J. B. NETSCHER.

Vinegar-Generator.

No. 199,854. Patented Jan. 29, 1878.

Fig. 1.

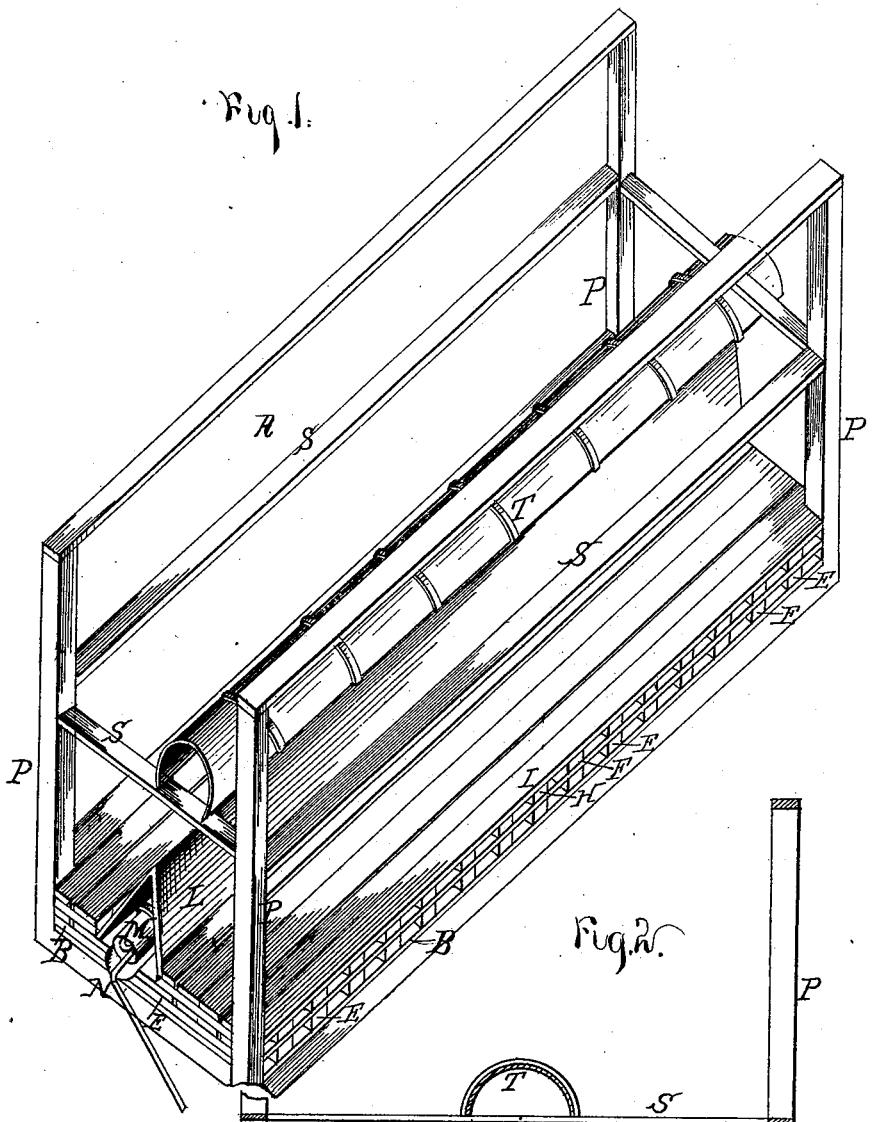
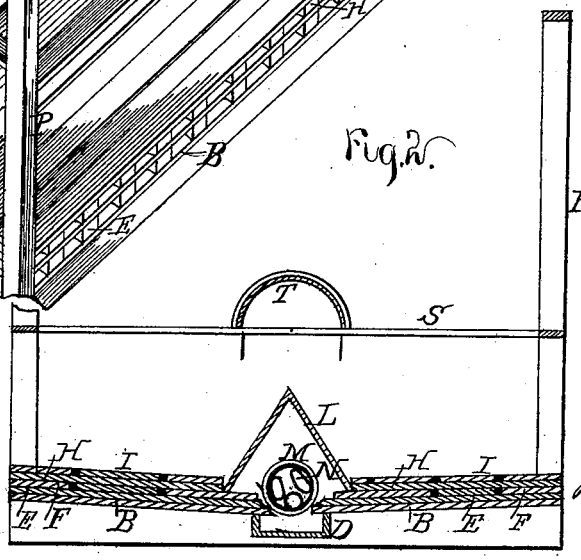


Fig. 2.



Witnesses;

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UNITED STATES PATENT OFFICE.

JOHN B. NETSCHER, OF MANSFIELD, OHIO.

IMPROVEMENT IN VINEGAR-GENERATORS.

Specification forming part of Letters Patent No. **199,854**, dated January 29, 1878; application filed December 18, 1877.

To all whom it may concern:

Be it known that I, JOHN B. NETSCHER, of Mansfield, in the county of Richland and State of Ohio, have invented a new and useful Improvement in Leaching-Vats and Vinegar-Generators, of which the following is a specification, reference being had to the accompanying drawings.

The invention relates to an improvement in leaching-vats and vinegar-generators, as will be hereinafter more fully set forth.

The object of the invention is to furnish a suitable means for generating vinegar from apple or grape pomace, in the manner specified hereinafter.

Referring to the accompanying drawings, Figure 1 is a perspective view of a device embodying the elements of the invention. Fig. 2 is a transverse section of same.

In the accompanying drawings, A represents a building of sufficient capacity to accomplish the object of the invention, and is provided with the water-tight floor B, which inclines from each side of the building A toward the longitudinal center of same, where a narrow strip of the floor, from end to end, is removed, and a trough, D, placed immediately beneath the space left by such removed portion, the trough being closed at one end and inclined toward one end of the building. Thus it is manifest that any liquid that should be on the floor B would flow into the trough D, by which it would be carried off and delivered to any suitably-placed receptacle.

Upon the floor B are transversely secured, at suitable distances apart, the strips E, which also incline toward the longitudinal center of the building, and upon which is fixed the floor F, having a similar inclination, and arranged so that liquid matter can drip through certain spaces formed in it and fall to the floor B. The floor F also has a strip at its longitudinal center, removed immediately above the trough D, the strip being similar to the one in the floor B, and for the same purpose.

Upon the floor F are secured the strips H, which are spaced and inclined similar to the strips E, though not extending quite to the trough D, and have upon their upper surfaces the floor I, which has spaces left between the boards composing it, to permit fluid substances to drip through it.

The floor I, by not extending to the trough D, leaves a portion of the floor E, on each side of its center, uncovered, and over this exposed part, and centrally above the trough D, is placed the cone-shaped covering L, beneath which, and upon the edges of the floors B F over the trough, is arranged the casing M, containing the coil of pipe N, having an inlet at one end and an outlet at the other.

At the corners of the floor B are secured the posts P, which are connected by the bars S, upon which the ends of the inverted cone-shaped or half-cylindrical tiles T may be retained by any convenient means, in order to prevent the heat within the building ascending perpendicularly through the pomace, and to spread it beneath the same.

One end of the pipe N should be connected with a suitable steam-boiler or hot-air furnace, (not shown,) whereby the coil extending through the casing M is filled with steam, which may be discharged at any suitable point in the building, and, being depressed by the covering L and tiles T, spreads between the floors B F I in the hot-air spaces formed by the strips E H, where it is retained, and as the liquid filters through the pomace, it comes in contact with the hot air, and is converted into vinegar.

The first step in the operation is to distribute over the upper floor a proper quantity of straw. Upon this is then deposited the pomace taken from the cider-press. The steam is then allowed to pass into the coil of pipe, and is discharged in the building, thereby thoroughly permeating and heating the pomace, causing fermentation to take place. A proper quantity of cider, according to the size of the device, is then distributed over the pomace, and allowed to filter through the same to the upper floor; thence it trickles through the hot-air chambers, and down the lower inclined floor to the trough D, whence it passes off into barrels or other receptacles, the cider being decomposed and converted into vinegar before it reaches the trough.

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

1. In a combined leach-vat and vinegar-generator, the inclined floors B F I, separated by strips E H, and forming hot-air chambers, in combination with the trough D, substantially as specified.

2. In a leach-vat and vinegar-generator, the combination of the inclined floors, having hot-air spaces between them, with the coil of pipe N and cover L, substantially as expressed.

In testimony that I claim the foregoing improvement in leaching-vats and vinegar-generators, as above described, I have hereunto set my hand.

JOHN B. NETSCHER.

Witnesses:
JAMES S. CRALL,
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