

(No Model.)

H. F. FORDHAM.

ICE MACHINE CAN.

No. 278,527.

Patented May 29, 1883.

*Fig: 1.*

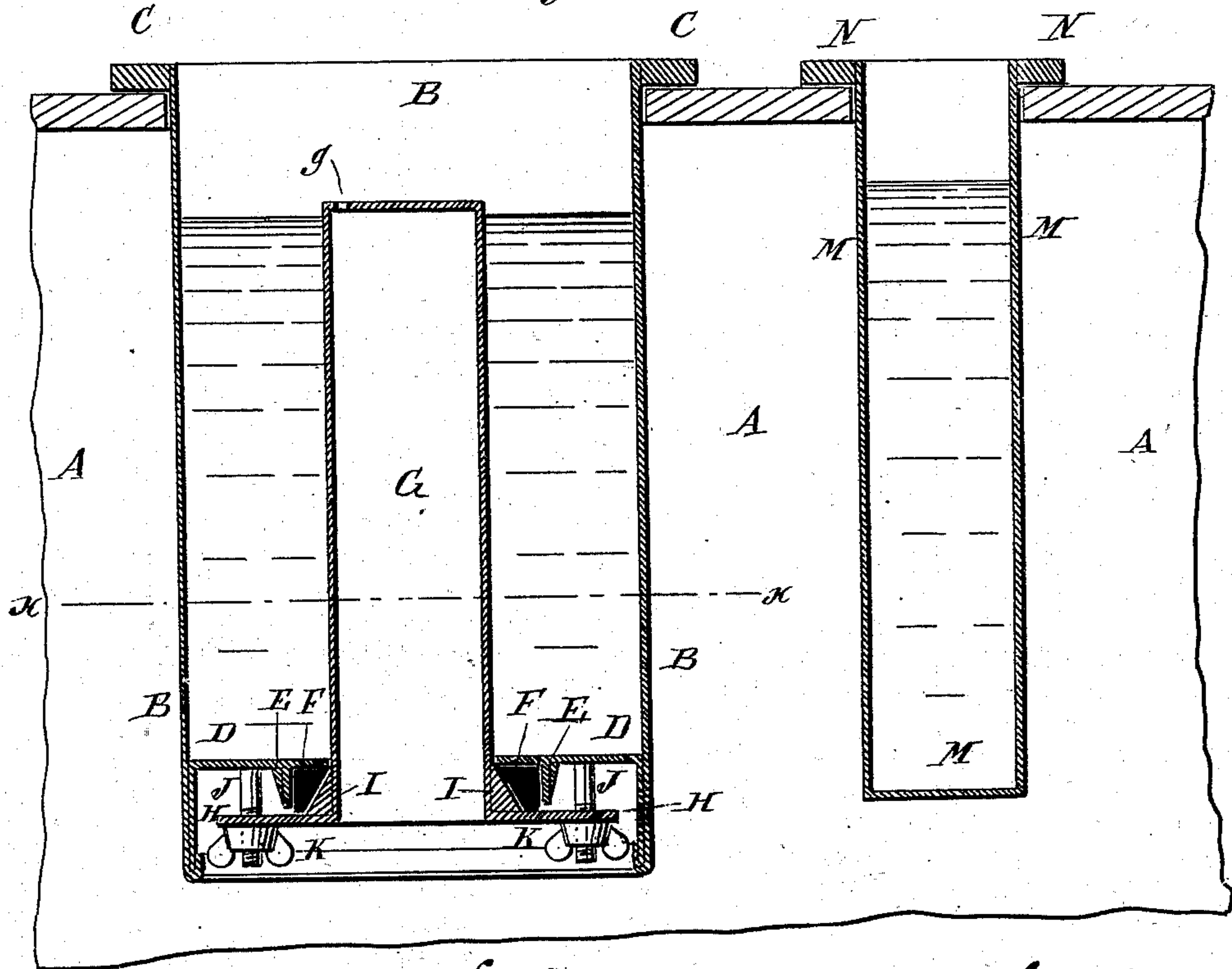
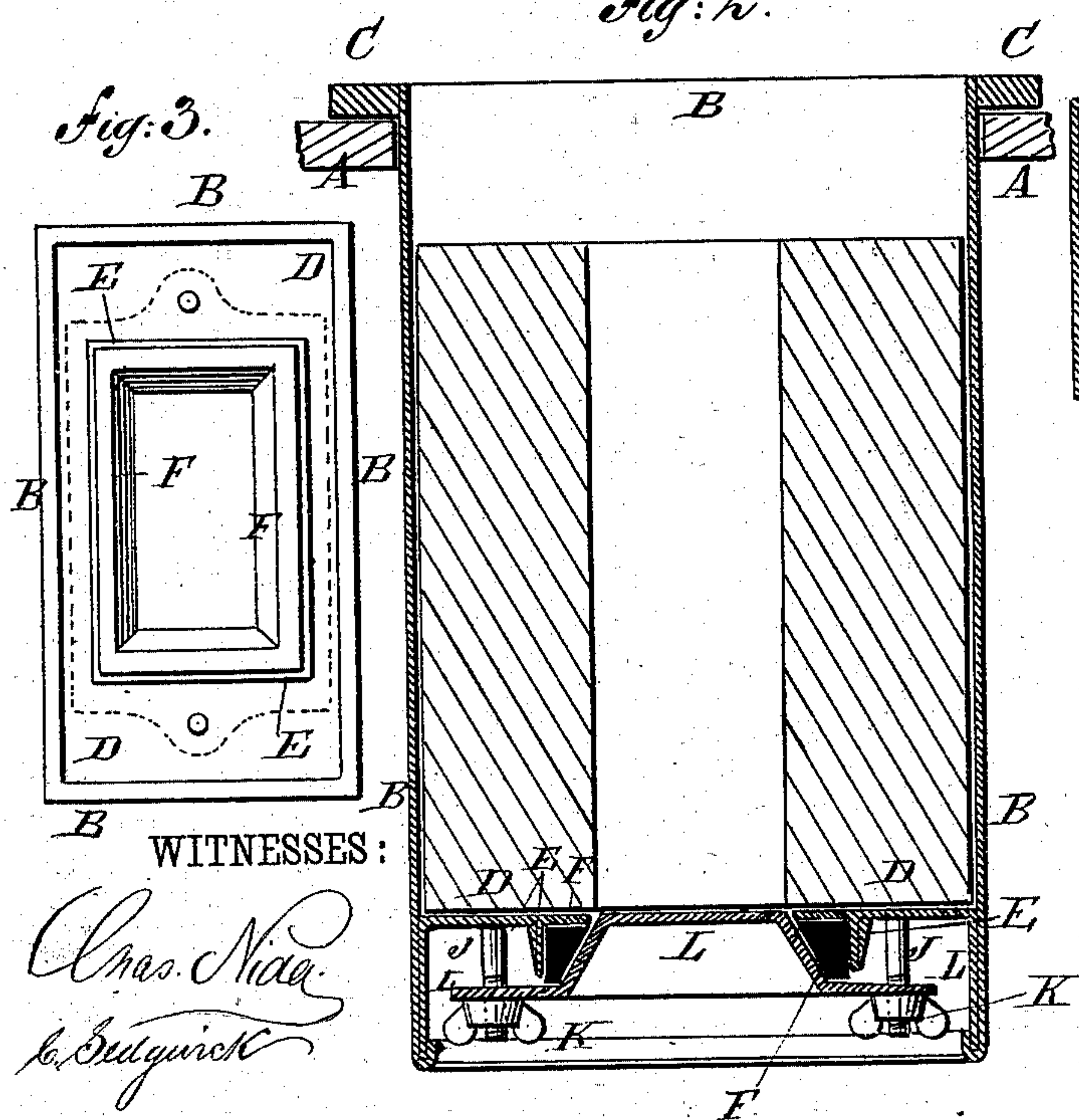
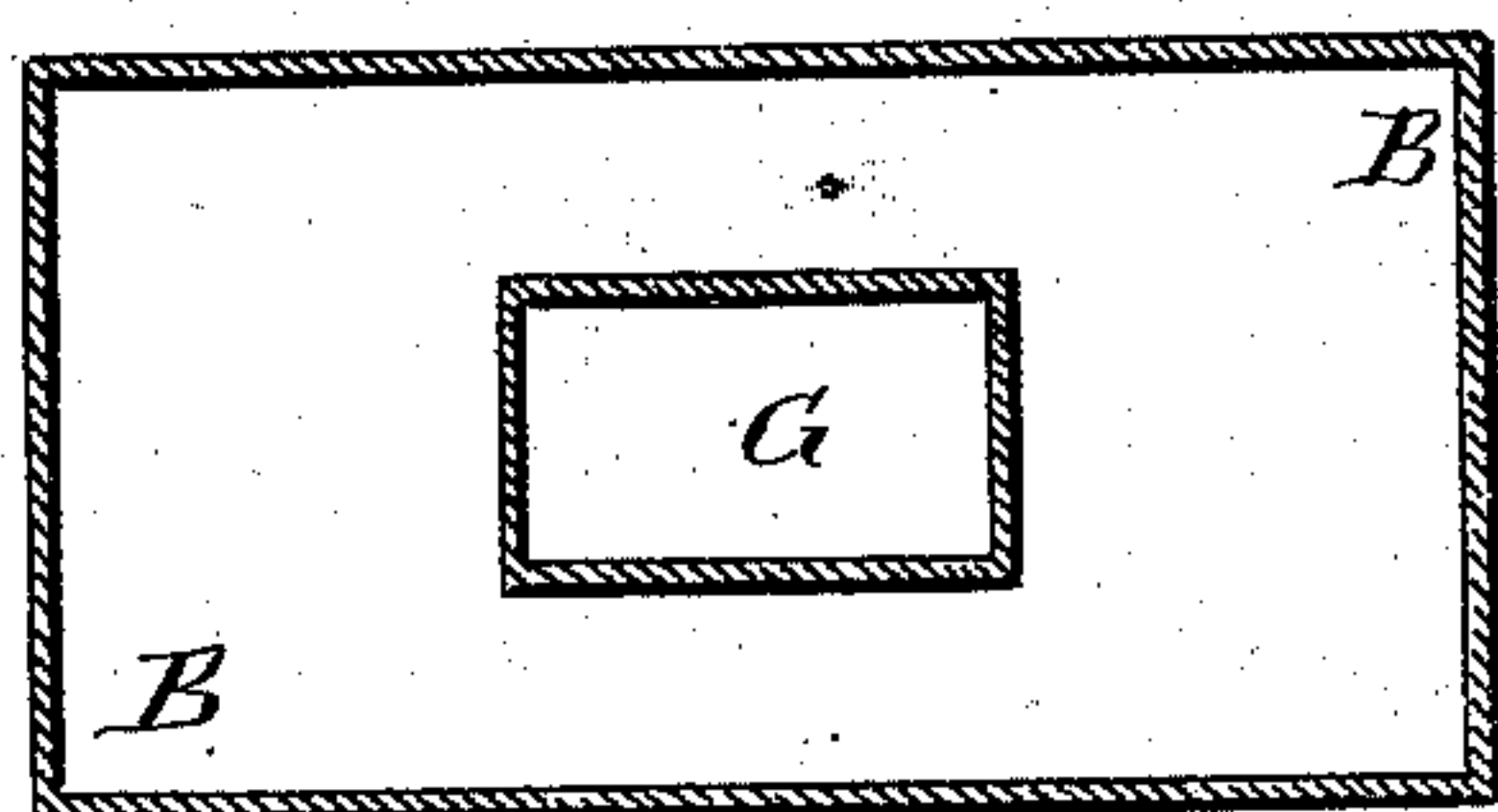


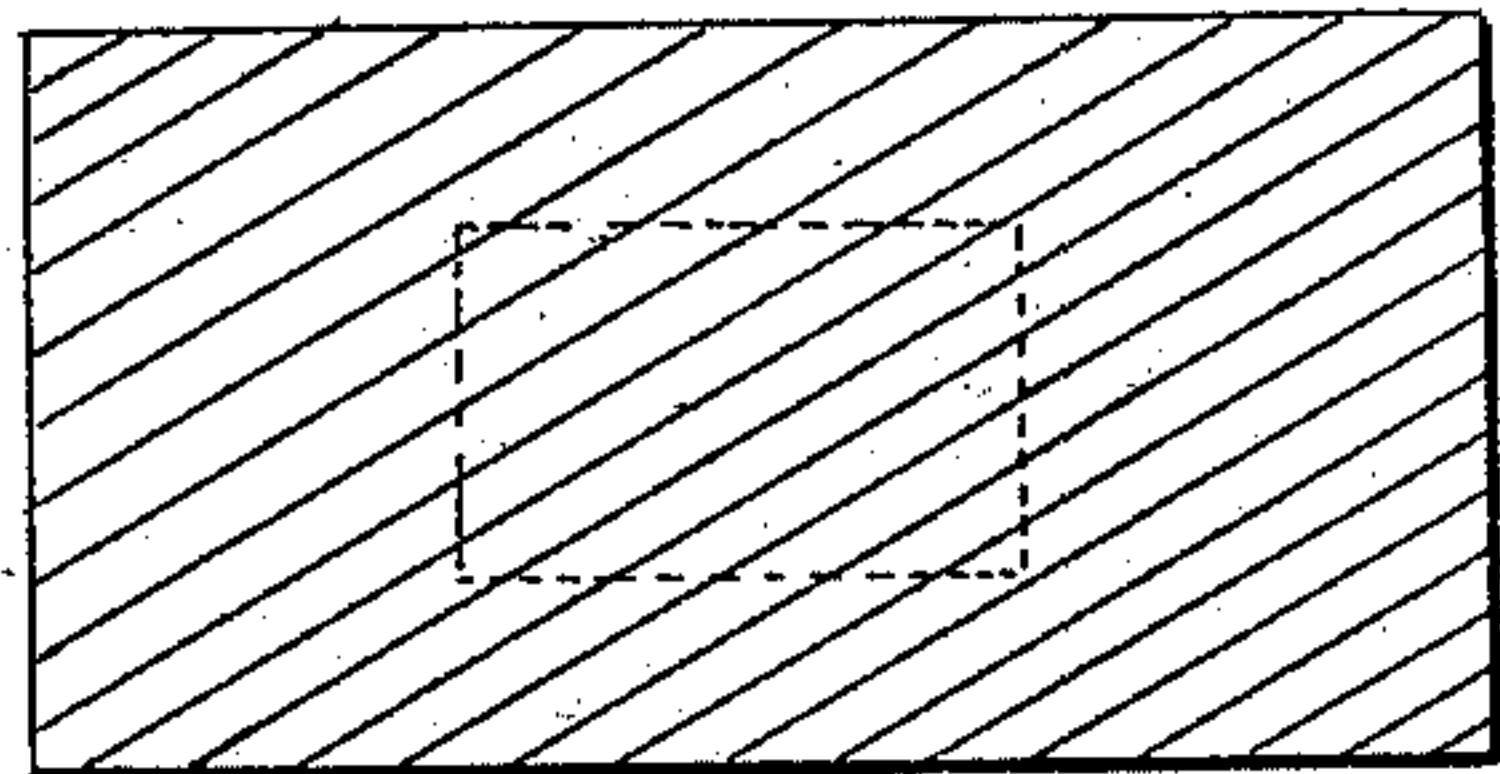
Fig: 2.



*Fig: 4.*



*Fig: 5.*



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# UNITED STATES PATENT OFFICE.

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## ICE-MACHINE CAN.

SPECIFICATION forming part of Letters Patent No. 278,527, dated May 29, 1883.

Application filed February 19, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY FLETCHER FORDHAM, of Greenport, in the county of Suffolk and State of New York, have invented a new and useful Improvement in Ice-Machine Cans, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of my improvement. Fig. 2 is a sectional side elevation of the same, showing the core removed and the bottom cap secured in place. Fig. 3 is a bottom view of the can, and showing in dotted lines the position of the bottom flange of the core. Fig. 4 is a sectional plan view of the can and core, taken through the line *x x*, Fig. 1. Fig. 5 is a plan view of a block of ice.

The object of this invention is to facilitate the freezing of blocks of ice in ice-machines.

The invention consists in an ice-machine can constructed with a raised and apertured bottom, provided with a flange and rubber packing around its aperture, and with bolts for securing a core in the interior of the can, the said core being provided with a flange and angular packing-strips around its open bottom. The can is also provided with a cap having an offset with inclined shoulders for closing the aperture in the can-bottom when the core is removed, as will be hereinafter fully described.

A represents the brine-tank of an ice-machine, about the construction of which there is nothing new.

B is the can in which the ice is frozen, and which has a flange, C, around its upper end to rest upon the top of the tank A, and suspend the said can in the said tank A.

D is the bottom of the can B, the edges of which are bent downward at right angles and rest against the walls of the said can. The lower edges of the walls of the can B are bent inward and upward around the lower edges of the flanges of the bottom D, so that the said bottom will be a little above the lower end of the said can B and will be securely supported. In the center of the bottom D is formed a rectangular opening corresponding in shape to the shape of the can B, and to the said bottom, at a little distance from its inner edge, is attached

a flange, E, forming an angular recess all around the opening in the bottom D to form a seat for a rubber packing, F, which is made triangular in cross-section, as shown in Figs. 1 and 2, so as to have an inclined inner side.

G is the core, which is made with a closed upper end, except a small opening, *g*, to allow the air to escape when the can is suspended in the brine, and an open lower end, and of such a size as to pass through and fit into the opening in the bottom D. Around the open lower end of the core G is formed a flange, H, and in the angle between the flange H and the walls of the core G is secured a triangular filling-strip, I, the outer side of which is inclined to rest and fit against the inclined surface of the packing F and form a close joint. In the ends of the flange H are formed holes to receive the bolts J, attached to the can-bottom D, so that the core G can be secured to the can B with a water-tight joint by screwing up hand-nuts K, placed upon the bolts J. When the core G is removed the opening in the can-bottom D is closed by a cap, L, the middle part of which is made with an offset having inclined shoulders to fit against the packing F, the said offset being made of such a depth that the middle part of the cap L will be in line with the bottom D, as shown in Fig. 2.

M is a core of the same shape and size as the core G, and which has a flange, N, around its open upper end to rest upon the top of the brine-tank A and support the said core when suspended in the said tank, as shown in Fig. 1.

In using my improvement the can B, with the core G secured in it in the manner hereinbefore described, is suspended in the brine-tank A and supplied with water, which, as the brine circulates around the can B and through the core G, will be quickly frozen into a hollow block of ice. At the same time the core M is suspended in the brine-tank A and supplied with water, so that the water in the said core will be frozen to form an ice core to fit into the interior of the hollow ice block frozen in the can B. When the water in the can B and core M is frozen the can B is removed and inverted, and hot water is poured into the core G to loosen it, and the said core G is removed. The core M is removed from the tank and immersed in hot water to loosen it from the block of ice, and the said ice block is re-



5 moved and inserted in the interior of the block of ice in the can B. The cap L is then secured to the bottom of the can B in the manner hereinbefore described, and the can B is again suspended in the brine-tank A, and water is poured into the space around the ice core, so that the hollow ice block and the ice core will be quickly frozen together, forming a solid block of ice, which can then be removed from the can.

10 With this improvement ice can be formed more quickly in larger blocks and of better quality than is practicable when the water is frozen wholly from the outer sides of the cans.

15 I am aware that it is not new to form an ice-mold with upwardly-projecting top-closed and bottom-open tubes of a somewhat less height than the vessel itself, so as to form ice filled with cells in which water may be afterward frozen; but

20 What I do claim as new and of my invention is—

1. The combination, with the can B, having raised and apertured bottom D, provided with flange E, rubber packing F, and bolts J, of the core G, having an open bottom provided with flange H and filling-strip I, substantially as herein shown and described, whereby the said core will be firmly held and can be readily inserted and removed, as set forth.

2. The combination, with the can B, having raised and apertured bottom D, provided with the flange E, rubber packing F, and bolts J, of the cap L, having offset with inclined shoulders, substantially as herein shown and described, whereby the aperture in the can-bottom can be readily and securely closed, as set forth.

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Witnesses:

BENJAMIN H. REEVE,  
BARCLAY P. ADAMS.