(No Model.)

J. D. COLONY.

COMBINED WATER COOLER AND REFRIGERATOR.

No. 342,330. Patented May 25, 1886.

FIG. 2.

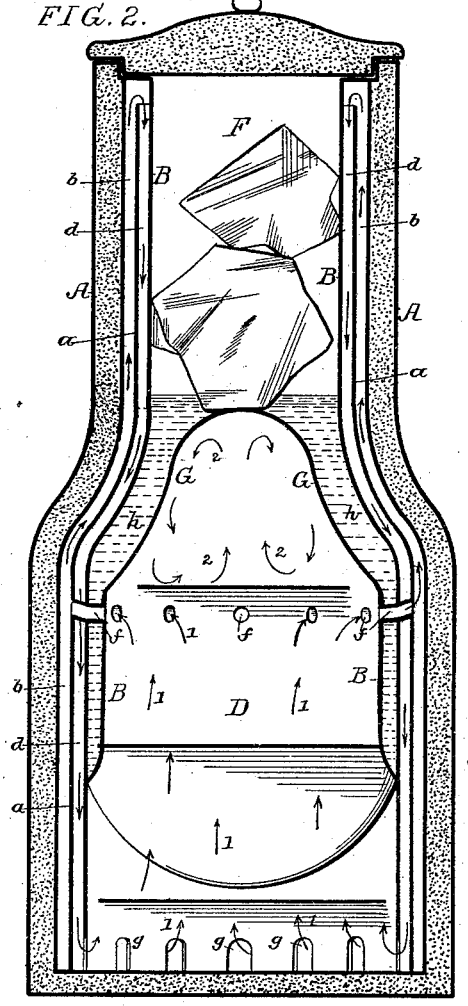


FIG. 1.

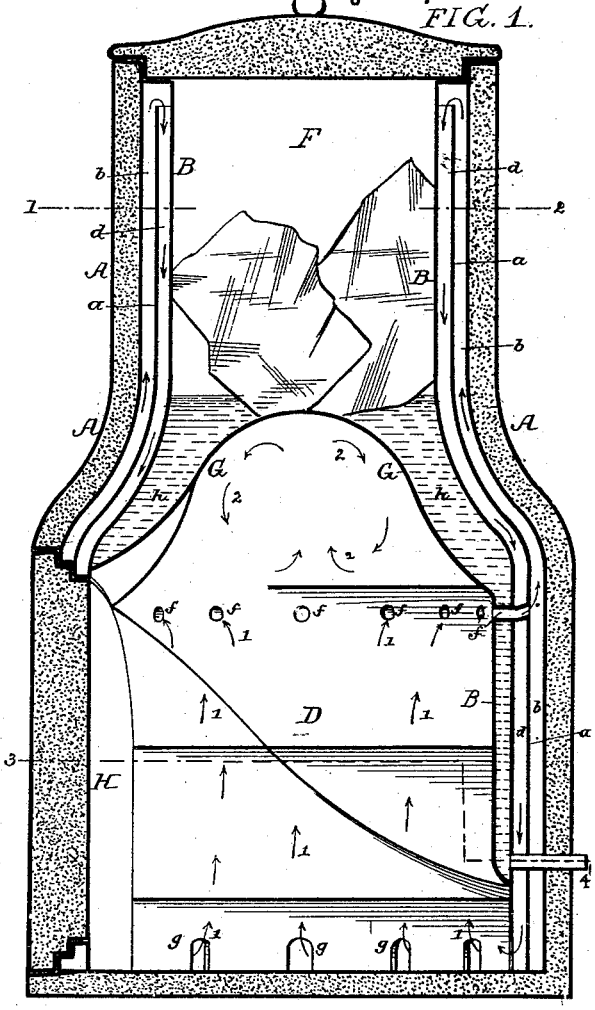


FIG. 3.

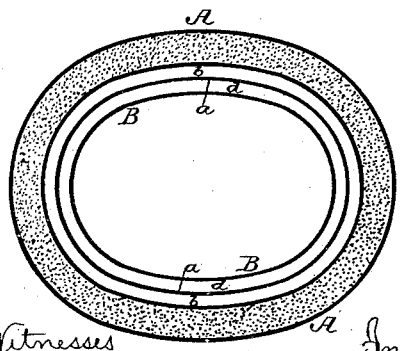
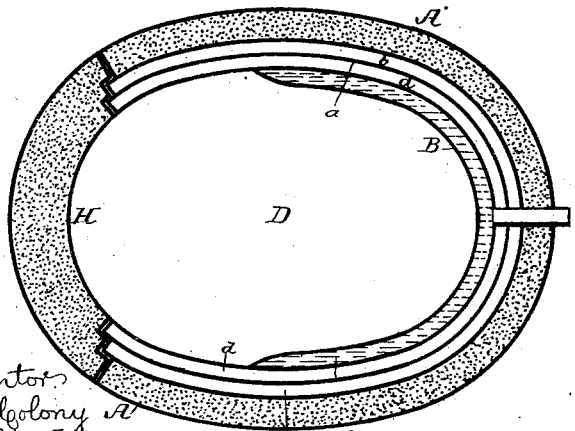


FIG. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSIAH D. COLONY, OF PHILADELPHIA, PENNSYLVANIA.

COMBINED WATER-COOLER AND REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 342,330, dated May 25, 1886.

Application filed August 24, 1885. Serial No. 175,184. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH D. COLONY, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Combined Water-Coolers and Refrigerators, of which the following is a specification.

The object of my invention is to so combine a refrigerating-chamber with a water-cooler as to obtain a large air-cooling surface and insure an effective circulation of the air through the refrigerating-chamber. This object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of my improved water-cooler and refrigerator; Fig. 2, a transverse section of the same; Fig. 3, a sectional plan on the line 1 2, Fig. 1; and Fig. 4, a sectional plan on the line 3 4, Fig. 1.

A is the outer casing of the structure, which is made double, as usual, and is packed with non-conducting material, and between this casing and the casing B of the water-reservoir and refrigerating-chamber intervenes a space, which is divided by a central partition, *a*, into outer and inner passages, *b d*, communicating with each other at the upper end over the top of the partition *a*, the inner passage, *d*, communicating with the lower portion of the refrigerating-chamber D, and said chamber, at a point some distance above the bottom, communicating through pipes or passages *f* with the outer passage, *b*. By this means a circulation is induced in the provision-chamber D, the warm air escaping from the same through the passage *f*, and rising in the outer passage, *b*, until it reaches the top of the same, where it enters the passage *d*, and is caused to descend therein by reason of its being cooled by contact with the casing B of the ice-water reservoir F, the cool air entering the bottom of the provision-chamber through suitable perforations, *g*.

The provision-chamber D has a dome-shaped top, G, connected to the casing B at its lower edge, this top being less in diameter than the casing, so that it is surrounded by water in the annular space *h*, and thereby forms an internal refrigerating-surface, thus causing in the upper portion of the refrigerating-chamber a secondary circulation—such as indicated by the arrows 2—and this circulation being independent of that in the lower portion of the refrigerating-chamber, which is indicated by the arrows 1.

The provision-chamber is closed in front by a door, H, preferably forming part of the casing of the structure, and packed like the same to render it non-conducting.

The lower portion of the structure is expanded in diameter, so as to increase the capacity of the provision-chamber without unduly increasing the diameter of the ice-water reservoir.

The structure above described combines with a water-cooler a refrigerator of moderate capacity, which can be constructed more cheaply than the refrigerators now in use.

I claim as my invention—

1. The combination of the outer casing, A, with an internal casing inclosing the water and ice reservoirs and provision-chamber, and separated from the outer casing by a space forming air-circulating chambers communicating with said provision-chamber, as specified.

2. The combination of the outer casing, the inner casing inclosing the water and ice reservoirs and provision-chamber, the air-passages between the inner and outer casings, and a provision-chamber having a communication, *f*, with said air-passages, and a chamber above this communication, all substantially as specified.

3. The combination of the provision-chamber, the water-reservoir around the same, and the ice-reservoir above it, with the casing contracted at the ice-reservoir, but expanded below the same, all substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSIAH D. COLONY.

Witnesses:

JOHN E. PARKER,

HUBERT HOWSON.