

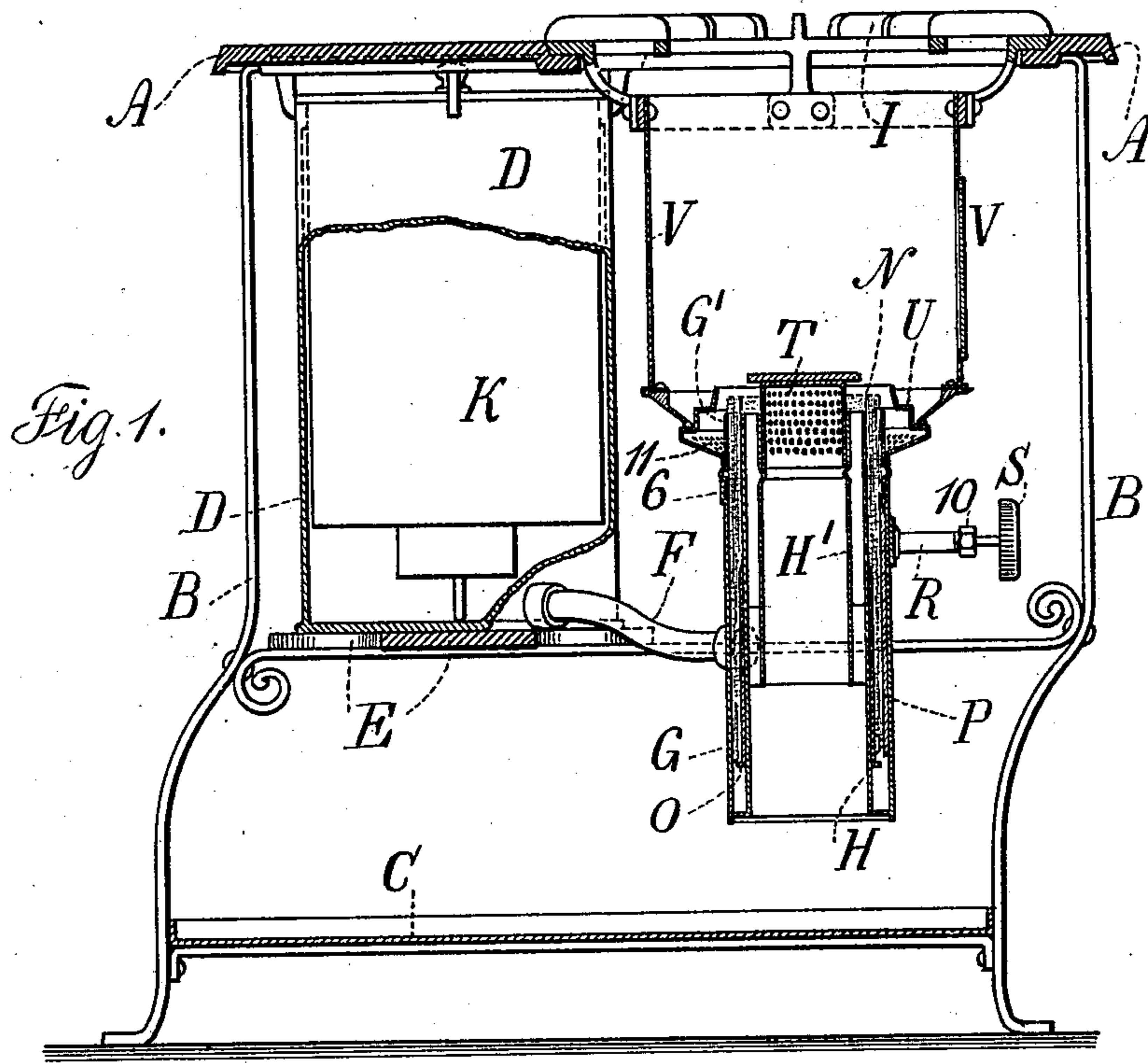
(No Model.)

2 Sheets—Sheet 1.

H. MEYTROTT.  
LAMP STOVE.

No. 549,521.

Patented Nov. 12, 1895.



Witnesses:  
J. Stait  
Charles Smith

Inventor:  
Henry Meytroff  
per Lemuel W. Serrell  
Atty

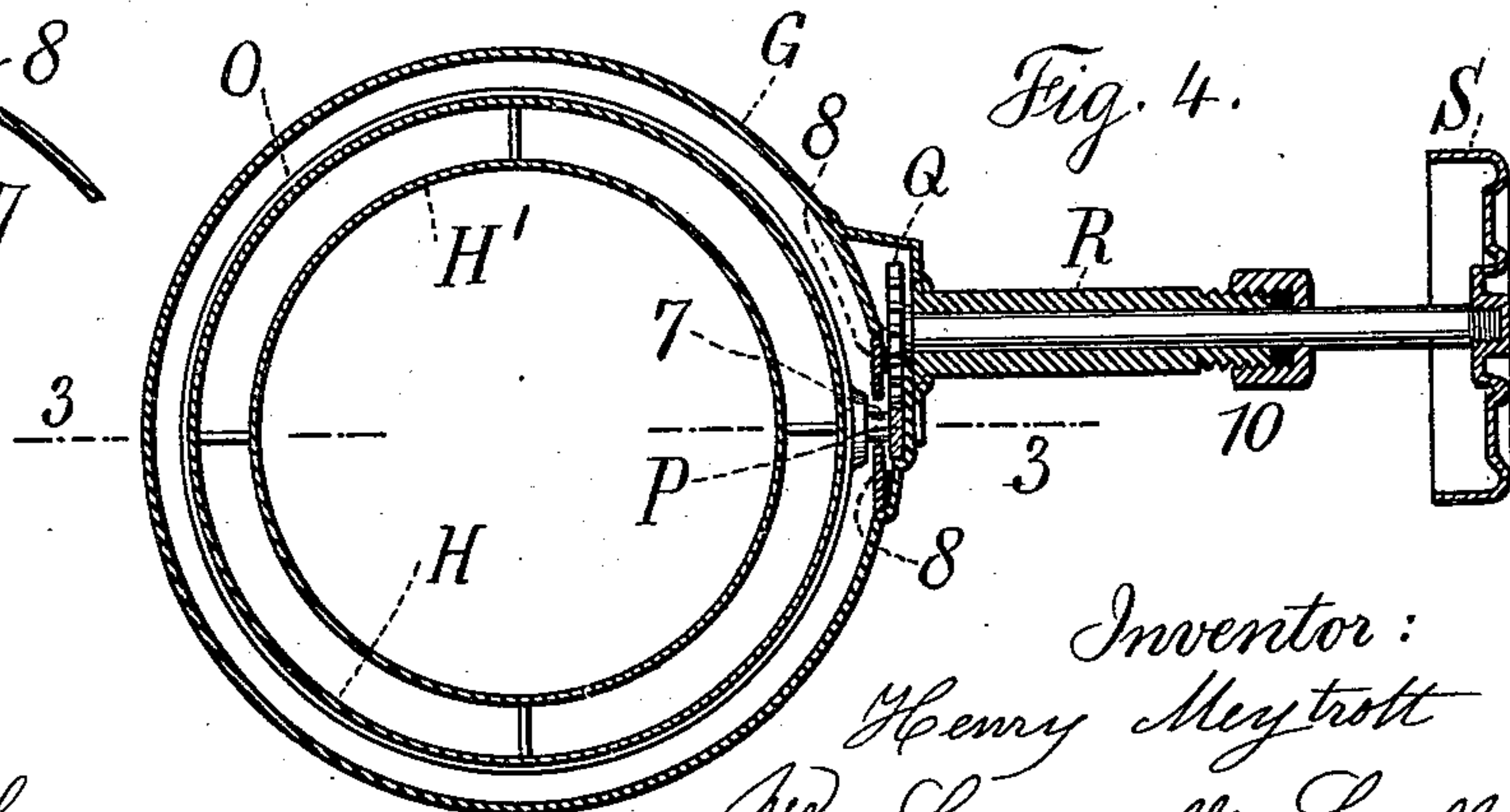
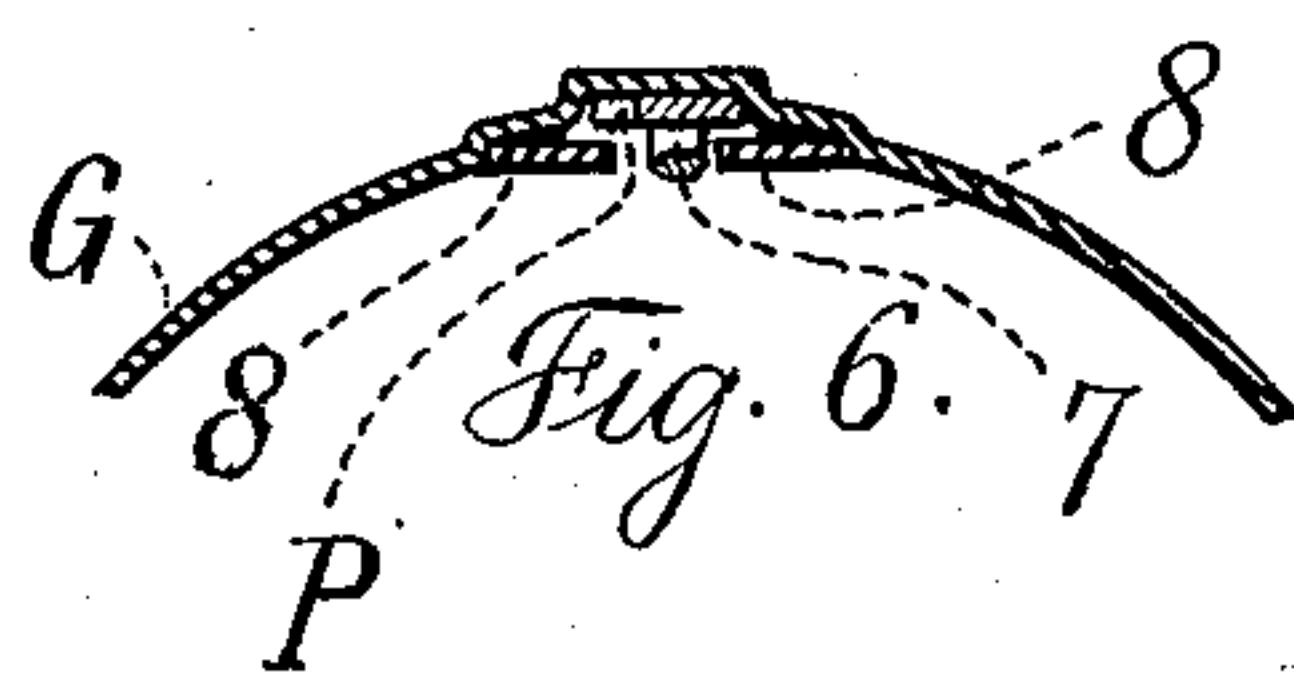
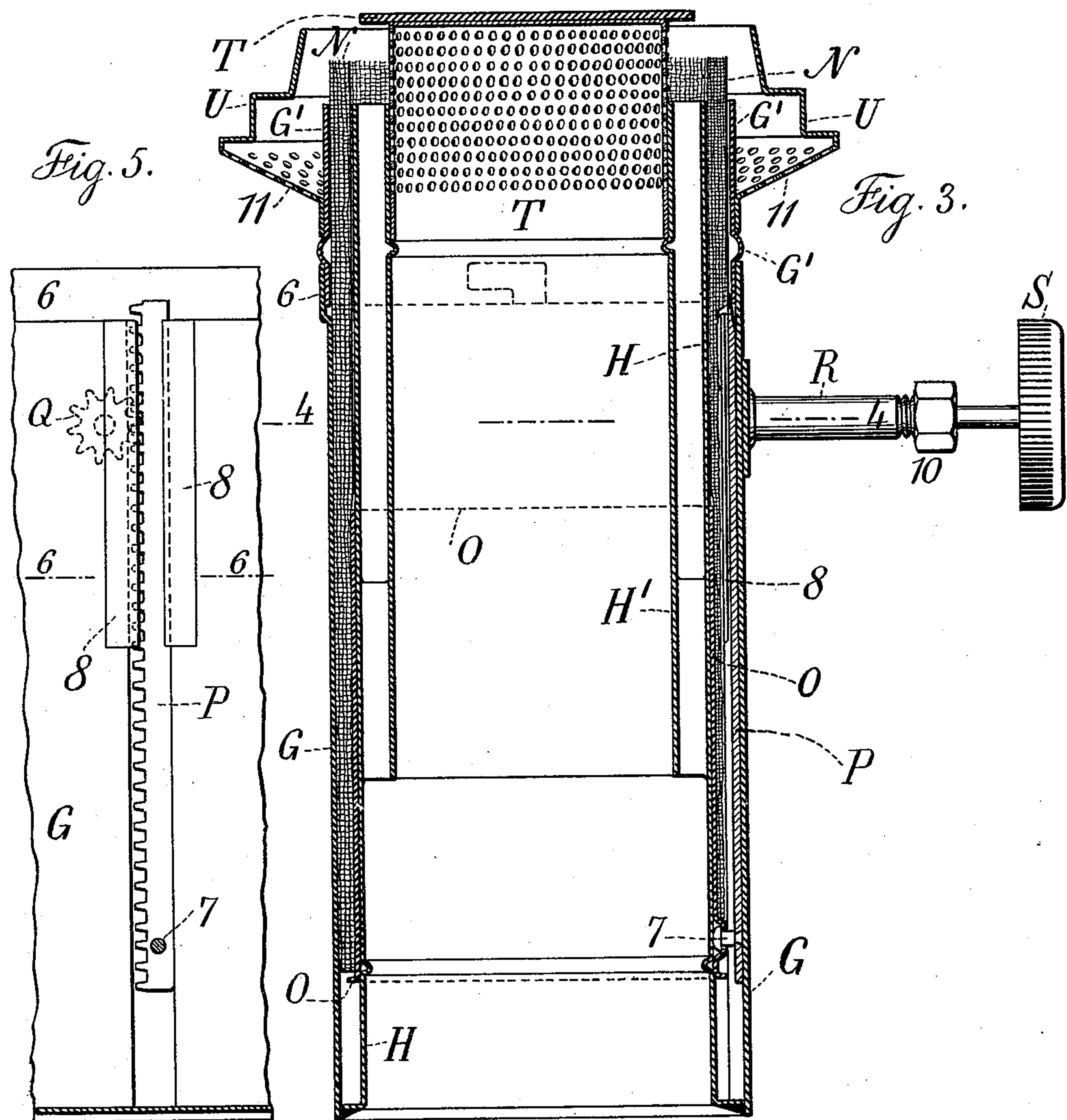
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# UNITED STATES PATENT OFFICE.

HENRY MEYTROTT, OF BROOKLYN, ASSIGNOR TO THE MANHATTAN BRASS COMPANY, OF NEW YORK, N. Y.

## LAMP-STOVE.

SPECIFICATION forming part of Letters Patent No. 549,521, dated November 12, 1895.

Application filed April 15, 1895. Serial No. 545,678. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY MEYTROTT, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Lamp-Stoves, of which the following is a specification.

Large Argand lamp-burners have been employed for heating and cooking purposes, and they have been supported below a top plate having openings and a grating above the flames, and there has been a reservoir for the reception of coal-oil or similar carbonaceous material. In lamp-stoves of this general character difficulty has been experienced in maintaining the oil at a nearly-uniform level in the burner, and also in introducing the wick into the wick-tube, because such wicks are usually tied upon a short cylinder or ring forming the wick-raiser, and the wick-tube fitting closely around the wick at its upper end prevents the easy insertion of the lower end of the wick, especially when there are projecting threads and pieces upon the wick that are not held down by the thread made use of in tying such wick in its position. I make use of a wick-tube that is enlarged at its upper end, so that the wick itself may be freely introduced, and I provide a removable secondary wick-tube that sets at its lower end into the enlarged top of the wick-tube, and the wick itself is raised or lowered by the action of a thumb-wheel and pinion upon a rack that is fastened to the wick-holding band, and such rack is received into a recessed portion of the wick-tube, and the rack is also guided between flanges or wings fastened upon the inside of the wick-tube. By this means facility is given for introducing a fresh wick and for raising and lowering the wick with reliability, and the upper end of the secondary wick-tube setting closely around the upper end of the wick insures a uniform and perfect combustion, whereas any inequality in the upper end of the wick-tube which might result from looseness around the wick or in consequence of introducing the rack would cause the flame of the lamp to be unequal and either smoke or be notched and not given a uniform heat. In order to supply the oil or liquid fuel, a vertical reser-

voir is provided below the top plate of the lamp-stove, and in this top plate is an opening through which a fountain can be inverted, such as has heretofore been made use of in lamps usually known as the "German student-lamp," and the opening in the top plate receives a cover or grating, so as to support any dishes or culinary vessels upon the top plate of the lamp-stove.

In the drawings, Figure 1 is a vertical section at the line 1 1 of Fig. 2 with the reservoir partly in section. Fig. 2 is a plan view showing the top plate. Fig. 3 is a vertical section at the line 3 3 of Fig. 4, and Fig. 4 is a sectional plan view of one of the burners at the line 4 4 of Fig. 3. Fig. 5 shows the rack on the inner side of the wick-tube; and Fig. 6 is a section at 6 6, Fig. 5.

The top plate A is supported by the end frames B, and there is advantageously a removable pan C below the burners to catch any drippings, and the reservoir D is supported upon a shelf E, and centrally, or nearly so, between the end frames and toward the back of the lamp-stove, and from this reservoir D are pipes F, leading to the Argand wick-tube G, the bottom end of which wick-tube is connected to the air-tube H, leaving an annular oil-space, as common in Argand lamps, and in the top plate A there are openings centrally over the respective Argand wick-tubes, containing gratings I for supporting the culinary vessels over the lamp, and there is another opening over the reservoir D to give free access to the same for introducing or removing the fount K, containing oil, which fount has an opening and valve through which oil is introduced, and then the fount is inverted and placed down in the reservoir D, and the stem of the valve touching the bottom of the reservoir such valve is opened as the fount passes down to place and is suspended from its upper end by a flange resting upon the top of the reservoir, and there is a cover or removable grating L, that closes the opening above the reservoir, so that the top plate of the stove is adapted to receive culinary vessels.

Instead of the wick-tube in each burner extending up as high as the top of the air-tube, such wick-tube terminates at a lower level



and its upper end is enlarged, forming an offset or shoulder at 6, and into the upper end of the wick-tube and resting upon the shoulder the auxiliary wick-tube G' is introduced, such auxiliary wick-tube fitting closely into such wick-tube G, and the upper end of the auxiliary wick-tube is plain and circular and fits sufficiently closely around the wick N to make a steady and uniform flame, and this auxiliary wick-tube can be lifted off to allow the wick to be entered into the burner with freedom, and afterward the auxiliary wick-tube is set around the upper part of the wick and passed down into the enlargement at the upper end of the wick-tube and rests upon the shoulder 6.

The wick N is connected at its lower end with a wick-holding band or short cylinder O, and this holder O slides freely upon the air-tube H as the wick is raised or lowered, and there is through this holder an opening advantageously strengthened by an eyelet, and the rack P is provided with a headed pin 7, passing loosely through the hole in the holder, so that the holder and wick can be raised or lowered by acting upon the rack P, and such rack can be swung upon its pin 7 into any desired position, so as to be out of the way in putting on or taking off a wick, and such rack is to be brought up vertically as the wick-holder and wick are inserted into the annular oil-space between the wick-tube G and air-tube H, and the rack itself is received into a vertical recess extending from top to bottom of the wick-tube G, or nearly so, in order that the wick-tube may set reasonably close to the wick and that the rack may be outside of the wick within its recess, and there are wings or guide-plates 8 fastened upon the inside of the wick-tube and between which the rack P can be raised or lowered by the pinion Q, that is upon the inner end of a shaft that is supported in a tubular arm R and provided with a thumb-wheel S at its outer end, by which the pinion can be turned in raising and lowering the wick, and it is advantageous to make use of a packing 10 at the outer end of the tubular arm to prevent leakage around the shaft of the pinion Q.

It will now be understood that the rack can be raised or lowered, so that its upper end may come up as high as the upper end of the wick-tube G, and the auxiliary wick-tube G' is to be removed to give facility for raising the rack still higher, as is usually necessary in removing the Argand wick for introducing a new wick, and the rack is reliably guided by its recess and by the wings between which it is received, and such wings are advantageously introduced in recesses in the wick-tube, so that the inner surface of the wick-tube is smooth, or nearly so, and circular, in order that the wick itself may not be displaced by the rack bearing upon it.

There may be a perforated deflector T at the upper end of the air-tube and a chimney-

holder U around the auxiliary wick-tube, such chimney-holder being advantageously made with an air-distributor 11 and with a ring upon which the lower end of the chimney V may rest, and I find it is advantageous to make the chimney V of sheet-iron, connected at its lower end with a conical iron ring that rests upon the chimney-holder U and can be removed therefrom, together with the chimney, and, if desired, the gratings I can be connected with the respective chimneys, so that they may be lifted off together or returned to position when the lamp is to be lighted.

It will be understood that the fountain K will supply to the Argand burners the oil, so as to maintain the level of the oil in the annular spaces between the air-tubes and wick-tubes in the burners at a nearly-uniform level, thereby insuring greater uniformity in the flame and in the heat of the lamp-stove and preventing smoke, and also lessening the risk of fire or explosion from careless filling or use of the lamp-stove.

There may be a tube H' within the air-tube H to direct the air and support the deflector T, as shown in Figs. 1 and 3.

I claim as my invention—

1. The combination with an Argand burner, of a reservoir and inverted fount, a support for the same and a top plate for the lamp stove having an opening over the burner and a removable grating, and an opening over the reservoir through which the lamp fount is inserted or withdrawn and a grating or cover for such opening, substantially as specified.

2. The combination in an Argand lamp stove, of a wick tube outside the wick and which is shorter than the air tube inside the wick, and a removable auxiliary wick tube fitting within the upper end of the external wick tube and setting around the wick near its upper end, there being a vertical recess in the interior of the stationary wick tube terminating at the upper end thereof, a wick holder and a rack within such recess, and a pinion and its shaft in a stationary tube on the wick tube for raising and lowering the wick and for allowing the removal of the rack, the wick holder and wick when the auxiliary wick tube has been lifted, substantially as set forth.

3. The combination in an Argand lamp stove, of a wick tube outside the wick and which is shorter than the air tube inside the wick, and a removable auxiliary wick tube fitting within the upper end of the external wick tube and setting around the wick near its upper end, there being a vertical recess in the interior of the stationary wick tube terminating at the upper end thereof, and projecting wings on the interior surface of the wick tube and partly over-lapping the recess, a wick holder and a rack within such recess, and a pinion and its shaft in a stationary tube on the wick tube for raising and lowering the wick and for allowing the removal of the rack,



the wick holder and wick when the auxiliary wick tube has been lifted, substantially as set forth.

4. The combination in an Argand lamp having an air tube and a wick tube connected together at the bottom and forming an annular chamber for the wick and the oil, of a cylindrical wick holder to slide upon the air tube, a wick raising rack having teeth on its edge and passing downwardly within a recess at the inner side of the wick tube, a headed pin upon the rack passing through a hole in the wick holder and loose therein, and a pinion, shaft and thumb wheel for acting upon the rack, substantially as set forth.

5. The combination in an Argand lamp stove, of an exterior wick tube enlarged at its upper end and shorter than the air tube

within the wick, a removable auxiliary wick tube adapted to set within the upper end of the stationary exterior wick tube and to surround the upper end of the wick, an air distributor and chimney rest surrounding the auxiliary wick tube, a chimney above the chimney rest, a stationary top plate for the lamp stove having an opening in it and a grating in that opening and removable with the chimney to give access to the wick for trimming or lighting, substantially as set forth.

Signed by me this 12th day of April, 1895.

HENRY MEYTROTT.

Witnesses:

JOHN J. WRENN,  
R. TURNER.