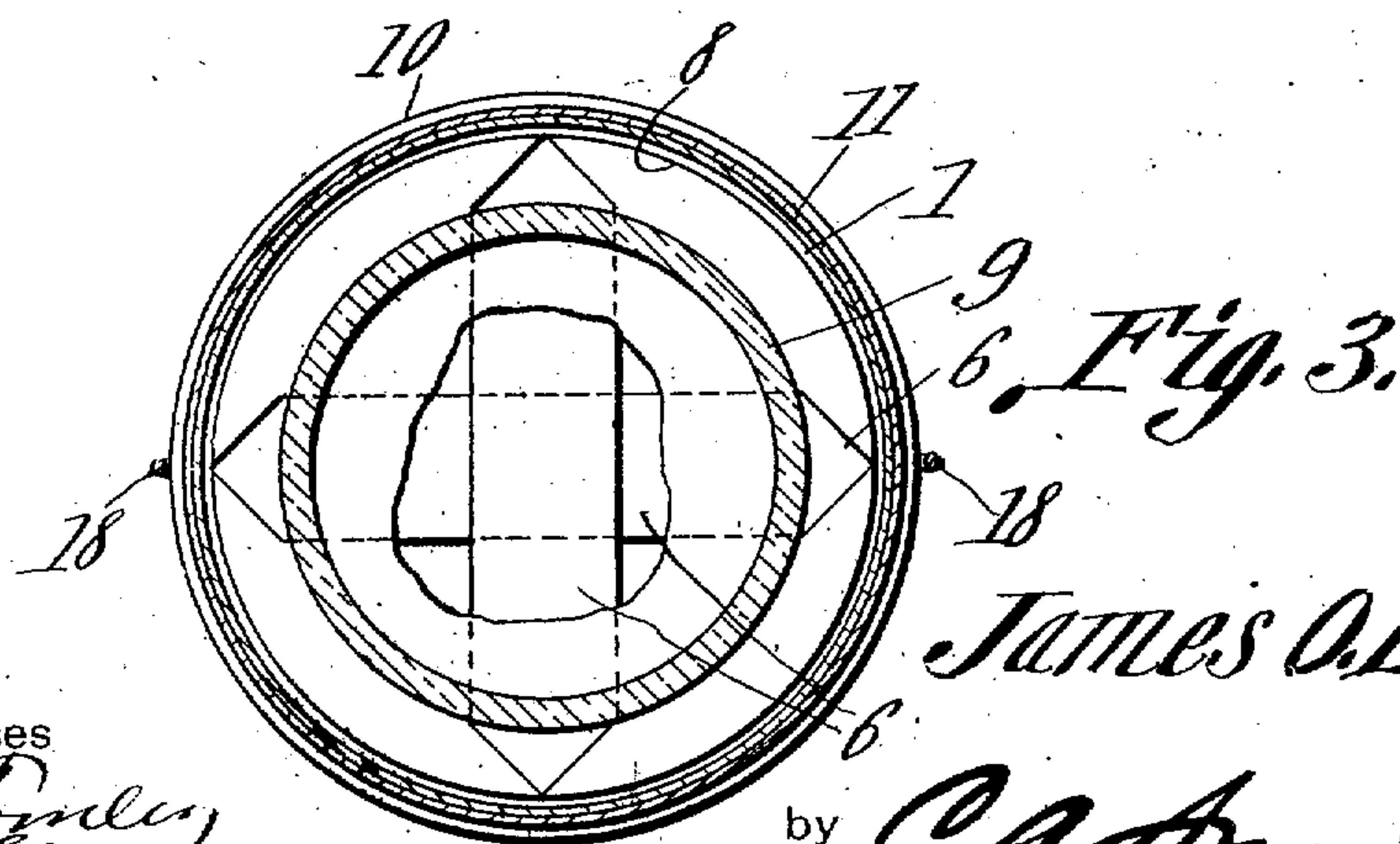
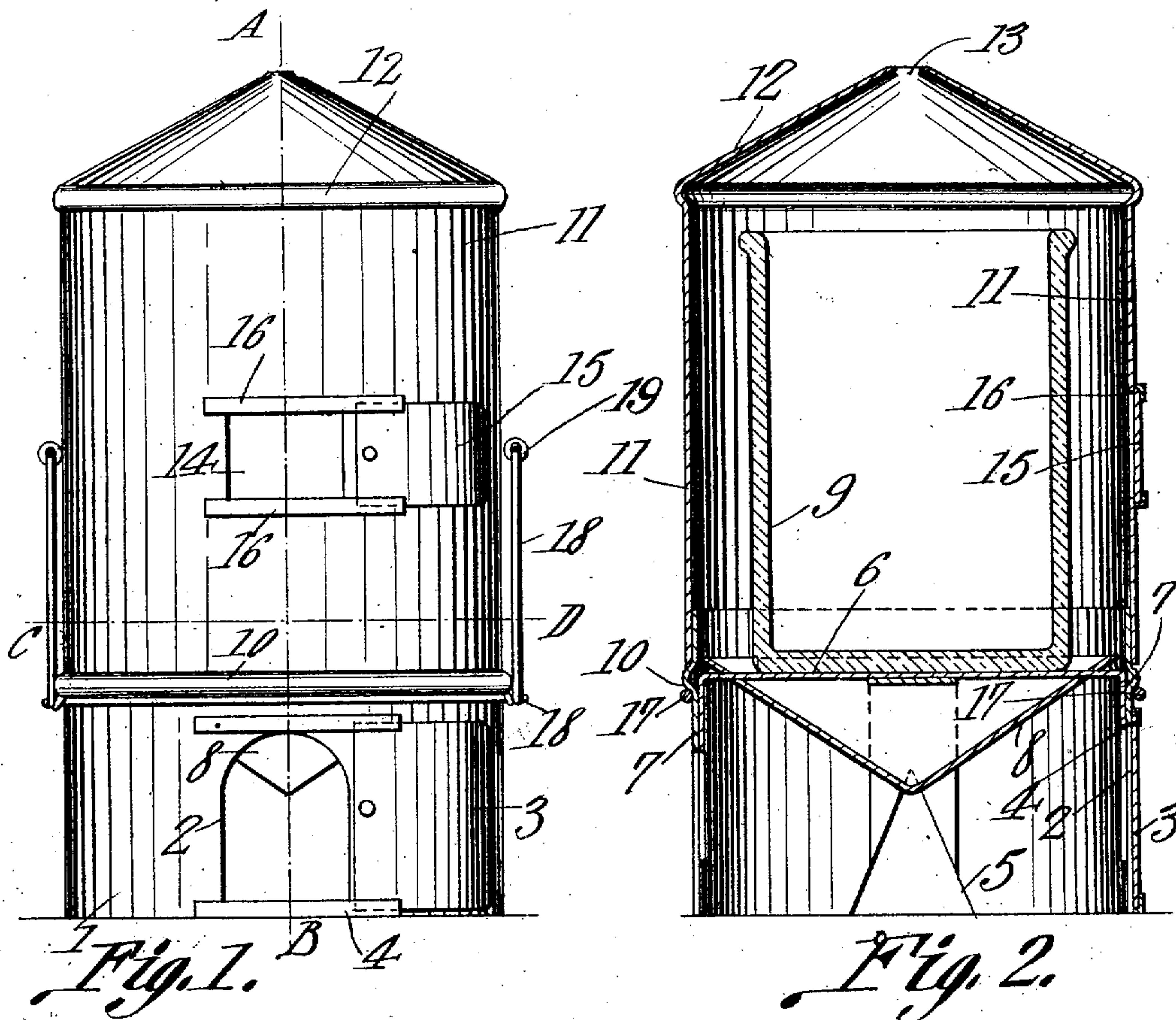


J. O. BRAY.
CREAM HEATER.
APPLICATION FILED JUNE 8, 1910.

968,531.

Patented Aug. 30, 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES O. BRAY, OF CAMPBELL, MISSOURI.

CREAM-HEATER.

968,531.

Specification of Letters Patent. Patented Aug. 30, 1910.

Application filed June 9, 1910. Serial No. 565,997.

To all whom it may concern:

Be it known that I, JAMES O. BRAY, a citizen of the United States, residing at Campbell, in the county of Dunklin and State of Missouri, have invented a new and useful Cream-Heater, of which the following is a specification.

This invention relates to heaters particularly designed for heating cream used in the process of butter making.

Heretofore it has been difficult for persons making butter in small quantities to properly heat the cream in cold weather, it being customary to place the churn close to a stove so as to heat one side of the churn at a time, the churn being gradually turned during the heating process. This has resulted in the production of a poor grade of butter.

One of the objects of the present invention is to provide a simple form of heater with which an ordinary form of oil lamp may be employed as a heating medium, means being provided whereby the hot products of combustion, and the heated air will be evenly distributed around all sides of the cream container.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of a heater constructed in accordance with the present invention. Fig. 2 is a section on line A—B Fig. 1. Fig. 3 is a section on line C—D Fig. 1.

Referring to the figures by characters of reference 1 designates the cylindrical base section of the heater, this section being provided with an opening 2 in the wall thereof and which is adapted to be closed by a door 3 preferably slidably mounted in guide plates 4. Openings 5 are also formed in the section 1 at any desired point so as to permit air to freely enter said sections for the purpose of supporting combustion.

Cross strips 6 are arranged within the upper portion of the section 1 and have their terminals extended downwardly as at 7 and soldered or otherwise secured to the wall of the section 1. These strips extend through the marginal portion of an inverted conical spreader 8 which is suspended within the section 1, the margin of said spreader being

spaced from the wall of the section 1 so as to permit gases to freely circulate past said margin. Strips 6 constitute supports for a cream container 9. An annular bead 10 is formed upon the section 1 near its upper end and constitutes the support of the upper section 11 of the heater. This section is sufficiently large to conveniently hold the container 9 and the top thereof is preferably conical as shown at 12 and provided, at its apex, with an outlet opening 13.

An opening 14 is preferably formed in the wall of the section 11 and may be closed by means of a door 15 slidably mounted within guide cleats 16.

A ring 17 is extended around the section 1 below the base 10, this ring having upstanding arms 18 at diametrically opposed points and which are provided at their upper ends with grips or hand holds 19.

It is to be understood that, if desired, the doors 3 and 15 can be hingedly mounted instead of slidably mounted.

In using this heater a container 9 is placed on the strips 6 and section 11 placed on the upper end portion of the section 1 so as to completely house the container. A lighted lamp may be placed within the section 1 and directly under the apex of the spreading cone 8 and the hot gases will flow upwardly around this spreading cone and between the margin of the cone and the section 1 and thence around the container 9 to the outlet opening 13. It will thus be seen that the container will be thoroughly heated and the contents thereof will also be heated uniformly.

Changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. A heater including telescopically connected top and bottom sections, an inverted conical spreader supported within the bottom section and spaced from the wall thereof, and means for supporting a container above the spreader and within the top section.

2. A heater including telescopically connected top and bottom sections, cross strips mounted within the upper portion of the bottom sections and constituting container supports, and an inverted heat spreader supported by said strips and within the bottom

section, said spreader being spaced from the wall of said section.

3. A heater including a bottom section, cross strips disposed diametrically therein, 5 an inverted conical spreading device supported by said strips and spaced from the wall of the section, an annular supporting rib upon the section, and a top section extending around the bottom section and bearing 10 on said rib, there being an outlet opening in the top of the top section.

4. A heater including a bottom section having an annular supporting bead, container supporting strips disposed diamet- 15 rically within said section, an inverted con-

ical spreader carried by the strips and spaced from the wall of the section, a top section removably mounted upon the bead and extending around the bottom section, the top section having an outlet opening in the side there- 20 of, upstanding arms upon the bottom section, and a bail connected to the arms.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES O. BRAY.

Witnesses:

J. J. CRAWFORD,

D. A. SNIDER.