket, *d*, under the bottom of the evaporating-pan E. The steam which is to fill and heat the jacket *d*, steam-spaces C D, and drum B, is taken from a suitable generator, which communicates, by a pipe, *e*, with an upright pipe, *f*, extending from the steam-jacket *d* down and connecting by two or more branches with the annular chambers C D, as shown in Fig. 1 of the drawings. The steam thus admitted fills the annular chambers and the drum B, and it blows off through a pipe, *g*, which connects by suitable branches with the several annular chambers and which extends out through the top of the still. The mouth of this pipe is provided with a vacuum-valve, *h*, to prevent injury when the steam in the interior of the drum or chambers condenses.

The alcohol or other liquid to be distilled is introduced through a pipe, *i*, at the bottom of

the drum B, and it passes through a coil, F, in the interior of said drum and up through a pipe, *j*, which is situated on the outside of the still A, and which connects at its bottom end with the coil and at its top with a rose, H, through which it discharges, in a spray, on the heated bottom of the pan E. While passing through the coil F the liquid is heated, and as it discharges on the bottom of the pan E its volatile parts form rapidly into a vapor, which escapes through the goose-neck G.

The low-wine which remains in a liquid state in the evaporating-pan runs down through a pipe, *k*, and collects at the bottom of the still, whence it is drawn off through a faucet, *l*.

By this arrangement the process of refining spirits or that of distilling liquids of any kind can be continued without interruption, and the constituents of said liquid are readily separated from each other, according to their volatility. The strength of the product obtained by the distillation in my apparatus can be easily regulated by increasing or decreasing the temperature of the evaporating-pan E, and of the drum B and steam-chambers C D, and the low-wine which collects in the bottom of the still A can either be redistilled or used in the state in which it is drawn from the bottom of the still A.

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

1. The evaporating-pan E, with a steam-jacket, *d*, in combination with rose H, coil F, steam-drum B, and still A, constructed and operating substantially as and for the purpose described.

2. The annular steam-chambers C D, one or more, in combination with the evaporating-pan E, steam-jacket *d*, still A, and drum B, constructed and operating substantially as and for the purpose set forth.

The above specification of my invention signed by me this 11th day of January, 1866.

H. G. DAYTON.

Witnesses:

M. M. LIVINGSTON,
W. HAUFF.