

J. HERGET.

Beer Cooler.

No. 57,900.

Patented Sept. 11, 1866.

Fig. 1.

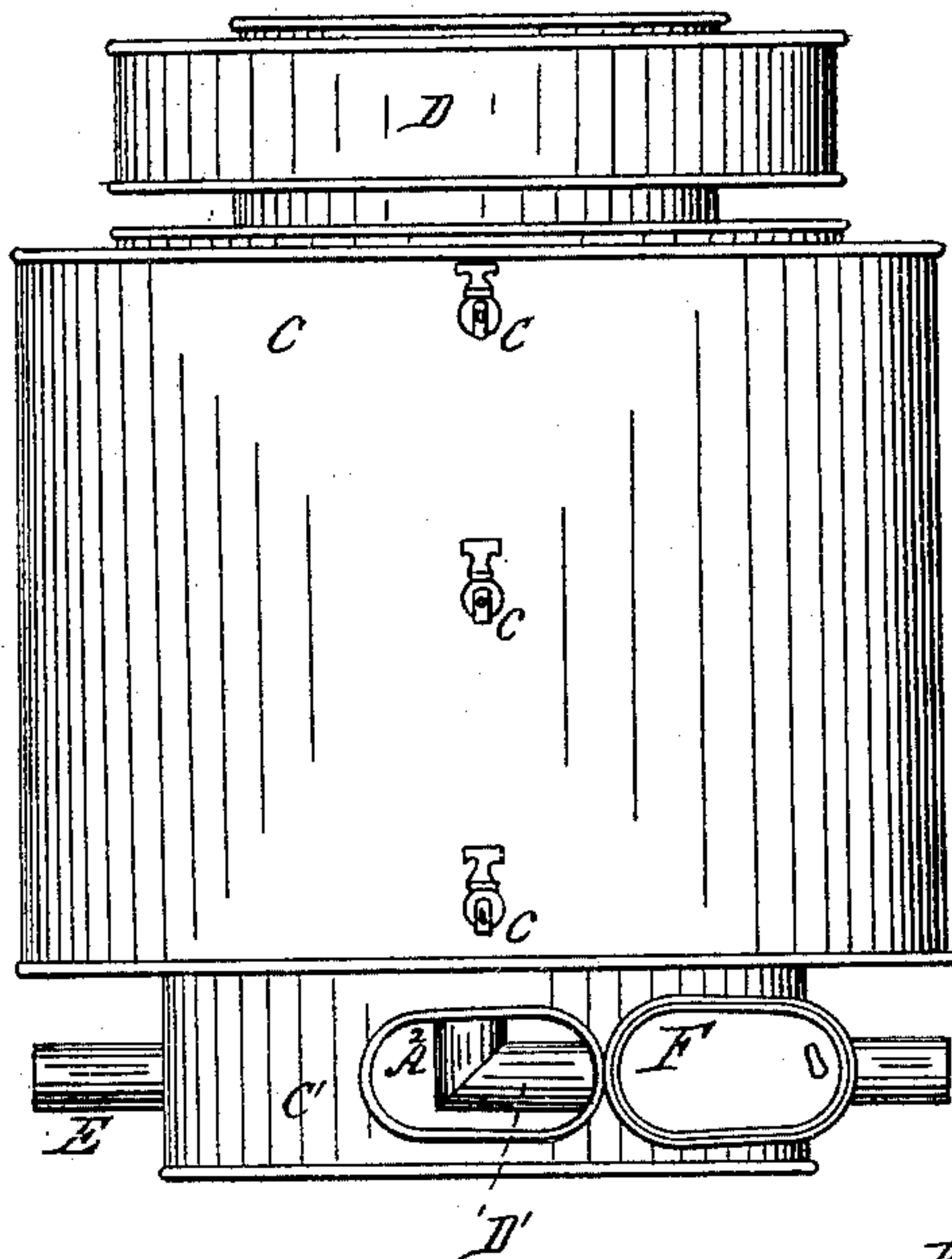


Fig. 2.

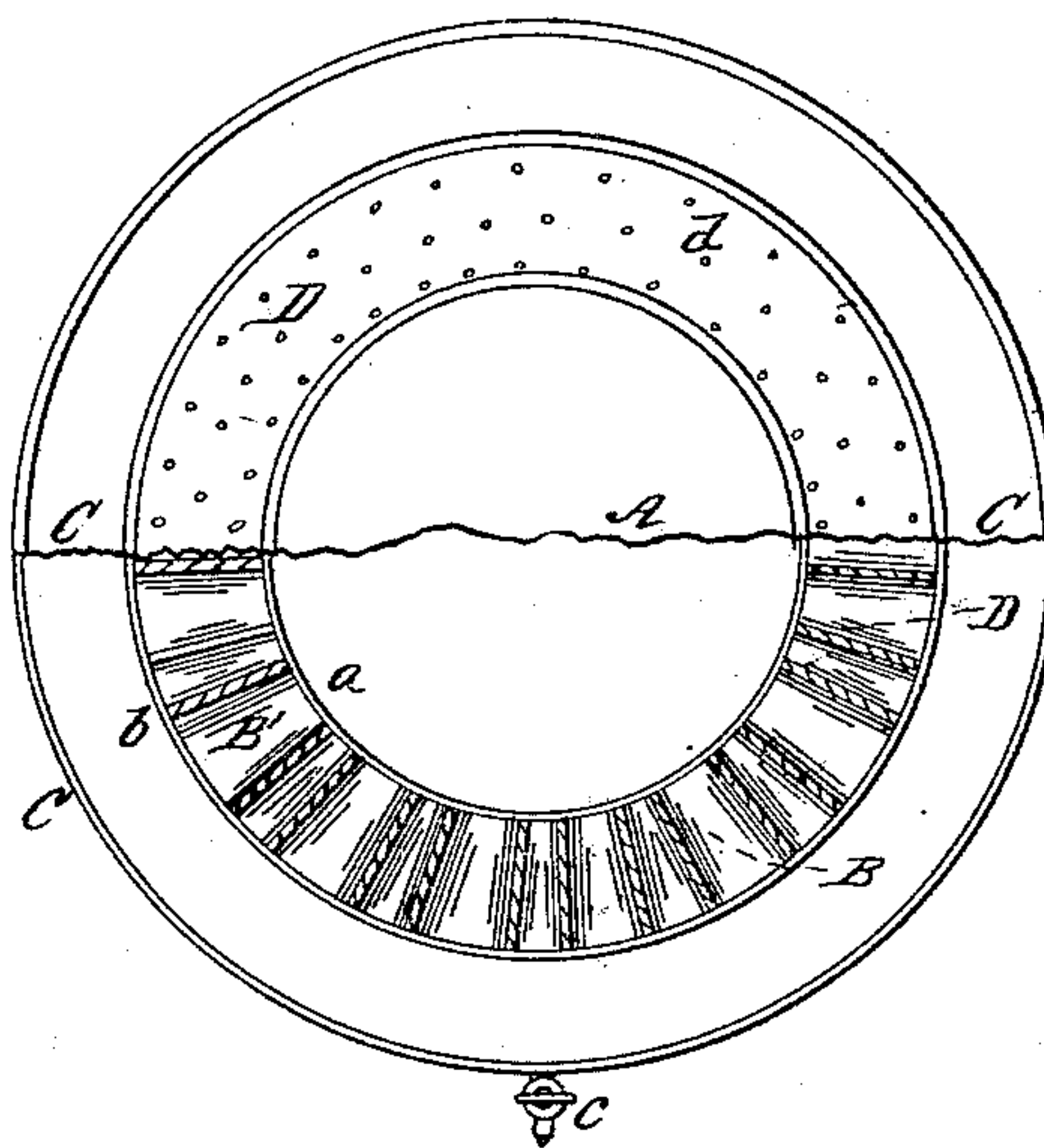
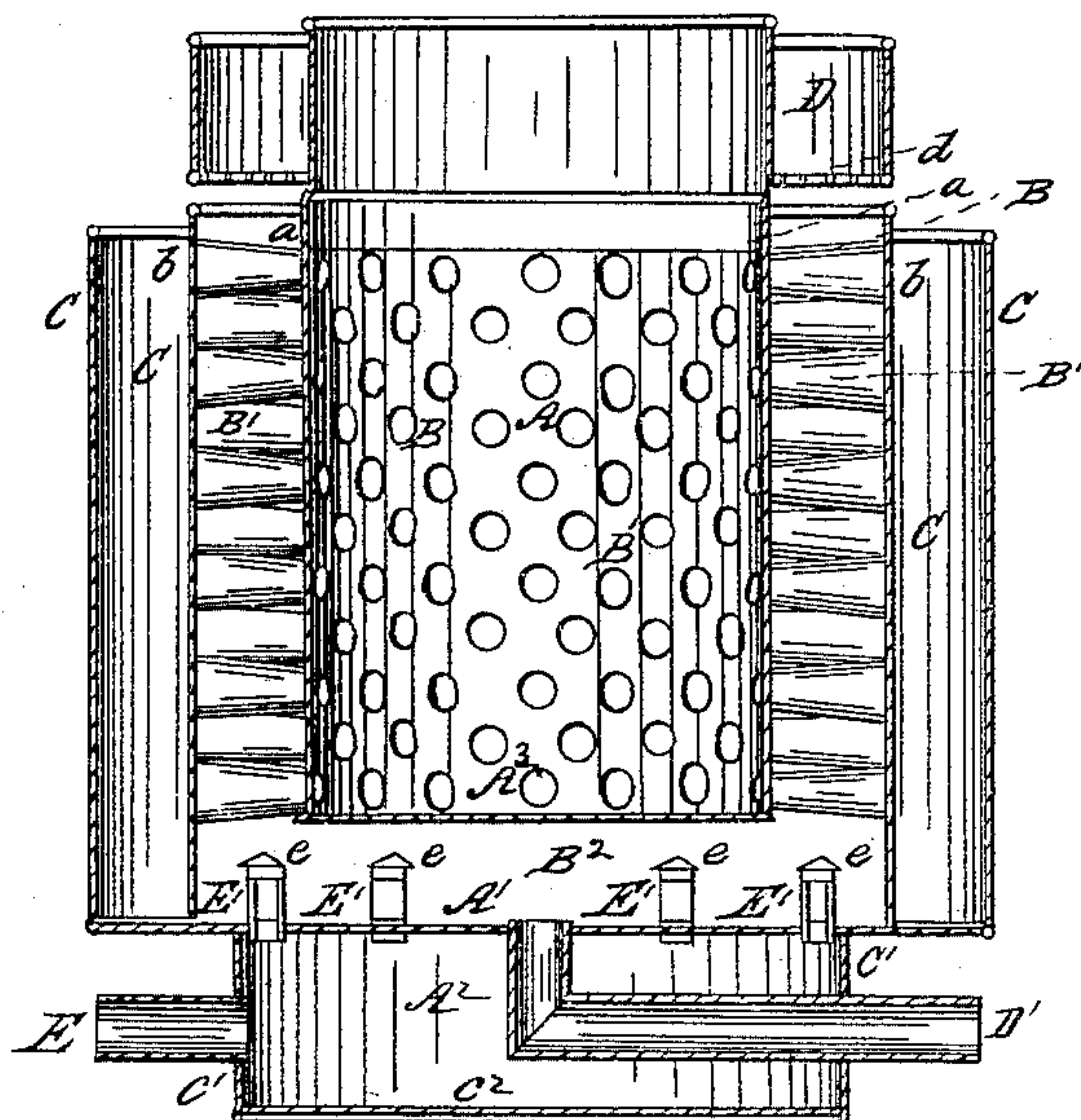


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN HERGET, OF ST. LOUIS, MISSOURI.

IMPROVED COOLER FOR BEER, &c.

Specification forming part of Letters Patent No. 57,900, dated September 11, 1866.

To all whom it may concern:

Be it known that I, JOHN HERGET, of the city and county of St. Louis, and State of Missouri, have invented a new Cooler for Beer and other Fluids; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of this invention consists in discharging the fluid to be cooled down through a cooling-chamber in a shower of distinct drops or very small streams. The cooling-chamber is to be packed on all sides with ice, and is also to have a continuous current of cold air passing up through it. It is furthermore to have a large number of pipes passing through it, the said pipes being brought to so low a degree of temperature by the surrounding packing of ice that their immense surface will tend to cool the fluid passing over them very rapidly. The disposition of these pipes is such that the fluid passing down through the cooling-chamber will strike them and diffuse itself over the vast amount of area they present.

To enable those skilled in the art to make and use my improved cooling apparatus, I will proceed to describe its construction and operation.

Of the accompanying drawings, Figure 1 represents a side elevation of the said cooler. Fig. 2 is a half-plan and half-section; and Fig. 3 is a sectional elevation bisecting the apparatus.

A is a central circular chamber, to be filled with ice. This ice-room is to be surrounded with an annular cooling-chamber, B, formed between the vertical circular walls *a b*, and this cooling-chamber is itself surrounded by an ice-chamber, C, formed between the walls *b c*. The wall *c*, forming the outer wall of the cooler, may be made either single or double thickness. There are numerous tubes, B', passing horizontally through the chamber B and attached to its walls *a b*. These allow cold currents of air to pass through them from the chamber A to chamber C, or in an opposite direction, as the case may require.

The bottom A', on which the chambers A B

C are erected, forms the top plate of a sub ice-vault, A², which is surrounded by the walls *c'*, and rests on its bottom *c*². As the ice which fills the chambers A C is liable to become melted, and thereby fill the said chambers with water, there are faucets *c* inserted through the wall *c* for the purpose of drawing off the water that may thus accumulate.

The chamber A has a bottom, A³, of its own above the bottom plate, A', and the wall *a* extends no farther down than this plate, thus leaving the chamber B in open communication with the chamber B² between the plates A' and A³.

The fluid to be cooled in this apparatus is to be placed in the annular chamber or basin D, directly above the chamber B. The bottom *d* of this basin is to be perforated with small holes, as shown in the drawings. Through these small orifices the fluid will run down in very small streams or in a shower of drops, and as it descends through the cooling-chamber B, it will strike and diffuse itself over the tubes B', and then drop down from one to another of these tubes, until it reaches the chamber B², whence it will be drawn off through the discharge-pipe D'.

The basin D should not rest down tightly on the walls *a b*; but a space should be left there to allow the air that rises through the chamber B to escape. A continuous current is fed into the chamber B² through the air-supply pipe E, where the air so fed in is reduced to a very low temperature by means of ice placed therein. From the chamber A² the air thus cooled is conducted up into the chamber B² through the tubes E'. These tubes extend above the floor A' sufficiently to prevent the fluid which may rest thereon from running down through them into the vault or chamber A². The tops of them are capped with hoods *e*, to prevent the dropping fluid from dropping into them.

By the use of this apparatus beer may be brewed in summer.

There should be a door, F, made in the wall *c'*, for the purpose of supplying ice to the vault A².

Having described my invention, what I claim is—

1. The combination and arrangement of the chambers A B C and the sub-vault A², substantially as herein described and set forth.

2. The basin D, when constructed with a perforated bottom, and otherwise so arranged as to discharge its contents, either in a shower of drops or a number of very small streams, down into the cooling-chamber B.

3. The cooling-tubes B, when employed as herein described and set forth.

4. The construction and arrangement of the pipes E and E', as herein described and set forth.

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Witnesses:

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