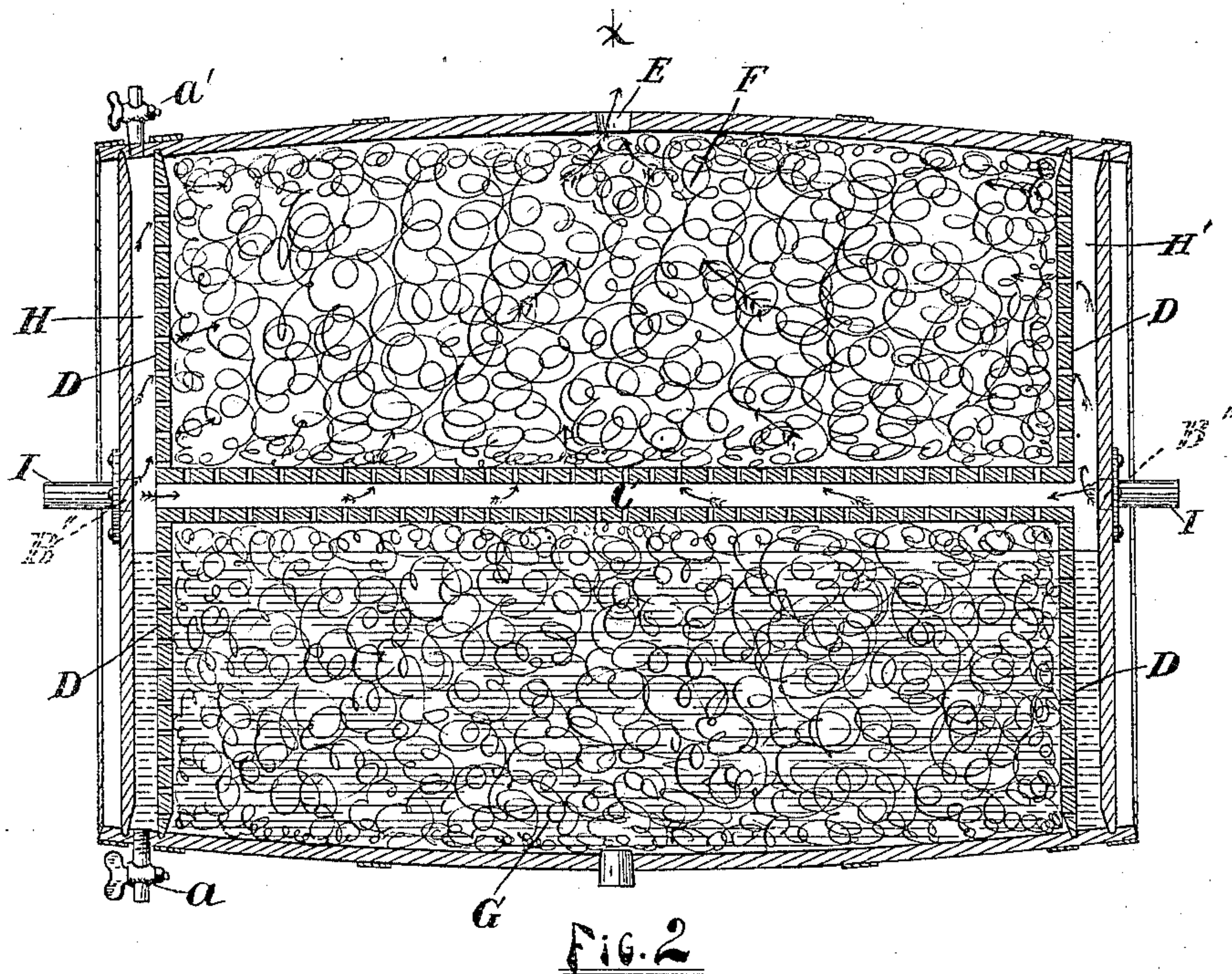
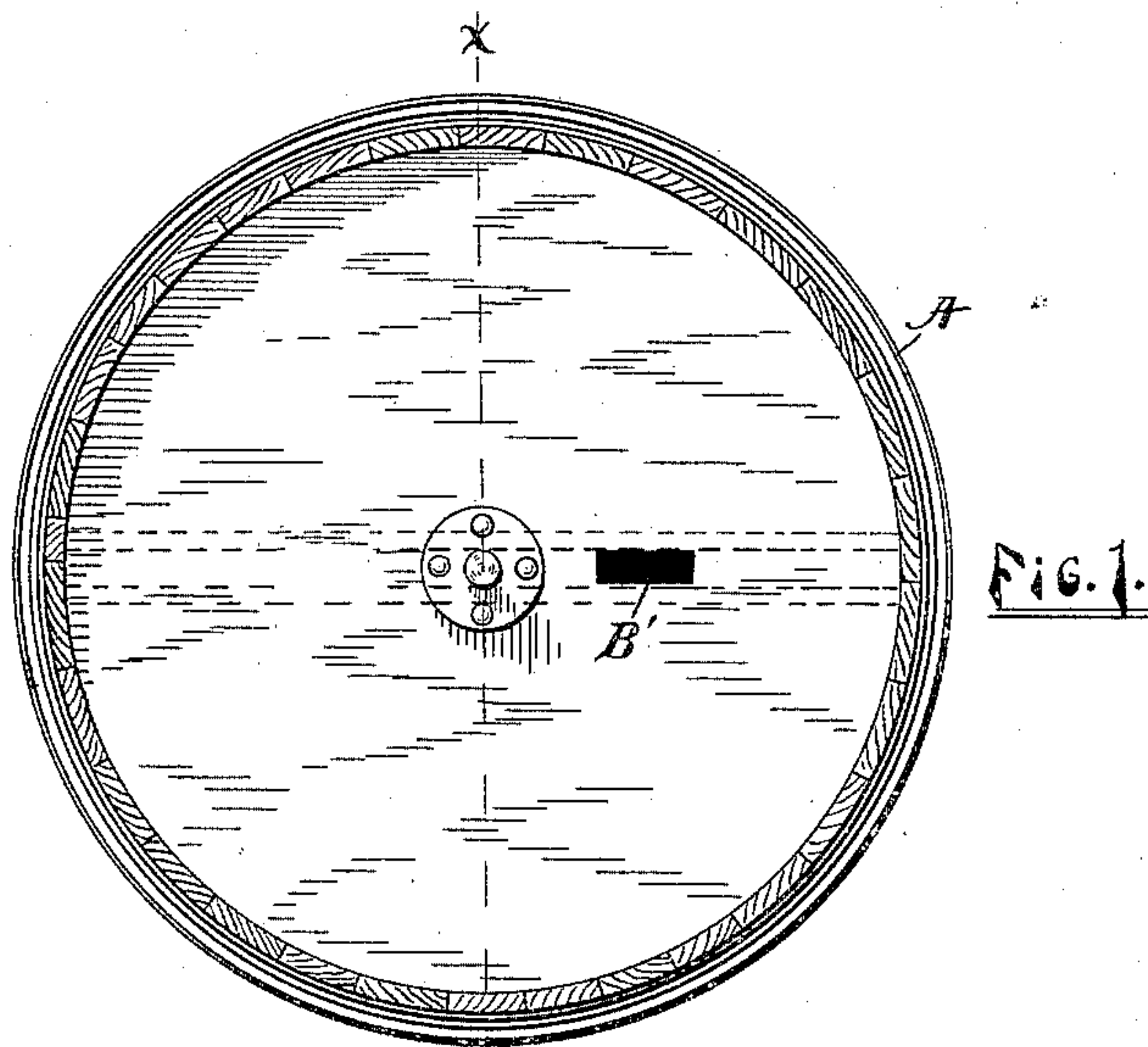


(No Model.)

C. W. SHEDD.
APPARATUS FOR MAKING VINEGAR.

No. 427,626.

Patented May 13, 1890.



Witnesses

Gawolf
M. H. Walker

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UNITED STATES PATENT OFFICE.

CHARLES W. SHEDD, OF GRAND RAPIDS, MICHIGAN.

APPARATUS FOR MAKING VINEGAR.

SPECIFICATION forming part of Letters Patent No. 427,626, dated May 13, 1890.

Application filed May 9, 1889. Serial No. 310,192. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. SHEDD, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Apparatus, of which the following is a specification.

My invention relates to improvements in apparatus for making vinegar. I attain these objects by the use of casks, barrels, or other suitable receptacles, as illustrated and described in the accompanying drawings, in which—

Figure 1 is an end elevation of a cask with my improvements. Fig. 2 is a vertical section through the line X X, Fig. 1.

Similar letters refer to similar parts throughout the several views.

The cask A is prepared with inner heads D D, which are made in two or more sections each, as may be most convenient for placing in position, and are placed within an inch, or thereabout, of the true heads, so as to leave an air-space sufficient to permit a free circulation of air between them and the true heads. The inner heads D D are perforated.

C is a horizontal air-chamber with perforated walls dividing the interior of the cask into two compartments of equal dimensions F and G, and extending from the head D to head D, and of such width as to permit being freely placed in position, and yet divide the cask into two equal chambers, the object being to permit a free circulation of air from the inlets B' B' through the several air-chambers H H' C and the outlet E. The chambers F and G are filled with shavings or other suitable material.

a a' represent spigots opening into vertical chamber H, for the drawing off of the vinegar when the process is complete.

H H' are vertical chambers, B' being an opening in the heads of the cask.

I is the journal upon which the cask is hung to admit of being revolved easily; or the cask may be placed upon skids or other suitable appliances.

The liquor to be operated with is introduced through the opening E into chamber F, through which it passes through the shavings to the lower side of the cask; or it may be introduced through the inlet B' until a suitable quantity is admitted. When the liquor has reached the lower part of the cask, the outlet E is closed and the cask is turned half a revolution. Then the outlet E' is opened. The cask remains in this position until the shavings in the upper chamber are acetified by the current of air passing through, as above described. The outlet E' is then closed and the cask reversed a half-revolution, and the outlet E is opened, this process being repeated at intervals until the whole liquor is acetified, when it is drawn off from the spigot a'.

I am aware that prior to my invention casks filled with shavings and arranged to permit a current of air to pass through them, and casks provided with perforated inner or false heads, and others furnished with two cocks to provide for the partial rotation of the casks when in use without preventing the withdrawing of the vinegar in either situation, have been in use. I therefore do not claim such constructions broadly; but

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

1. A cask provided with inner perforated heads, forming chambers in the ends of the same, and with a chamber having perforated walls located in a central longitudinal plane and dividing the main portion of the cask in two equal parts, each of which has an air-outlet and means for closing the same, said cask being provided with an air-inlet to supply air to the chambers, substantially as set forth.

2. Cask A, horizontal chamber C, vertical chamber H H', inlet B', and outlet E, substantially as and for the purposes shown.

CHARLES W. SHEDD.

Witnesses:

G. A. WOLF,
M. H. WALKER.