

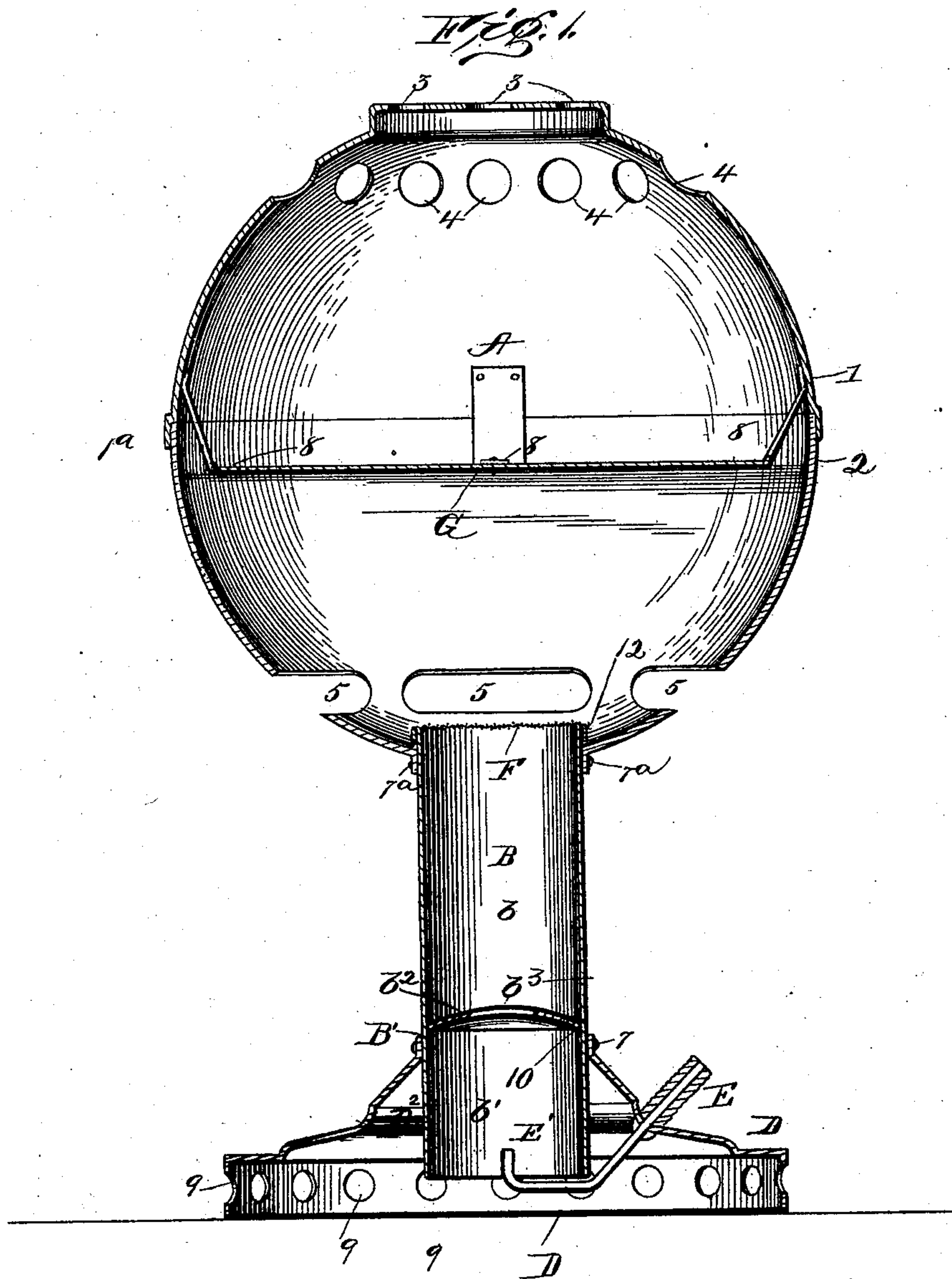
(No Model.)

2 Sheets—Sheet 1.

A. L. PITNEY.  
GAS STOVE.

No. 603,456.

Patented May 3, 1898.



Witnesses:

*J. M. Fowler Jr.*  
*Wm. C. Stone*

Inventor:

*Albert L. Pitney*  
*by Alex. Mahon*  
*Attorney.*

(No Model.)

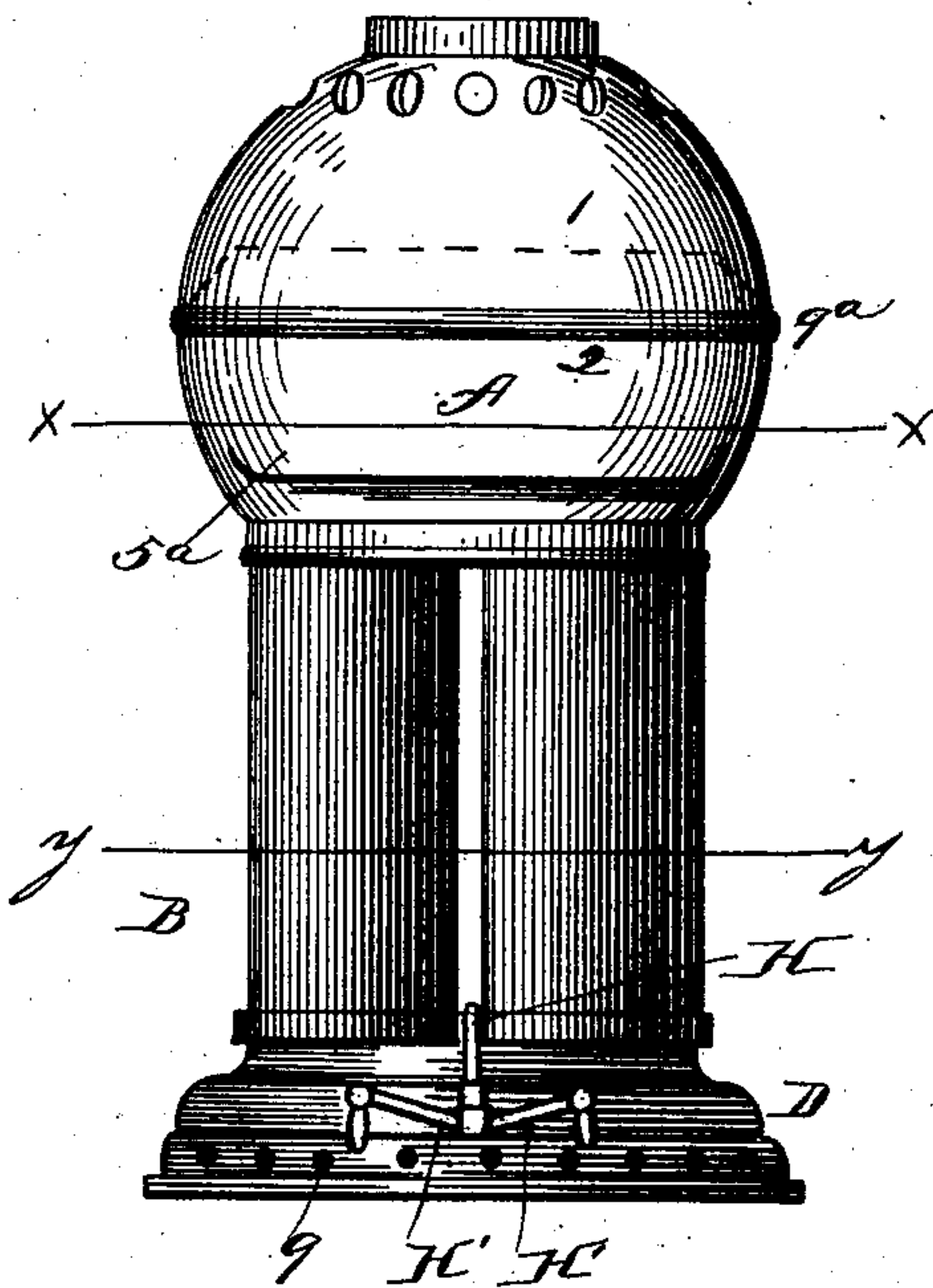
2 Sheets—Sheet 2.

A. L. PITNEY.  
GAS STOVE.

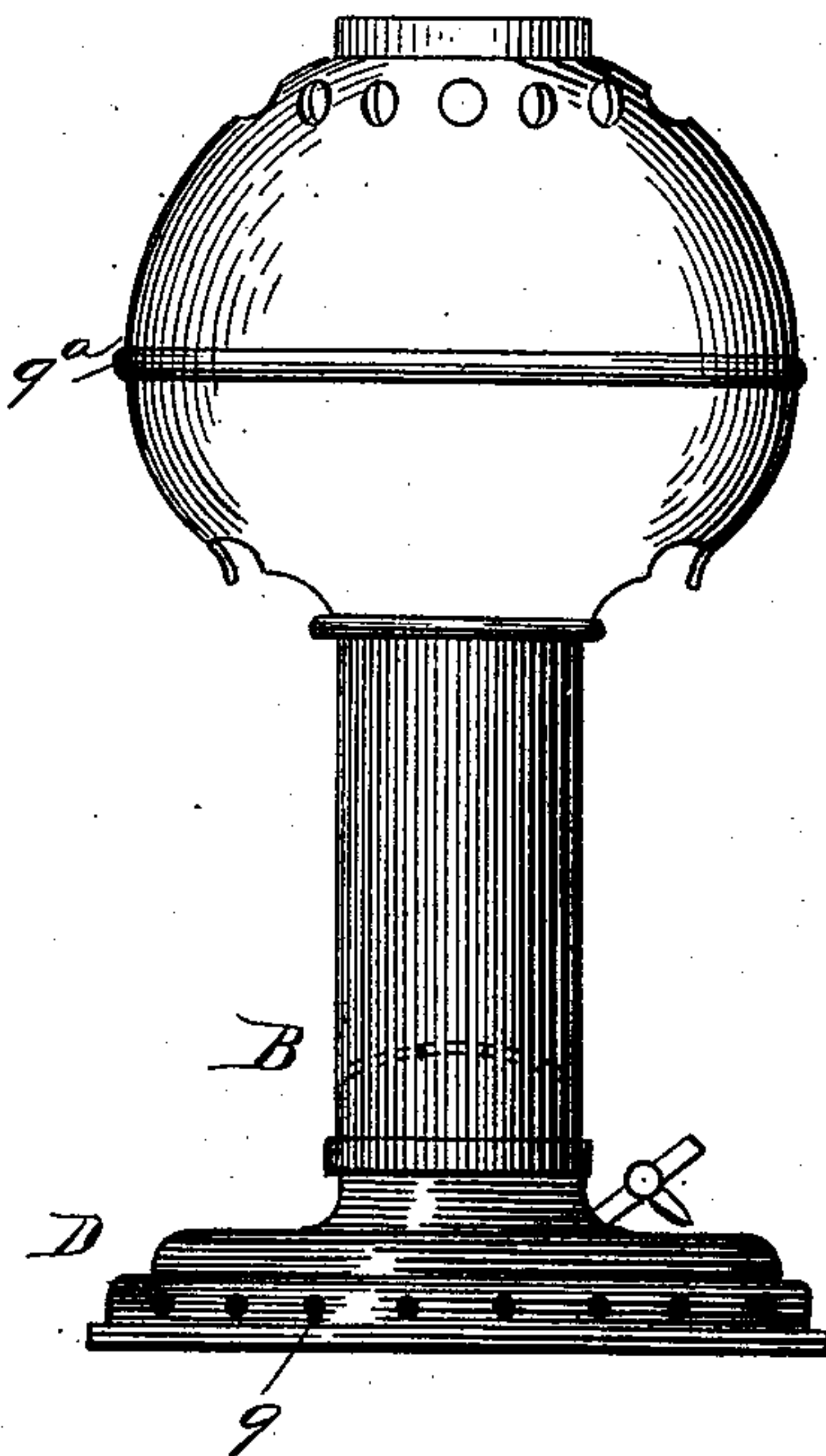
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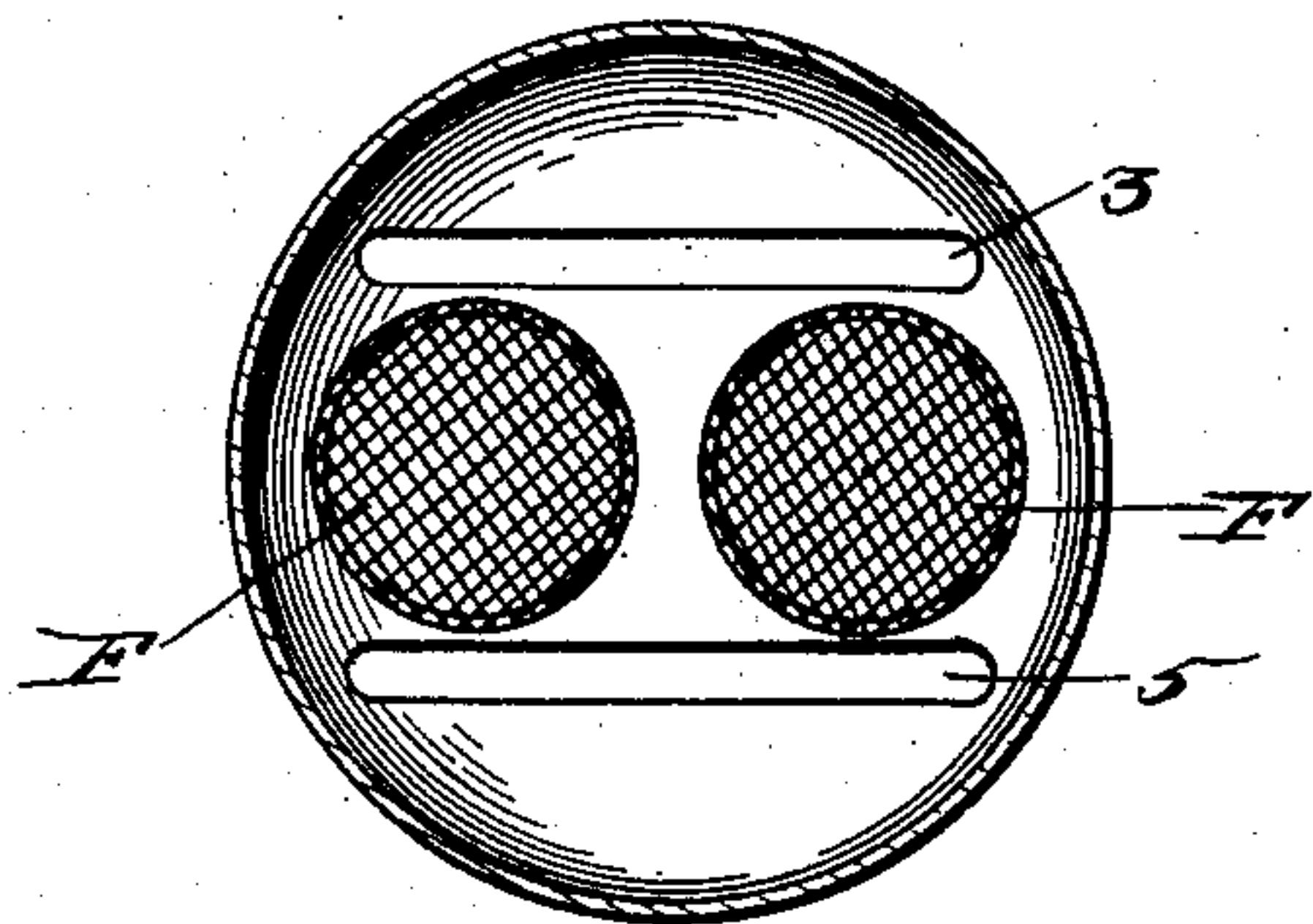
*Fig. 2.*



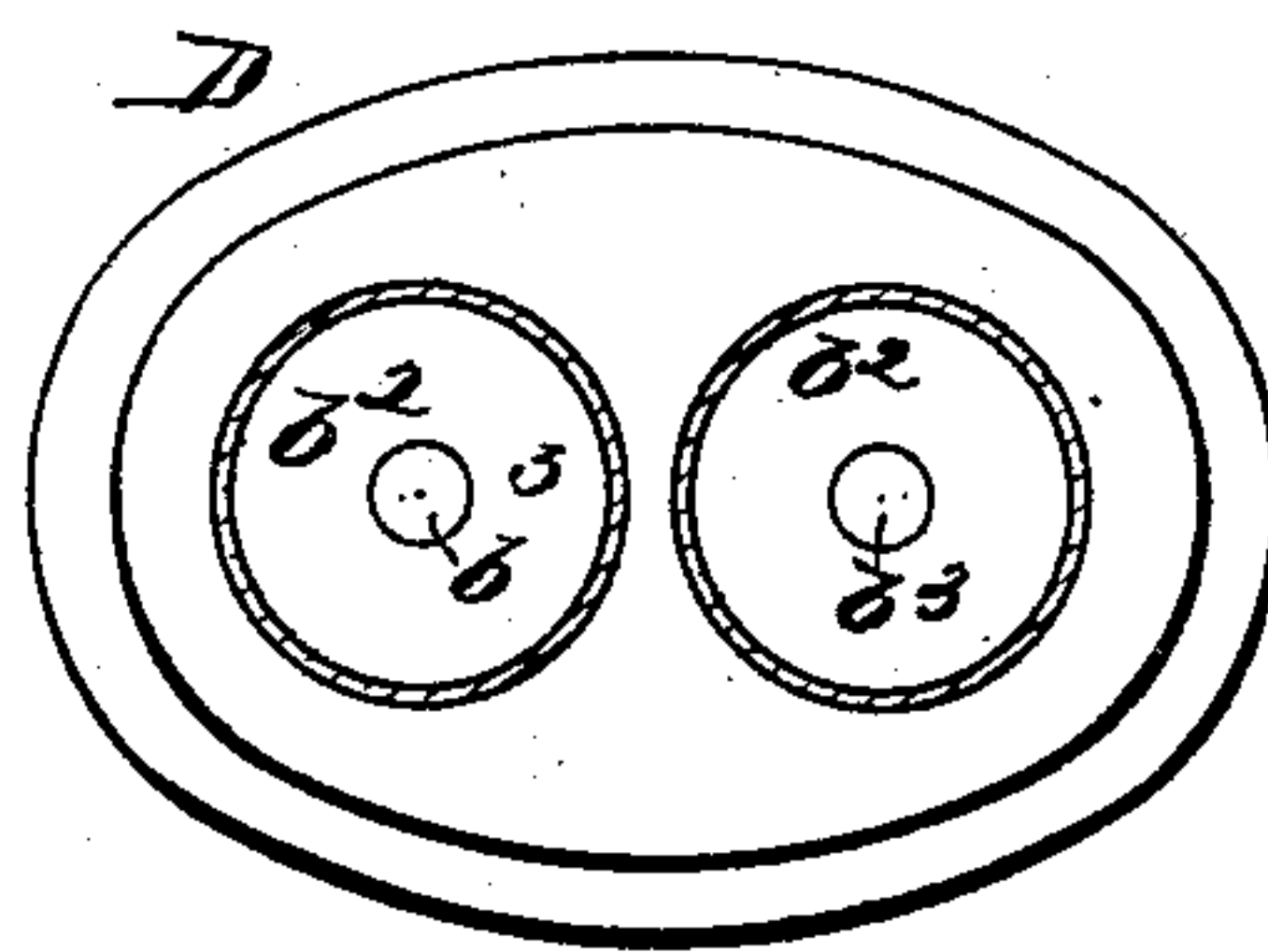
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

ALBERT L. PITNEY, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR  
TO THE CALOVIT HEATING COMPANY.

## GAS-STOVE.

SPECIFICATION forming part of Letters Patent No. 603,456, dated May 3, 1898.

Application filed July 14, 1896. Serial No. 599,113. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT L. PITNEY, a citizen of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Gas-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of heating and cooking stoves employing gas as the heating agent; and the invention consists in certain novel features hereinafter described.

In the accompanying drawings, Figure 1 is a sectional view showing the improvement applied to a heating and cooking stove employing a single gas supply and mixing and mixing and heating chamber and combustion and radiating chamber. Fig. 2 is a side elevation of a stove, showing two gas and air mixing and mixing and heating chambers communicating with a combustion and radiating chamber. Fig. 3 is an end view of the same; Fig. 4, a horizontal cross-section on the line  $x x$ , Fig. 2; Fig. 5, a similar view on the line  $y y$ , Fig. 2.

In the drawings, D represents a base made in either circular or elliptical form or to conform in outline to the number of burners employed. To produce an ornamental configuration of the base for the other parts, the upper face of the base inclines upward and backward, the face being corrugated or stepped to form an ornamental design, and is provided with an opening  $B'$ , hereinafter referred to, the base in Fig. 1 being shown as made in circular form, while in the other figures it is shown made in elliptical form.

B represents a cylindrical mixing and mixing and heating chamber made of a size to snugly fit the opening  $B'$  in the base, the chamber being connected with the base by suitable rivets 7 or otherwise, as shall be found most desirable.

The chamber or chambers B extend down into the base below the point of connection therewith, as shown at  $B^2$ , or preferably to a point in line with the gas-outlet. The chamber or chambers B are divided into two compartments  $b b'$  by a partition-wall  $b^2$ , the lower one  $b'$  forming a gas and air mixing chamber

and the upper one  $b$  a mixing and heating chamber, the partition-wall being provided with a central opening  $b^3$  for the passage of the gas and air from the lower to the upper chamber.

A combustion and heating chamber A is secured to the mixing and heating chamber or chambers, being secured thereto by rivets  $7^a$  or otherwise, as shall be found most desirable. The chamber is made in globe form and is divided into two halves or portions 1 and 2, so that the upper portion may be removed to permit access to the burner and also to permit the substitution of a flat plate when it is desired to use the stove for cooking or like purposes, the upper section, as well as the plate, slipping over the lower section, the parts being held in alinement and together by means of a flange  $1^a$  on the upper section or plate.

The heating and mixing chamber or chambers extend into the combustion or radiating chamber for a short distance, and the upper end of the mixing and heating chamber is provided with a suitable gauze covering F, held in place by a ring 12, to permit the gauze to be renewed when desired or for other purposes.

Secured to the upper half of the globe is a spreader-plate G, made in disk form, provided with arms 8, formed integral therewith or otherwise connected thereto, which are in turn connected to the upper part of the globe either by rivets or by making the arms in spring form to press against the walls of the globe and hold by frictional contact. The plate or disk when connected as shown in Fig. 1 sets within the lower portion of the globe, or when connected as shown in dotted lines, Fig. 2, sets within the upper half to permit the disk to be adjusted or set at any desired point relative to the burner as shall be found desirable, the disk being made of such size as to leave a space or passage between the edge thereof and the wall of the globe.

Near the lower portion of the globe, adjacent to the burner, are openings 5, preferably made in oblong form and preferably having the portion cut only partly out, so that the metal can be bent out as shown at  $5^a$ , Figs. 2 and 3. In Fig. 1 where a single burner is employed a series of these openings 5 is used,



while in Figs. 2 and 3 they are shown one on each side or cut in line with the two burners.

Outlet-openings 3 and 4 are shown in the top portion of the globe for the passage of  
5 the hot air or products of combustion into the room.

Near the bottom of the base is formed a series of openings 9 for the admission of air to mingle with the gas for a purpose that will  
10 be readily understood.

E represents a gas-pipe, secured to the base in any suitable manner and provided with an outlet E', opening into the base of the chamber B or into the lower or mixing chamber.

15 In Figs. 2 and 3 the series of gas-outlets is shown as supplied from a single pipe H with branch pipes, each provided with keys H', whereby either one or both of the gas-supplies can be opened.

20 By the construction and arrangements shown it will be seen that by dividing the chamber between the gas and air supply and the burner into two compartments the gas and air are first partially mixed and then further

mixed and heated to a proper degree for perfect combustion before reaching the burner.

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

In a gas-stove, the combination of a perforated base or support, a chamber of smaller diameter than the base, a perforated wall in said chamber dividing the same into a mixing and a mixing and heating chamber, a gas-supply opening into the mixing-chamber, a  
30 burner located at the upper end of the mixing and heating chamber, a heating or radiating chamber surrounding the burner, and a spreader-plate located in the radiating-chamber above the burner, substantially as  
40 and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT L. PITNEY.

Witnesses:

WARREN C. STONE,  
ALEXANDER MAHON.