

P. CASAMAJOR.

Making Vinegar.

No. 34,403.

Patented Feb. 18, 1862.

Fig. 3.

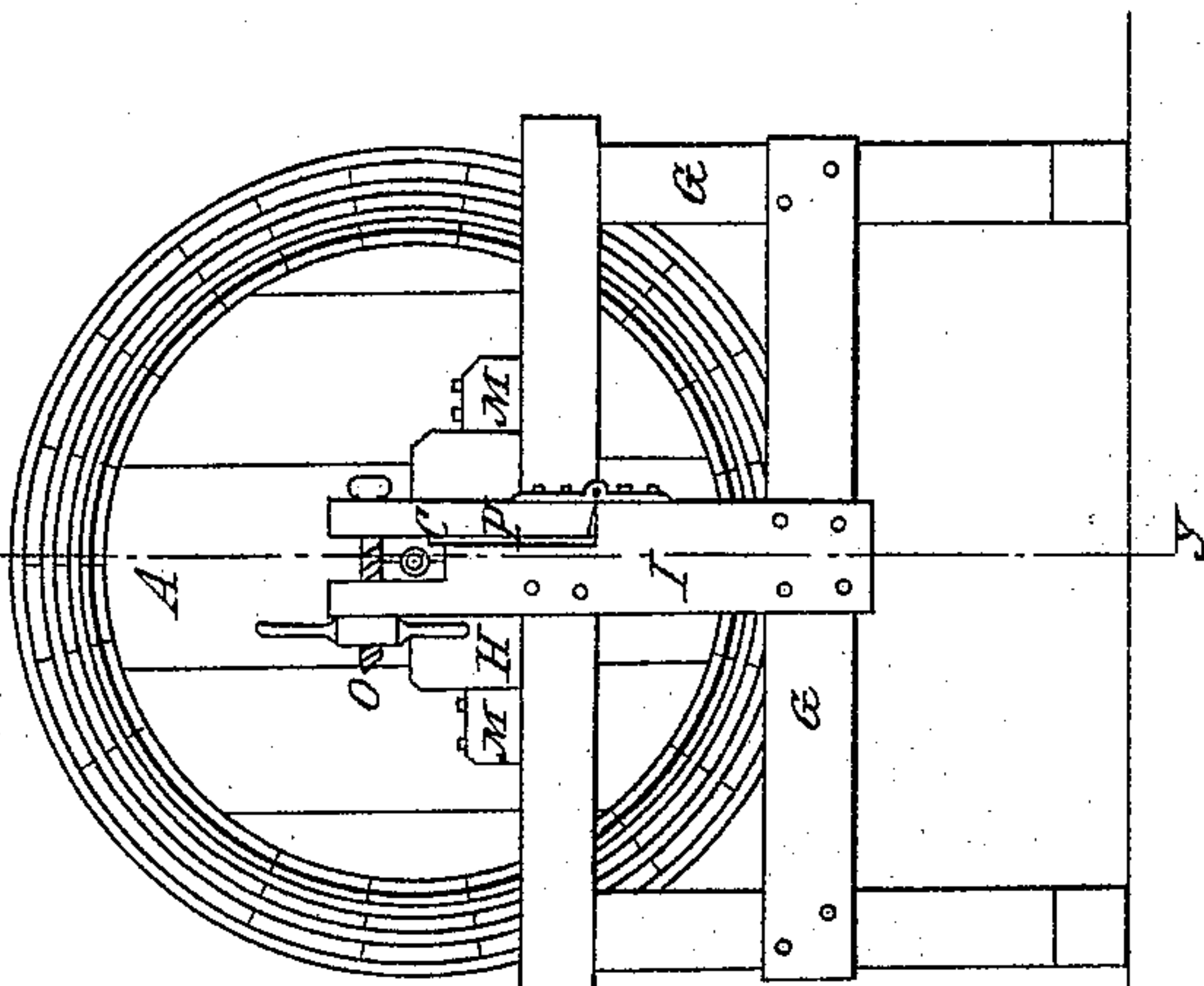


Fig. 1.

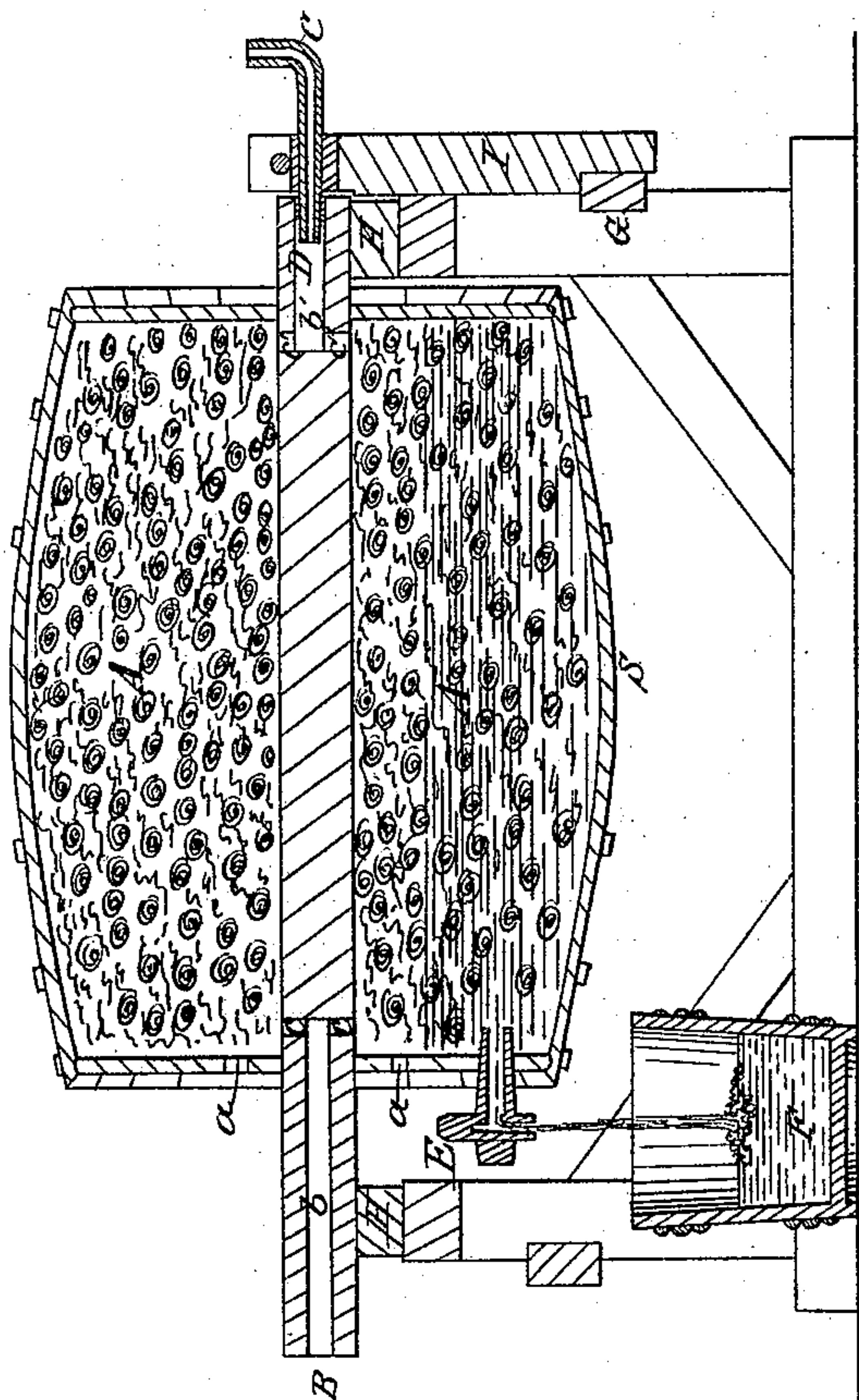
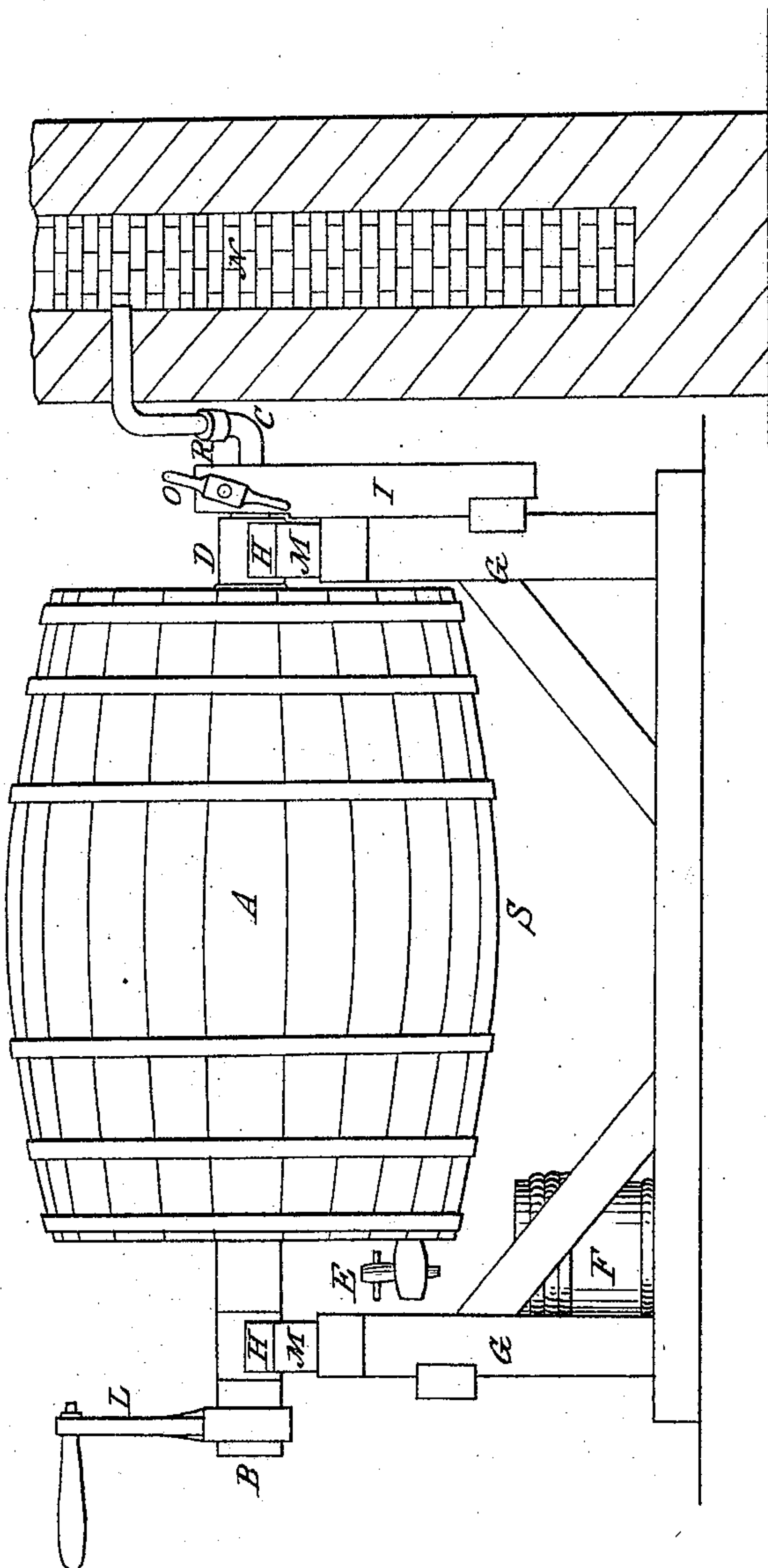


Fig. 2.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

PAUL CASAMAJOR, OF NEW YORK, N. Y.

IMPROVED APPARATUS FOR MAKING VINEGAR.

Specification forming part of Letters Patent No. 34,403, dated February 18, 1862.

To all whom it may concern:

Be it known that I, PAUL CASAMAJOR, of New York, in the county of New York and State of New York, have invented a new and Improved Apparatus for Making Vinegar; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical section through the axis and through a line X Y of Fig. 3; Fig. 2, a side view, and Fig. 3 an end view.

The apparatus consists of a cask or other vessel of wood A, filled with wood shavings or any other light and porous material through which passes a square axle B D. This axle fits into openings in the heads of the cask, the joint on end D being air-tight, and is turned in two places to fit into boxes H H, which rest on frame G. There are two central holes *b b'* bored in the axle B D from each end, which holes communicate with the inside of vessel A by openings *c c' c'*. The opening *b* communicates with the air outside and may be replaced by or used simultaneously with holes *a a*, bored into the head of cask A. The hole *b'* of end D communicates with tube C, which remains stationary, while B D revolves with vessel A. Tube C is made of wood, glass, earthenware, or any other material not acted on by the vinegar, and the space between the tube C and the sides of hole *b'* is filled with cork, tow, or any other suitable packing material. Tube C enters into flue N, filled with the rising smoke and hot gases from the combustion of fuel in a stove or other furnace. Tube C may be made of elbows and other pieces connected together by joints R, of india-rubber or any other suitable material. Tube C may communicate with a condenser, by which the vapors from cask A may be collected, the other end of said condenser communicating with flue N. Tube C is held stationary, while B D turns by a clamp formed of parts I and P, held together by screws O, as in Fig. 3, or by any other suitable arrangement.

On the head of cask A, opposite to C, is cock E, to empty contents of A into pail F.

The cask A is first filled with shavings put

into a bung-hole or any other opening which is afterward thoroughly and permanently closed. The cask is then filled to about a fifth of its capacity with the liquid to be turned into vinegar by a tube communicating with an upper reservoir containing said liquid, the lower end of which tube enters into one of the openings *a a a* by being curved into a suitable shape or made of flexible material.

Operation of the apparatus.—The cock E being closed, the cask is made to revolve by turning the crank L, or by any other means, such as a pulley and belt or gearing communicating with a motive power. The rotary motion may be continuous or it may be given only at certain intervals of time. By this motion the shavings become wet with the liquid in cask A. The draft in the heated flue N draws the outside air through the openings *a a a*, *b*, and *c* into the cask A, where it goes through the wet shavings and turns into vinegar by oxidation the liquid that soaks them. The air leaves the cask by openings *c' c' b'* and tube C. The draft may be lessened by diminishing the section of tube C by a plug or any other means.

After the operation is ended, the vinegar may be drawn out into pail F by cock E. If all the liquid is to be drawn out, the cock E may be placed on the bilge at S.

My arrangement to create an artificial draft by inspiration or suction consists of a flue N, filled by the rising smoke and hot gases from the burning of fuel, and tube C communicating with the flue N and with the interior of an acetifier or generator. This method may be applied to a stationary vessel in which the shavings are soaked by pouring the liquid from the top.

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

1. The method of creating an artificial draft by inspiration or suction, substantially as described, and for the purpose set forth.

2. The rotary apparatus, substantially as described, and for the purpose set forth.

P. CASAMAJOR.

Witnesses:

N. BEAUMONT,
S. DEBEAUVOIR.