

Oct. 26, 1965

S. L. ROGERS, JR., ETAL

3,213,846

FRANKLIN STOVE

Filed June 20, 1963

2 Sheets-Sheet 1

FIG. 1

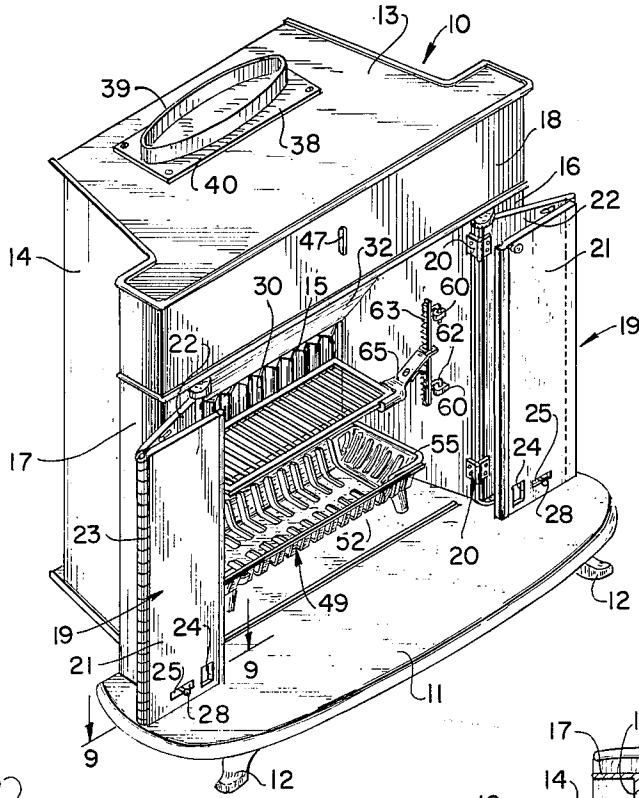


FIG. 2

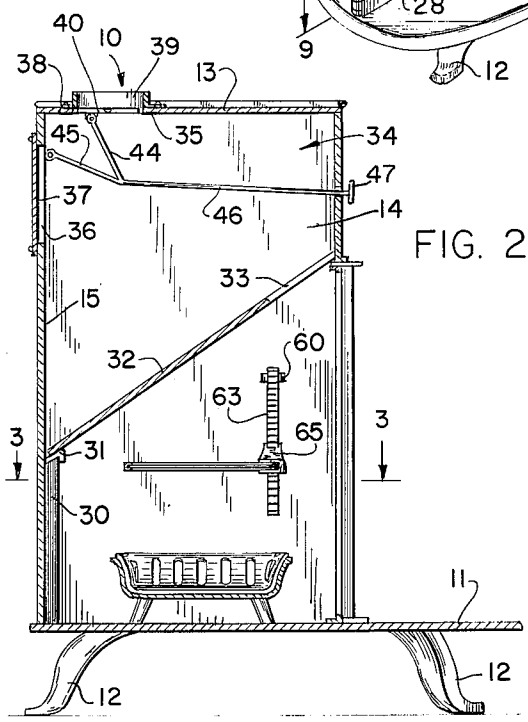
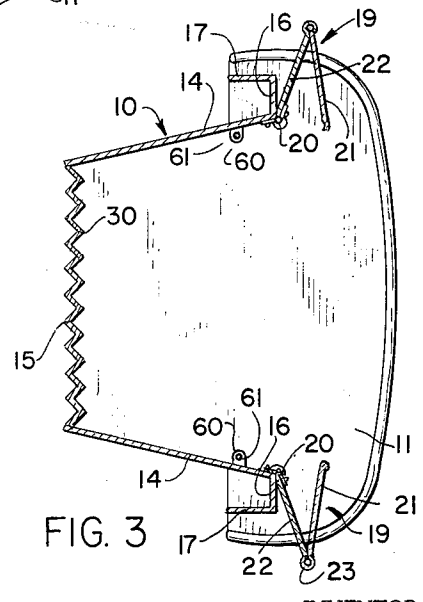


FIG. 3



INVENTOR

STEPHEN L. ROGERS, JR.  
JAMES LEONARD RAULSTON

BY

*James Leonard Raulston*  
ATTORNEY



1

2

3,213,846

FRANKLIN STOVE

Stephen L. Rogers, Jr., 400 Magnolia Ave., and James Leonard Raulston, 800 Holly Ave., both of South Pittsburg, Tenn.

Filed June 20, 1963, Ser. No. 289,303

7 Claims. (Cl. 126-4)

This invention relates to apparatus for modifying the temperature of a building and to equipment associated with such apparatus and utilized additionally in the preparation of food for human consumption.

The invention relates particularly to a stove or heater which may be used as a space heater in a building or may be located within a fireplace opening and such heater may have an adjustable removable grill for use in the preparation of food when desired.

Heretofore, space heaters of many kinds have been provided for modifying the temperature of a building and these heaters have utilized wood, coal, charcoal, peat or other fuel which can be burned and which give off sufficient radiant energy to heat the space within the building. Other heaters such as hibachis, braziers, etc. have been utilized for the preparation of food within the building and usually utilize charcoal as a fuel. The space heaters have been bulky, ungainly, occupied valuable floor space and were inefficient while the hibachi and brazier have not been vented to the outside of the building and were an ever present fire hazard since they were capable of being upset easily.

It is an object of the invention to overcome the difficulties enumerated and to provide a simple, efficient space heater which will add to the aesthetic value of the building while serving to provide heat for the building as well as for the preparation of food.

Another object of the invention is to provide temperature modifying apparatus which can be received within a fireplace opening and will not occupy valuable floor space.

A further object of the invention is to provide a stove having a grill which is adjustable toward and from the fire or heat producing material and which can be moved into and out of the stove at will.

A still further object of the invention is to provide a stove having a draft opening in either the top or the rear of the stove and a single damper control adaptable to either.

Other objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective illustrating the stove of the present invention;

FIG. 2, an enlarged vertical section thereof;

FIG. 3, a horizontal section on the line 3-3 of FIG. 2;

FIG. 4, an enlarged fragmentary section of the upper portion of the stove and illustrating the damper control;

FIG. 5, a further enlarged section taken along the line 5-5 of FIG. 4;

FIG. 6, an enlarged fragmentary detail perspective of the grill adjusting means;

FIG. 7, a section taken along the line 7-7 of FIG. 6;

FIG. 8, an enlarged perspective of the grate;

FIG. 9, an enlarged section of the draft control taken along the line 9-9 of FIG. 1; and

FIG. 10, a vertical section taken along the line 10-10 of FIG. 9.

Briefly stated the present invention is a space heater or stove of a size and construction to be received within the fireplace opening of a building and having a draft opening in either the top or the rear thereof with a damper selectively located in one of such openings and a cover plate over the other opening. A single damper control is

provided which is connectable to such damper regardless of which opening it is in. A grill for the preparation of food is provided within the stove and is adjustable toward and from the fire and swingable into and out of the stove when desired.

With continued reference to the drawings, a stove or housing 10 is provided having a combustion chamber defined by a hearth plate or bottom 11 supported on feet 12, a top 13, side walls 14 and a rear wall 15. The side walls 14 diverge outwardly from the rear to the front of the stove and each wall terminates in an outwardly disposed portion 16 having a rearwardly disposed flange 17. The upper portion of the front of the stove is covered by a plate 18 and the lower portion of the front may be opened or closed selectively by a pair of folding doors 19. Such doors are pivotally mounted on hinge members 20 fixed to the outwardly disposed portions 16. Each door includes inner and outer panels 21 and 22, respectively, connected by a hinge pin 23 along their abutting edges.

In order to control the draft when the doors are closed, the inner panels 21 each have an opening 24 and an elongated slot 25 located adjacent to the lowermost portion thereof. A draft plate 26, slidably mounted in opposed brackets 27, is located on the rear of each inner panel 21 and is provided with an operating lever 28 disposed within the slot 25. The plate 26 is of a size to completely cover the opening 24 when the lever 28 is at one end of the slot 25 and to fully expose such opening when the lever is moved to the opposite end of the slot.

The lower portion of the rear wall 15 is provided with a plurality of corrugations 30 in the area of maximum heat to reduce the amount of heat shock due to the expansion and contraction of the wide expanse of metal when subjected to heat. The upper portion of the corrugations terminate in an inwardly disposed flange 31 on which one end of a baffle 32 is mounted and such baffle extends upwardly to the bottom of the plate 18. An opening 33 is disposed in the front portion of the baffle to permit smoke and other products of combustion to pass upwardly into a chamber 34 in the upper portion of the stove.

In order to discharge the smoke and other products of combustion from the chamber 34 the top 13 is provided with an opening 35 adjacent to the rear of the stove and the rear wall 15 is provided with an opening 36 adjacent to the top of the stove. One of the openings is covered by an imperforate plate 37 and the other opening is covered by a plate 38 to which a collar 39 is attached and such collar is adapted to receive a flue connection not shown which is in communication with the exterior of the building. A damper plate 40 is pivotally mounted within the collar 39 by means of pins 41. An outwardly projecting lug 42 is mounted on the damper plate 40 in a position intermediate the pivot pins and adjacent to the edge of the plate and such lug is adapted to be pivotally connected by a pin 43 to one of a pair of arms 44 and 45 rigidly connected to a damper control rod 46. The arms 44 and 45 are located in a position whereby one of the arms will be connected to the lug 42 when the damper is mounted in the opening 35 and the other arm will be connected to the lug 42 when the damper is in the opening 36. The control rod 46 extends through the front plate 18 and receives an operating knob 47 mounted on the free end thereof for controlling the position of the damper plate 40 from a remote position. The plates 37 and 38 are interchangeable so that the flue can be connected either to the top of the stove or the rear of the stove.

An adjustable grate or basket 49 is provided and includes a base 50 mounted on legs 51, a pair of side members 52 and 53, and a pair of end members 54 and 55. The side members are each provided with a plurality of

slots 56 which permit the passage of air and in which hook members 57 on the end of each of the end members 54 and 55 are adapted to be received. When the grate is being assembled the hook members 57 are placed in the selected slots 56 after which the side members 52 and 53 are connected to the base 50 by fasteners 58.

In order to provide an adjustable grill for the preparation of food and the like one or both of the inner side walls 14 is provided with a pair of spaced vertically disposed lugs or gudgeons 60 projecting outwardly therefrom and each of such lugs has an opening 61 for receiving a downwardly curved portion of a pivot pin or pintle 62. The pintles 62 are welded or otherwise fixed to a rack 63 having a plurality of teeth 64 projecting outwardly therefrom on the side opposite the pintles. An arm 65 having an opening 66 at one end for receiving the rack 63 is provided and such arm has a recess 67 at the opposite end in which a grill 68 is attached by fasteners 69. To control the angularity and position of the grill relative to the grate an adjusting arm 70 is connected to the arm 65 by a fastener 71 which passes through an opening 72 in the arm 65 and through a slot 73 in the adjusting arm 70.

The grill is supported by the free end of the arm 65 engaging the rear of the rack 63 and by the free end of the adjusting arm 70 engaging one of the teeth 64. The position of the grill may be varied merely by tilting the grill so that the adjusting arm 70 is no longer in engagement with the teeth and thereafter sliding the arm 65 up or down the rack to the desired position and again placing the free end of the adjusting arm 70 in engagement with one of the teeth 64. When it is desired to remove the grill and the food thereon from the stove this can be done merely by applying a pulling force on the grill 68 to pivot such grill outwardly about the pintles 62 and exposing the food thereon.

In the operation of the device the adjustable grate is assembled for any desired size of fire after which combustible material may be placed within the grate and brought to a kindling temperature so that the material will burn and modify the temperature within a building. The amount of heat given off as well as the length of time required to burn the material can be controlled by the relative positions of the damper plate 40 as well as by the opening or closing of the doors 19 and the draft plates 26 therein. When it is desired to use the stove for the preparation of food the pintles 62 may be placed within the gudgeons 60 and the grill can be located at any desired height above the fire and thereafter the grill is movable into and out of the stove at will.

It will be apparent that a relatively simple stove is provided which is an efficient space heater and which can be utilized in the preparation of food for human consumption by the application of an adjustable removable grill.

It will be obvious to one skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is illustrated in the drawings and described in the specification, but only as indicated in the accompanying claims.

What is claimed is:

1. A stove for space heating and for the cooking of food comprising bottom, top, side, and rear walls defining a combustion chamber, damper means for venting gases from the combustion chamber, said rear wall being corrugated along its lower portion, a baffle disposed within the stove and having one end supported adjacent to the corrugations, said baffle having an opening for the discharge of smoke, a pair of venting doors mounted on the stove for movement to open and close the front of the

combustion chamber, said doors having slidable draft controlled plate means, a grate having adjustable end members located within said combustion chamber, rack supporting means fixed to a side wall, a rack mounted on said rack supporting means pivoted for movement about a generally vertical axis, an arm slidably mounted on said rack for generally vertical movement and having means to engage said rack to hold said arm at selected elevations, and a grill fixed to the opposite end of said arm.

2. A stove for space heating and for the preparation of food comprising a housing of a size to be received within a fireplace opening and having side walls diverging from the rear toward the front, means on said housing providing communication between the interior and the exterior of the housing from selected positions to permit the discharge of smoke, closure means for selectively closing the front of said housing, a grate disposed within said housing, a substantially vertical member pivoted along one of the side walls for movement about a substantially vertical axis, a grill mounting arm, means for connecting one end of said arm at selected vertical positions on said vertical member, a grill fixed to the opposite end of said arm, and means mounted above said grill within said housing for reflecting heat from said grate upon said grill.

3. The structure of claim 2, including a grill adjusting member, and means for setting said adjusting member at varying positions on the grill mounting arm to vary the angular position of the grill relative to said vertical member.

4. The structure of claim 3, in which the grate has adjustable end members to regulate the amount of fuel within the stove.

5. A stove for space heating and for the heating of food comprising a combustion chamber defined by top, bottom, front, side, and rear walls, grate means for holding fuel in the lower portion of the combustion chamber, means providing communication between the combustion chamber and the exterior of the stove through selected openings, a pair of spaced generally vertically disposed lugs mounted on at least one of said side walls, rack means pivoted to said lugs for movement about a substantially vertical axis, grill means slidably mounted on said rack means above said grate means, and holding means for holding the grill relative to the rack at selected vertical positions.

6. The structure of claim 5, in which at least a portion of the front wall of the stove is a partition mounted for movement to selectively open and close the combustion chamber.

7. The structure of claim 6, in which said partition has a draft opening below the top of said grate means and a draft closure member mounted to selectively open and close said draft opening.

#### References Cited by the Examiner

##### UNITED STATES PATENTS

175,031	3/76	Church	126—141
263,360	8/82	Schenck	126—153
1,322,603	11/19	Norman	126—120
1,360,619	11/20	Bumpass	126—126
1,470,542	10/23	Poling	126—137
2,523,200	9/50	Durst	126—137
2,629,315	2/53	Schaar	126—137 X
2,998,001	8/61	Lofgren et al.	126—137 X

##### FOREIGN PATENTS

16,253 1915 Great Britain.

JAMES W. WESTHAVER, *Primary Examiner*.