

[54] FIREPLACE HOME HEATER
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56484
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[58] Field of Search 126/120, 121, 143, 63

[56] **References Cited**

UNITED STATES PATENTS			
1,681,995	8/1928	Miles.....	126/138 UX
2,789,554	4/1957	Dupler.....	126/63
2,819,711	1/1958	Robinson.....	126/143
3,749,078	7/1973	Dupler.....	126/121

FOREIGN PATENTS OR APPLICATIONS

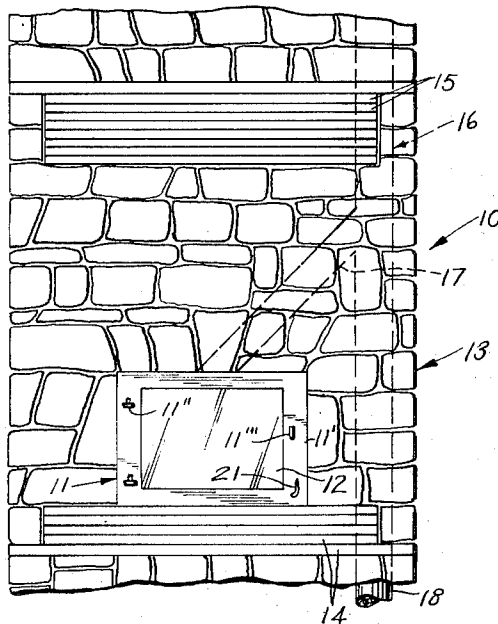
816,262 7/1959 Great Britain 126/143

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[57] **ABSTRACT**

A heating device for homes, consisting primarily of a fire box installed within a brick or stone enclosure, the device having air input means which will enable air from the outside of the dwelling to enter the device so as to provide oxygen for the combustion of the fuel therein.

2 Claims, 3 Drawing Figures



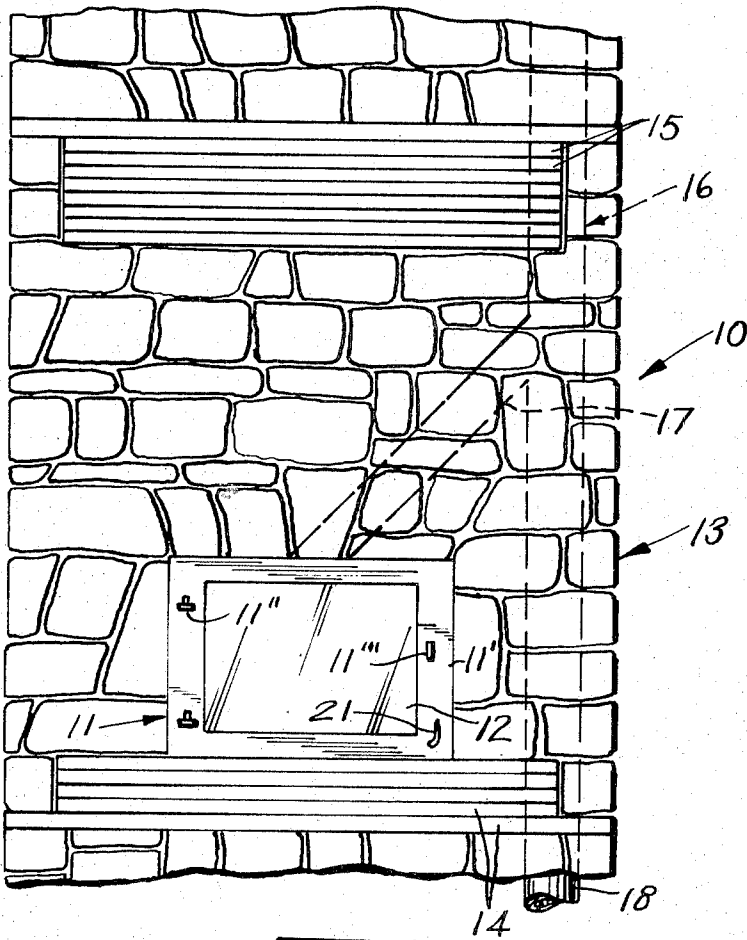


FIG. 1

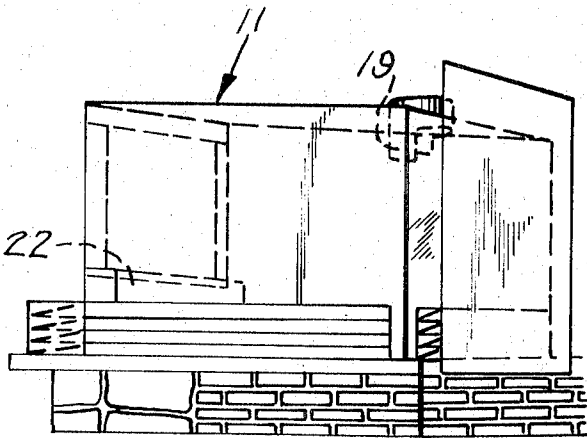


FIG. 2

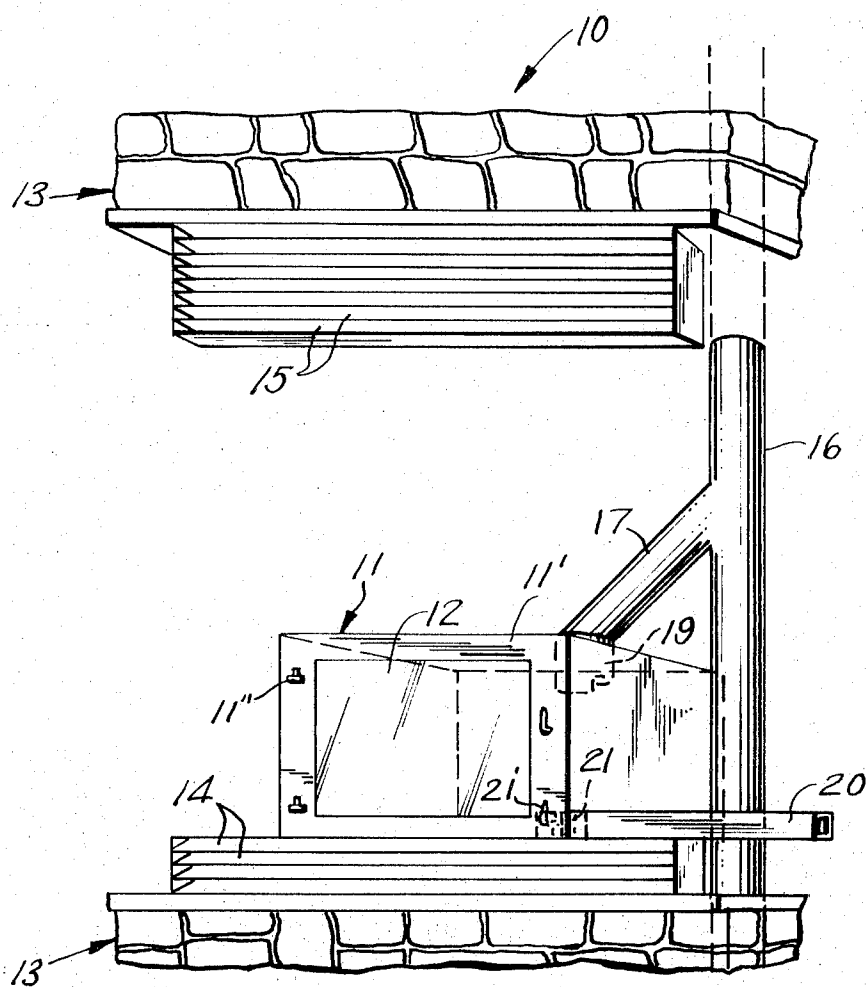


FIG. 3

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FIREPLACE HOME HEATER

This invention relates to fireplaces, and more particularly to a fireplace home heater.

It is therefore the principal object of the present invention to provide a fireplace home heater which will be installed within a brick or stone enclosure and will provide maximum useable heat from wood or other solid fuel while utilizing air outside of the dwelling for oxygen to support combustion of fuel therein.

Another object of this invention is to provide a heater device of the type described which will have a door on the front which will be airtight so as to prevent warm air from the inside escaping through the chimney portion of the device.

Still another object of this invention is to provide a heater device of the type described which will have a heat baffle member which will serve to cause the fire to travel further, thus enabling the user to obtain the most heat from the device.

Yet another object of this invention is to provide a device of the type described which will utilize a hollow enclosure for the fire box, so as to enable the air flow around the entire unit to obtain the maximum heat from the combustion taking place.

A further object of this invention is to provide a heater device of the type described which will keep the entire home warm without resorting to other forms of heating apparatus.

Other objects of the invention are to provide a home heater device which is simple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

These and other objects will become readily evident upon a study of the following specification together with the accompanying drawing wherein:

FIG. 1 is a front view of the present invention showing the enclosure fragmented and in elevation;

FIG. 2 is a fragmentary perspective view of the fire box portion of the device; and

FIG. 3 is a fragmentary perspective view showing the enclosure broken away for the sake of clarity.

According to this invention, a fireplace home heater 10 is shown to include a hollow fire box 11 made of suitable heat resisting material. The fire box 11 includes an airtight door 11' having a suitable fire resisting glass 12 therein so as to enable the fire to be observed. The door 11' is provided with a pair of hinges 11'' which enables door 11' to be opened by means of handle 11'''. The fire box 11 is secured fixedly within a stone or brick wall enclosure 13 so as to prevent the device 10 from being a fire hazard.

It will be noted that door 11' is airtight so as to prevent warm air from the inside escaping through chimney 16. Air intake louvers 14 are angularly positioned and secured fixedly within the wall enclosure 13 beneath the fire box 11 and within the upper extremity of wall enclosure 13 are angularly positioned and secured heat outlet louvers 15. In other words louvers 15 enable the heat to travel outwards to heat the room, while in-

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take air for heating is entered into louvers 14, to pass beneath and around the fire box and become heated.

Extending from the vertical chimney 16 is a flue pipe 17 and at the bottom of chimney 16 extends a second flue portion 18 which may extend into a lower room of the dwelling device 10 is installed within. Extending partially downwards from the top and into the fire box 11 is a cylindrical and hollow baffle member 19 which shows a portion cut away as indicated in FIGS. 2 and 3 of the drawings.

An outside air intake pipe 20 extends into fire box 11 and is provided with a pivotable air control vane 21 which may be adjusted to control the amount of air going into fire box 11, thereby regulating the amount of heat produced by the fire therein. The handle 21' of the air control vane 21 is operated externally of fire box 11. On the interior of fire box 11 is fixedly secured between the side walls, a length of steel which provides a channel for the intake air to travel into the fire box and serves as a means of preventing ashes from getting into the air flow.

What I claim is:

1. A fireplace heater for a dwelling comprising in combination:

a. a closed firebox for the combustion of solid fuel, including an air-tight door to provide access thereto for insertion of said fuel;

b. an enclosure for receiving said firebox having an opening through which said door is accessible, and having inlet louver means below the level of said door and outlet louver means above the level of said door to define a heating gas path around said firebox;

c. an air intake pipe extending through said enclosure for conducting combustion air to said firebox;

d. a flue pipe extending from said firebox through said enclosure to conduct gaseous combustion products therethrough, a portion of said flue pipe extending downwardly into the interior of said firebox with the peripheral wall of said flue pipe portion containing an opening, said interior flue pipe portion serving to baffle and slow the flow of heated gaseous combustion products through the firebox thereby increasing the fireplace heat output; and

e. said air intake pipe and said flue pipe defining a combustion gas path through said firebox which is independent from said heating gas path so that no combustion products are discharged into the dwelling through said outlet louver means and no air from within said dwelling is discharged through said flue pipe.

2. The structure of claim 1 together with means associated with said intake pipe for varying the amount of air passing therethrough to vary the heat output of said heater.

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