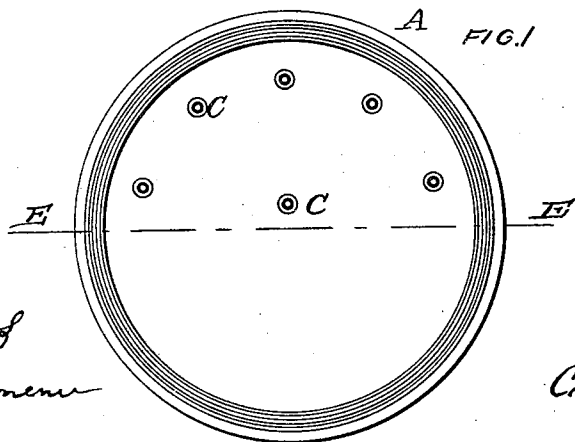
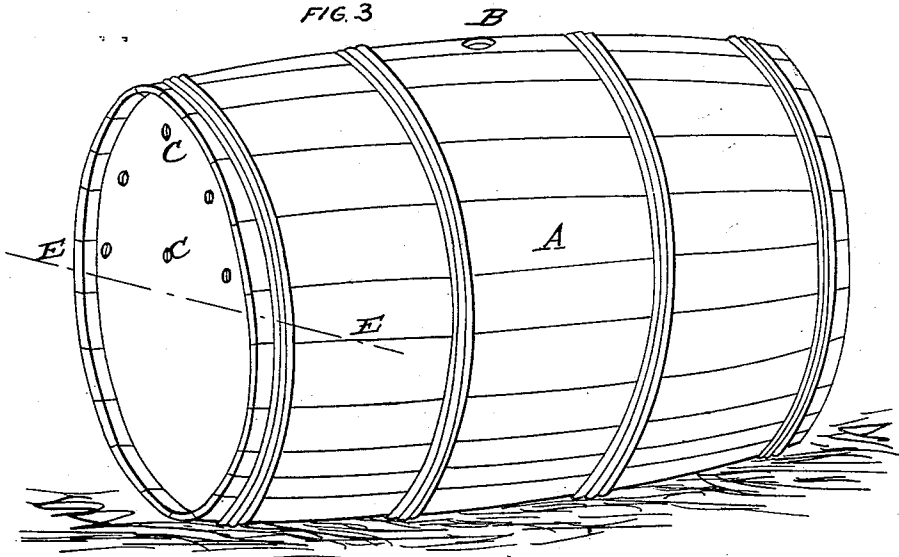
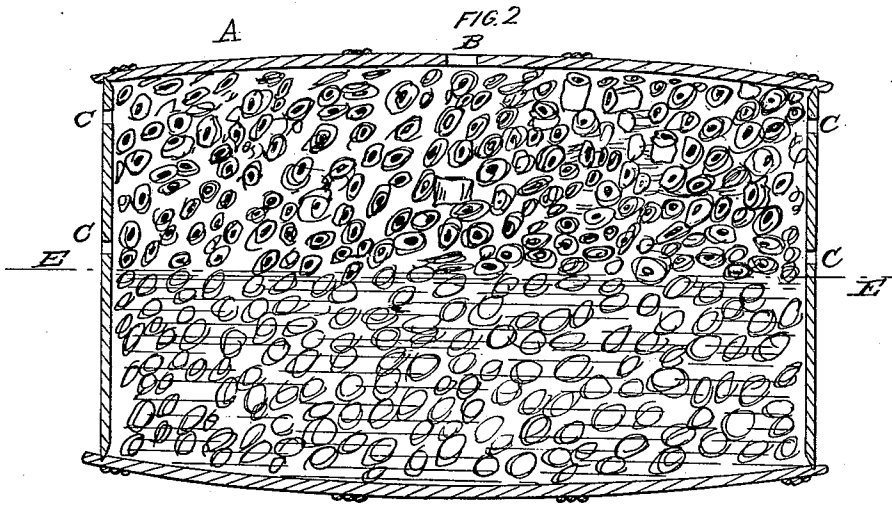


C. WESENER.

Apparatus for Making Vinegar.

No. 50,526.

Patented Oct. 17, 1865.



WITNESSES
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UNITED STATES PATENT OFFICE.

CHRISTOPHER WESENER, OF CINCINNATI, OHIO.

IMPROVED APPARATUS FOR MAKING VINEGAR.

Specification forming part of Letters Patent No. 50,526, dated October 17, 1865.

To all whom it may concern:

Be it known that I, the undersigned, CHRISTOPHER WESENER, of the city of Cincinnati, county of Hamilton, in the State of Ohio, have invented a new and useful Apparatus called the "Self-Acting Acidifier," for making vinegar from cider and other liquids possessing the necessary elements for producing vinegar, of which the following is a full and exact description.

An oblong cask, described in the drawing accompanying this specification, (marked A,) is filled with close-curved shavings, D, made from beech or other non-resinous wood. The upper half of each head of the cask is pierced with six holes, C.

The acidifier, thus constructed, is placed in an equable temperature of 75° or 80° Fahrenheit. Clear and somewhat hard cider is poured through the bung-hole B, until the cask is filled to the air-line E. The shavings by capillary action induce a slow and continuous circulation of the cider into the upper part of the acidifier, where it is exposed over the surface of the shavings to the atmosphere, from which it absorbs oxygen and gradually becomes acidified. The atmosphere is renewed in the acidifier by a current of air passing through holes C and B, and through the same apertures the impure air generated during the process of acidification obtains egress. After a period of from two to three weeks, (more or less,) owing to temperature, atmospheric influences, &c., the cider is converted into good, strong, clear, vinegar, possessing in a more eminent degree the color, aroma, flavor, &c., than when made by the old and tedious process of slow fermentation, requiring from two to three years to accomplish.

It may occur from adverse circumstances that the acidifier may partially cease to act. A good remedy in such a case is to turn the acidi-

fier once in twenty-four hours, alternately to the right and left, as far over each way as the bung-hole will permit without the escape of the liquid. While doing this all air-holes C must be closed by inserting a plug, except the upper one. Two or three gallons of the liquid may be withdrawn, heated to 85° or 90° Fahrenheit, and returned as a means to restore suspended acidification.

I do not claim beech shavings as originating with me, neither do I confine myself to their particular use, as many other substances yielding surface and capable of producing capillary motion in liquids may be substituted to produce the same principle of action essential to a self-acting acidifier.

I do not limit my claim to any particular form or size of vessel used to contain shavings or other substance, or apparatus used to produce the desired effect, nor to the position in which the acidifier may be placed, whether perpendicular or horizontal.

Although this acidifier was invented more particularly for making vinegar from cider, yet it is equally adapted for converting into vinegar any other liquid possessing the elements for producing vinegar, and I claim for it such an extended use.

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

The manner of constructing a self-acting acidifier and its principle of action by capillary attraction.

In testimony whereof I, the said CHRISTOPHER WESENER, hereto subscribe my name, in the presence of the witnesses whose names are hereto subscribed, on the 1st day of September, A. D. 1865.

CHRISTOPHER WESENER.

Witnesses:

JAMES H. LAWS,
C. F. HANSELMAN.