

(No Model.)

E. MECK.
MILK COOLING HOUSE.

No. 527,700.

Patented Oct. 16, 1894.

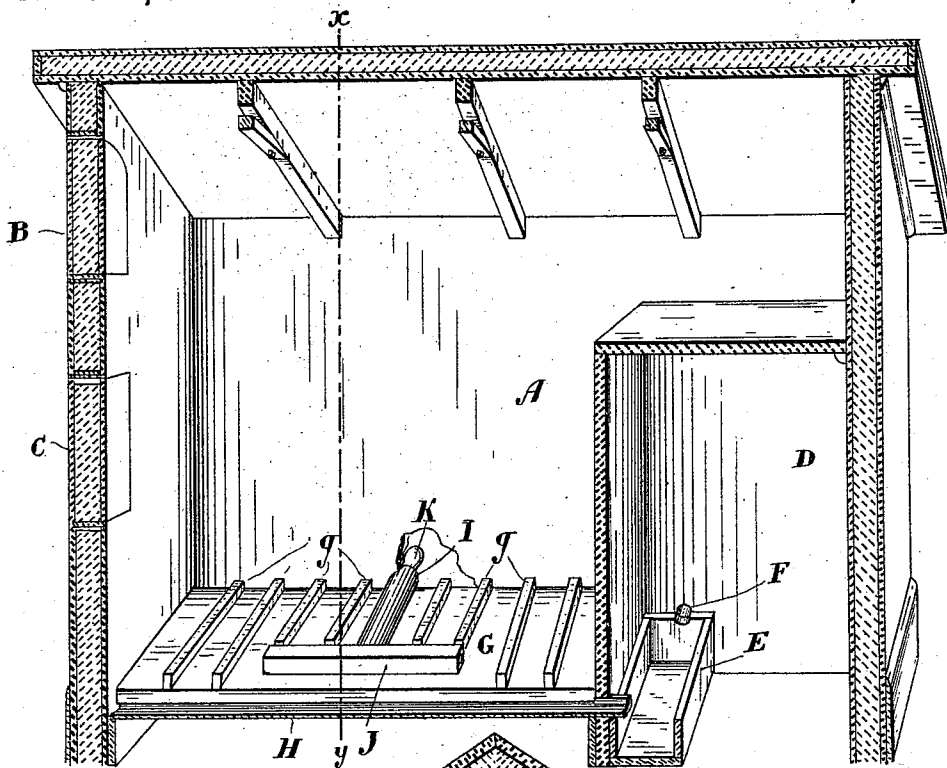


Fig. 1

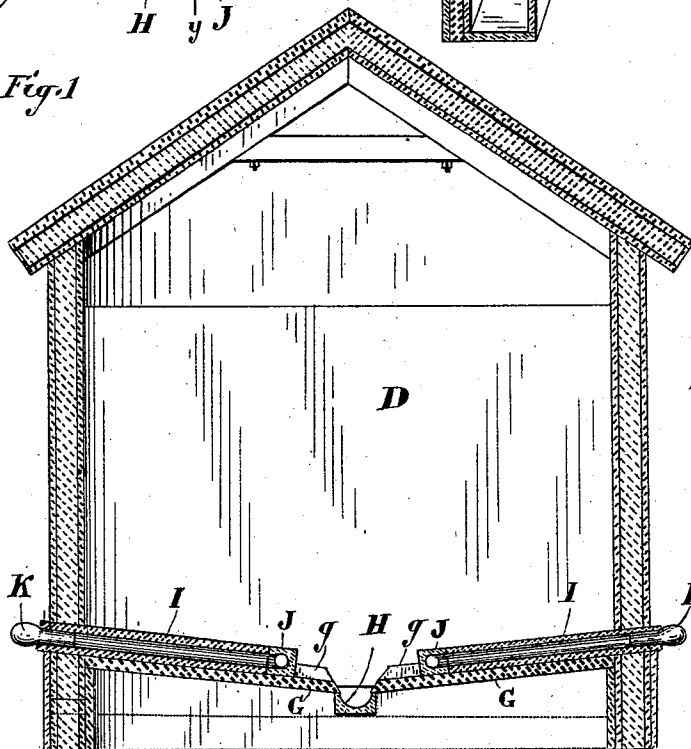


Fig. 2.

Witnesses.
Attest my hand
E. R. Clark

Inventor.
Elias Meck.
By W. H. Sturges & Co. Attys.

UNITED STATES PATENT OFFICE.

ELIAS MECK, OF FREEPORT, CANADA.

MILK-COOLING HOUSE.

SPECIFICATION forming part of Letters Patent No. 527,700, dated October 16, 1894.

Application filed December 6, 1893. Serial No. 492,908. (No model.)

To all whom it may concern:

Be it known that I, ELIAS MECK, yeoman, of the village of Freeport, in the county of Waterloo, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Milk-Cooling Houses, of which the following is a specification.

My invention relates to improvements in cooling houses more particularly adapted for the cooling of milk in cans and the object of the invention is to design a means whereby the milk in the can may be kept cool by the drain of water from the ice house without the necessity of having to remove such ice into the cooling compartment and it consists essentially of providing a trough or troughs in the cooling compartment into which the milk cans are placed and so constructing the floor of the ice house that a trough is formed for conducting the cold water of the melted ice from the ice chamber into the cooling chamber, means also being provided whereby the ice may be melted in proportion to the quantity of water necessary for keeping the trough full, and the whole being arranged and constructed in detail as hereinafter more particularly explained.

Figure 1, is a sectional perspective view of an ice house constructed in accordance with my invention. Fig. 2, is a vertical cross section through the line $x-y$ Fig. 1.

In the drawings like letters of reference indicate corresponding parts in each figure.

A, is the ice chamber, which is designed to be kept filled with ice, which is put in through the doors, B, and, C.

D, is the cooling chamber.

E, is a trough situated in the cooling chamber and provided with overflow pipe, F, leading to the outside of the house.

The floor of the ice house is made in two sections, G, which slant from the outside to a trough, H, in the center and is situated above the level of the trough, E.

g, are a series of ribs extending crosswise upon the sections, G. The ribs, g, are designed to keep the ice from the floor in order that the water from it may readily pass down into the trough, H. The trough, H, is preferably at a slight incline from the far end of the ice house to the cooling compartment into which the trough extends. The end of the trough, H, projects above the edge of the trough, E.

I, are warm air tubes leading from the outside of the ice house to the cross tubes, J. The outer ends of the tubes, I, are provided with stoppers, K. Although I only show two tubes, I, with their cross tubes, J, and stoppers, K, it will of course be understood that any suitable number may be placed in the ice house. The object of the tubes, I, is to let the warm air into the ice house so as to regulate the rapidity of the melting of the ice. The stoppers, K, may be formed in any suitable manner, so as to emit more or less warm air into the tubes by only partially withdrawing them, but I find in practice that it is necessary to withdraw the stoppers altogether either on one side or the other, so as to increase the rapidity of the melting of the ice. If the ice melts too quickly the stoppers may be placed back again into the ends of the tubes, I, and so preserve the ice from melting so rapidly.

The cold water from the ice passes along the trough, H, into the trough, E, into which the milk cans or other receptacles in which it is designed to place articles to be kept cool, are placed. The cold water surrounds the cans and I find in practice such a degree of coldness in the water that the milk is chilled quite sufficiently for its preservation for a considerable time in warm weather.

From this description it will be seen that I provide a very simple and efficient manner of utilizing the cooling qualities of the ice without having to remove it from the ice house and place it around the cans in the cooling chamber, thereby avoiding a great deal of handling and unnecessary labor.

What I claim as my invention is—

In an ice house in combination with the synclinal bottom sections, transverse ribs secured to said bottom, longitudinal ribs covering the pipes j , the pipe I leading from the cross pipe J to the outside of the ice house, stoppers to close the ends of the pipe I, said stoppers adapted to be withdrawn to allow the warm air to enter the ice chamber to melt the ice, and a separate compartment provided with a water receptacle to catch the water from the melted ice, substantially as described.

ELIAS MECK.

Witnesses:

C. R. HANNING,
H. C. EDGAN.