

J. DE N. BERRYMAN.
ICE CAN.
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989,690.

Patented Apr. 18, 1911.

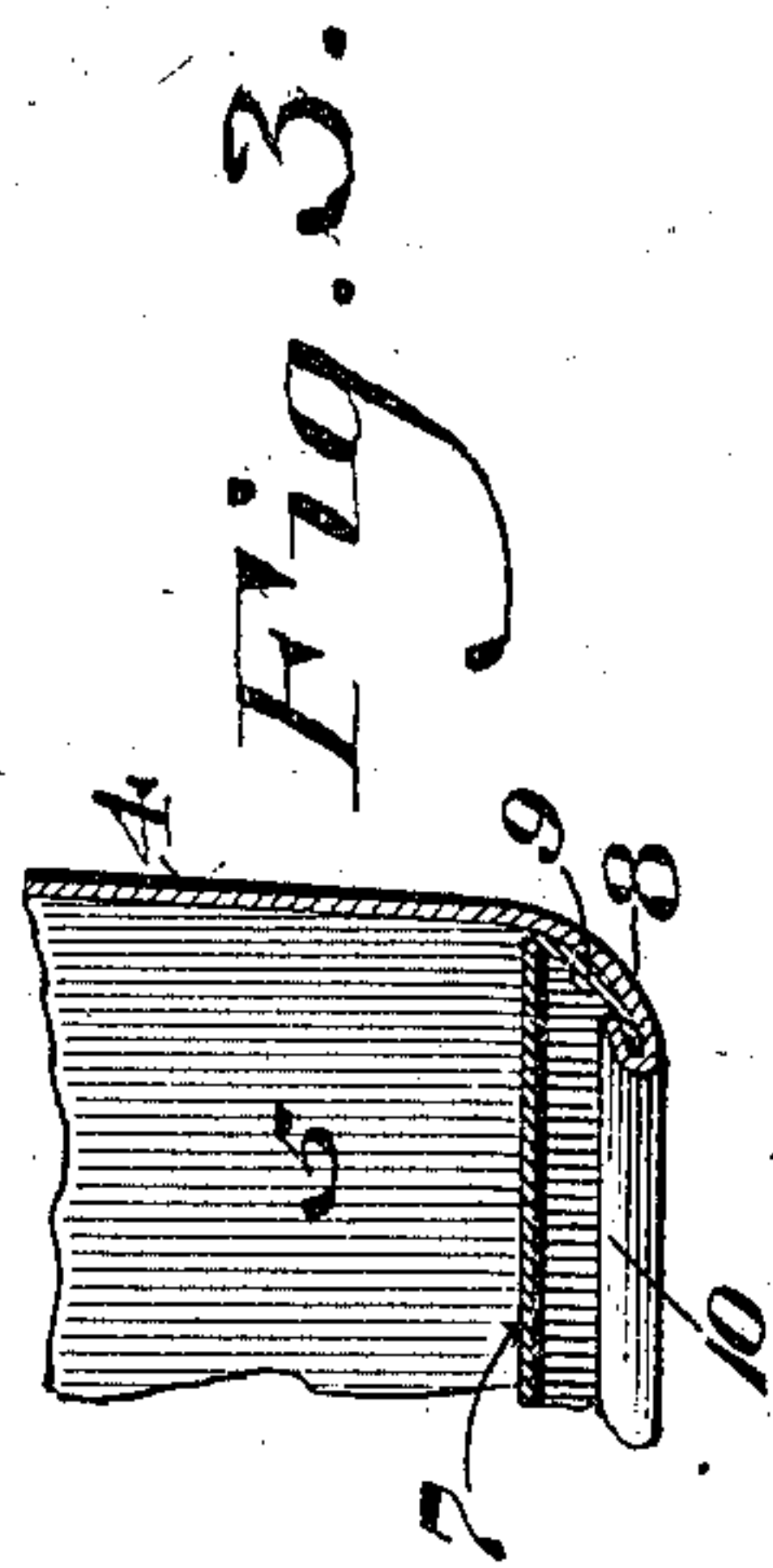
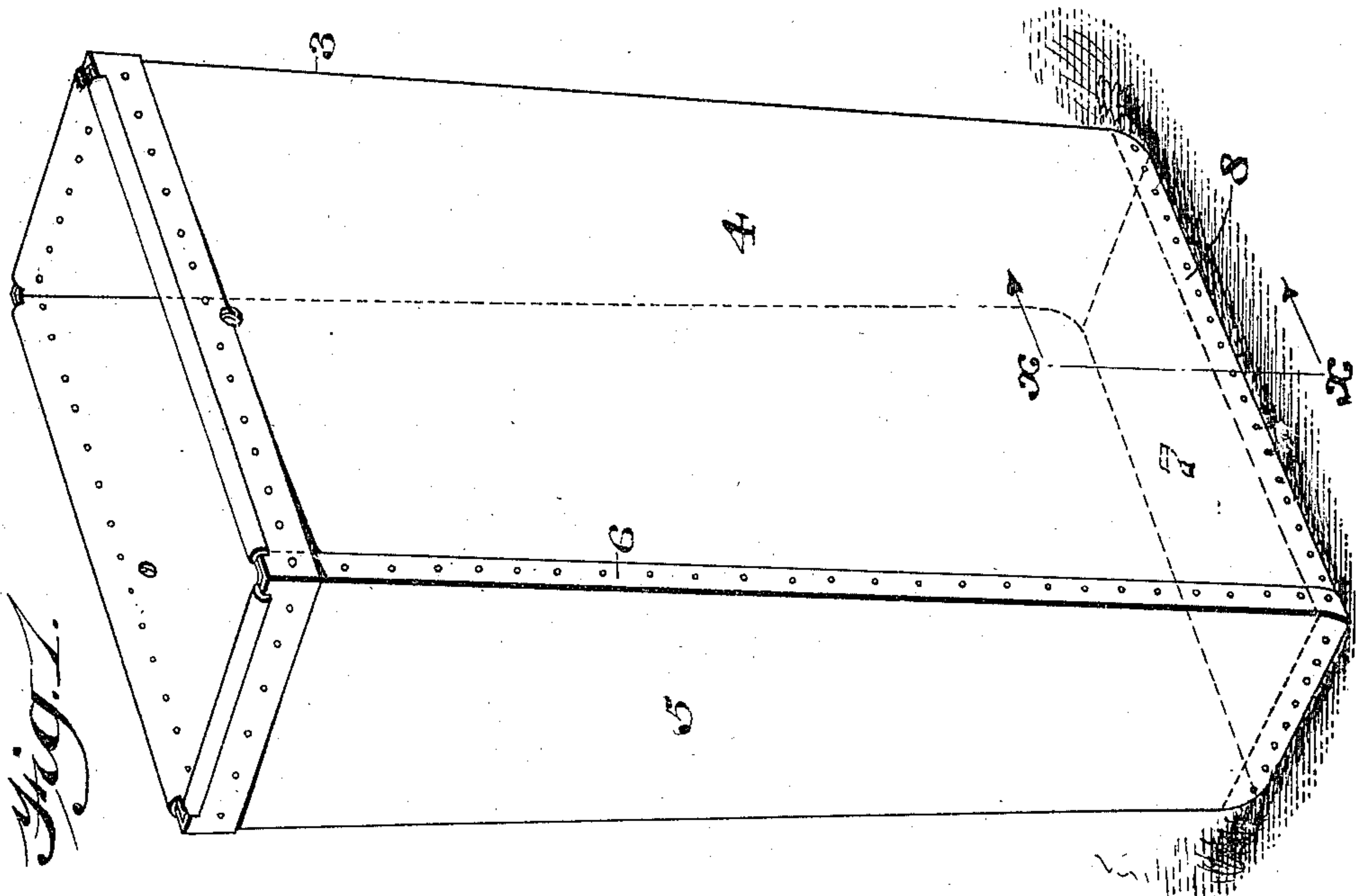
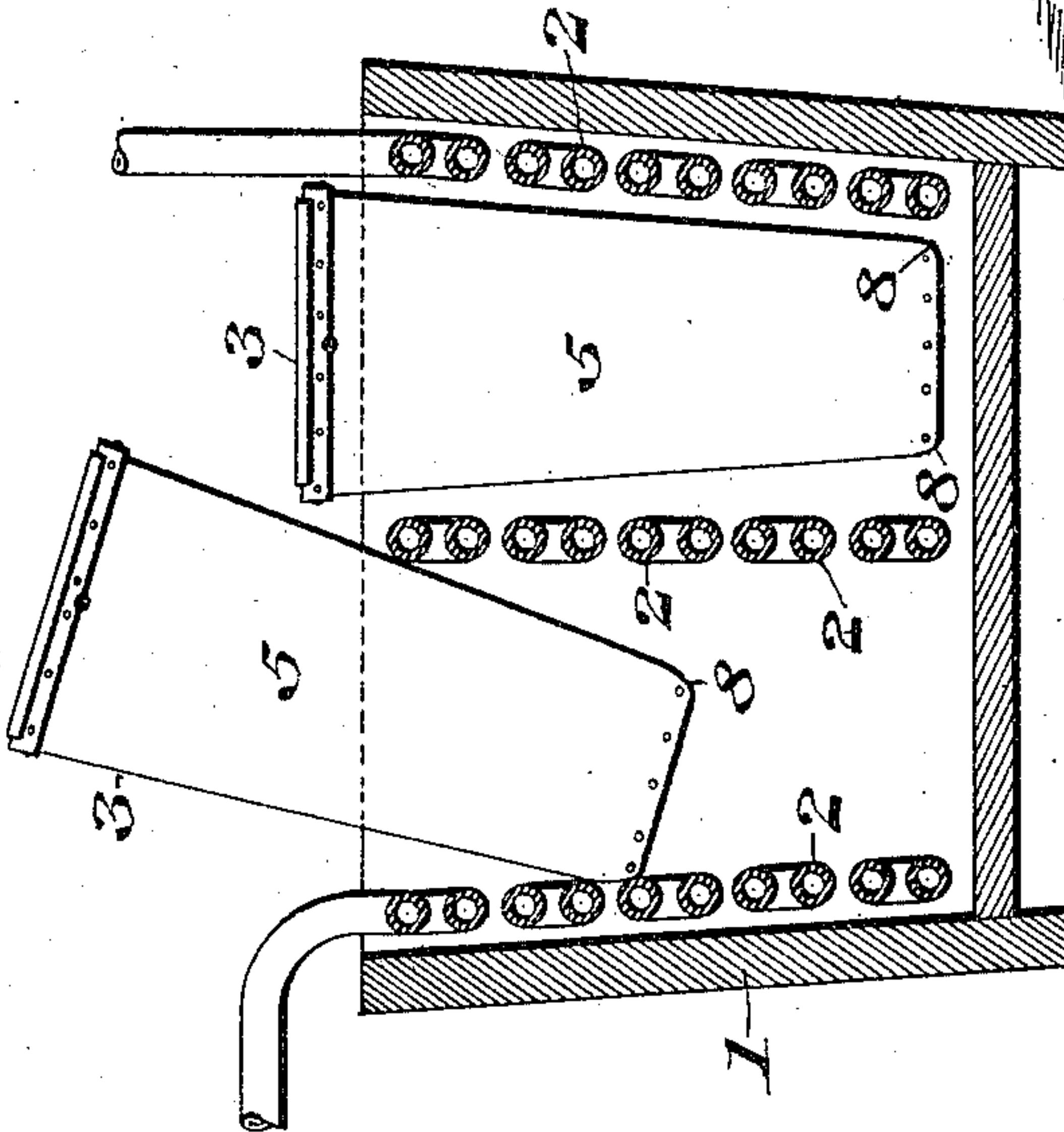


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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ICE-CAN.

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To all whom it may concern:

Be it known that I, JOSEPH DE N. BERRYMAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Ice-Can, of which the following is a specification.

This invention relates to a receptacle utilized in connection with ice making apparatus and serving the purpose of receiving the fluid to be frozen and in which it is subjected to the action of a surface cooler or the like. As heretofore constructed receptacles performing this function have been manufactured usually of metal, the parts of which are so joined together as to provide sharp edges so that when the can or receptacle is deposited within the cooling chamber of the refrigerating apparatus the sharp edges strike or catch upon the pipes or other portions of the apparatus resulting in the can or receptacle slipping off of the coils and dropping to the bottom of the chamber, causing the ruination of the can or else the striking of the coils results in a loosening of the joints of the return bends causing considerable loss of ammonia besides a temporary stoppage of the plant resulting in great loss and expense.

In my present invention I have devised a can or receptacle for the purpose of freezing therein, water or other fluids, and which is so constructed that when placing the same in the cooling compartment all danger of injury to the cooling pipes and the like is eliminated.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a perspective of a receptacle embodying my invention. Fig. 2 represents a section through a refrigerating compartment showing my novel receptacles in relation thereto. Fig. 3 represents a section on line $x-x$, Fig. 1.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates a tank of the type commonly used in refrigerating plants to receive the cans or receptacles in which the fluid to be frozen is placed and 2 designates coils of pipe suitably spaced apart to permit the cans or receptacles being placed therein in proper position. These pipes 2 serve the usual purpose of conducting the freezing agent through the tank 1 in sufficiently close proximity to produce the necessary freezing action of the fluid within the several cans or receptacles. In cans or receptacles which have heretofore been employed in connection with the freezing tanks 1 it has been found, owing to the limited space between the coils of pipe and the receptacles, that in placing the cans in proper position, damage frequently occurs to the return bends of the pipes 2, causing a leakage of the highly expanding freezing agent. The accidents referred to are due to the sharp edges of the receptacles which, in view of the weight of a filled can, cause them after several times striking in the same place on a coil, to loosen the connections into the return bends and make it necessary to shut down the plant, remove the cans and the brine from the tank and put on pressure to find the location of the break and then repair the same, all of which may cause the stoppage of the plant for a week or more or, as before stated, the use of an excessive amount of ammonia.

Frequently, a filled can will lodge upon one of the coils and be supported temporarily thereby but will finally slide off and drop to the bottom of the chamber causing a splash of water over the tank allowing air to get into the water and causing the automatic can filler to shut off. Delays from this source of trouble are frequent and the loss incident to putting the whole plant out of commission temporarily in a year's time may run into several thousand dollars.

In the present invention, I disclose a receptacle preferably of the usual form, that of a rectangle, and having the sides 4 and the ends 5 suitably joined, in the present instance, by overlapping riveted joints 6 and a similar construction being utilized for the bottom 7. The sides 4, which are the ones that usually come in contact with the coil

pipes 2 are here shown as each being provided with rounded ends 8 forming a connection with the bottom of the receptacle, the curvature being that of a radius of suitable length to produce a deflecting movement of the receptacle, should it come in contact with a pipe or pipes while being placed within the tank 1. In the present instance the bottom 7 is provided with a depending flange 9 to which the sides are riveted and preferably are somewhat longer than the flange 9 in order that an inturned lip 10 may be provided forming substantially a rounded corner at the end of the curve of the side 8.

It will be readily apparent when a receptacle constructed in accordance with my invention is used in connection with a refrigerating apparatus that the danger of injury to the pipes, return bends or other portions of the apparatus is reduced to a minimum, since the rounded end portions do not present any sharp edges with which the adjacent parts may come in contact.

It will now be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description and while I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

Having thus described my invention what

I claim as new and desire to secure by Letters Patent, is:

1. As a new article of manufacture, a portable ice can, comprising suitably joined sides 4 and ends 5, the sides being formed with rounded edges 8, a bottom having rounded depending flanges 9 secured to said rounded edges and the lower terminals of said sides being bent to form inturned lips 10 embracing said flanges 9 between their free edges and their points of connection with the sides.

2. As a new article of manufacture, a removable ice can, comprising suitably joined sides 4, and ends 5, said sides being formed with rounded edges 8, a bottom 7 having rounded inwardly turned depending flanges 9 secured to said rounded edges and the lower terminals of said sides being bent to form inturned lips 10 embracing and contacting with the extremity of said flanges 9 between their free edges and their points of connection with the sides, said lips 10, converging inwardly and laterally and terminating beneath said bottom 7.

3. The combination of a portable ice can having rounded reinforced bottom corners 8 extended below the bottom of said can, a tank adapted for the reception of said can, and coils adapted to receive a freezing agent toward and away from which, the rounded bottom corners of said can are adapted to be inserted and removed.

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Witnesses:

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