

P. MARTIN.  
Oil-Stove.

No. 205,113.

Patented June 18, 1878.

Fig. 1.

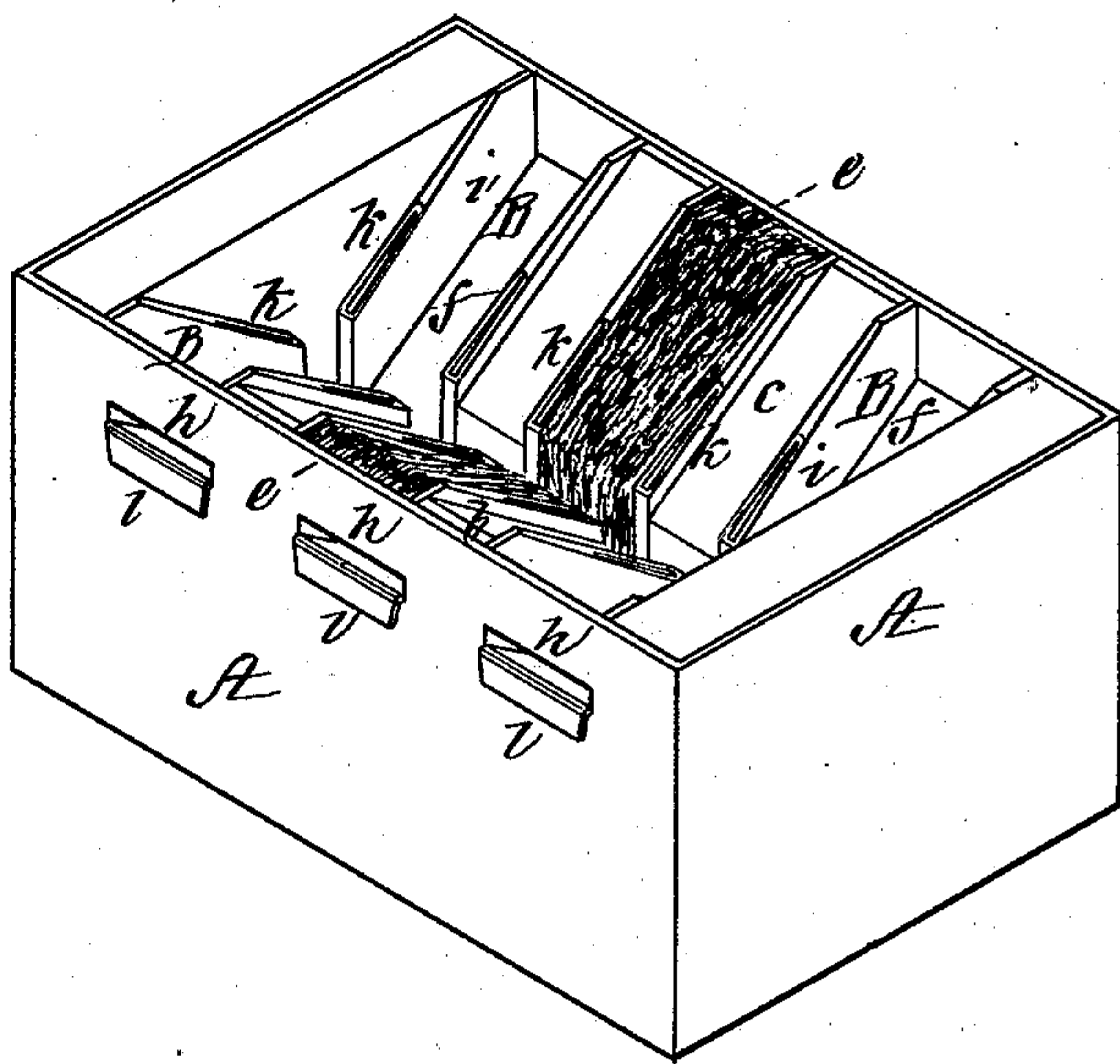


Fig. 2.

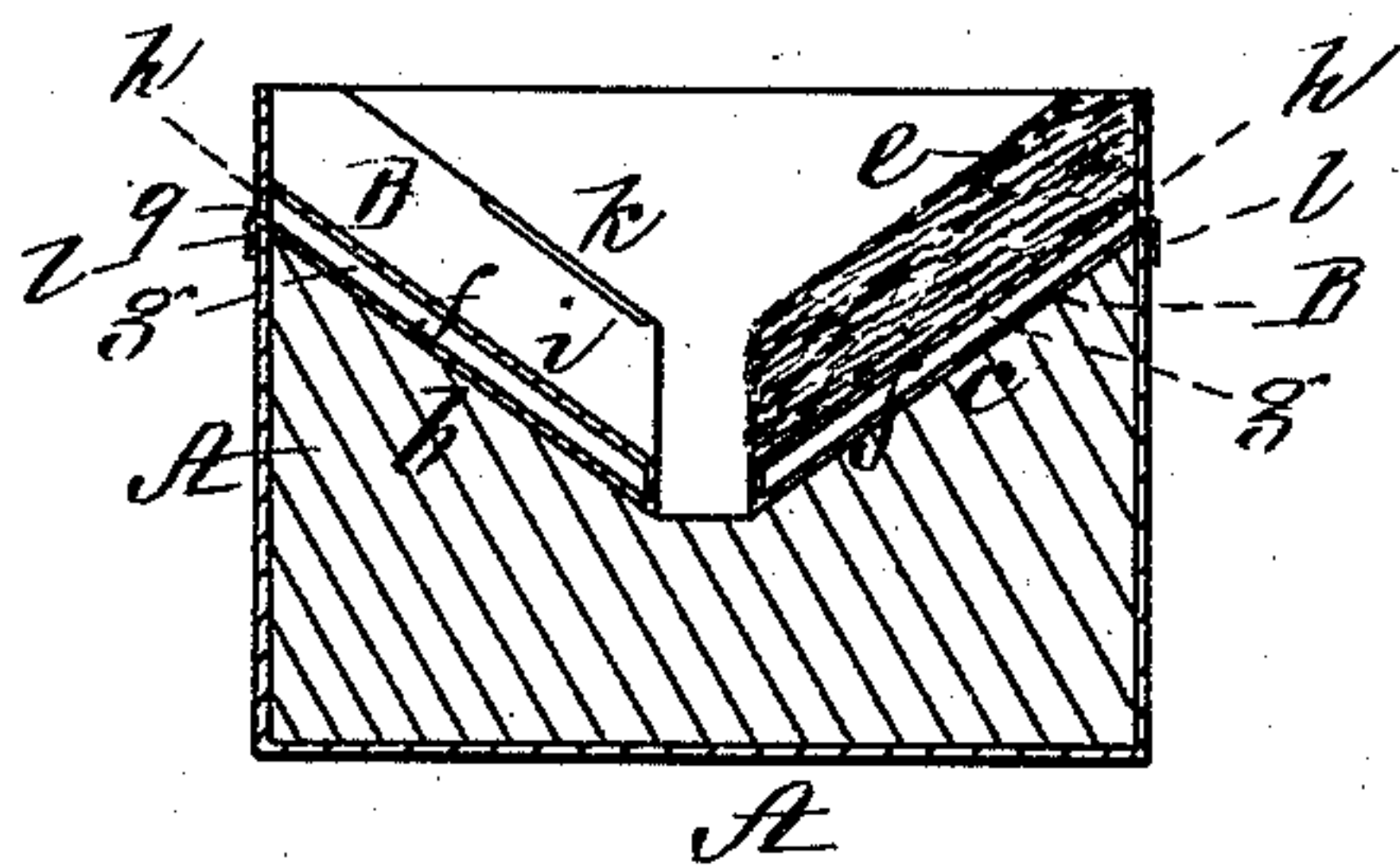


Fig. 3.

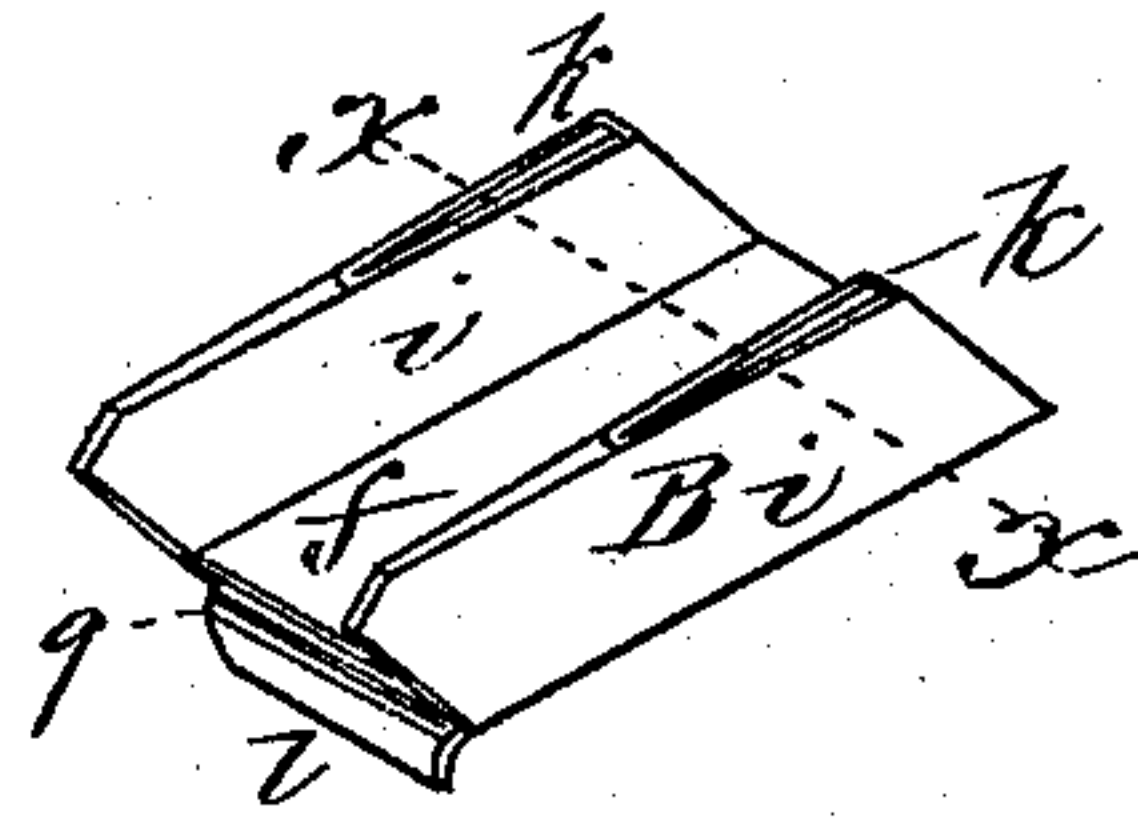
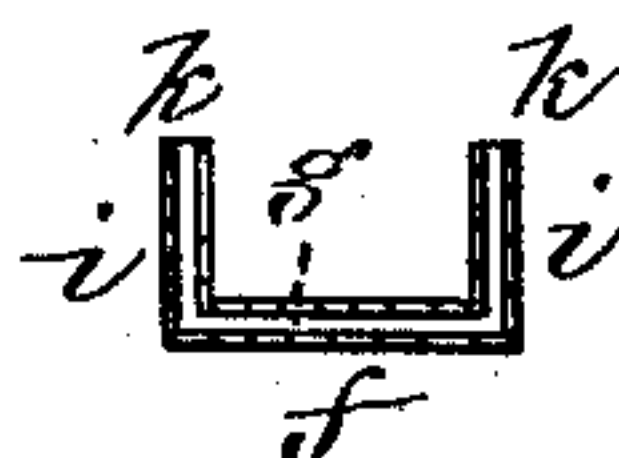


Fig. 4.



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# UNITED STATES PATENT OFFICE.

PEARL MARTIN, OF MEDFORD, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO  
SELWYN Z. BOWMAN, OF SOMERVILLE, MASSACHUSETTS.

## IMPROVEMENT IN OIL-STOVES.

Specification forming part of Letters Patent No. **205,113**, dated June 18, 1878; application filed  
May 27, 1878.

*To all whom it may concern:*

Be it known that I, PEARL MARTIN, of Medford, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Stoves for Burning Crude, Refined, or Unrefined Hydrocarbon and other Oils, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the fire-pot of an oil-stove constructed in accordance with my invention. Fig. 2 is a transverse vertical section through the same. Fig. 3 is a perspective view of one of the wick-holders detached. Fig. 4 is a transverse section on the line *x x* of Fig. 3.

This invention relates to certain improvements on the oil-stove for which Letters Patent of the United States were granted to me January 22, 1878, in which the wicks were placed within sheet-metal casings or holders adapted to fit within grooves in the inclined sides of the fire-pot; and my invention consists in the peculiar construction of the wick-holders, each of which is provided with one or more air-passages, having inlet and outlet openings, the latter being located at or near the upper edge of the holder, so that the air issuing therefrom will impinge on the flame near its base, the air being thus heated in its passage through the wick-holder, whereby combustion is promoted and the formation of a carbonaceous crust on the upper surface of the wick entirely prevented.

My invention also consists in providing the side of the fire-pot with air-apertures, located in line with the inlet-apertures of the air-passages of the wick-holders, to allow of the introduction of the air thereto from the outside of the fire-pot.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents the fire-pot of an oil-stove, which is of rectangular form, the front and rear sides *b c* of the interior being inclined from the top down toward each other. Each of these inclined sides is

provided with a series of grooves or recesses, within each of which is snugly fitted a sheet-metal casing or holder, B, for the reception of a wick, *e*, composed preferably of cotton, hemp, linen, jute, or other suitable fibrous material, covered with a layer of asbestos; but the entire wick may be composed of asbestos or other suitable material, if desired, the oil at the bottom of the fire-pot being taken up by the wicks *e*, and burned in the manner described in my aforesaid patent of January 22, 1878. Each of the wick-holders B is constructed with a double or hollow bottom, *f*, forming an air-passage, *g*, which is open at its outer end 9, this open end being fitted up against the inside of the fire-pot A, in line with an aperture or slot, *h*, therein, through which the external air passes into the passage *g*, and thence into the sides *i* of the wick-holder, which are made hollow, and provided at their upper edges with slits or apertures *k*, through which the air heated in its passage through the metallic wick-holder is emitted, so as to impinge upon the flame near its base, whereby the combustion is promoted, the heat greatly intensified, and the formation of a carbonaceous crust on the upper surface of the wick entirely prevented. The wick-holder is held in place by a lip or flange, *l*, at its outer end, which hooks over the lower edge of the slot *h*; but any other suitable means can be employed instead for confining the holder in place.

I do not confine myself to the use of the slots *h*, as the air may be supplied to the wick-holders in any other convenient manner, and the slits or apertures *k* may be of any desired length, and each side *i* may be provided with one or more of these apertures, as preferred.

Instead of making the bottom *f* of the holder hollow, as shown, one or more tubes may extend along the bottom and communicate with the hollow sides of the holder; or the holder may be provided with air-passages of any desired form, having suitable inlet and outlet apertures.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an oil-stove, a wick-holder, B, applied to the inside of the fire-pot, and provided with one or more air-passages having inlet and outlet

apertures, the latter located at or near the upper edges of the holder, so that the air, after being heated, will impinge upon the flame, substantially in the manner and for the purpose described.

2. The combination of the wick-holders B with the fire-pot A, having air-apertures *h* in its sides, communicating with the air-passages

of the wick-holders, substantially as and for the purpose set forth.

Witness my hand this 22d day of May, A. D. 1878.

PEARL MARTIN.

In presence of—

P. E. TESCHEMACHER,

W. J. CAMBRIDGE.