

(No Model.)

T. BURKHARD.
CANDY CREAM COOLER.

No. 444,147.

Patented Jan. 6, 1891.

Fig. 1.

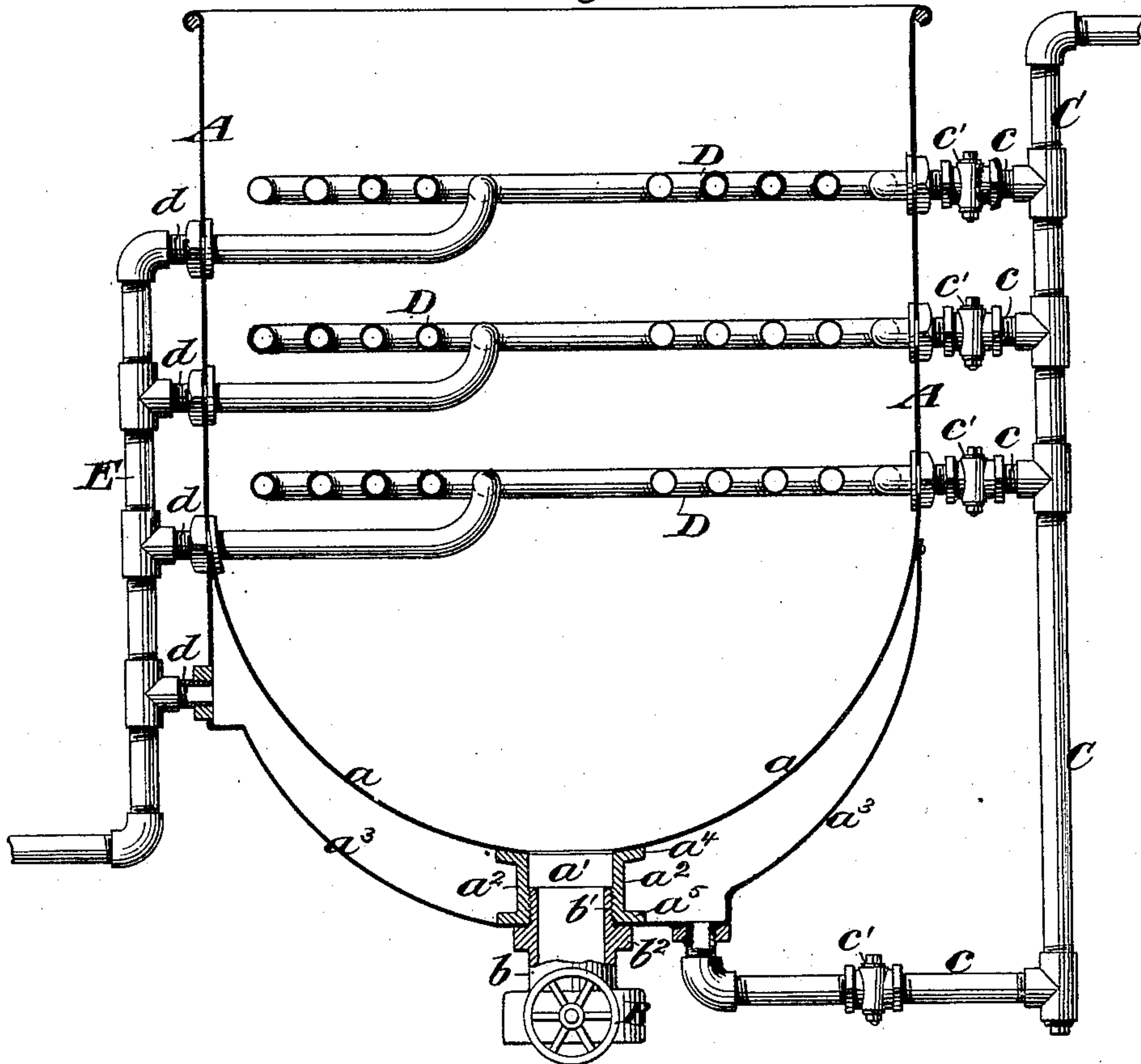
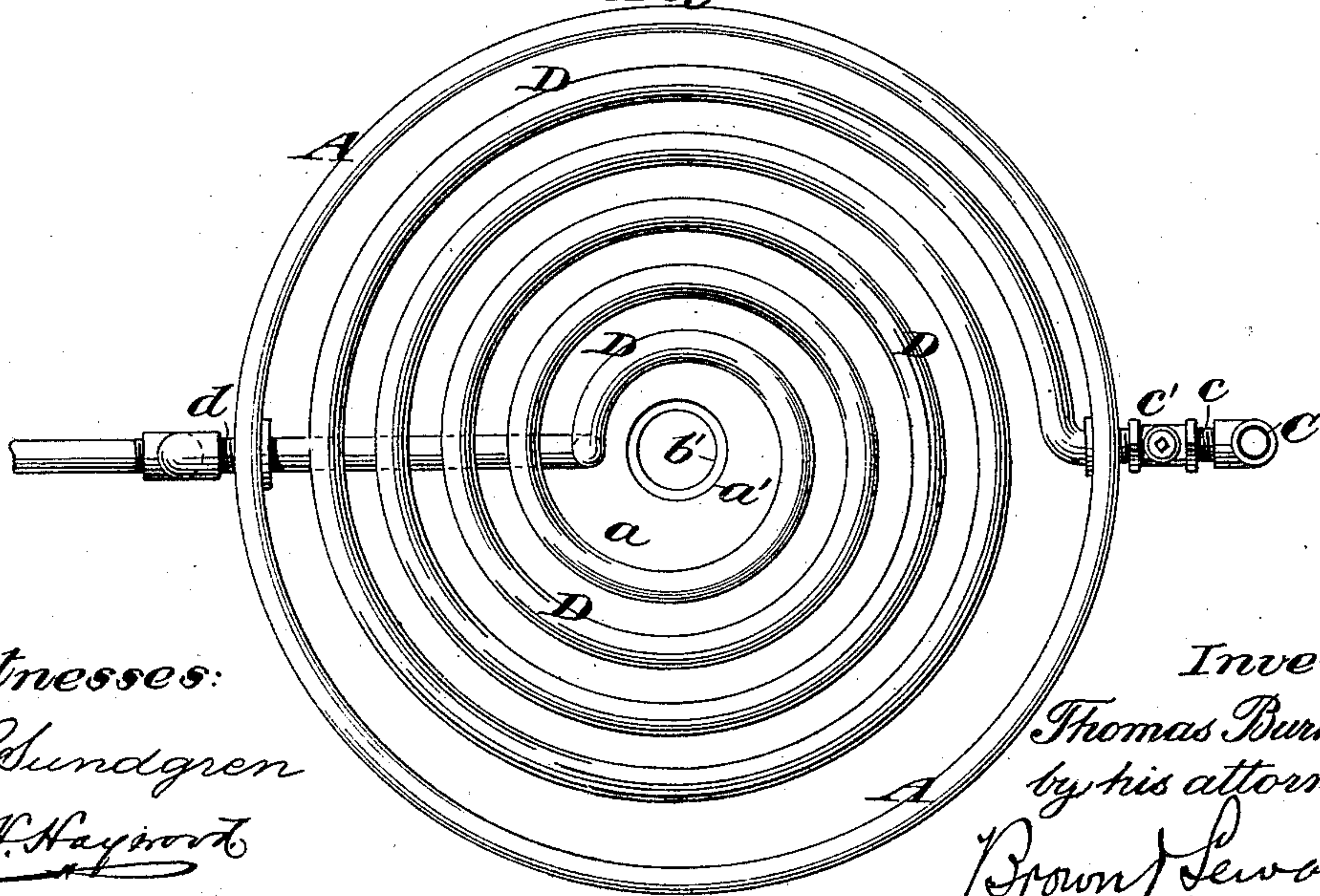


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

THOMAS BURKHARD, OF BROOKLYN, NEW YORK.

CANDY-CREAM COOLER.

SPECIFICATION forming part of Letters Patent No. 444,147, dated January 6, 1891.

Application filed May 3, 1890. Serial No. 350,424. (No model.)

To all whom it may concern:

Be it known that I, THOMAS BURKHARD, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Candy-Cream Coolers, of which the following is a specification.

My invention relates to an improvement in cooling apparatus, and more particularly to apparatus for the cooling of what is known in the art as "candy-cream." Experience has shown that the said cream in a semi-liquid state, having such consistency as to enable it to be poured or turned off, should be cooled quickly and evenly throughout the mass in order to produce the best products. With a view of accomplishing such cooling in a simple and effective manner I have invented the apparatus herein shown, and which will be now particularly described.

A practical embodiment of my invention is shown in the accompanying drawings, in which—

Figure 1 is a vertical section through the receptacle, showing the cooling-pipes in position; and Fig. 2 is a top plan view.

A represents a receptacle, preferably of cup form, as shown, having the rounded bottom a . The lowermost portion of the bottom a is provided with an outlet a' for drawing off the contents, the said opening a' being provided with a stop-cock or valve B for regulating the flow. In the present instance I have shown the valve seated in a short pipe-section b , having a screw-threaded engagement b' with a short tube or nipple a^2 , secured to the bottom round the opening. The receptacle is further provided with a false or second bottom a^3 , spaced from the bottom a , leaving between the two bottoms a chamber for the reception of a cooling medium. The bottom a^3 is preferably made to gradually recede from the bottom a as it extends from the sides of the receptacle toward the central portion, thereby forming a jacket of gradually-increasing thickness for the reception of the cooling medium extending from the lower portion of the upright part of the receptacle to the central portion of its bottom. The short tube or nipple a^2 forms a spacing-tube between the two bottoms, and is conveniently provided with annular flanges a^4 a^5 at its upper and lower ends, respectively, for the seating of the

bottoms thereon, and the pipe-section b is provided with an annular projection b^2 , which, when the pipe-section is screwed into engagement with the nipple a^2 , engages the under side of the lower bottom a^3 around the opening a' and forces it into contact with the flange a^5 , forming a tight joint.

A pipe C, leading from a supply of cool liquid or other cooling medium, (not shown,) extends downwardly along one side of the receptacle A, and is provided at suitable intervals with branch pipe-sections c , in the present instance four, three of them extending through the side of the receptacle and communicating within the receptacle with horizontal pipe-coils D and the fourth or lowermost of said branch pipes c communicating with the cooling-chamber. For convenience in shutting off or regulating the flow of the cooling medium into the coils D, the branch pipes c are each provided with stop-cocks c' . This provision for cutting off the supply of cooling medium enables me to supply only those coils with which the substance to be cooled comes in contact—as, for instance, if the quantity (cooked in another vessel) was only sufficient to fill the receptacle less than half-full, the two upper coils could be cut off from a supply of cooling medium, while if the receptacle were filled little more than half-full the cooling medium could be supplied to the jacket and the two lower of the coils within the receptacle, and if nearly full the three coils within the receptacle. Each of the coils D, after extending round in a horizontal plane in spiral form to a point near the vertical axis of the receptacle, leads downwardly, and thence laterally to the opposite side of the receptacle, where, through branch pipes d , the several coils and the cooling-chamber at the bottom connect with a common discharge-pipe E. By this simple arrangement the substance within the receptacle is exposed upon all sides and throughout the mass to the effect of the cooling medium, and may be treated in a rapid and satisfactory manner.

What I claim as my invention is—

1. In a cooling apparatus, the combination, with a receptacle provided with a cooling-chamber at its bottom, of a series of horizontal pipe-coils arranged at different levels within the receptacle, a common supply-pipe

in independent communication with each of the several coils and with the chamber at the bottom, and a common discharge-pipe in communication with the several coils and the
5 chamber at the bottom, substantially as set forth.

2. The combination, with a receptacle provided with a cooling-chamber at its bottom, of a series of horizontal pipe-coils arranged
10 at different levels within the receptacle, a pipe for supplying a cooling medium to the several coils and to the chamber separately, and independent cut-off devices between the supply and the several coils and the chamber,
15 substantially as set forth.

3. The combination, with a receptacle and its second or lower bottom and openings through the bottoms, of a short tube or nipple interposed between the bottoms around the openings, and a discharge-pipe engaged with
20 the short tube or nipple and provided with an annular projection for seating the outer bottom against the lower end of the short tube or nipple, substantially as set forth.

THOMAS BURKHARD.

Witnesses:

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