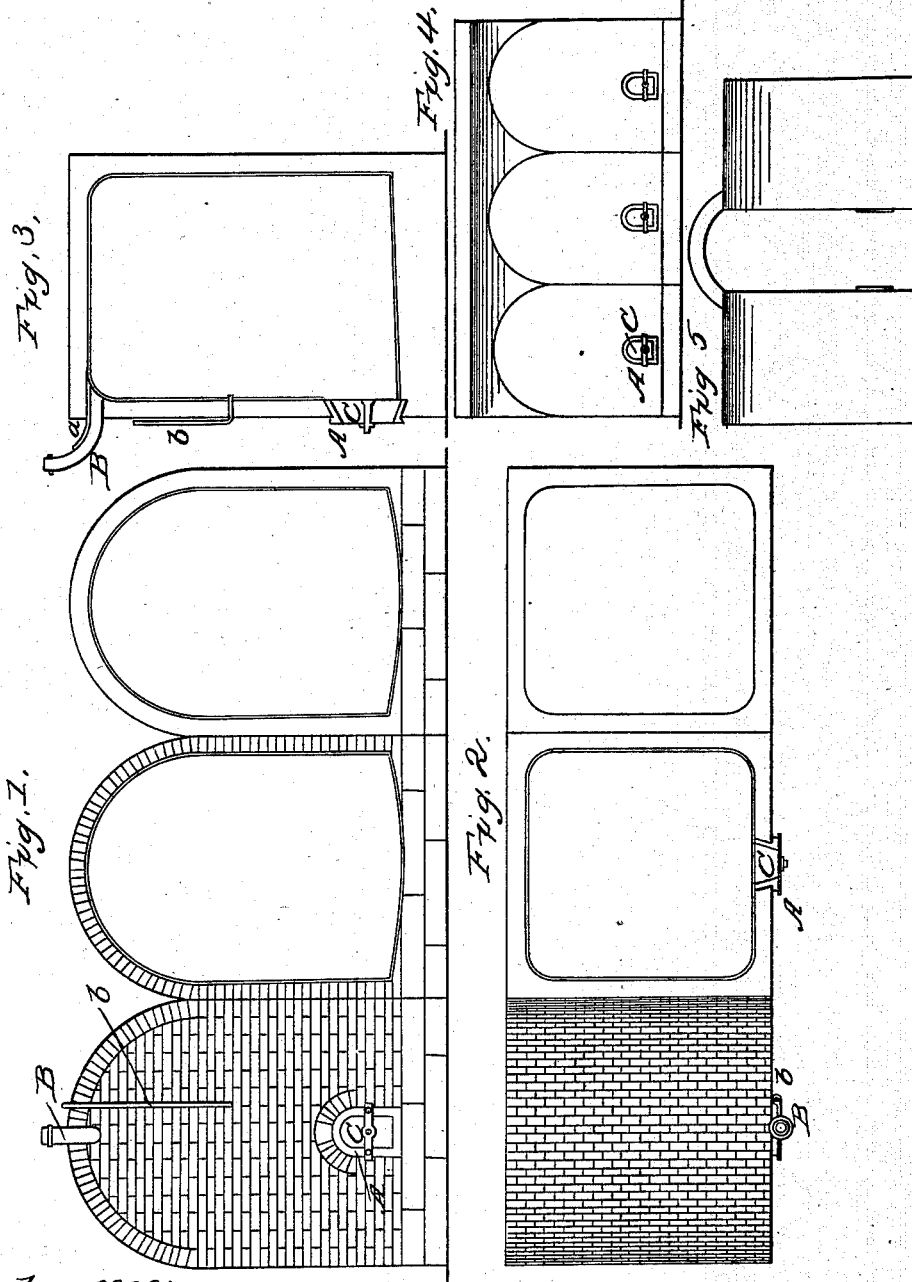


M. TSCHIRGI.
Preserving Beer.

No. 47,347.

Patented April 18, 1865.



Witnesses:
R. T. Campbell
C. Schiffer

Inventor:
Matthew Schirgi
Mason Branch & Co. New York

UNITED STATES PATENT OFFICE.

MATHEW TSCHIRGI, OF DUBUQUE, IOWA.

IMPROVED RESERVOIR FOR BEER, WINE, &c.

Specification forming part of Letters Patent No. 47,347, dated April 18, 1865.

To all whom it may concern:

Be it known that I, MATHEW TSCHIRGI, of the city and county of Dubuque, State of Iowa, have invented a Mode of Storing and Preserving Beer, Wine, and Cider; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front elevation of a reservoir and a vertical section through two reservoirs which are adapted for containing and preserving beer. Fig. 2 are top views of three reservoirs. Fig. 3 is a vertical section through the center of one of the reservoirs. Figs. 4 and 5 show the mode of arranging the reservoirs with arched passages between them.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to a new and improved mode of storing large quantities of beer and other liquors which require to be kept as cool as possible and free from alternations of temperature, by which I am enabled to preserve such liquors for an indefinite period above the surface of the ground equally as well if not better than when they are stored in cellars or subterranean vaults.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

The following is a description of the most preferable mode of constructing the reservoirs for containing the liquors and preserving them above the surface of the ground.

Upon a solid foundation of stone and cement, which may extend about one foot above the surface of the ground, I erect four walls, of brick or stone, and cover the whole with an arch, as shown in Fig. 1. In the construction of such a reservoir I introduce into the front wall a door-frame, A, which should be sufficiently large to admit a person to enter the reservoir for the purpose of finishing it by rendering it air-tight, as will be hereinafter described. I also introduce through the front wall of the reservoir a pipe, B, which is provided with means on its outer end which will admit of the attachment of a hose for filling the reservoir. Said pipe is located at the upper end of the reservoir, and provided with an air-discharge pipe, a, as shown in Fig. 3. In conjunction with these appliances I employ

a gage, b, which is made of glass, and introduced into the reservoir near the bottom thereof and carried up to the top, so that the height and quantity of liquor within the reservoir can at any time be ascertained by looking at the liquor in the gage.

In constructing my reservoir, I prefer to give a gentle slope to the floor, so that there will be no stagnation of the liquor in cleaning out the reservoir. I also round the four corners of the walls inside of the reservoir, to facilitate cleaning and purifying it. The structure thus formed is carefully plastered inside with cement, which, when thoroughly dry, is covered with a varnish that may be composed of the following ingredients: Alcohol, one gallon; shellac, one-half pound; rosin or beeswax, one fourth pound of either.

The shellac is pulverized and mixed with the rosin or wax and with the alcohol at a gentle heat of, say, 140° Fahrenheit.

To facilitate the drying of the plaster on the walls of the reservoir I employ hot air, which is conveyed into the reservoir and the plaster heated until it will readily absorb the varnish when applied with a brush. By thus applying the varnish above mentioned to the warm plaster the pores thereof will be completely filled up, and the reservoir-walls thus rendered impervious to air.

I do not confine myself to the use of a varnish compounded as above set forth, but I prefer to use such a varnish mixed together in about the proportions given. Besides filling up the pores of the walls and rendering these walls air-tight, the varnish will communicate a very agreeable flavor to the beer when confined within the reservoir for a short time.

Before filling the reservoir with beer the opening through the iron frame A is closed and hermetically sealed by means of a door, C, which may be packed tightly with any suitable material applied around its edges. I prefer to make such door with beveled edges, adapted to fit snugly the corresponding edges of the door-frame when the door is forcibly drawn outward by means of clamps, as represented in Figs. 1 and 3.

I have thus given a description of my mode of constructing a reservoir.

In practice I arrange a number of such reservoirs in a row side by side, as shown in

Figs. 1, 2, and 4 of the drawings, and directly opposite such a row I erect another row of reservoirs, leaving a space between them of sufficient width to form an alley or walk for persons to enter. If desirable, several rows of such reservoirs may be thus arranged with arched alleys between them.

By building the reservoirs as above described it is easy to construct what stands in the place of and surpasses a cellar, as the reservoirs themselves form the cellar above the surface of the ground, where access can be conveniently had to them for filling and cleaning them out. They should be covered by a layer of earth at least three feet thick, which may be covered with sod, and the whole rammed down compact.

Some of the advantages of my invention may be thus briefly stated. The reservoirs are permanent and not liable to decay, as are wooden hogsheads, which cost as much apiece as the proposed structure, while they last but from six to eight years. They keep the contents cooler and do not allow them to sour. They are easily cleaned, as a man can get into

them through the doors, which are provided for that purpose. They are so constructed that they can be used in localities where it would be impracticable to make cellars or subterranean vaults.

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

1. The employment of superterrene structures, for the purpose of storing beer and other fermentable liquids, which are constructed of masonry and rendered impervious to air, substantially as described.

2. Providing reservoirs of masonry, which are adapted for storing beer and other liquors, with feed-pipes, gages, and man holes, substantially as described.

Witness my hand in matter of my application for a patent for improved reservoir for containing beer, wine, and cider.

MATHEW TSCHIRGI.

Witnesses:

R. T. CAMPBELL,
E. SCHAFER.