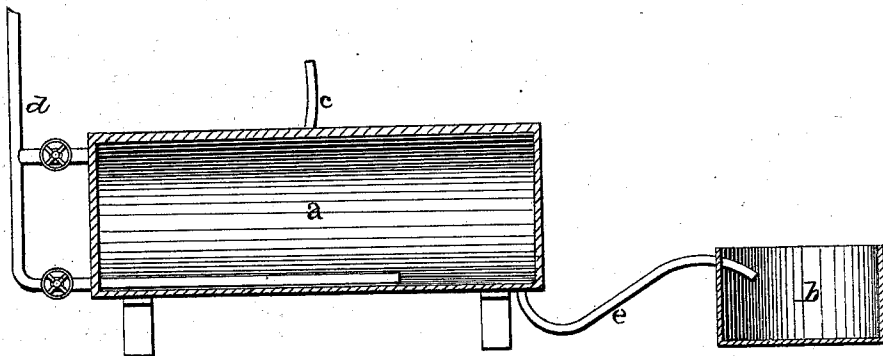


A. WOOLNER.

Preparing Mash for Distilling

No. 149,558.

Patented April 7, 1874.



Witnesses
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UNITED STATES PATENT OFFICE.

ADOLPH WOOLNER, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN PREPARING MASH FOR DISTILLING.

Specification forming part of Letters Patent No. **149,558**, dated April 7, 1874; application filed March 21, 1874.

To all whom it may concern:

Be it known that I, ADOLPH WOOLNER, of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Distilling; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings which form part of this specification.

The nature of my invention relates to an improvement in distilling; and it consists in the process or manner of treating the hot corn-mash by adding a quantity of hot slop to it while in the mash-tub, so as to give it a second scald. It also consists in the arrangement and combination of devices, which will be more fully described hereafter, whereby this process is carried into effect.

The accompanying drawing represents my invention.

a represents a suitable boiler, of any desired capacity, which is located as near as convenient to the mash-tub *b*. Leading to the boiler from the still is a pipe, *c*, through which the slop is conveyed to the boiler to be boiled by the steam, which passes in through the pipe *d*. When the heat has reached about 230° Fahrenheit, this slop is blown through the pipe *e*, which may extend down through the top of the boiler to near the bottom, or may extend from the bottom of the boiler, as shown, directly to the tub. This slop must be emptied into the mash-tub at the time when the corn-meal in the tub is at about the temperature of 185° Fahrenheit, so that the slop will give the corn-meal a second scald. After these two have been well mixed together, they are allowed to stand from one to two hours, according to spare

time, when the rye and malt, which are termed "small grain," are added to this mash.

By thus giving the corn-meal a second scald, but half the quantity of small grain usually taken by distillers is required, which is a great saving, as the small grain, especially the malt, is treble the price of corn.

The lactic acid of the slop dissolves the starch of the corn into sugar, assisting the fermentation greatly, and producing a good result in quality as well as quantity.

In what is known as the "sour-mash" process, the corn-meal is stirred into hot slop at about 190° Fahrenheit, in small tubs of about one hundred gallons capacity. This stands from twenty-four to thirty-six hours, when cold water is added; and in this cold state a little small grain is added, stirred up, and let in the fermenting-tubs. In this process no steam or water is used in scalding.

In my process the corn-meal is let in hot water at about 158° Fahrenheit, stirred well in the mash-tub, and then heated by steam up to 185° Fahrenheit, at which time I let in the hot slop boiled to a high temperature, thus giving the meal a second scald.

Having thus described my invention, I claim—

1. The process herein described of giving the corn-meal a second scald by mixing it with the boiling slop, substantially as described.

2. The combination of the boiler *a*, mash-tub *b*, and pipes *c d e*, substantially as shown.

In testimony that I claim the foregoing I have hereunto set my hand.

ADOLPH WOOLNER.

Witnesses:

T. C. TRACIE,
J. B. FISHBACK.