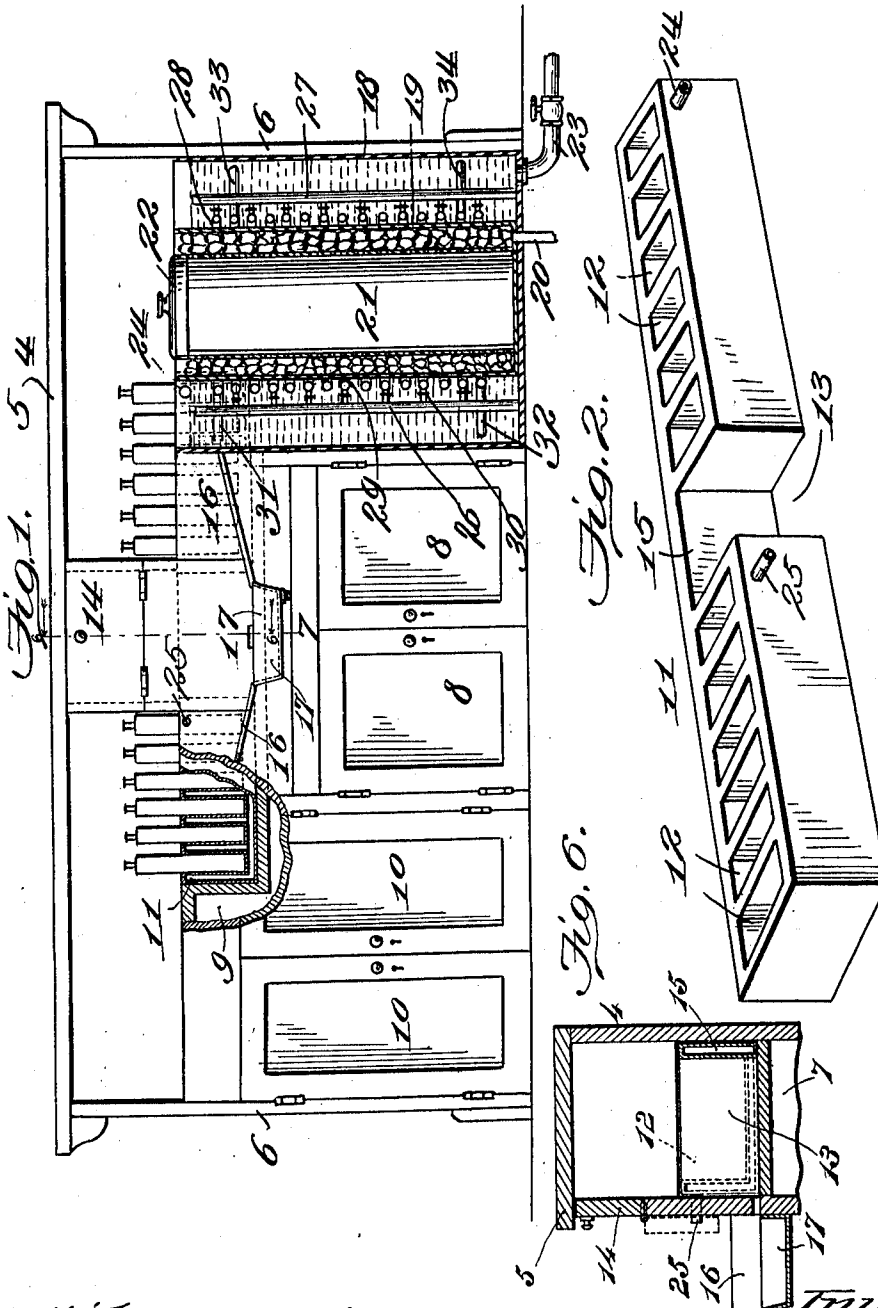


C. KRIEGER.
BEVERAGE DISPENSING APPARATUS.
APPLICATION FILED OCT. 29, 1909.

1,004,442.

Patented Sept. 26, 1911.

2 SHEETS—SHEET 1.



Witnesses:
J. A. Klinge,
Fred A. Klinge

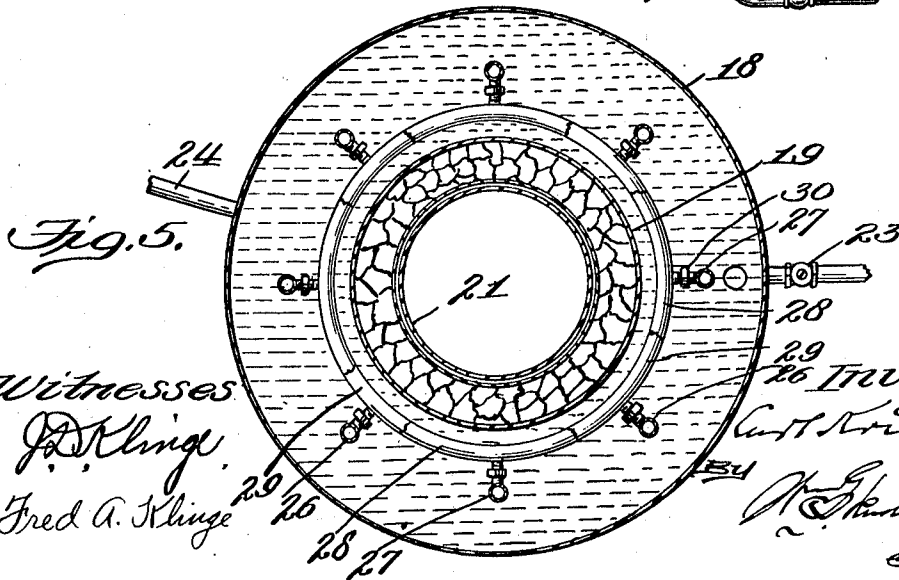
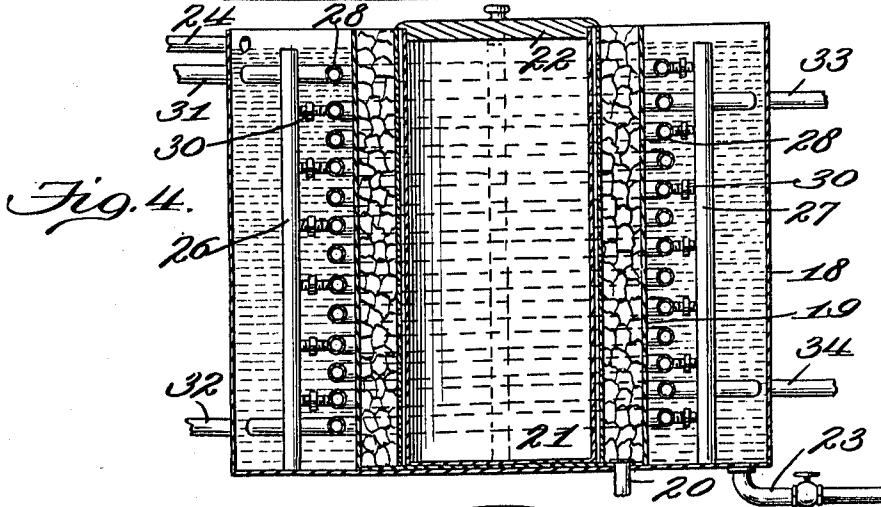
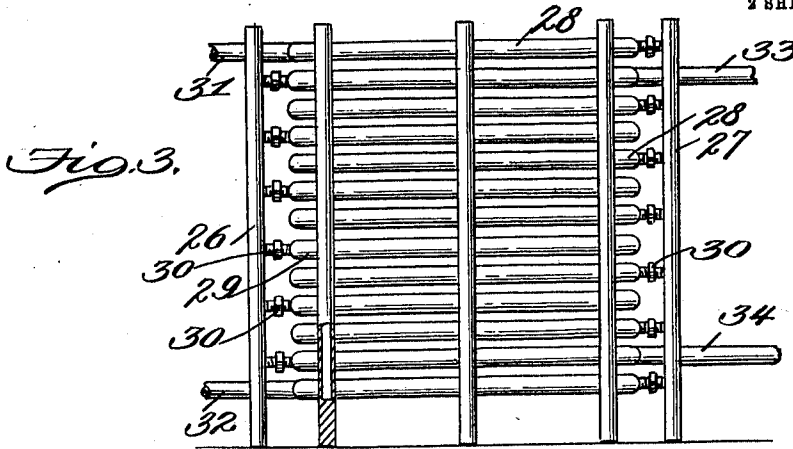
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UNITED STATES PATENT OFFICE.

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BEVERAGE-DISPENSING APPARATUS.

1,004,442.

Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed October 29, 1909. Serial No. 525,378.

To all whom it may concern:

Be it known that I, CURT KRIEGER, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Beverage-Dispensing Apparatus; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to refrigerating systems and more specifically to a unitary system for cooling various beverages dispensed from a soda-fountain.

One object of the invention is to provide a soda-fountain having a number of separate compartments containing the flavoring syrups, ice-cream, and carbonated waters, with a cooling system comprising a plurality of intercommunicating jackets, each one of which surrounds a separate compartment.

Another object is to provide a simple and compact system for cooling the various compartments that will be inexpensive to install and economical to maintain.

With these and other objects in view, which will readily appear from the following description, my invention consists in the novel construction and arrangement of parts hereinafter described and set forth in the appended claims.

Reference is had to the accompanying drawings forming a part hereof and in which—

Figure 1 is a side elevation of the apparatus, with parts in vertical section; Fig. 2 a perspective of the syrup-vessels' cooling trough; Fig. 3 a side elevation of the beverage cooling coil; Fig. 4 a vertical section through the primary cooler, and Fig. 5 a horizontal section through the same. Fig. 6 is a vertical cross-section through a portion of the apparatus on line 6—6 of Fig. 1.

Like characters of reference indicate corresponding parts throughout the several views.

In the drawings, the numeral 4 designates a counter of a soda-fountain having a table 5 supported upon the ends 6 and beneath which is a chambered ice box 7 provided with doors 8 for the reception of mis-

cellaneous bottled beverages, and to one side of which is a chambered cabinet 9 provided with doors 10 for the reception of various articles. Beneath the table 5 and in the upper portion of the cabinet 9 and ice-box 7 is provided a trough 11 divided into a number of syrup-vessel pockets or chambers 12 so as to leave spaces between the pockets and walls of the trough for the circulation of a cooling liquid about the syrup-vessels placed in the pockets. The trough is formed with a centrally disposed recess or chamber 13, to receive shaved or chipped ice, from the side walls of which partitions, as shown in dotted lines, may extend up to the table 5, and access may be had thereto through a hinged door 14. The portions of the trough on each side of this shaved ice chamber are connected with each other by a hollow neck-portion 15 constituting the back wall of the shaved ice chamber and which permits the cooling liquid to flow from one portion of the trough into the other so that it serves to cool the shaved-ice chamber as well as the syrup vessels. By reason of this trough lying within the upper part of the ice-box and the cabinet the cool water flowing through the trough serves to cool said chambers.

From the side of the trough extends a drain-board or plate 16 which opens into a sink 17 so that water directed onto the board may drain into the sink from which it will be carried off by a pipe leading to any point desired. The waste from the melting ice in the shaved-ice box will also drain from the supporting plate or board on which the trough rests, through an opening in the front wall as shown, into the sink 17.

At the end of the counter and adjacent to the ice-box is formed a refrigerating apparatus comprising a vessel or compartment 18 adapted to contain water and within which is placed a centrally disposed double-walled vessel 19 adapted to receive ice or a refrigerating mixture between its walls and from which a drain-pipe 20 leads for conducting off the water arising from the melting ice therein. The centrally disposed vessel 19 is made separate from the vessel 18 so as to be removed when desired and the central space formed by the inner wall of the interior vessel serves to receive an ice-cream can or vessel 21 provided with a cover 22. Water is admitted to the outer vessel 18 by a valve-controlled pipe 23 and the overflow from the vessel is conducted by a pipe 24

to the trough 11 so that the overflow is utilized to cool the trough 11, and the overflow from the trough is conducted by a pipe 25 to the drain board 16 or the sink 17.

5 Within the vessel 18 outside of the double-walled vessel 19 is placed a stack for cooling liquids that may be dispensed from the soda-fountain. This stack consists of a number of stand pipes 26 and 27 closed at the top
10 and bottom and a series of hollow rings 28 and 29 connected to the stand pipes by suitable detachable tubular couplings 30. The stand-pipes 27 and connected rings 28 are independent of the pipes 26 and rings 29,
15 and said pipes and rings alternate with each other as illustrated. The uppermost ring 28 of one series is provided with an inlet pipe 31 and its lower ring with an exit pipe 32 which will lead in any appropriate manner
20 out through the water tank to the dispensing point, and the uppermost ring of the other series provided with an inlet pipe 33 and its lowermost ring with an exit pipe 34 leading in any appropriate manner from
25 the tank to the dispensing point. This enables different beverages, for instance, one soda and another a mineral water, to be cooled at the same time. The beverage admitted to one series of rings and pipes circulates
30 through the connected rings and stand pipes from top to bottom of the stack whence it leaves the circulating system at the point of lowest temperature, and the other beverage likewise circulates through the other series
35 of rings and stand pipes. The stand pipes and rings of the stack being spaced apart from each other the cold water in the vessel 18 comes in contact with all parts of the pipes and rings and the coldest water at
40 the bottom of the vessel in contact with the rings and pipes at the point where the beverage leaves the cooling system. The pipes and rings being spaced apart from each other a large surface is exposed to the cooling
45 water so that the best results are obtained.

The stack can be removed when desired by uncoupling the inlet and outlet pipes therefrom and the stack then lifted out of
50 the vessel. If any ring or pipe needs repairs, it can be uncoupled without disturbing the others and be replaced by another if desired.

If the water in the vessel becomes too
55 cold its temperature can be raised by opening the valve in its inlet pipe and thus the temperature can be raised by the admission of warmer water. The apparatus thus serves as an attemperor.

60 I have illustrated as much of a soda-fountain and cabinet as is necessary to illustrate the invention, and I have described with particularity the preferred details of construction but it is obvious that changes
65 can be made in the parts without departing

from the essentials of the invention as defined in the appended claims.

Having described my invention and set forth its merits, what I claim is:—

1. A dispensing apparatus comprising a
70 cabinet formed with chambers, a trough located at the upper portion of the chambers and formed with pockets to contain syrup-vessels, said pockets on all sides being spaced
75 apart from each other and from the walls of the trough for the circulation of a cooling liquid, from one end of the trough to the other and around the several pockets, and a primary liquid cooling vessel in communication with said trough for the supply of a
80 cooling liquid from said primary cooling vessel into the trough, substantially as described.

2. A dispensing apparatus comprising a
85 cabinet, a trough contained within the cabinet and formed with a centrally disposed recess for the reception of ice and with a number of pockets for syrup-vessels spaced
90 apart from each other and from the walls of the trough for the passage of a cooling liquid, the trough on one side of said recess being connected with the portion on the
95 other side by a connecting hollow neck portion, and a primary liquid cooling vessel in communication with said trough for the supply of a cooling liquid from said vessel into
the trough, substantially as described.

3. A dispensing apparatus comprising a
100 vessel for containing a cooling liquid, a double walled receptacle located within said vessel for containing a cooling agent and formed with a centrally disposed chamber within the circumference of the inner wall
105 of the receptacle, and a cooling stack for beverages consisting of a series of stand-pipes and hollow rings having tubular connections with the stand-pipes, one series of
the rings connecting with one series of
110 stand-pipes and a separate series with other stand-pipes for the circulation of different beverages through each series of rings and stand-pipes, said stack being located in the vessel containing the cooling liquid, substantially as described.

4. A dispensing apparatus comprising a
115 cabinet provided with a trough formed with pockets to receive syrup-vessels, said pockets being spaced apart from each other and from the walls of the trough for the passage
120 of a cooling liquid, a primary vessel for containing a cooling liquid connected with said trough for the supply of the liquid from said vessel to the trough, a
double-walled receptacle located within
125 said vessel for containing a cooling agent and formed with a centrally disposed chamber within the circumference of the inner wall of the receptacle, and a cooling stack for beverages consisting of a
130 series of stand-pipes and hollow rings hav-

ing tubular connections with the stand-pipes,
one series of the rings connecting with one
series of stand-pipes and a separate series
with other stand-pipes for the circulation of
5 different beverages, said stack being located
in the vessel containing the cooling liquid,
said parts being so relatively arranged that
the cooling agent in the receptacle will cool
the inner chamber thereof and the liquid
10 contained in the outer vessel, and the cooled

liquid will cool the beverage cooling-stack
and flow into the trough to cool the syrup-
vessels contained therein, substantially as
described.

In testimony whereof I affix my signature 15
in presence of two witnesses.

CURT KRIEGER.

Witnesses:

ALFRED C. KRIEGER,
S. SCOTT BATHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
