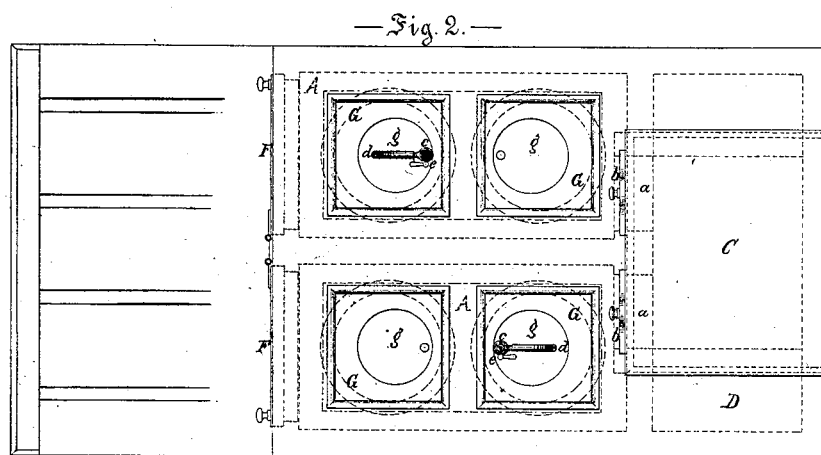
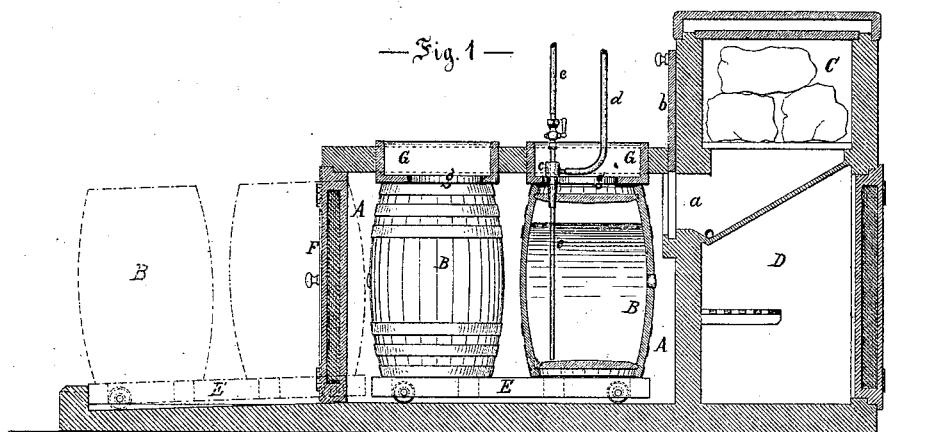
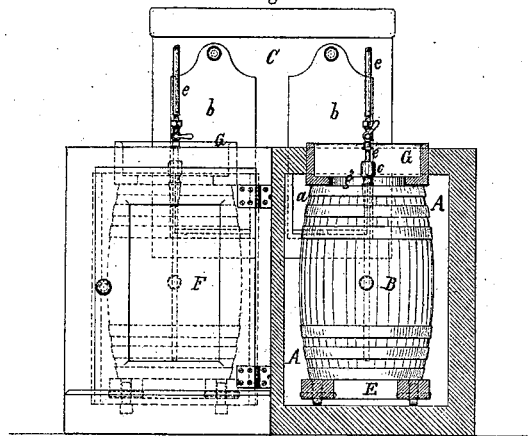


T. BERGNER & S. ZEISSE.
 Improvement in Cooling Apparatus for Beer, Ale. &c.
 No. 115,018. — Fig. 3. — Patented May 23, 1871.



Witnesses:
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UNITED STATES PATENT OFFICE.

THEODORE BERGNER AND SIEGMUND ZEISSE, OF PHILADELPHIA, PA.

IMPROVEMENT IN COOLING APPARATUS FOR BEER, ALE, &c.

Specification forming part of Letters Patent No. 115,018, dated May 23, 1871.

We, THEODORE BERGNER and SIEGMUND ZEISSE, of the city of Philadelphia and State of Pennsylvania, have invented certain Improvements in Refrigerators, of which the following is a specification:

Our invention relates specially to that class of refrigerators in which beer, ale, and other beverages contained in barrels are kept cool previous to and during withdrawal of the contents of the barrels for retail consumption. The nature of our invention consists in so arranging a compartment or series of compartments containing barrels in an upright position and communicating with the ice-chamber that every one of these barrels shall have its tap exposed and accessible from outside, so that any or all of the barrels may be tapped without opening the refrigerator for this purpose, and without escape of cold air through the openings whereby the tap-holes are reached.

With this improved arrangement for tapping we combine the means of conveying a variable supply of cold air to the different compartments from a common ice-chamber, and also the means of entirely intercepting the passage of cold air to any of the compartments while empty or when being recharged with full barrels.

In the accompanying drawing which forms a part of this specification, Figure 1 is a sectional side elevation of a refrigerator embodying our invention; Fig. 2 is a plan of the same; and Fig. 3 is an end view, partly shown in section.

A A are the compartments or chambers containing the barrels B B. C is the ice-chamber, placed above the provision-chamber D, and communicating with the compartments A A by means of cold-air passages *a a*, which may be entirely closed or opened to any variable extent by placing their slides or gates *b b* in the desired position.

For greater convenience in handling the barrels they are placed singly or in pairs on trucks E, and thus easily pushed into the compartments and removed therefrom through the openings closed by doors F F.

G G are framed lids so fitted into conforming openings in the top of compartments A A that the sides shall form a sufficiently tight joint, but at the same time permit vertical adjustment of the lids. These latter are so placed and of such dimensions as to cover the circular rim or edge of the respective barrels; and in order to form a tight joint at the circle of contact the lids G G are lined on the under side with felt or other suitable packing.

The tap-holes in the heads of the barrels are accessible through the circular openings *g g* in lids G G; and while all of the barrels may thus be emptied simultaneously or in succession, all undue communication through the openings *g* with the interior of the refrigerating-chambers A is effectually shut off by the joint of the packed lid G with the rim of the barrel.

Although these lids are represented as of rectangular shape, it will be evident that they may be of circular form, of a diameter equal to the sides of their square.

The device shown for expelling the liquid through the tap-hole in the head of the barrel consists of a short tubular metallic piece, *c*, driven into the tap-hole, and admitting compressed air into the barrel from a supply-pipe, *d*. The pressure thus produced expels the liquid and elevates it to the required height through a tube, *e*, sliding in a packing in *c*, and extending to the bottom of the barrel.

For removing a set of empty barrels it is only necessary to partly withdraw the lids G so that the truck and barrels may be moved freely underneath, and when another set of barrels is in place the lids are again pressed firmly down upon them, each adapting itself to any variation in the height of the barrels.

It must be evident that the joints around the openings *g g* may be made and a congruous object attained by cutting these openings through an unyielding top of the compartment A, and providing a means of raising or blocking up the barrels, and thus forming the

circular joint at the top rim in an equivalent manner.

We claim as our invention—

In combination with a compartment or series of compartments, A, communicating with an ice-chamber, C, as described, the openings *g g* provided in the top of compartment A and located within the circular joints formed with

the barrels, in the manner and for the purpose set forth.

THEODORE BERGNER.
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Witnesses:

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