No. 782,725. PATENTED FEB. 14, 1905.

G. C. CHASE.

LAMP FOR HEATING BROODERS.

APPLICATION FILED SEPT. 16, 1904.

Fig. 1.

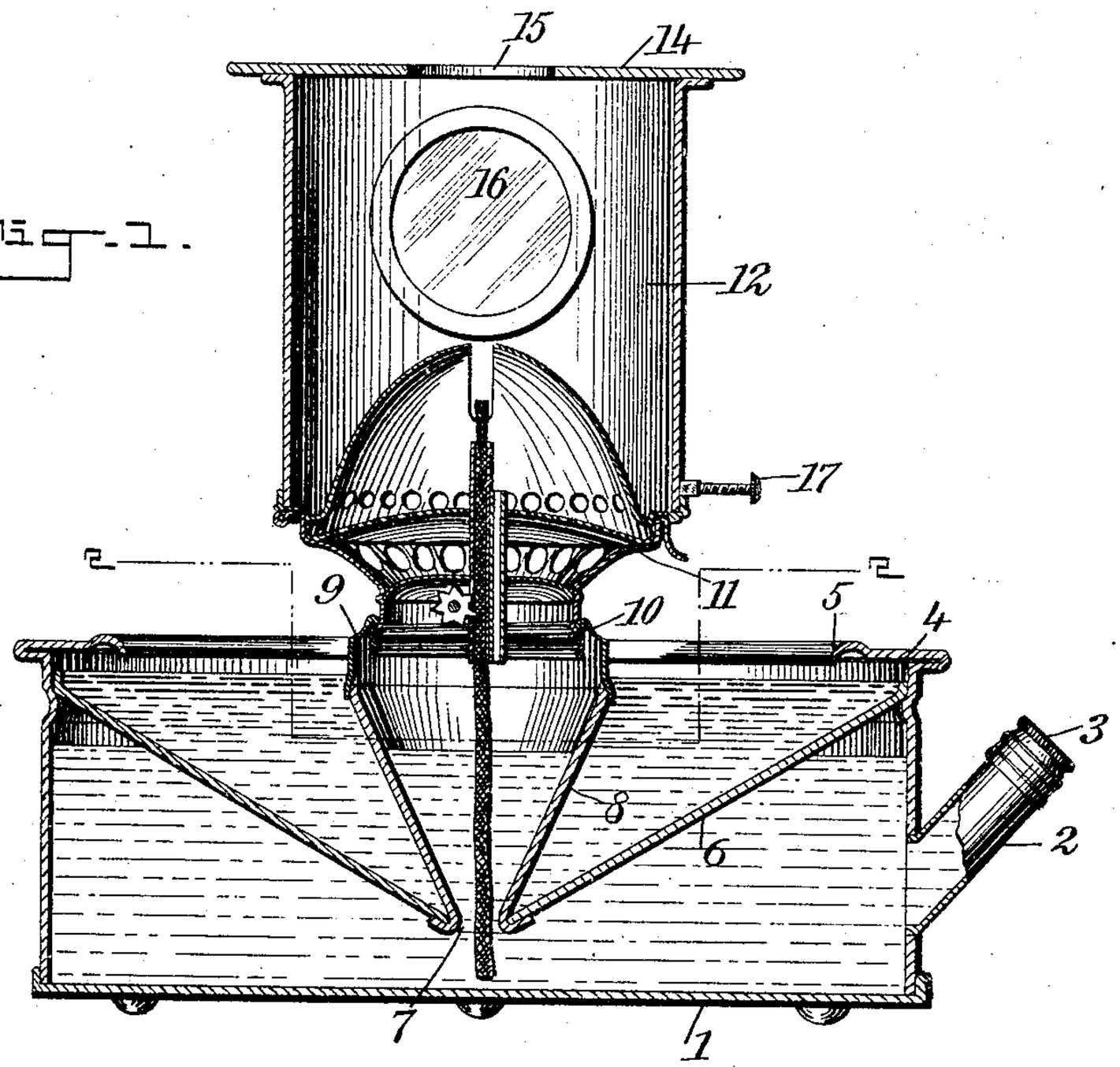
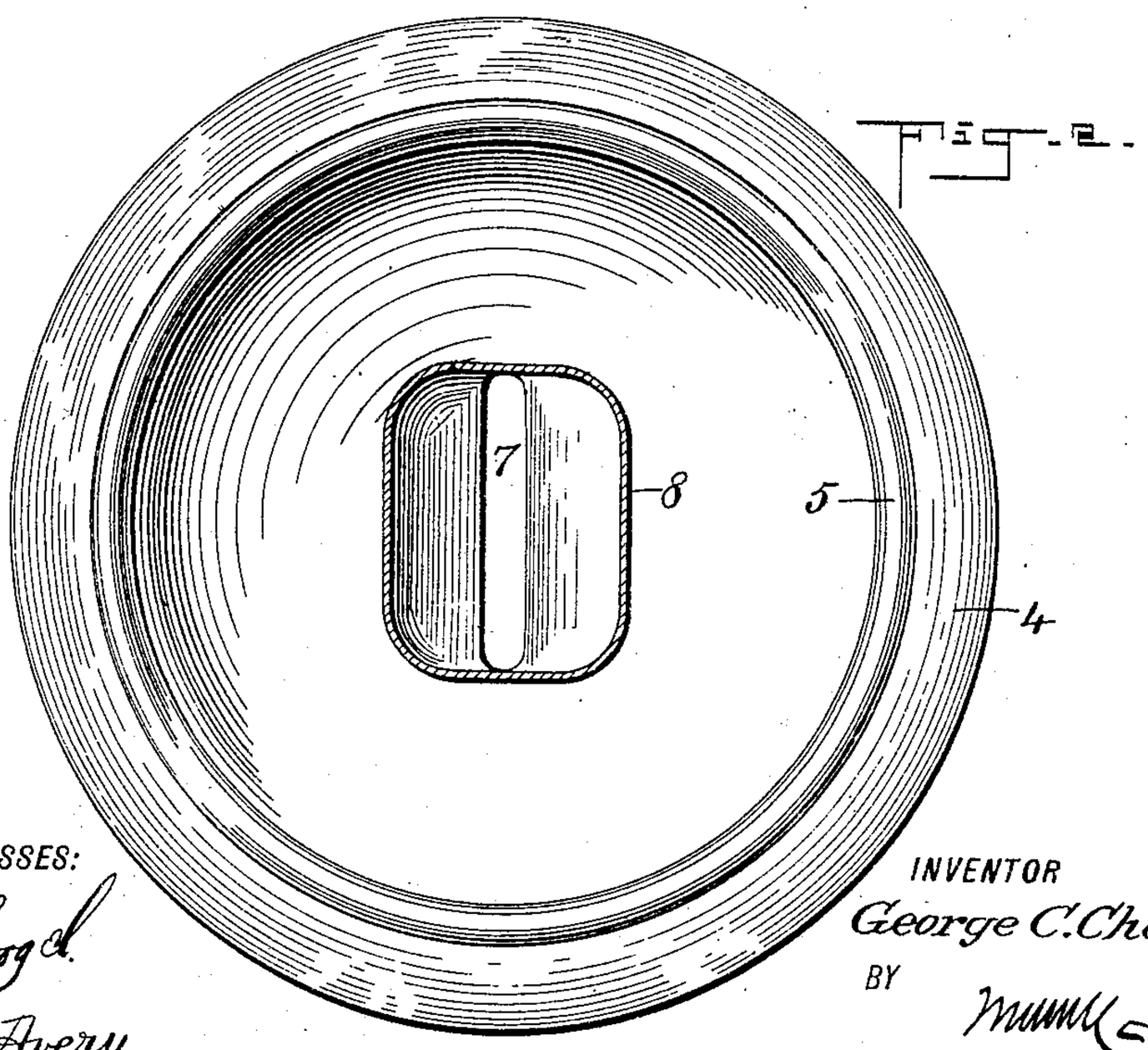


Fig. 2.



WITNESSES:

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No. 782,725. Patented February 14, 1905.

UNITED STATES PATENT OFFICE.

GEORGE COLLINS CHASE, OF PINEHURST, NORTH CAROLINA.

LAMP FOR HEATING BROODERS.

SPECIFICATION forming part of Letters Patent No. 782,725, dated February 14, 1905.

Application filed September 16, 1904. Serial No. 224,638.

To all whom it may concern:

Be it known that I, GEORGE COLLINS CHASE, a citizen of the United States, and a resident of Pinehurst, in the county of Moore and State of North Carolina, have invented a new and Improved Lamp for Heating Brooders, of which the following is a full, clear, and exact description.

The object of my invention is to provide a lamp which is especially adapted for heating brooders, but may also be used for heating purposes in general.

With this and other objects in view my invention consists in the construction and combination of parts, as will more fully appear in the detailed description appended hereto and definitely set forth in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a central section of my lamp, and Fig. 2 is a horizontal section on the line 2 2 of Fig. 1.

My lamp consists of a tank 1, made of any suitable material, for holding the combustible fluid. This tank 1 has a filling-tube 2 in the side provided with a cap 3, and the tank is also provided with an inturned flange 4, having a downturned edge 5. A short distance below the flange 4 a top 6 is securely fastened around the edge of the tank, by means of solder or otherwise, to prevent escape of the oil, and said top is preferably cone-shaped, with the apex of the cone at the bottom. Across the apex of this cone-shaped top is cut a slot 7, in which is securely fastened a hollow wedge-shaped member 8, which is round at the top and has fastened to it a rim 9, having screw-threads 10, which are made of standard size to fit any ordinary burner. This member 8 may be made of various sizes to fit the different standard sizes of burners now in use, so as to adapt the lamp for the particular purpose intended. The lower edge of the wedge-shaped member 8 is open just a sufficient distance to readily admit of the passage of an ordinary wick into the tank 1.

Instead of a glass chimney, as is ordinarily provided, I preferably use a chimney made of sheet metal, which consists of a cylinder or other shaped piece 12, which just fits the burner 11 intended to be used. To the top of this chimney is secured in any ordinary manner a cover 14, having a hole 15 in the center over the flame to provide means for the draft necessary for proper combustion. In the side of the chimney 12 is cut a hole 16, provided with a sheet of mica, so that the flame may be seen and readily regulated. The chimney is adapted to be removably held on the burner 11 by means of a set-screw 17, as is ordinarily employed.

The object in securing the top 6 below the flange 4 of the tank is to provide a second tank open at the top to hold water or other non-combustible liquid for preventing the heat from the lamp raising the temperature of the tank above the danger-point.

The object in providing the flange 4 is to permit the handling of the lamp without spilling the water or other cooling liquid.

The advantage in making the top 6 cone-shaped is that thereby the greatest amount of cooling liquid is concentrated at the point nearest the source of heat, thus more effectually preventing overheating of the combustible liquid.

By using my form of chimney it can be made very low and at the same time afford perfect combustion, thus enabling the lamp to be used in a very small space.

Having described one specific form of my invention, I do not wish to be limited to the precise details herein set forth, but only in so far as included in the claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a lamp, the combination of a tank for a combustible liquid, an inclined top for said tank, a support for a burner located at the base of said incline, a burner on said support, and means for confining a cooling liquid so as to cover said top.

2. In a lamp, the combination of a tank for a combustible liquid, a cone-shaped top for said tank, a support for a burner located at the apex of said cone, a burner on said support, and means for confining a cooling liquid so as to cover said top.

3. The combination in a lamp, of a reservoir, a partition dividing the reservoir into two compartments, an upper and a lower, the lower compartment being closed, a hollow burner-support mounted upon said partition and extending upwardly through the upper compartment approximately to the top of the reservoir, the interior of said support being in communication at its lower end with the lower compartment, a burner mounted on the burner-support, and a peripheral flange extending inwardly around the top of the reservoir leaving the space between said flange and the top of the burner-support open to the outer air.

4. In a lamp, the combination of a tank for containing a combustible liquid, an inwardly-extending flange at the top of said tank, a cone-shaped top for said tank located below said flange so as to hold a cooling liquid, and a support for a burner mounted in the apex of said cone.

5. The combination in a lamp, of a reservoir, a partition dividing the reservoir into two compartments an upper and a lower, the lower compartment being closed and designed to contain a combustible liquid, a hollow burner-support mounted upon said partition and extending upwardly through the upper compartment approximately to the top of the reservoir, the lower end of said support extending near the bottom of the reservoir and being in communication with the lower compartment thereof, a burner mounted on the burner-support, and a peripheral flange extending inwardly around the top of the reservoir leaving the space between said flange and the top of the burner-support open to the outer air, said upper compartment being designed for a cooling liquid.

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

GEORGE COLLINS CHASE.

Witnesses:
G. E. Fowle,
E. M. Ellis.