No. 619,500. Patented Feb. 14, 1899.

T. PFISTER.

LAMP STOVE.

(Application filed June 1, 1898.)

(No Model.)

Fig. 1.

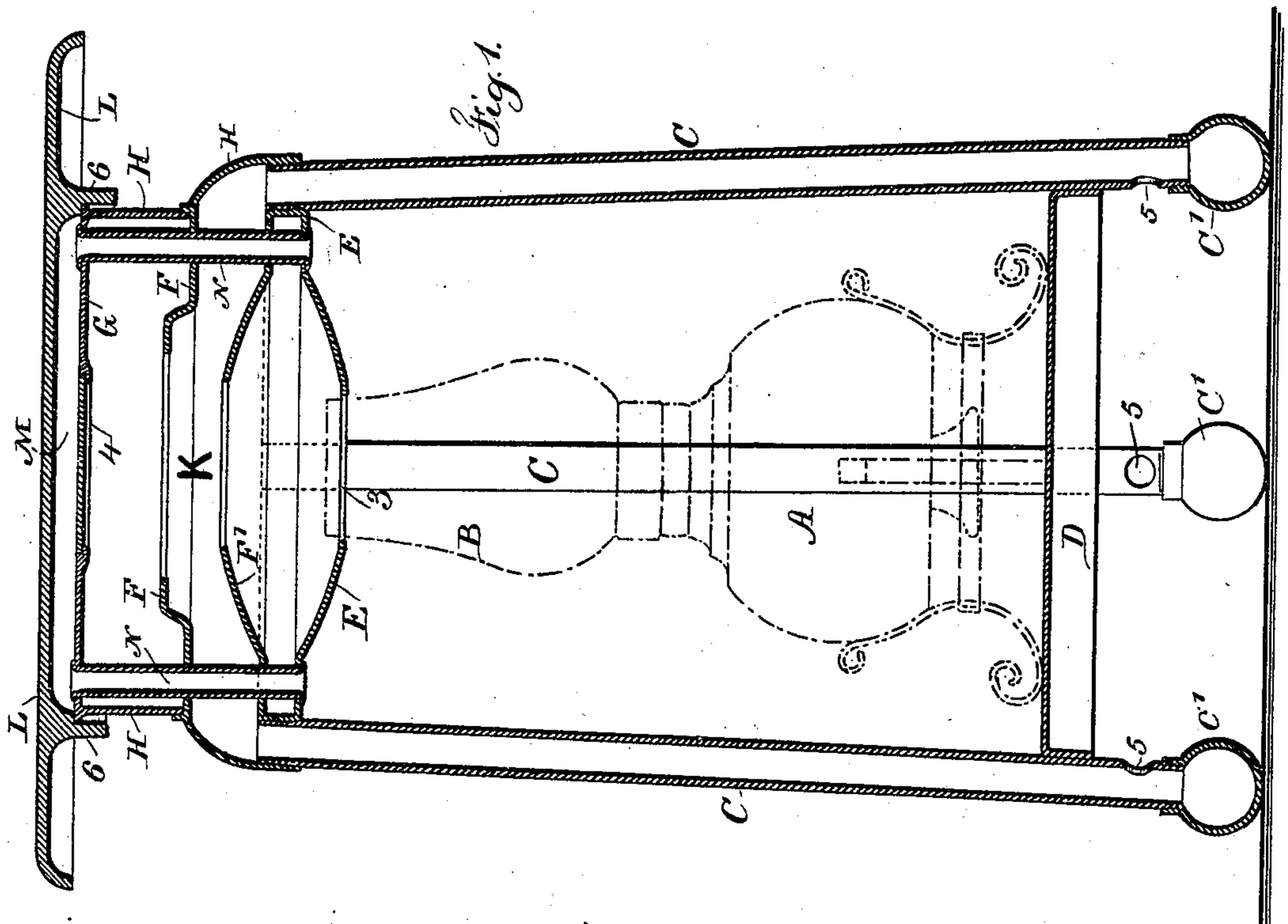
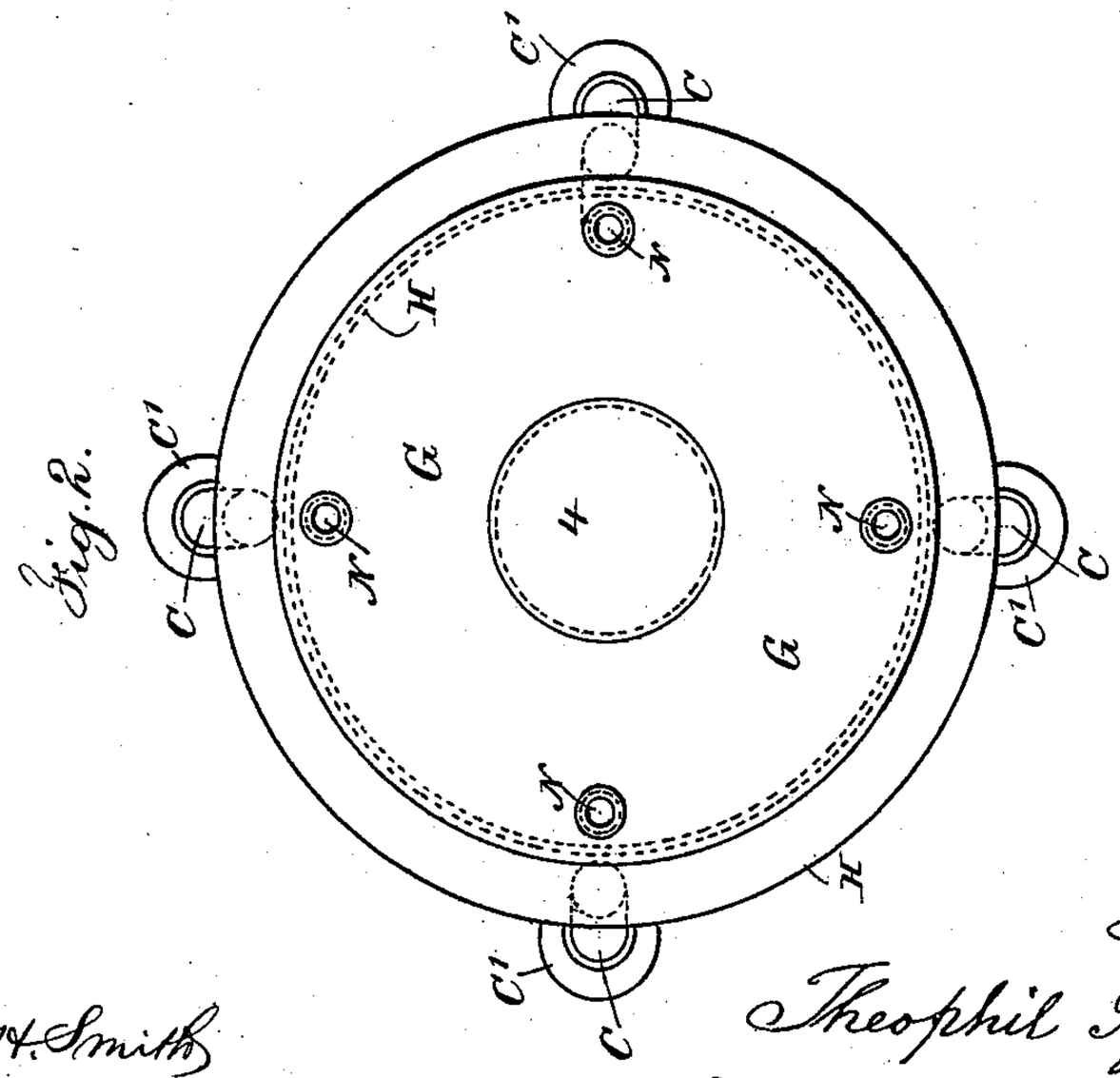


Fig. 2.



Witnesses
Chas. A. Smith
J. Staib

Inventor
Theophil Pfister
per L. W. Serrell & Son
Attys

UNITED STATES PATENT OFFICE.

THEOPHIL PFISTER, OF CHICAGO, ILLINOIS.

LAMP-STOVE.

SPECIFICATION forming part of Letters Patent No. 619,500, dated February 14, 1899.

Application filed June 1, 1898. Serial No. 682,266. (No model.)

To all whom it may concern:

Be it known that I, THEOPHIL PFISTER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented an Improvement in Lamp-Stoves, of which the following is a specification.

In the present improvement an ordinary lamp is made use of, and it can be removably applied beneath a heating-chamber, into which the products of combustion pass, and they circulate from that chamber down through hollow supporting-legs, so as to produce a plenum of heat in the chamber for raising the temperature, and the top plates of the chamber are adapted one to cooking or boiling purposes and the other to warming only, so that when the top plate of the chamber is removed the heat of the lamp can be availed of for boiling, broiling, or otherwise cooking viands, and when the top plate has been replaced in position the heat of the lamp is so far intercepted that it only acts to keep the articles of food in a warm condition.

In the drawings, Figure 1 is a vertical section illustrative of the present improvement, and Fig. 2 is a plan view with the table removed.

The lamp A (shown by dotted lines) is to be of any desired character, and it may be provided with a wick for burning a hydrocarbon fluid or with a burner for gas or vapor, and the chimney B is usually of glass, so that the lamp can be used for illuminating purposes as well as for heating, and this lamp may be more or less ornamental in its character, and it is usually advantageous to employ a circular or Argand burner in order to obtain the necessary volume of flame and heat.

I make use of a stand having legs C and a shelf or support D, upon which the lamp is placed when used for heating purposes, and at the top of the legs C the heating-chamber is provided, which chamber serves to connect the legs together. This chamber is made with a bottom plate E, through which the tubular legs C open, and there is a septum or diaphragm F within the heating-chamber and a top plate G resting upon the cylindrical or square inclosure H, forming the sides of the heating-chamber, and a second diaphragm or septum F′ may be employed, if desired.

There is a central opening 3 in the bottom plate E of a size to receive into it the top of the lamp-chimney B, and the diaphragm F has also a central opening in it, and generally a removable cover-plate 4 is provided to a central opening in the top plate G, by the removal of which the products of combustion from the lamp can act directly upon a kettle or other heating or boiling vessel placed upon the top plate G, and I remark that the different plates surrounding the heating-chamber K should be set together so as to be substantially air-tight, and the upper ends of the tubular legs C, opening into this chamber, allow the products of combustion that rise from the lamp-chimney into the heating-chamber to accumulate and descend gradually through the legs C and escape by the openings 5 near the bottom of the legs C.

By the aforesaid construction the heat passing up from the lamp-chimney accumulates in the heating-chamber and the metal of the inclosure around the chamber becomes correspondingly heated and also the upper ends of the legs C, and should there be any condensation of watery vapors such condensation will take place in the legs C, and at the bottom ends thereof are cups C′, into which such condensation will drip, and these cups C′ are removable, so that they can be cleaned from time to time, such cups being screwed upon the lower ends of the legs or connected by bayonet-joints.

The table-top L is adapted to set upon the top plate G, and it has a flange 6 upon its under side surrounding such top plate, so that the parts are kept in their proper relative positions, and the under side of this table-top is hollow, being concave, so that there is an air-chamber M between the top plate G and the under side of the table-top L, which prevents the table-top becoming highly heated from the lamp; but at the same time such table-top is warmed sufficiently for keeping food or other materials that may be placed upon the table-top at the desired temperature and without the heat being sufficient to overcook such materials.

When desired, I make use of tubes N, pass-

ing through the heating-chamber and opening at their upper ends through the top plate G and at their bottom ends through the bottom plate E. These allow a slight circulation of air to take place through the chamber M in order that the heat of the top plate may be regulated, if desired. These tubes N may also be made use of for holding the parts of the heating-chamber together.

The table-top L may be more or less ornamented and may act as a stand upon which the lamp may be held when it has been removed from the shelf B, so as to be in a convenient position for illuminating purposes.

The products of combustion being retained in the heating-chamber until they descend through the tubular legs prevents objectionable odors arising from the lamp. Hence the lamp-stove is thoroughly sanitary.

I claim as my invention—

1. The combination with the tubular legs C and the shelf D for supporting a lamp, of the heating-chamber having a bottom plate with an opening for the top end of the lamp-chimney, a top plate with an opening and removable cover, a diaphragm with a central opening within the heating-chamber and a side inclosure supporting the top plate, the heating-chamber being substantially air-tight and the tubular legs opening into the same for the products of combustion to pass through the legs, there being openings near the lower ends of the legs, substantially as set forth.

2. The combination in a heating apparatus, of a closed heating-chamber, tubular legs forming supports for such chamber into which the upper ends of the tubular legs open, a support between the legs for the lamp, a diaphragm within the heating-chamber, there being an opening in the bottom plate of the chamber for the upper end of the lamp-chimney, and openings in the tubular legs near their lower ends for the escape of products of combustion, substantially as set forth.

3. The combination in a heating apparatus, of tubular legs, a closed heating-chamber supported by the legs and into which the upper ends of the tubular legs open, a diaphragm within the heating-chamber, there being an opening in the bottom plate of the chamber for the upper end of the lamp-chimney, and openings in the tubular legs near their lower ends for the escape of products of combustion, and removable cups at the lower ends of the tubular legs, substantially as set forth.

4. The combination in a heating apparatus, of tubular legs, a closed heating-chamber supported by the legs and into which the upper ends of the tubular legs open, a diaphragm within the heating-chamber, there being an opening in the bottom plate of the chamber for the upper end of the lamp-chimney, and openings in the tubular legs near their lower ends for the escape of products of combustion, a removable top plate resting upon the heating-chamber and having a downward flange surrounding the top of the heating-chamber, the under side of the removable top being concave to form an air-chamber, substantially as set forth.

5. The combination in a heating apparatus, of tubular legs, a closed heating-chamber supported by the legs and into which the upper ends of the tubular legs open, a diaphragm within the heating-chamber, there being an opening in the bottom plate of the chamber for the upper end of the lamp-chimney, and openings in the tubular legs near their lower ends for the escape of products of combustion, a removable top plate resting upon the heating-chamber and having a downward flange surrounding the top of the heating-chamber, the under side of the removable top being concave to form an air-chamber, and air-tubes passing through the heating-chamber and opening at their upper ends through the top plate of the heating-chamber and at their lower ends through the bottom plate of the heating-chamber, substantially as set forth.

Signed by me this 19th day of May, 1898.

THEOPHIL PFISTER.

Witnesses:
GEO. T. PINCKNEY,
S. T. HAVILAND.