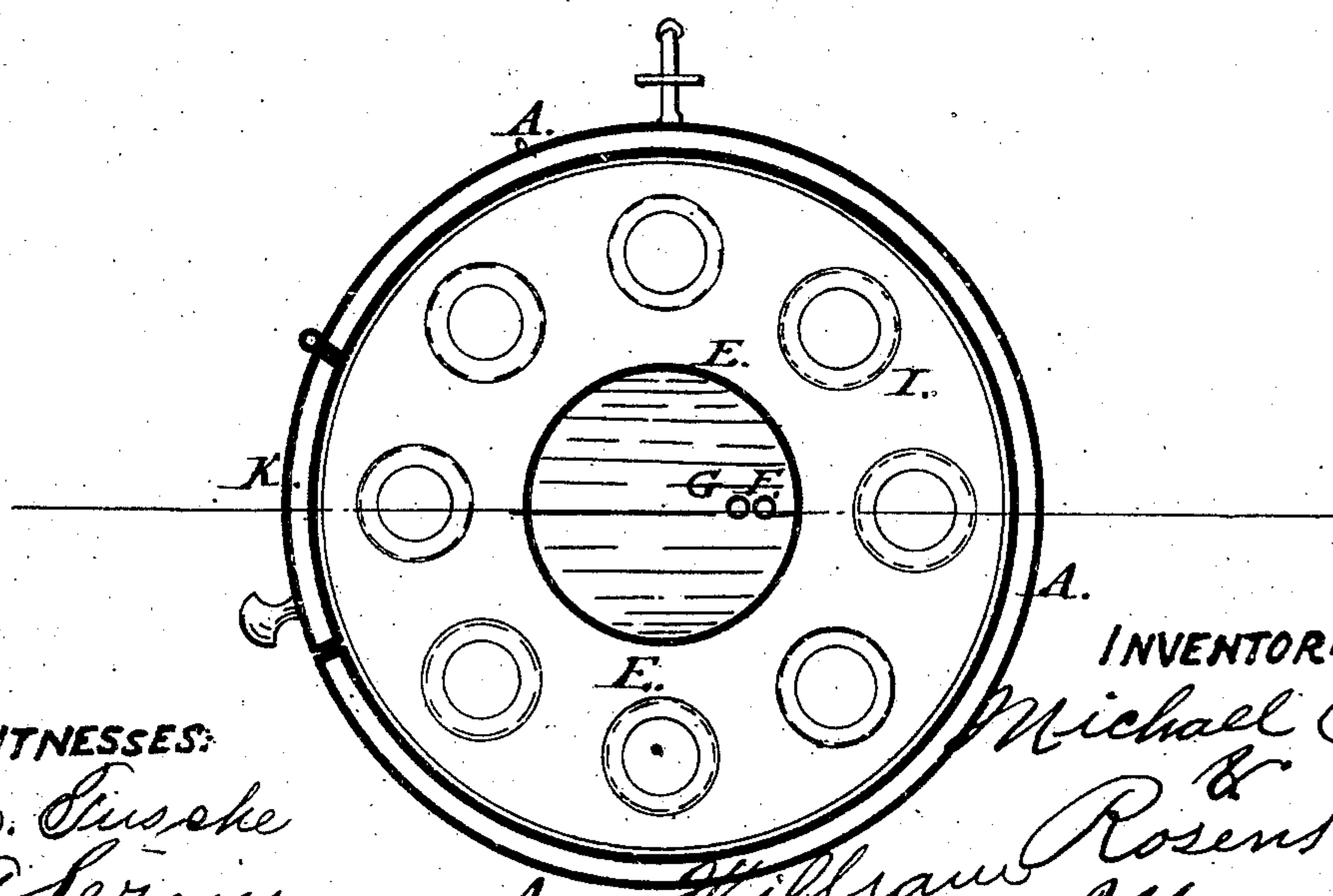
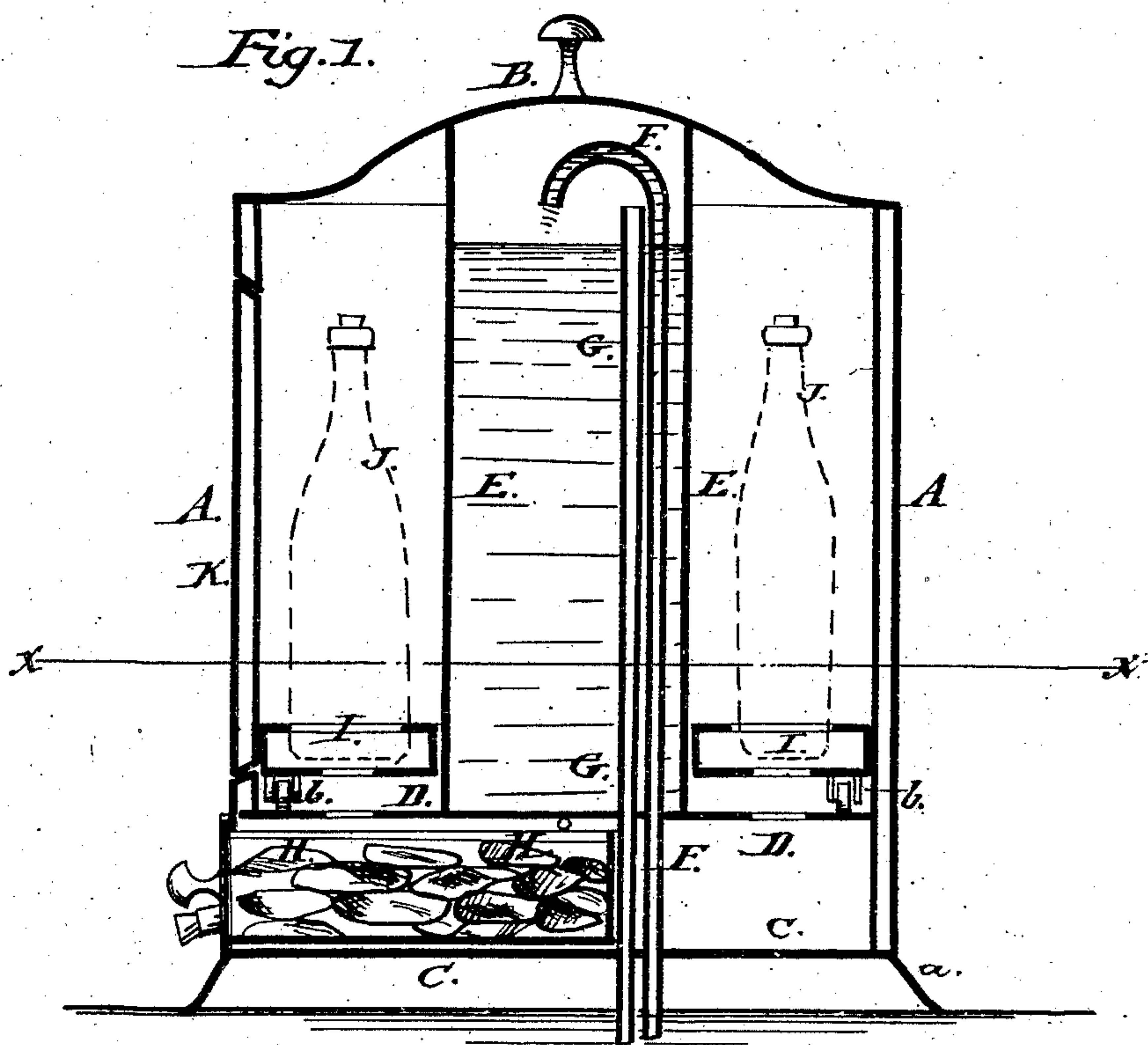


Rosentkranz & Esch.

Refrigerator.

N^o 67,364.

Patented Jul. 30, 1867.



WITNESSES:

Theo. Gusske
J. A. Service

INVENTOR:

Michael Esch
&
Rosentkranz
per *Wm. C. Munn*
attys

United States Patent Office

WILLIAM ROSENKRANZ AND MICHAEL ESCH, OF ST. PAUL, MINNESOTA.

Letters Patent No. 67,354, dated July 30, 1867.

IMPROVED WATER-TANK AND REFRIGERATOR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, WILLIAM ROSENKRANZ and MICHAEL ESCH, of St. Paul, in the county of Ramsey, and State of Minnesota, have invented a new and improved Refrigerator; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a vertical central section of our improved refrigerator.

Figure 2 is a horizontal section of the same, taken on the line *x x*, fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new device for cooling liquids in bottles, said device being so constructed that any one bottle can be easily taken out and replaced, and so that a constant stream of cold water is made to circulate in the apparatus.

The invention consists, first, in the construction and arrangement of a cylindrical vertical water-tank within the centre of a cylindrical refrigerator of the usual form and appearance, said tank being provided with a feed and an overflow pipe, through which a constant circulation of cold water is kept up in the tank by means of a pump, which is operated by clock-work, and which takes the water from a reservoir which is arranged below the refrigerator, and in which a sufficient quantity of ice is kept for keeping the water as cool as necessary. The invention consists, second, in the arrangement around the aforesaid tank of an annular support for bottles and other articles, the said support resting upon rollers in such a manner that it can easily be revolved around the tank. The lower parts of the bottles fit into recesses provided in this support, and are thus firmly held. By opening the door in the outer casing of the refrigerator, and by turning the aforesaid annular support, any one bottle can be easily brought within convenient reach, and can be removed from and replaced in the refrigerator. A drawer is arranged in the refrigerator below the said support, for holding the small broken ice used by restaurants. The cover of the said drawer is perforated, so that the ice in the drawer may also aid to keep the contents of the bottles cool.

This invention will be particularly useful for restaurants and all persons who have to use or handle different kinds of liquids, and who find it to their interest to have these liquids kept cool and fresh.

A represents the cylindrical casing of a refrigerator, which is made of two layers of sheet metal, between which paper or other non-conducting material is arranged. B is the cover, and C the bottom of the cylinder, both of which are firmly secured to the casing. Legs or flanges, *a*, may be arranged below the bottom C, for supporting the refrigerator. D is a false bottom arranged in the cylinder A. Upon it rests an upright cylinder, E, the sides of which reach to the cover B, as shown. F is a pipe, which leads through the bottoms C and D into the central cylinder E, and through which ice-water is pumped into the cylinder E by means of a self-acting pump, (which is not shown.) G is a pipe, which also extends from the water-reservoir to the upper part of the tank E, through which the water in the tank flows off after reaching the height of the pipe G. The bottom D is perforated between the walls of E and A. H is a drawer, which is arranged between the bottoms C and D, and which is to be filled with small ice, by which, as well as by the water in the tank E, the annular space J outside of the latter is cooled. I is an annular plate or box, which fits into the chamber J, and to the under side of which rollers *b b* are secured, as shown, so that the said ring I can be revolved around the tank E. Holes are provided in the ring I for holding bottles, as shown. Any number of such revolving rings may be arranged, one above the other, in one refrigerator, a false bottom, D, being of course provided below each ring. K is a door in the casing A, for giving access to the chamber J.

What we claim as new, and desire to secure by Letters Patent, is—

The tank E, when arranged as herein shown and described, in combination with the drawer H, (perforated,) false bottom D, revolving ring I, and case A of a refrigerator, all made substantially as set forth.

The above specification of our invention signed by us this second day of April, 1867.

WILLIAM ROSENKRANZ,
MICHAEL ESCH.

Witnesses:

E. BAUCAND,
NIK LERUT.