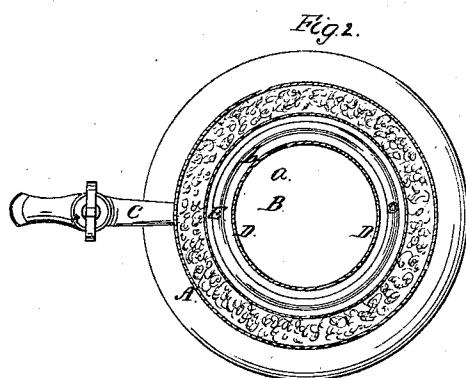
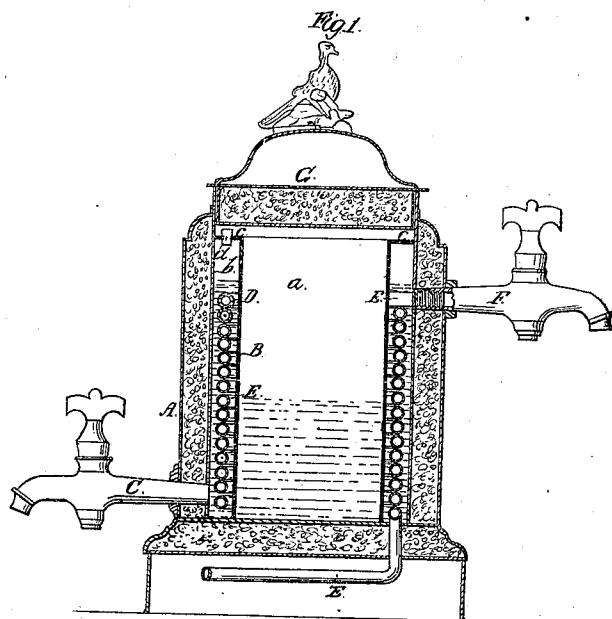


C. JONES.
BEER COOLER.

No. 24,124.

Patented May 24, 1859.



Witnesses:
O. D. Munn
J. W. Combs.

Inventor
Charles Jones

UNITED STATES PATENT OFFICE.

CHARLES JONES, OF BROOKLYN, NEW YORK.

COOLER FOR BEER.

Specification of Letters Patent No. 24,124, dated May 24, 1859.

To all whom it may concern:

Be it known that I, CHARLES JONES, of Brooklyn, E. D., in the county of Kings and State of New York, have invented a new and Improved Cooler for Beer and other Liquids; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a vertical central section of a cooler constructed according to my improvements and Fig. 2 is a horizontal section of ditto.

Similar letters of reference in the two figures indicate corresponding parts.

This invention consists in dividing the waterspace of a cooler by means of a cylindrical shell placed in the same in two compartments which communicate by a narrow crevice left between the bottom of the waterspace and between the edge of the cylindrical shell while that part of the waterspace outside of the shell is closed perfectly airtight on the top so that the water in this space is kept up to or near to the top by the atmospheric pressure even when the water from the space inside of the shell is drawn out, and that a tube coiled around the shell and placed in the space outside the same is always submerged under water which being surrounded by the non-conducting material filled into the space between the outer walls of the cooler, retains its low temperature for a long time and beer or other liquid by passing through the coil, is effectually cooled.

To enable those skilled in the art to fully understand use and construct my cooler, I will proceed to describe its construction and operation.

A is a vessel of the ordinary form given to coolers and constructed with double walls the space between which is filled up with some non-conducting material such as charcoal dust, sawdust, or any other substance commonly used for this purpose and inclosed between these walls is the waterspace B which communicates with the exterior by a faucet C, which serves to draw off cold water in the usual manner. This waterspace is divided in two compartments *a* and *b* by a cylindrical shell D which is secured in the inside of the water-space and the diameter of which is considerably smaller than the diameter of the waterspace itself so as to leave the annular space *b* the top of

which is closed by the flange *c* which secures the shell D to the sides of the water-space. The two compartments *a* and *b* communicate by a small crevice left between the bottom of the water-space B and the lower edge of the shell D and the flange *c* is provided with a stopper *d*, which closes airtight, and a tube E is coiled in the space *b* the lower end of which communicates with a beer pump or some other source from which some kind of liquid is to be drawn, and the upper end of the coil E connects with a faucet F which serves to let the liquid out, and the coil extends in the space *b* up to a point somewhat below the flange *c* so that when the space *b* is filled with water the coil E is completely submerged.

A cover G fits into the upper part of the water-space B and the lower portion of this cover is also filled up with some non-conducting substance so that the temperature of the water in the cooler is preserved as much as possible.

The operation is as follows: When water is poured in the water-space B and if the stopper *d* is removed, the water in the compartment *b* will rise just as high as the water in the compartment *a*. The stopper is now replaced and the water is cooled down by adding ice in the usual manner, and as the coil E is completely submerged in the cold water, the beer or other liquid which has to pass through the whole length of the coil, will be nicely cooled down by the time it reaches the faucet F. If some water is now drawn out of the water-space B by means of the faucet C and with coolers arranged in the ordinary manner, the water will soon sink below the top of the coil and after a certain time the largest part of the coil instead of being surrounded by cold water will be in contact with air and the cooling effect will be lost unless good care is taken to replace the water drawn from the waterspace by a fresh supply of water and ice. This is different with my arrangement as the water contained in the compartment *b* will sink down but very little, no matter what quantity of water may be drawn from the water space B, for all the water taken from that space will flow from the compartment *a* in which the water is exposed to the atmospheric pressure, but the water in the compartment *b* will be supported by the atmosphere, as no air can get to it, and the water from the inner compart-

ment may be drawn out altogether, providing enough is left to close the crevice between the bottom of the water space and between the lower edge of the shell D, and
5 the water in the compartment *b* will still be high enough to cover the coil E. By these means the coil is always submerged in the cold water and the liquid passing through the same will be cooled whether the level of
10 the water in the compartment *a* be high or low.

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

The shell D arranged in the cooler so as to form the two compartments *a* and *b* to operate in combination with the coil E as and for the purpose herein described.

CHARLES JONES.

Witnesses:

O. D. MUNN,
J. W. COOMLES.