T. KRAUSCH.

METHOD OF PRESERVING ICE IN ICE-HOUSES.

No. 186,581. Patented Jan. 23, 1877.

Fig: 1

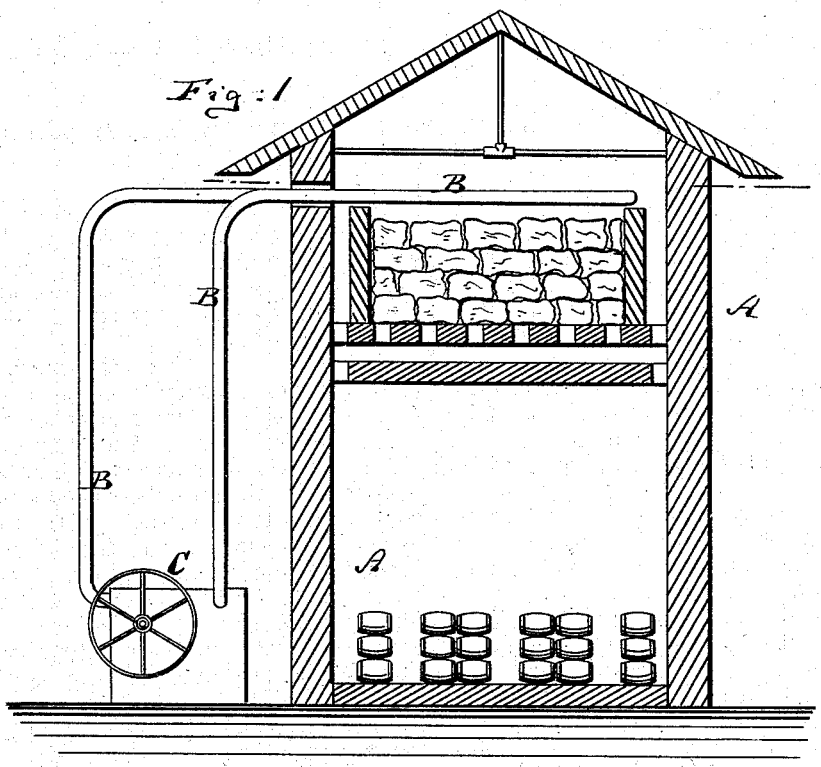
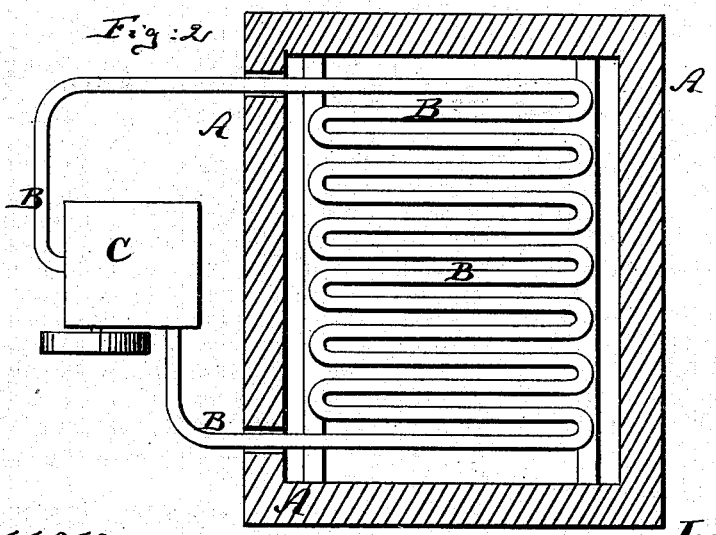


Fig: 2



Witnesses:

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UNITED STATES PATENT OFFICE.

THEODORE KRAUSCH, OF NEW YORK, N. Y.

IMPROVEMENT IN METHODS OF PRESERVING ICE IN ICE-HOUSES.

Specification forming part of Letters Patent No. **186,581**, dated January 23, 1877; application filed November 22, 1876.

To all whom it may concern:

Be it known that I, THEODORE KRAUSCH, of the city of New York, county and State of New York, have invented an Improvement in Method of Preserving Ice in Ice-Houses, of which the following is a specification:

Figure 1 is a vertical sectional view of an ice-house adapted to my improvement. Fig. 2 is a horizontal section thereof.

Similar letters of reference indicate corresponding parts in both figures.

This invention has for its object to permit the use of light structures for ice-houses in place of the very cumbersome devices now deemed necessary.

Ice-houses for brewers, &c., are now usually made with immense receptacles at the upper stories for containing the ice, the matter to be cooled being placed on the lower floors; but experience shows that, unless a very large stock of ice is laid in, the structure will become useless after a short while by the melting of the ice, and also that it is not practicable to frequently renew the supply of ice in such an ice-house.

My invention consists in conducting a current of cold air or gas into contact with the warm air which collects in the upper part of the ice-house above the ice exposed to the direct action of such warm air. By this means the warmed air will be cooled before it can affect the ice and melt the same. This enables me to use a small quantity of ice with better effect than that with which large quantities can now be utilized, inasmuch as a reduction of temperature to the extent of but a very few degrees, by means of the cooling appliances, will suffice to preserve the whole body of ice, and to maintain such a low temperature in the whole apartment as could not otherwise be maintained without a very expensive structure, costly appliances, or a larger body of ice than would be practicable.

It will be apparent that when, from low external temperature, or other causes, there is little tendency of the ice to melt, it may not be necessary to maintain the operation of the cooling apparatus, which need only be put into use on those occasional instances where the temperature would result in a destruction of the body of ice.

In carrying my invention into effect, I place into the upper part of an ice-house, A, a proper supply of pieces or cakes of ice, sufficient to cool a given quantity of air contained in said ice-house, which air circulates between the object to be cooled and the ice, coming in actual contact with the latter, as it does in every ice-house. Into this ice-house I conduct one or more pipes, B, containing cooled air or other cooling medium, which pipe extends from a so-called ice-machine, C, the cooling medium circulating or passing through the pipe, and serving to absorb the heat which is liberated in the ice house, and to prevent the same from affecting and consuming the ice therein contained.

As to the construction of the ice machine, that does not constitute part of my present invention; but it is part of my present invention to conduct the circulating cooling medium, and cooling-pipe that extends from such ice-machine, into the ice-house, above the ice contained in the latter, so that it may affect the warmer strata of air that will rise to the top within such ice-house.

I do not claim the use of an ice-machine for the purpose of congealing substances, as described in Patent No. 163,576; but

I do claim as my invention—

The within-described mode of preserving ice in ice-houses—that is, by subjecting the air in contact with the body of the ice to the action of cooling appliances, as set forth.

The foregoing description of my invention signed by me this 20th day of November, 1876.

THEODORE KRAUSCH.

Witnesses:

ERNEST C. WEBB,

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