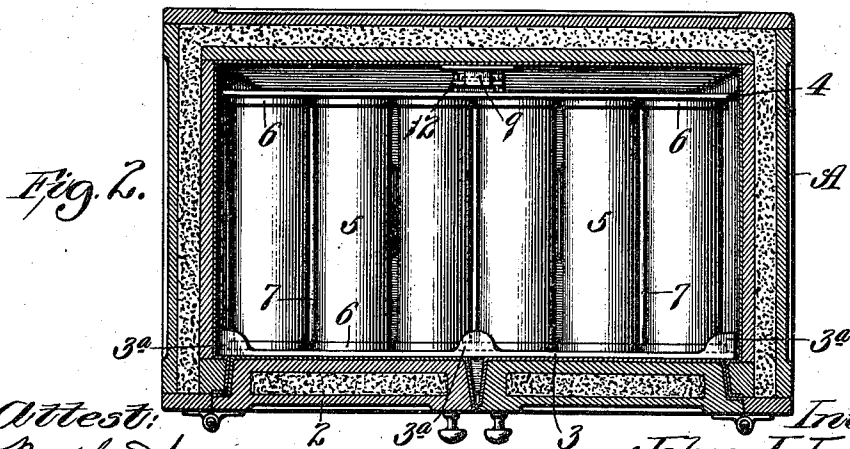
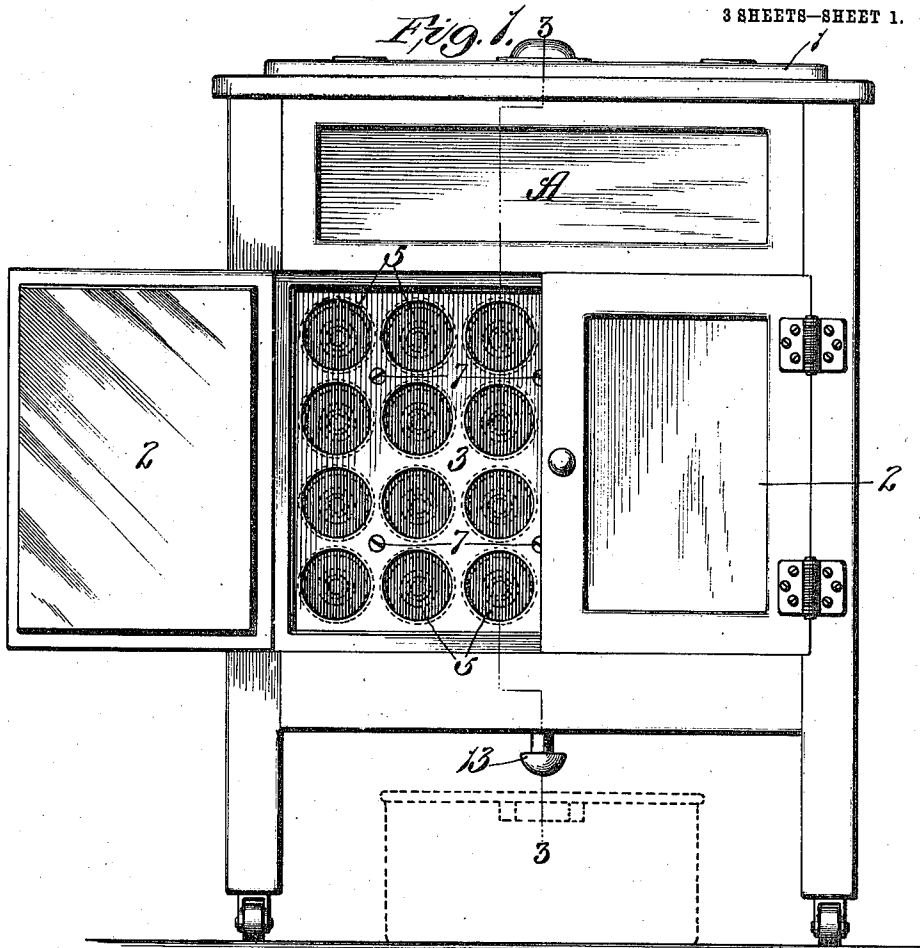


J. J. LANE.  
BOTTLE COOLING DEVICE.  
APPLICATION FILED MAR. 7, 1910.

965,307.

Patented July 26, 1910.

3 SHEETS—SHEET 1.



Attest:  
J. M. Scott  
Wells L. Church

Inventor:  
John J. Lane,  
by Paul Prakesell  
Atty.

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3 SHEETS—SHEET 2.

Fig. 4.

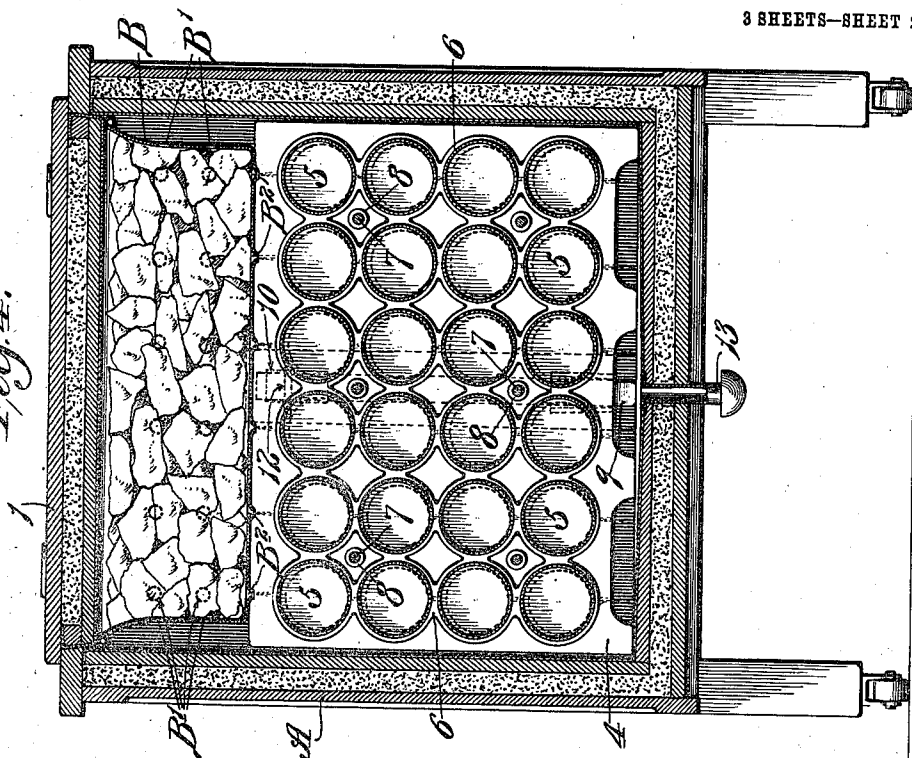
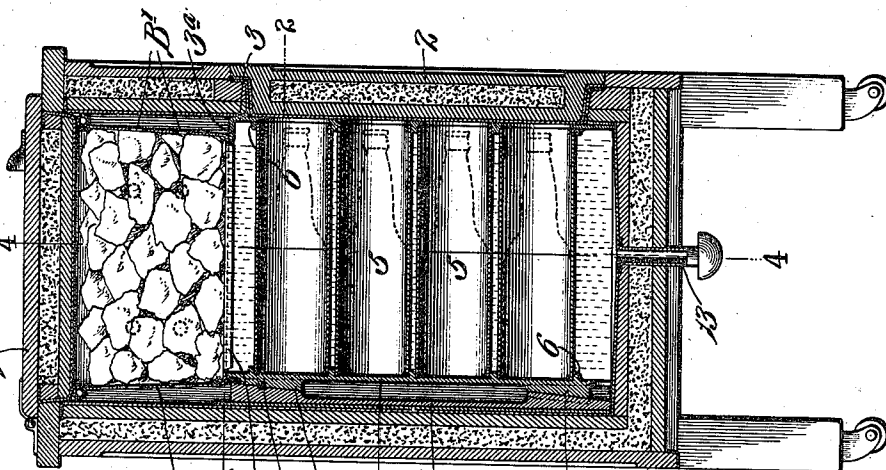


Fig. 3.



Attest:  
Wm. H. Scott.  
Notary Public.

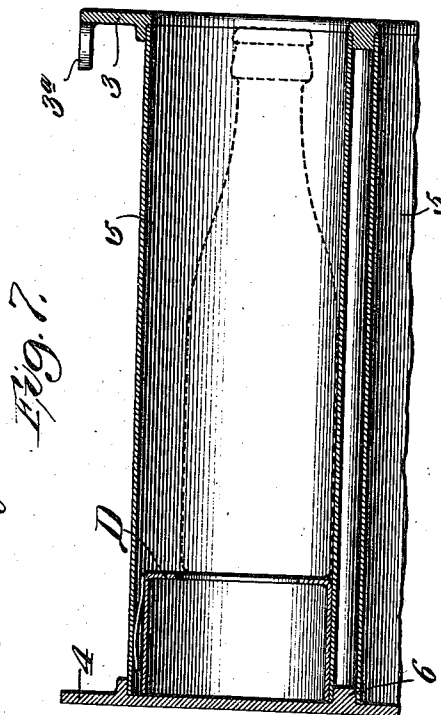
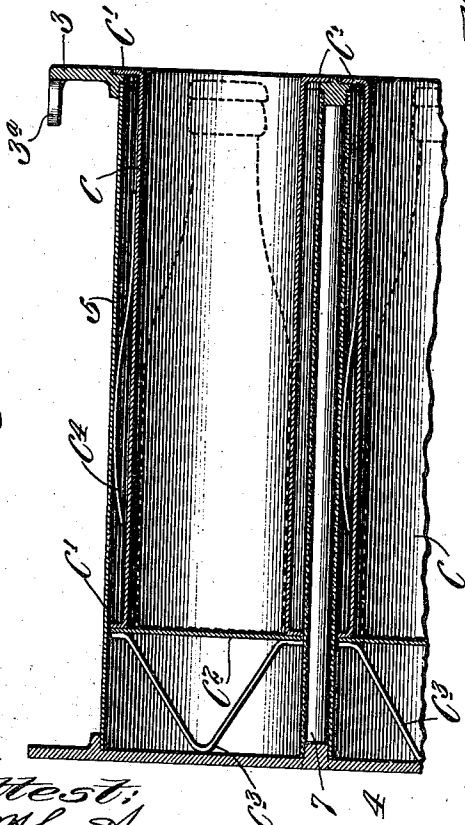
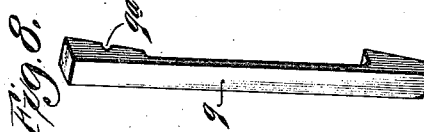
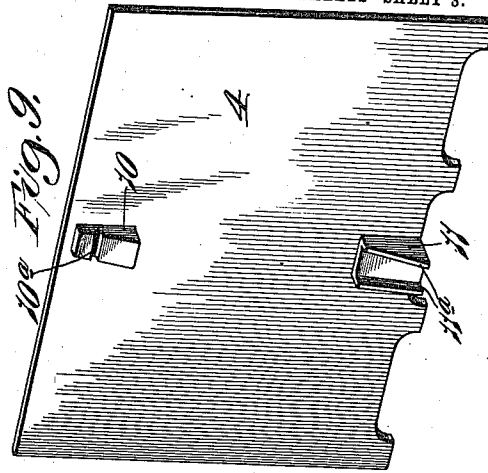
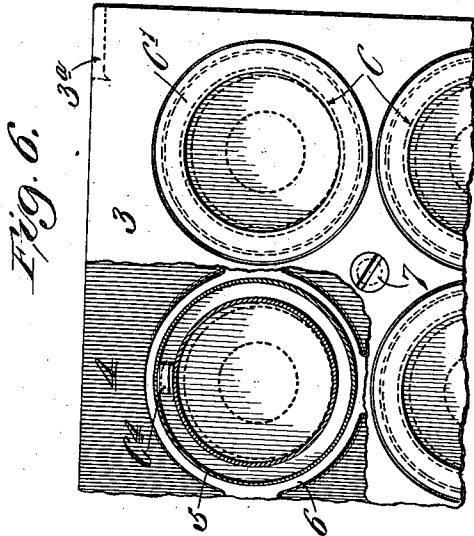
Inventor:  
John J. Lane,  
by Paul R. Kewell  
Att'y.

J. J. LANE.  
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3 SHEETS—SHEET 3.



Attest:  
Wm. McComb  
Wells & Church

Inventor:  
John J. Lane,  
by Paul Bakewell  
att'y.

# UNITED STATES PATENT OFFICE.

JOHN J. LANE, OF ST. LOUIS, MISSOURI.

## BOTTLE-COOLING DEVICE.

965,307.

Specification of Letters Patent. Patented July 26, 1910.

Application filed March 7, 1910. Serial No. 547,841.

*To all whom it may concern:*

Be it known that I, JOHN J. LANE, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Bottle-Cooling Devices, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to bottle cooling devices.

One object of my invention is to provide a bottle cooling device which is so designed that a number of bottles can be kept cold and dry with a small quantity of ice.

Another object is to provide a bottle cooling device that has a number of bottle compartments which are so arranged that cold air will circulate around and between same.

Another object is to provide a device of the character described which is so designed that the water produced by the melting of the ice will come into contact with the outer surfaces of the bottle compartments and thus cooperate with the cold air to keep said compartments at a low temperature, and still another object of my invention is to provide a neat and compact bottle cooling device which can be manufactured at a low cost.

Figure 1 of the drawings is a front elevational view of a bottle cooling device constructed in accordance with my invention, one of the doors of the casing being open; Fig. 2 is a horizontal sectional view on the line 2—2 of Fig. 3; Fig. 3 is a vertical sectional view taken on approximately the line 3—3 of Fig. 1; Fig. 4 is a vertical sectional view taken on approximately the line 4—4 of Fig. 3; Fig. 5 is an enlarged sectional view of a portion of the bottle compartment member showing devices that can be arranged in the bottle compartments for receiving "splints" or small bottles; Fig. 6 is an end view of a portion of said bottle compartment member, partly in section; Fig. 7 is a view similar to Fig. 5 showing a slightly different form of device that can be arranged in the bottle compartments when said compartments are used for short bottles; Fig. 8 is a perspective view of the wedge that retains the bottle compartment member in position; Fig. 9 is a perspective view of the rear wall of said bottle compartment member.

Referring to Figs. 1 to 4, inclusive, which

illustrate the preferred form of my invention, A designates an insulated casing provided in its top wall with a door 1 and in its front wall with a pair of doors 2. A bottle compartment member is arranged in the lower portion of the casing in alinement with the doors 2, and an ice receptacle is arranged in the upper portion of the casing in alinement with the door 1, said bottle compartment member being provided with a plurality of independent bottle compartments or holders which are spaced away from each other so that the cold air inside of the casing can circulate around and between same, the ice receptacle being provided with means for permitting the water which is produced by the melting of the ice to escape and drip down onto said bottle-holders. The bottle compartment member herein shown consists of a front plate 3, and a rear plate 4 between which a number of tubes 5 are arranged, said plates being provided on their inner faces with circular flanges or bosses 6, as shown in Figs. 3 and 4, which embrace the end portions of said tubes, and the front plate 3 being provided with openings that aline with said tubes, as shown in Fig. 1, so as to permit the bottles to be introduced into same, as shown in broken lines in Fig. 3. The front and rear plates 3 and 4 can be connected together in various ways such, for example, as by means of long rods or bolts 7 which pass through the front plate and are screwed into bosses 8 on the rear plate. The lower edges of the plates 3 and 4 rest upon the bottom of the insulated casing, and the ice receptacle B rests upon the upper edge of the rear plate 4, and on lugs 3<sup>a</sup> which project rearwardly from the front plate 3, as shown clearly in Figs. 2 and 3. This ice receptacle B preferably consists of a rectangular-shaped metal box provided in its sides with openings B' that permit the cold air to escape and circulate downwardly through the lower portion of the casing in which the bottle holders 5 are arranged. Slots B<sup>2</sup> are formed in the bottom of the ice receptacle B in alinement with each vertical row of bottle holders, as shown in Fig. 4, so that the water produced by the melting of the ice can drip down onto said bottle holders and thus assist the cold air in keeping said holders and the bottles arranged therein at a low temperature. The vertical walls of the ice receptacle B are spaced far enough away from the in-

ner walls of the casing A to provide passageways through which the cold air can circulate, and the plates 3 and 4, which support the bottle holders 5, are so arranged that said bottle holders will be spaced away from each other and also from the inner walls of the casing so as to permit the cold air to circulate around and between said bottle holders. The bottle compartment member formed by the plates 3 and 4 and the bottle holders 5, is securely clamped against the front wall of the casing A so as to prevent the atmosphere from entering the ice chamber or spaces between the bottle holders when the front doors 2 of the casing are opened. The means that I prefer to use for locking the bottle compartment member in position consists of a wedge 9 that is interposed between the rear wall of the casing A and cooperating wedge-shaped blocks 10 and 11 on the rear side of the plate 4. The block 11 at the lower edge of the plate 4 is preferably provided with side flanges 11<sup>a</sup>, as shown in Fig. 9, to prevent the wedge 9 from moving laterally, and after said wedge has been driven into position it is securely locked by means of a cotter pin 12 which is inserted in alining openings 9<sup>a</sup> and 10<sup>a</sup> formed in the wedge 9 and in the wedge-shaped block 10 at the upper edge of the plate 4. If it is desired to remove the bottle compartment member from the casing the pin 12 is withdrawn and the locking wedge 9 is then moved upwardly out of engagement with the cooperating wedge-shaped surfaces on the rear plate 4, thus enabling the entire bottle compartment to be removed bodily from the casing through the door opening in the top thereof, it being understood, of course, that the ice receptacle B is removed before the locking wedge 9 is removed. The particular construction of the casing A is immaterial so far as my broad idea is concerned, but I prefer to provide said casing with a metallic inner lining whose bottom is inclined slightly, as shown in Fig. 3, so that the water will drain out of same through the drain-pipe 13.

The bottle holders 5 are preferably so designed that they will just receive an ordinary pint beer bottle, as shown in broken lines in Fig. 3 so that the metal from which said holders are formed will bear directly against the bottle and thus cool the bottle and the contents thereof quickly and keep it at a low temperature.

It will, of course, be understood that small bottles can be cooled in the device but when such bottles are used I prefer to arrange fillers C in the bottle holders 5 so as to cause the bottles to be snugly embraced by metal. In Fig. 5 I have illustrated one form of filler that can be used for this purpose, and which consists of a metal sleeve or tube provided at its opposite ends with

flanges C' which hold it spaced away from the inner surface of the bottle holder 5 in which it is arranged. Said sleeve is provided at its inner end with an end wall C<sup>2</sup> against which the bottom of the bottle bears, and an arm or leg C<sup>3</sup> is connected to said end wall C<sup>2</sup> so as to limit the inward movement of the sleeve. Flat springs C<sup>4</sup> are preferably connected to the outer surface of the tube C so as to bear against the inner surface of the bottle holder 5 and thus retain the sleeve in position. In Fig. 7 I have shown a filler D that can also be used with small bottles, said filler consisting of a cap that is adapted to be arranged at the inner end of the bottle holder so as to act as a stop which limits the inward movement of the bottle when it is introduced into the holder.

A bottle cooling device of the construction above described presents a neat and ornamental appearance and can be manufactured at a low cost, it will cool bottles quickly and keep them cold with a small amount of ice owing to the fact that the compartments in which the bottles are arranged consist of metal sleeves that snugly embrace the bottles, and which are so arranged that cold air and ice water is continually passing over the outer surfaces of same. The bottles are kept perfectly dry, and a bottle in any compartment can be removed without disturbing the bottles in the other compartments and without exposing the ice in the receptacle B to the atmosphere.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A bottle cooling device comprising a casing having a plurality of horizontally disposed bottle holders arranged therein in such a manner that the outer surfaces thereof do not contact with each other, an ice receptacle arranged in said casing and provided with means for permitting the water produced by the melting of the ice to escape therefrom and drip over said bottle holders, and means for preventing the bottles in said holders from being normally exposed to the atmosphere.

2. A bottle cooling device comprising a casing having a door, a wall that extends across the opening which said door closes, horizontally disposed bottle holders having open ends which communicate with openings in said wall, and means arranged in said casing for causing cold air and drops of water to pass over the outer surfaces of said bottle holders.

3. A bottle cooling device comprising a casing, a bottle compartment member arranged in said casing and consisting of front and rear plates between which tubular-shaped bottle holders are arranged, the

front plate having openings that aline with said bottle holders and the rear plate acting as a closure for said holders, an ice receptacle arranged in the upper portion of said casing above said bottle compartment member, and a door on said casing that forms a closure for said holders.

4. In a bottle cooling device, a casing having a door-opening formed in one wall thereof, a bottle compartment member arranged in said casing and consisting of front and rear plates between which tubular-shaped bottle holders are arranged, said front plate having openings that permit bottles to be introduced into said holders, and means for clamping said front plate tightly against the wall of the casing in which the door-opening is formed.

5. In a bottle cooling device, a casing, a bottle compartment member arranged in said casing and consisting of a pair of plates and tubular-shaped bottle holders arranged between the same, and a wedge interposed between one of said plates and the rear wall of the casing for locking said bottle compartment member in position.

6. In a bottle cooling device, a casing, and a bottle compartment member arranged in said casing and consisting of front and rear plates provided on their inner surfaces with circular flanges, tubular-shaped holders arranged between said plates and cooperating with said flanges, and means for clamping said plates and holders together.

7. In a bottle cooling device, a casing, a removable bottle compartment member arranged in said casing and provided with a plurality of horizontally disposed tubular-shaped bottle holders which are spaced away from each other so that air can circulate around and between same, means for locking said member in position, and an ice receptacle arranged in the upper portion of the casing.

8. A bottle cooling device comprising an insulated casing, a number of tubular-shaped metal bottle holders arranged in said casing

in such a manner that air can circulate around and between same, the front ends of said holders being open and the rear ends of said holders being closed, a door on said casing for closing the front ends of said holders, and an ice receptacle arranged in said casing and provided with means for permitting the water produced by the melting of the ice to drip downwardly over the outer surfaces of said holders.

9. A bottle cooling device comprising an insulated casing, a number of tubular-shaped metal bottle holders arranged in said casing in such a manner that air can circulate around and between the same, the front ends of said holders being open, means for closing the front ends of said holders, an ice receptacle arranged in said casing and provided with means for permitting the water produced by the melting of the ice to drip downwardly over the outer surfaces of said holders, and removable fillers arranged in said holders for snugly embracing bottles which are smaller than the inner diameter of said holders.

10. A bottle cooling device comprising an insulated casing having doors formed in the front and top walls thereof, a plate arranged in said casing across the door opening in the front wall thereof, said plate being provided with openings, horizontally disposed bottle holders arranged in vertical rows inside of said casing and cooperating with the openings in said plate, and an ice receptacle arranged in the upper portion of said casing and provided in its side walls with openings and in its bottom with slots that are located in alinement with the vertical rows of bottle holders.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this fifth day of March 1910.

JOHN J. LANE.

Witnesses:

WELLS L. CHURCH,  
GEORGE BAKEWELL.