

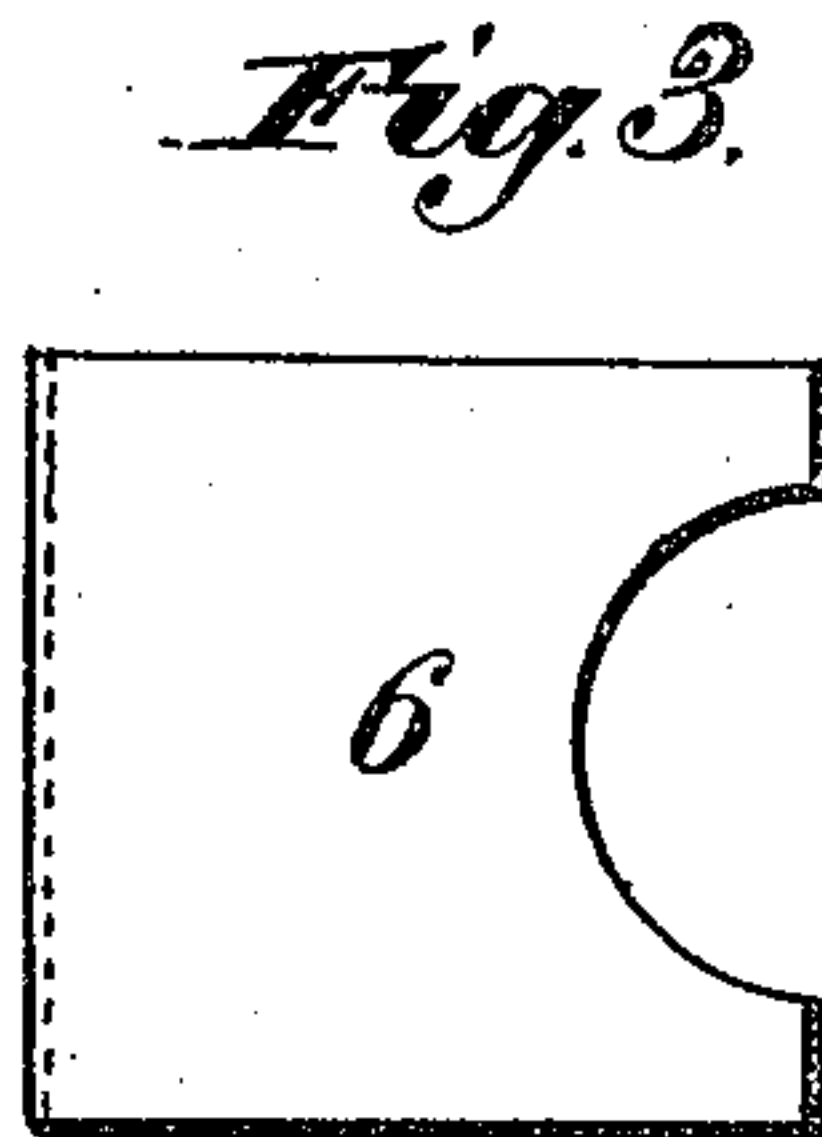
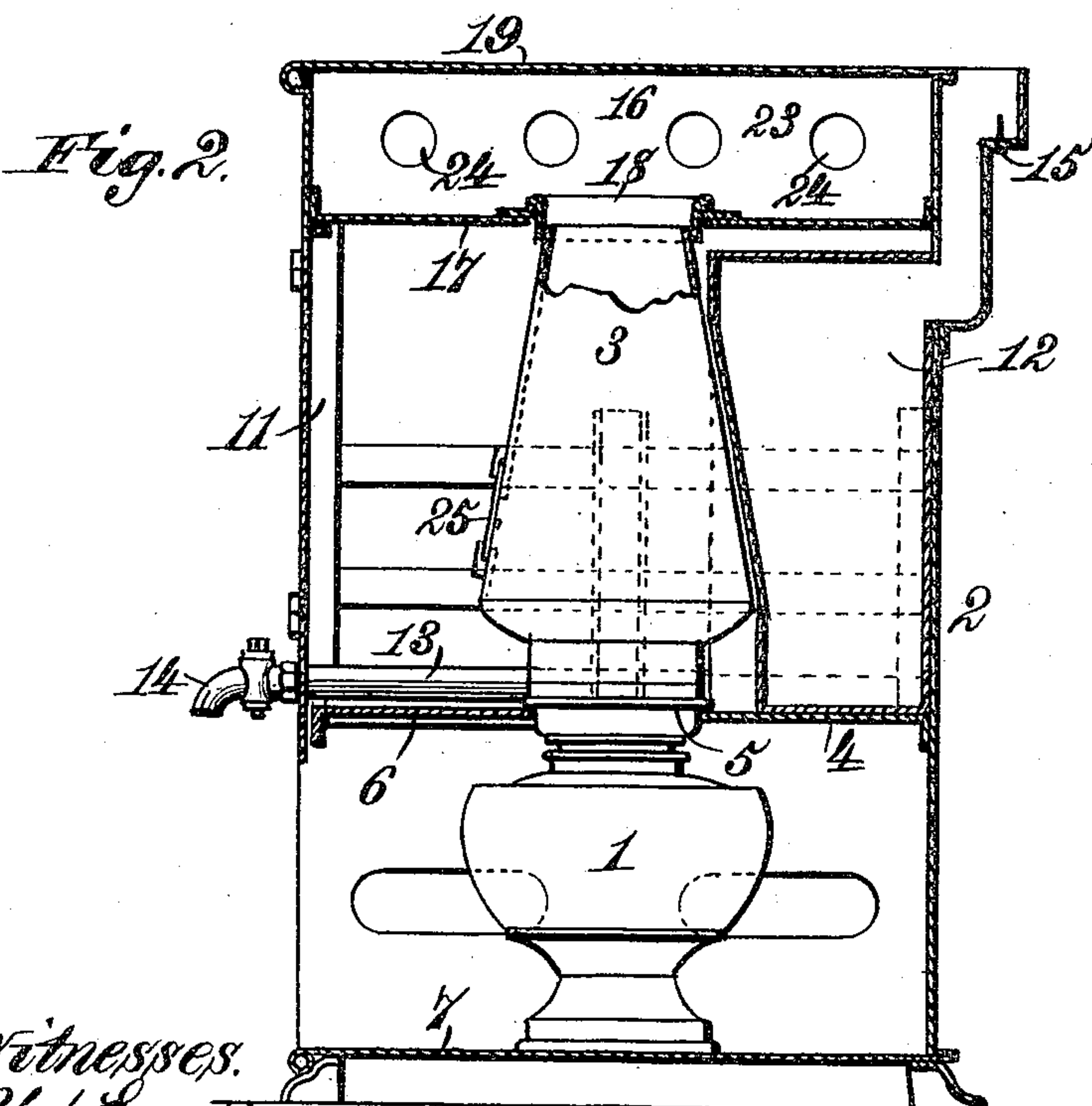
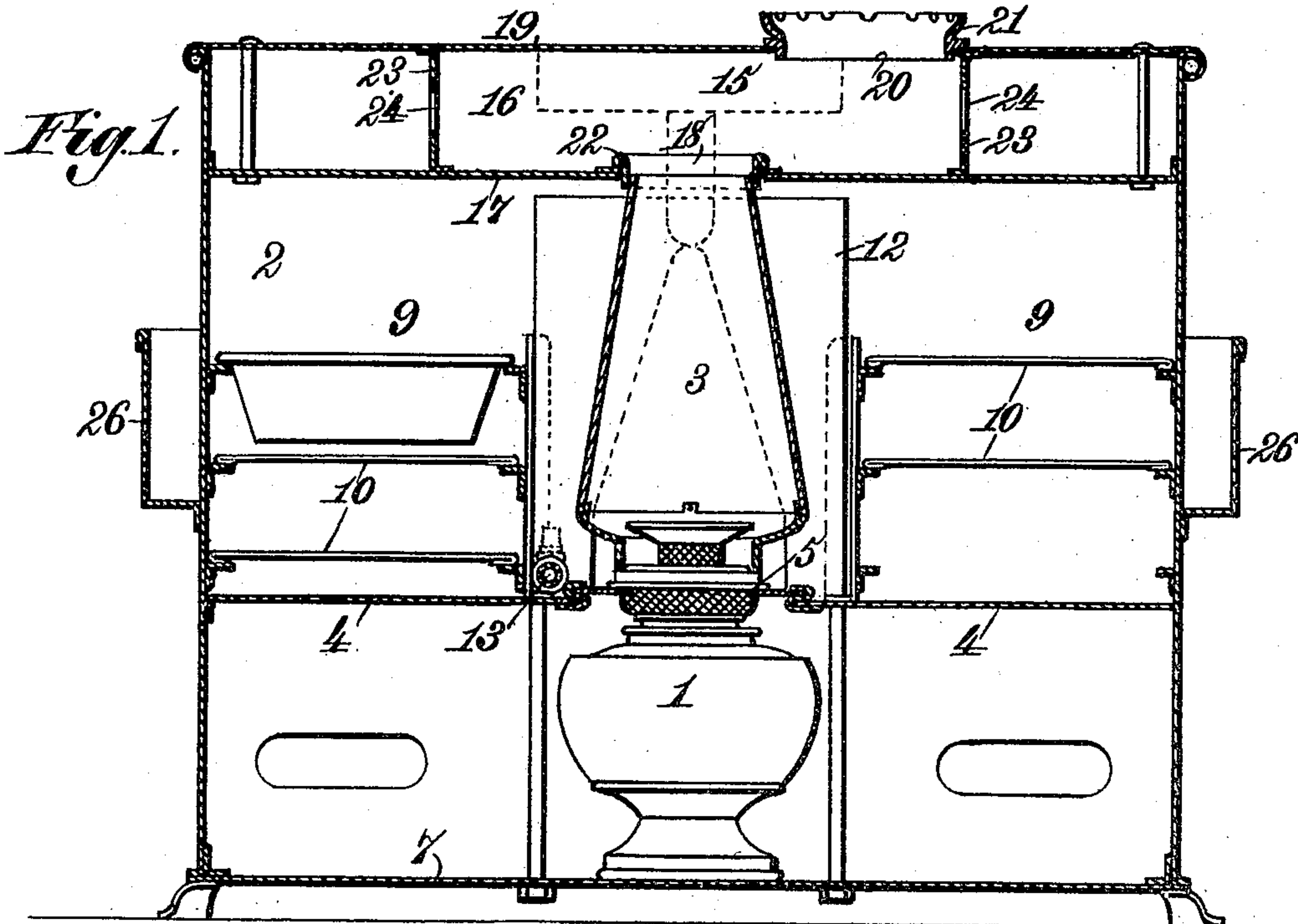
No. 619,610.

Patented Feb. 14, 1899.

T. PFISTER.
OIL COOKING STOVE OR OVEN.

(Application filed Dec. 20, 1897.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

THEOPHIL PFISTER, OF LONDON, ENGLAND.

OIL COOKING STOVE OR OVEN.

SPECIFICATION forming part of Letters Patent No. 619,610, dated February 14, 1899.

Application filed December 20, 1897. Serial No. 662,636. (No model.)

To all whom it may concern:

Be it known that I, THEOPHIL PFISTER, a citizen of the United States, residing at 5, 6, and 7 Lensden Place, Golden Lane, London, England, have invented certain new and useful Improvements in Oil and Gas Cooking Stoves or Ovens, (for which I have obtained a patent in Great Britain, No. 3,495, bearing date February 15, 1896,) of which the following is a specification.

This invention relates to oil and gas cooking stoves or ovens of that class in which the heat is supplied by a central-draft lamp.

It is one of the purposes of my invention to provide for arranging a central-draft lamp in the middle of an oven in such position that the heat of the lamp will be most efficiently and economically utilized, and yet so that the products of combustion will not be allowed to enter the oven.

Other objects of my improvements will appear in connection with features of construction and novel combinations of parts constituting my invention, as hereinafter more particularly described and claimed.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal central section of my improved lamp-stove and oven. Fig. 2 is a vertical transverse central section of the same. Fig. 3 is a plan of a sliding bottom plate or door hereinafter described.

In the drawings the reference-numeral 1 designates a central-draft lamp placed in the middle of an oven 2, in which position the heat of the lamp is most effectively and economically utilized, the oil well or reservoir of the lamp being arranged below and outside the oven, while the whole of the lamp-flame, which is surrounded by a metal chimney 3, is within the oven. A suitably-shaped recess in the floor 4 of the oven is provided to receive the lamp gallery or collar 5, which is completely closed in by means of a sliding plate 6, that is placed in position after the lamp has been introduced into the oven. By a reverse operation—that is to say, after withdrawal of the sliding plate 6—the lamp may be readily removed. By means of a two-part oven-floor, comprising this sliding plate 6, the heat of the oven is confined, while at the same time the oil body or reservoir of the

lamp is kept cool, being below and outside the oven.

For the purpose of supporting the lamp and the oven a suitable stand 7 may be provided.

The oven 2 may be of any suitable form; but I prefer to provide it with a central chamber 8 to receive the lamp-chimney and with two side chambers 9, that are preferably extended down to and rest on the stand 7, which also supports the lamp. Each of the side chambers 9 may be provided with fixed or movable trays, racks, or partitions 10 for supporting the substances to be cooked, and such trays or partitions are preferably perforated or otherwise formed so as to allow a free circulation of heat through them. I may provide suitable dampers between the central and side chambers, so that the heat in the side chambers can be regulated as desired. All the chambers are provided with doors 11 at the front of the oven for the purpose of giving access to the interior.

Behind and partly around the lamp-chimney 3 in the central oven-chamber 8 there is preferably arranged a boiler or water-heater 12, from which by means of a suitable pipe 13 and tap 14 the water can be drawn off when required at the front, as shown, or at the side of the oven. The boiler 12 is supplied with water through an inlet 15 at the back of the oven.

The side walls of the oven 2 are extended upwardly to form a hot chamber 16 above the oven, into which chamber the products of combustion from the lamp pass through an opening provided in the roof 17 of the oven immediately above the top of the chimney. The said opening is provided with a ring 18, which surrounds the upper end of the chimney 3 and prevents any entrance of the products of combustion from the lamp into the oven.

In the top plate 19 of the hot upper chamber 16 there are provided suitable openings 20, over which can be placed pots, kettles, or pans for heating, boiling, or cooking purposes. If desired, the openings 20 may be provided with a crown or ring 21, having a serrated top, upon which the pot or other vessel may stand, so that the hot products of combustion can pass out between the said serrations in immediate contact with the ves-

sel standing thereon, which can in this way be very efficiently heated. If any liquid should fall through the openings 20, its entry into the chimney 3 is prevented by a raised rim or flange 22, upon which the ring 18 is placed. I prefer that there shall be no opening in the top plate 19 directly over the lamp-chimney.

In order to more fully concentrate the heat in the upper hot chamber 16, the said chamber is preferably divided into a number of compartments by means of vertical partitions 23, extended across the same. These partitions 23 are provided with perforations 24 for the circulation of the products of combustion from the lamp, and the outer walls of this hot chamber 16 may be perforated in a similar manner. If desired, the top plate of the hot chamber may be made double and packed with asbestos to retain the heat. The whole or parts of the walls of the oven may also be made double and be packed with asbestos or other non-conductor of heat.

To permit lighting the lamp after the same is in position in the oven, the chimney 3 may be provided with a door 25, that can be opened to allow insertion of a taper or lighted match.

Instead of employing a lamp having a circular wick, as shown, I may use one having one or more flat wicks, and instead of placing the lamp in the center of the oven it may be arranged at one side thereof, or two or more lamps may be employed; but I prefer the construction and arrangement here shown. Obviously a gas lamp or burner may be substituted for the oil-lamp, or the oven may be furnished with a lamp adapted to be used with oil or gas, as the case may be.

At one or both ends the oven may be provided with a plate-rack 26, in which plates or dishes may be placed to be warmed.

It will be observed that by the construction described there is no possibility of any entrance of products of combustion into the oven, even if the lamp is carelessly allowed to smoke. The baking is accomplished entirely by radiation of heat without any circulation of products of combustion through the oven, and consequently the oven contents are not subjected to injury. By providing a

door in the lamp-chimney the lamp can be easily lighted after it has been placed in the stove and the manner in which the lamp is inclosed prevents any loss of heat.

What I claim as my invention is—

1. In a cooking stove or oven to be heated by an inclosed lamp, an oven-floor separating the oven proper from the chamber or space containing the lamp-body and provided with an opening in said floor through which the lamp may be inserted and removed, and a slide or removable part to close said opening, substantially as described.

2. In a cooking-stove to be heated by an inclosed lamp, the combination with an oven having several compartments and a hot-air chamber at the top and a chamber at the bottom for the lamp-body, of an oven-floor separating the oven proper from the chamber containing the lamp-body and provided with an opening in said floor through which the lamp may be inserted and removed, a slide or removable part to close said opening, a lamp around which the said slide is adapted to fit, the lamp-chimney being inclosed in one of the oven-compartments and a collar in the roof of said oven-compartment to receive the upper end of the chimney, substantially as described.

3. In a cooking-stove to be heated by an inclosed lamp, the combination with an oven having several compartments and provided at the top with a hot-air chamber and at the bottom with a chamber to receive the lamp-body, of an inclosed lamp having its chimney extended through one of the oven-compartments and communicating with the top hot-air chamber, an oven-floor separating the oven proper from the chamber containing the lamp-body and having an opening to permit insertion and removal of the lamp, a slide to close said opening and adapted to fit around the lamp, and a door in the lamp-chimney to permit lighting the lamp after it is placed in position, substantially as described.

In witness whereof I have set my hand.

THEOPHIL PFISTER.

In presence of—

E. O. REARDON,
E. BARTHELS.