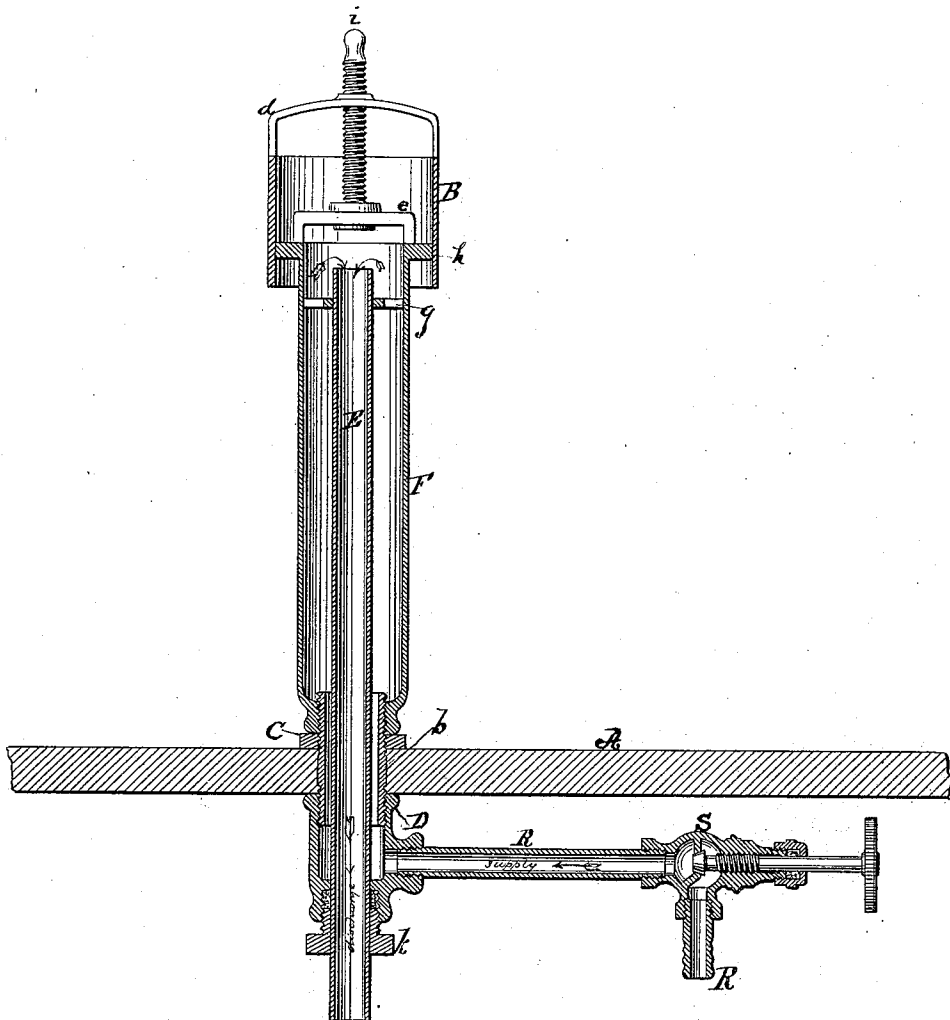


M. GOTTFRIED.

BEER-COOLER.

No. 187,128.

Patented Feb. 6, 1877.



Witnesses:

Clarence Poole
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Inventor:

Matheus Gottfried.

by his attys.

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UNITED STATES PATENT OFFICE.

MATHEUS GOTTFRIED, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN BEER-COOLERS.

Specification forming part of Letters Patent No. **187,128**, dated February 6, 1877; application filed December 12, 1876.

To all whom it may concern:

Be it known that I, MATHEUS GOTTFRIED, of Chicago, Illinois, have invented a new and Improved Method and Apparatus for Cooling Beer in fermenting-tubs; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a vertical sectional view.

Heretofore, beer has been cooled in a variety of ways, but principally by improved refrigerating-houses, and by means of floating coolers or "swimmers," as they are called among brewers. These methods are seriously objectionable, principally owing to the room required, and the expense incident upon their use.

The object of my invention is to overcome the objections named; and it consists in circulating through the beer, by means of proper apparatus, a current of cold water; and it further consists in the apparatus by which I produce the said circulation, as hereinafter described and claimed.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents a section of a tank or fermenting-tub. D is a T-coupling, into one end of which is a sleeve, *b*, passing through the bottom of tub A, and drawn tightly to it by means of a nut, *c*, and on the projection of sleeve *b* is screwed a drum, F, of such a height as to be above the surface of the beer. Through a stuffing-box, *k*, in the lower end of coupling D, passes a discharge-pipe, E, nearly to the top of drum F, where its upper edge is held by a collar

and brace, *g*, the pipe E being of less diameter than the sleeve *b*. Into the third thread of the T-coupling D connects a pipe, R, supplied with an ordinary globe-valve, S. Around the top of the cooling-drum F is a flange, *h*, around which tightly fits a cap, B, which is made extensible by means of a screw, *i*, permanently fixed to a cross-bar, *e*, across the mouth of drum F, and passing through a female screw in cross-bar *d* on cap B.

The operation will be as follows: Pipe R being attached to any cold-water supply, and valve S opened, the water flows into drum F and fills it to the top of pipe E, when the water flows down through pipe E, and is discharged after extracting a certain amount of heat from the beer.

The supply of water to drum F can be completely controlled by valve S. The cap B enables the drum to be extended in length, if desired. The supply-pipe need not necessarily be applied to the bottom of cylinder F. The said drum F may be made with a corrugated surface, to increase the cooling-surface, and any required number of the coolers may be used in one vat.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The pipe R, drum F, sleeve *b*, and coupling D, and discharge E, in combination with mash-tub A, substantially as set forth.

2. In a beer-cooler, the extension-cap B, in combination with the drum F, substantially as and for the purpose described.

MATHEUS GOTTFRIED.

Witnesses:

FR. W. WOLF,
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