(No Model.) 2 Sheets—Sheet 1.

W. B. McCROSKY.

COLD STORAGE APPARATUS.

No. 561,910. Patented June 9, 1896.

Fig. 1.

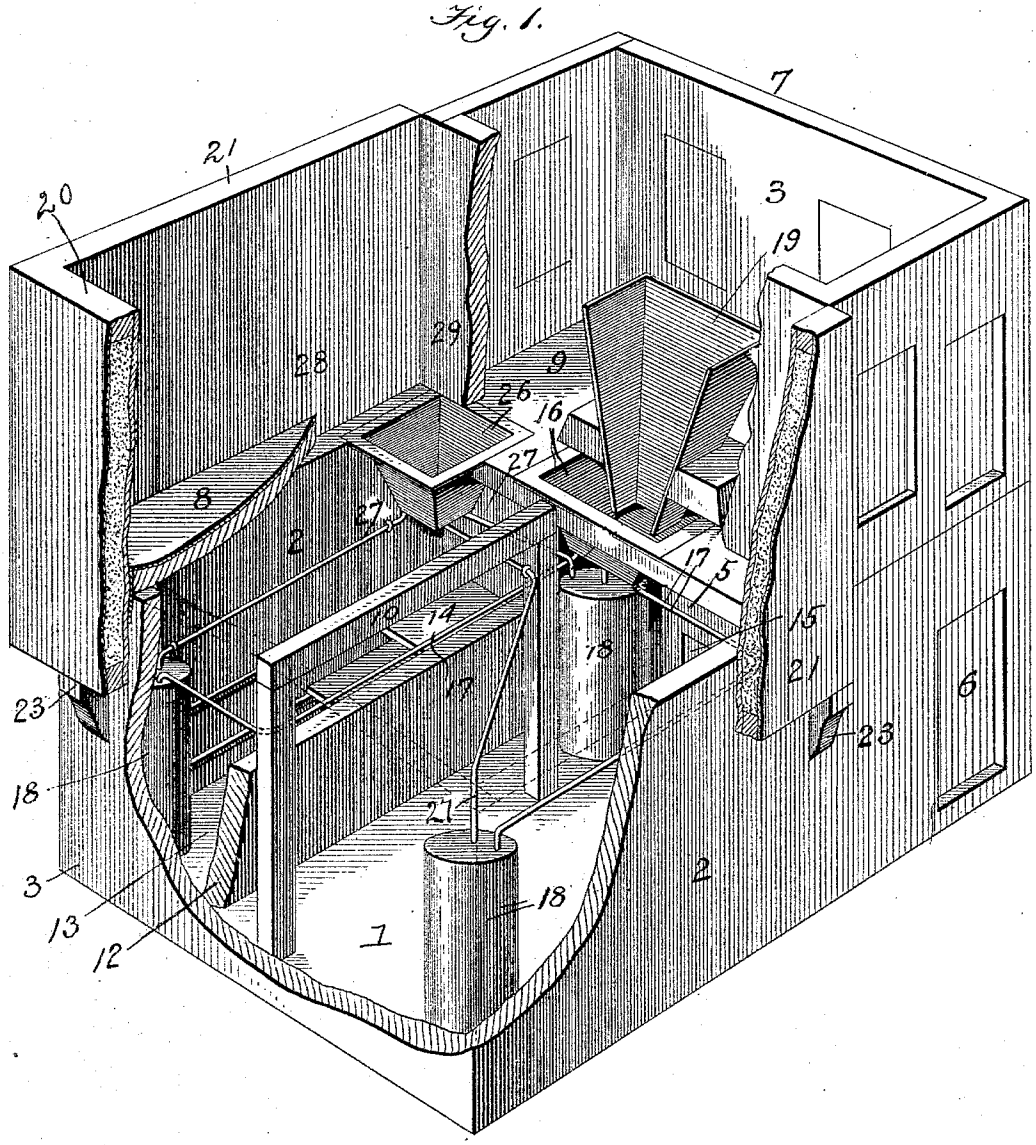
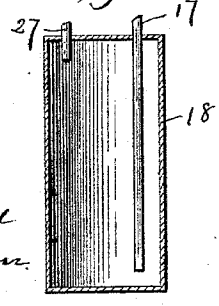


Fig. 2.



Witnesses
Edwin L. Bradford
Nellie A. Heffernan.

Inventor
William B. McCrosky.
By Patrick O'Farrell
Attorney

ANDREW B. GRAHAM, PHOTO-LITHO. WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

W. B. McCROSKY.

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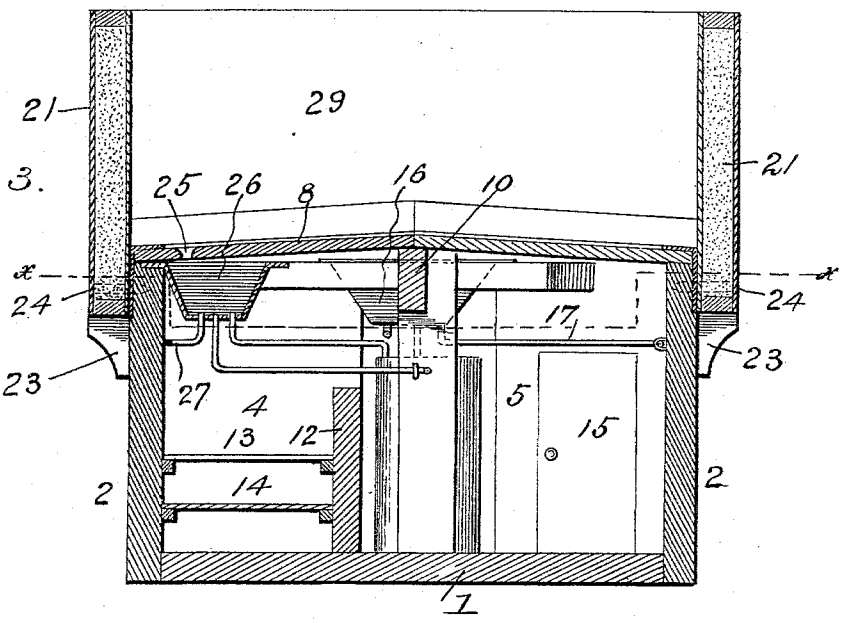
Fig. 3.



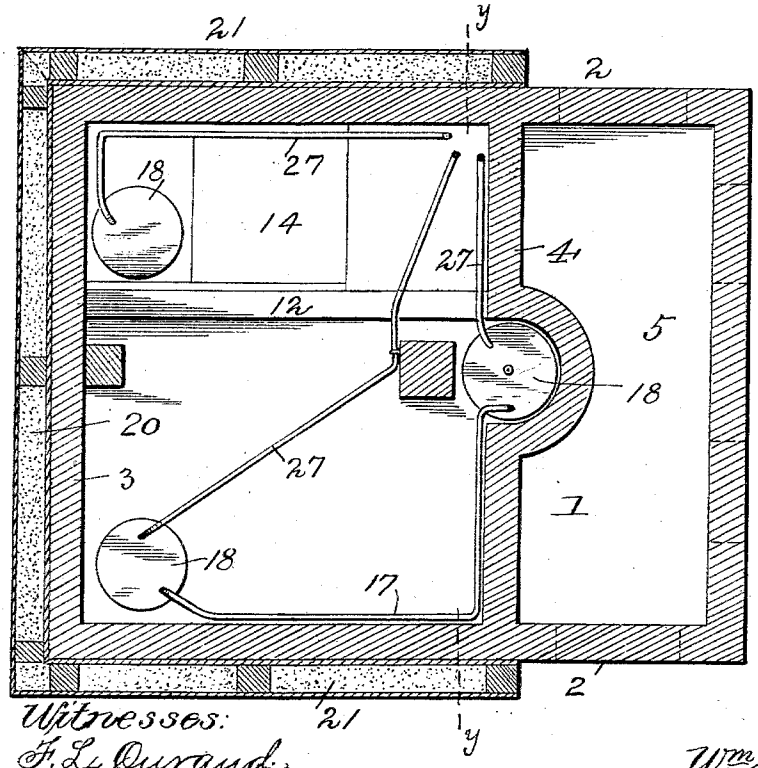


Fig. 4.

Witnesses:
F. L. Durand.
Samuel F. Hamm.

Inventor:
Wm. B. McCrosky,
by Louis Bagger & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM B. McCROSKY, OF EUREKA SPRINGS, ARKANSAS.

COLD-STORAGE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 561,910, dated June 9, 1896.

Application filed April 9, 1894. Serial No. 506,870. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. McCROSKY, a citizen of the United States of America, residing at Eureka Springs, in the county of Carroll and State of Arkansas, have invented certain new and useful Improvements in Cold-Storage Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to a cold-storage apparatus especially designed to be used in climates in which ice is formed naturally during certain seasons, although with slight changes and modifications, without departing from the principle of the invention, the structure can be readily adapted for using artificial ice.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view, partly broken away, of a cold-storage apparatus constructed in accordance with my invention. Fig. 2 is a detail sectional view of one of the casks. Fig. 3 is a transverse sectional view on the line *y y*, Fig. 4. Fig. 4 is a horizontal section on the line *x x*, Fig. 3.

In the said drawings the reference-numeral 1 designates the bottom, 2 the side walls, and 3 the end walls, of the apparatus, preferably made of masonry or brickwork, forming a water-tight structure, and provided with interior transverse wall 4, forming an anteroom 5, provided with a door 6. Above this anteroom the said walls are extended upwardly, forming a chamber 7. The numeral 8 designates the top of the front part of the structure, and 9 the top of the anteroom. The top 8 is supported by a brace 10, located in the structure. Also located in said structure is a longitudinal wall 12, forming a chamber 13, provided with shelves 14 to support sealed jars or cans containing milk, fruit, or other substances or articles. The said jars or cans are designed to be submerged in water contained in said chamber. The wall 12 does not extend as high as the walls of the structure, so that a space will be left between it and the top 8 to allow access to be had to the chamber. The anteroom is provided with a door 15 to allow entrance to the structure. The chamber above the anteroom formed by the extended walls is an ice-chamber, and the top 9 is provided with a tray 16, provided with pipes 17, leading to casks 18, so that water from said tray will flow to the casks.

The numeral 19 designates a removable ice-chest, the lower end of which extends into the tray 16. Ice is supplied to this chest at such times when the external atmosphere is not low enough to form ice. When the temperature is such as to freeze water, the ice-chest is removed, and the windows and doors of the ice-chamber are opened to enable the cold air to reach and congeal the water in the tray. When the temperature rises above the freezing-point, the ice-chamber is closed, and after the ice in the tray has melted the ice-chest is placed in position and supplied with ice.

Above or on top of the front part of the said structure are located an end and side walls 20 and 21, the lower ends of which rest upon blocks 23, secured to the outside of the structure and secured thereto in any suitable manner. Screws or bolts 24 secure said walls in place. These walls form a cooling-chamber, which communicates, by means of a passage-way or opening 25 in the top 8, with a tray 26, located in the chamber 13. Connected with this tray are pipes 27, leading to the casks 18. By means of the said trays, casks, and pipes advantage may be taken of the ice-water, which would otherwise go to waste, to assist in cooling the compartments in warm weather. The ice chamber or reservoir 28, formed by the walls 20 and 21, is a temporary structure and can be removed when desired, and is separated from the chamber above the anteroom by the wall 29.

In using the apparatus in cold weather the walls or framework of the reservoir or chamber 28 are set up and lined on the inside with a cheap fabric, such as muslin or cotton. This is sprayed with water from a hose-pipe or other convenient source, which is soon frozen. The spraying is continued from time to time on the bottom and sides until a block of ice is formed the size of the reservoir. After the ice is formed the chamber or reservoir is covered with sawdust to a proper depth. Before the block of ice is formed the floor of the chamber, which is the top 8 of the structure, is covered with sawdust to prevent too rapid melting of the ice. The articles to be pre-

served are stored in the different compartments below the ice-chambers.

Having thus fully described my invention, what I claim is—

1. The herein-specified cold-storage apparatus consisting of the lower structure comprising a storage and ante rooms, and a water-tight compartment, a temporary superstructure forming an ice-reservoir, an ice-chamber contiguous to said ice-reservoir and located over said anteroom, and provided with doors and windows, the tray located in the top of the antechamber, the ice-chest removably supported in said ice-chamber, and the casks and pipes connected with said tray, substantially as described.

2. The herein-specified cold-storage apparatus, consisting in the lower structure, comprising a storage and ante rooms, and a water-tight compartment, a temporary superstructure forming an ice-reservoir, an ice-chamber contiguous to the ice-reservoir and also placed over the lower structure, and having doors and windows, an ice-chest removably supported in the said ice-chamber, two trays occupying the same level at the top of the lower structure, and adapted to receive the waste water from the melting ice and the casks located in the lower structure and connected by pipes with the said trays, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM B. McCROSKY.

Witnesses:
W. E. PENN,
W. A. McCOMB.