

No. 764,843.

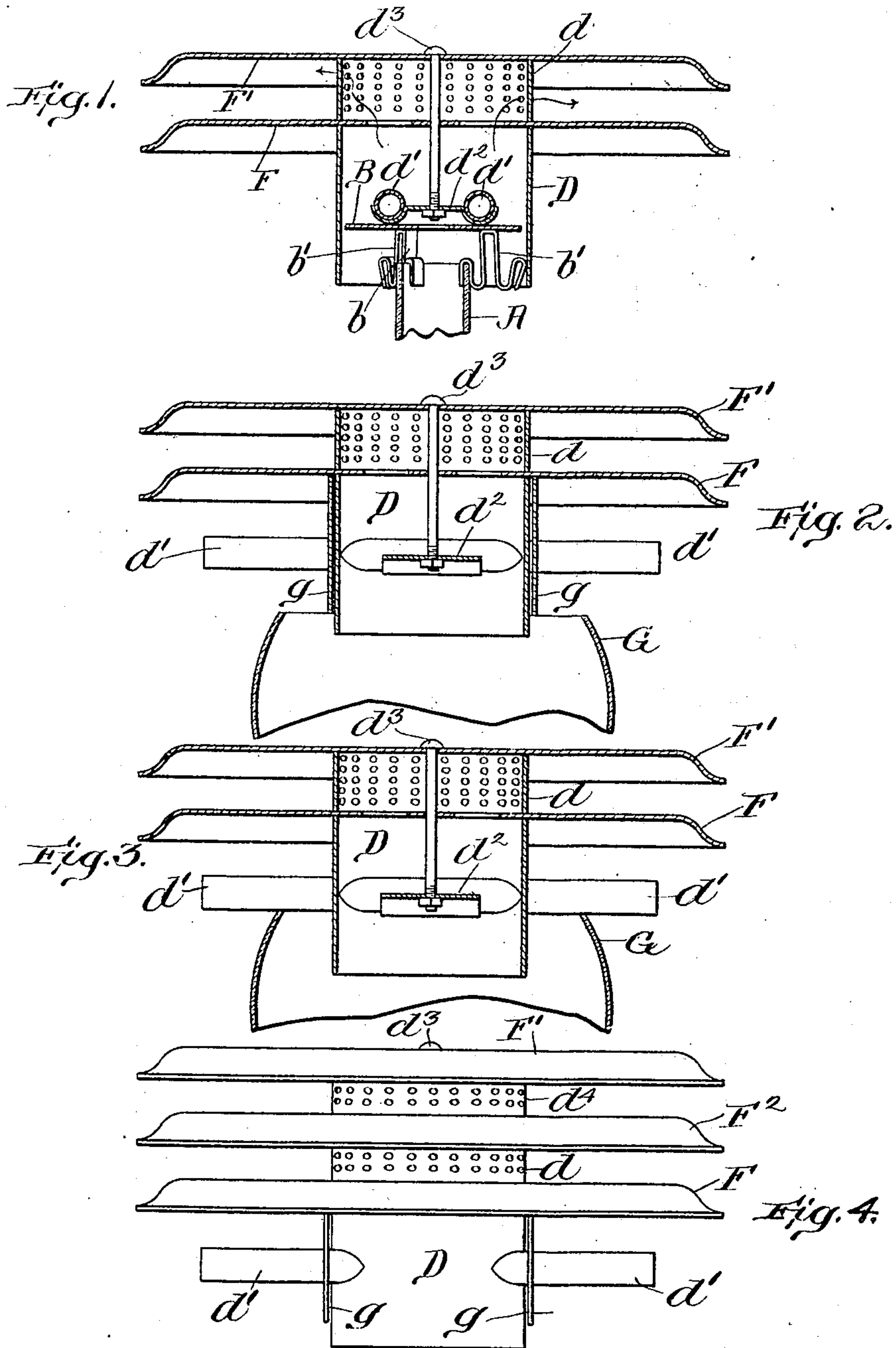
PATENTED JULY 12, 1904.

W. L. HALLETT.

HEATER FOR ATTACHMENT TO OIL OR GAS BURNERS.

APPLICATION FILED FEB. 11, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

WELLINGTON L. HALLETT, OF BROOKLINE, MASSACHUSETTS.

HEATER FOR ATTACHMENT TO OIL OR GAS BURNERS.

SPECIFICATION forming part of Letters Patent No. 764,843, dated July 12, 1904.

Application filed February 11, 1903. Serial No. 142,873. (No model.)

To all whom it may concern:

Be it known that I, WELLINGTON L. HALLETT, of Brookline, in the county of Norfolk and State of Massachusetts, have invented an Improved Heater for Attachment to Oil or Gas Burners, of which the following is a specification.

My invention relates to heaters such as are described in Patent No. 569,377, dated October 13, 1896; and it consists in a sleeve or drum which is held centrally about the heater or disk of metal described in the above-named patent or otherwise held centrally about a lamp-chimney or the globe of a lamp used without a chimney, this drum carrying radiating-plates, so that the heated products of combustion which flow through the drum are deflected sidewise between the lower radiating-plate and an upper radiating-plate, and thus caused to heat the radiating-plates, as will now be more fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional elevation of one of my heaters with two radiating-plates held on the chimney of a lamp by means of the heater described in the patent above named. Fig. 2 is a sectional elevation like Fig. 1, except that my heater is supported by two sheets of metal standing edgewise on the globe of a gas-lamp. Fig. 3 is a sectional elevation like Figs. 1 and 2, except that my heater is supported by two tubular cross-pieces resting on the rim of the globe. Fig. 4 is a modification for larger oil-lamps, with three radiating-plates, adapted more especially for warming as well as lighting rooms.

In the drawings, A is a lamp-chimney, and B the heater of Patent No. 569,377, supported on that chimney by legs *b*, as shown in Fig. 1. The outer legs *b'* serve to center the drum D about heater B and allow the products of combustion to flow through drum D about the heater B and through holes in radiating-plate F and in the spacing-drum *d*, which is a perforated continuation of drum D, into the space between plate F and the upper radiating-plate F', as indicated by the arrows.

The plates F and F' and the spacing-drum *d* are secured together and to the drum D by

the transverse tubes *d'*, passing through drum D, by means of cross-piece *d''* and bolt *d'''*. These tubes *d'* also support my improved heater on the heater B, as shown in Fig. 1, and on the globe G, as shown in Fig. 3, while they support the two rectangular metal sheets *g*, whose edges rest across the globe G, as shown in Fig. 2, these metal sheets *g* being readily removed from and replaced over the tubes *d'*. (See Fig. 3, where they are not shown, having been removed to allow drum D to extend farther down into globe G than in Fig. 2.)

In Fig. 4 I have shown a second spacing-drum *d''*, and radiating-plate F' is separated by spacing-drum *d''* from an intermediate radiating-plate F'', which is like the lower radiating-plate F of Figs. 1, 2, and 3.

When my heater is in use, the drum D and the radiating-plates become sizzling hot and soon warm the room without diminution of the light, the heat due to the combustion of the oil or gas being well localized, as well as diffused downwardly and on all sides of the heater, mainly by radiation instead of convection.

It will also be observed that my heater as shown not only warms the room and lights the room, but also prevents the smoking of the ceiling. I am also satisfied that my heater causes greater light and heat from a given consumption of oil or gas, for the reason, as I think, that it causes more perfect combustion, and while this may be thought a mere theory yet it is a fact that a gas-flame becomes visibly larger when my heater is applied than before, and this without any manipulation of the cock which admits the supply of gas, while the flame of a kerosene-lamp grows brighter when my heater is applied than before, and the wick can be raised a good deal higher without smoke when my heater is in place than it can when my heater is not used.

What I claim as my invention is—

1. In combination an upper radiating-plate; a lower radiating-plate with central passages through it; a perforated spacing-drum between and separating those plates; a main drum by which all those products of combus-

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tion which enter it are directed through the central passages of the lower radiating-plate into the spacing-drum; means for securing the parts together; and means for supporting
5 the main drum on the burner, all substantially as described.

2. In combination an upper radiating-plate; an intermediate radiating-plate with central passages through it; a perforated spacing-
10 drum between them; a lower radiating-plate with central passages through it; a second perforated spacing-drum between the intermediate and lower radiating-plates; a main
15 drum by which all those products of combustion which enter it are directed through the central passages of the lower radiating-plate into the second spacing-drum; means for securing the parts together; and means for sup-

porting the main drum on the burner, all substantially as described. 20

3. In combination an upper and a lower radiating-plate; a perforated spacing-drum between and separating those plates; a main drum for directing the products of combustion through the lower radiating-plate; edge-
25 wise sheets resting on the burner; transverse tubes extending through the main drum, and through the edgewise sheets and supported by those sheets; and means connecting the
30 transverse tubes and the radiating-plates and drums to hold the parts in position, all substantially as described.

WELLINGTON L. HALLETT.

Witnesses:

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