

Sept. 30, 1947.

M. SVEDA

2,428,183

COMBINED SPACE HEATER AND COOK STOVE

Filed Feb. 19, 1945

2 Sheets-Sheet 1

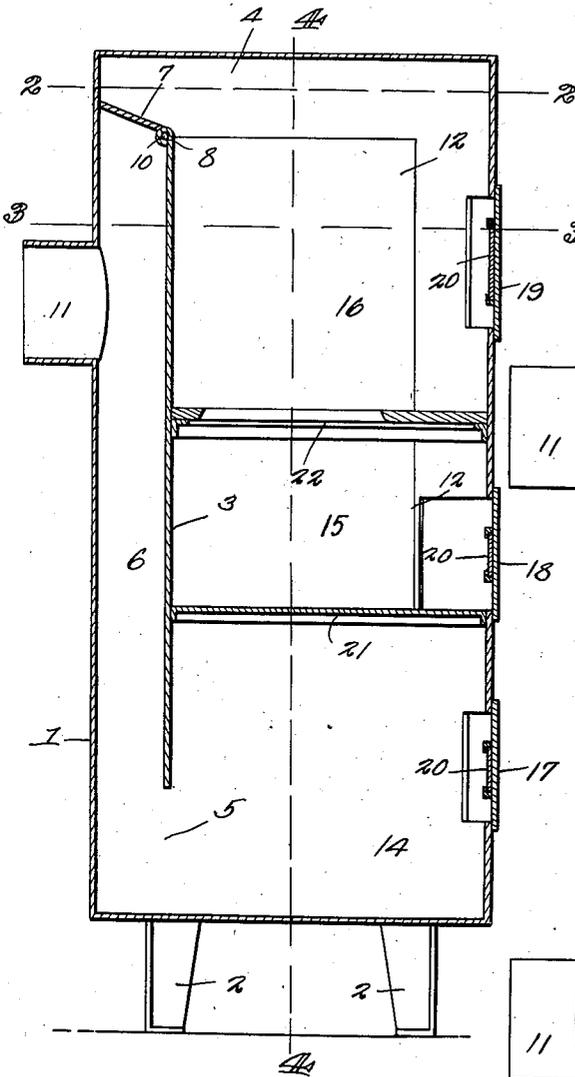


Fig. 1.

Fig. 2.

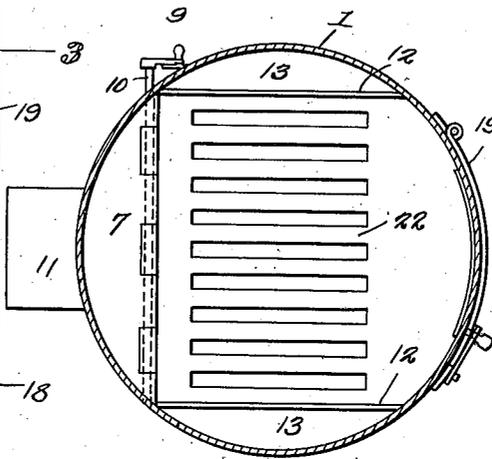
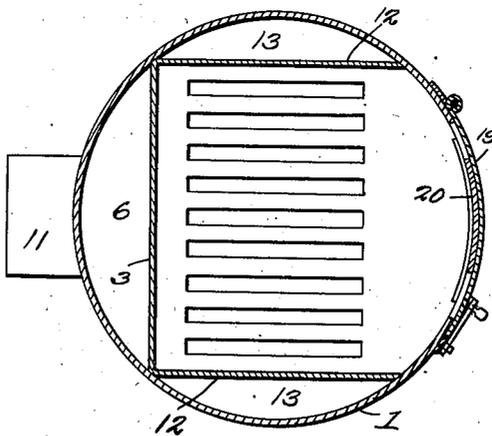


Fig. 3.



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2 Sheets-Sheet 2

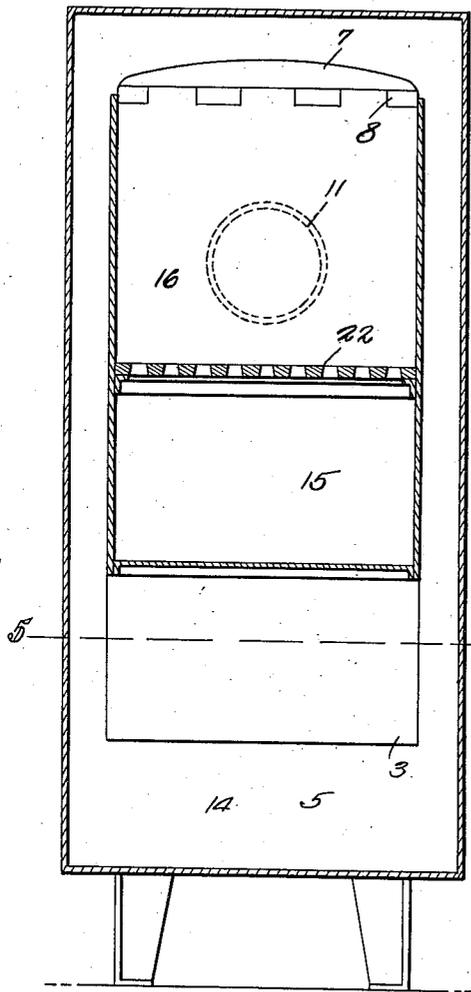


Fig. 4.

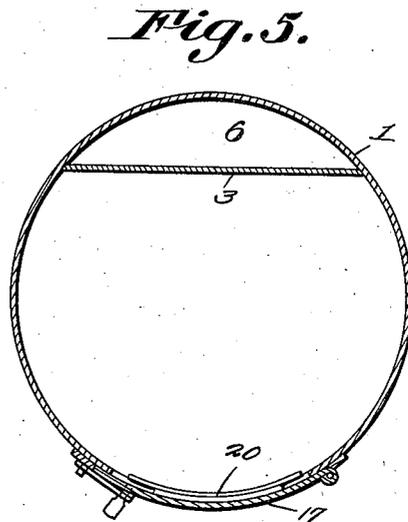


Fig. 6.

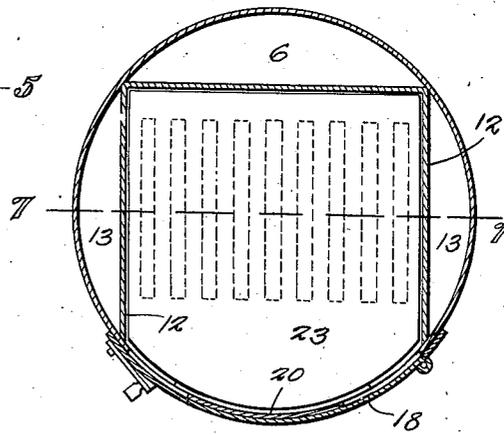
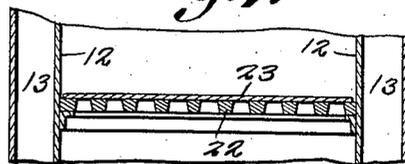


Fig. 7.



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# UNITED STATES PATENT OFFICE

2,428,183

## COMBINED SPACE HEATER AND COOK STOVE

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Application February 19, 1945, Serial No. 578,645

1 Claim. (Cl. 126-4)

1

This invention relates to a stove designed not only for heating purposes but also for cooking purposes. It is especially useful in localities subject to extreme cold weather and where equipment must be of such a nature as to be easily transported and set up for use.

Another object is to provide a stove of this character formed of few parts, which will not readily get out of order, and is especially useful as a wood burner.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:

Figure 1 is a central vertical section through the stove taken from front to rear.

Figure 2 is a section on line 2-2, Fig. 1.

Figure 3 is a section on line 3-3, Fig. 1.

Figure 4 is a section on line 4-4, Fig. 1.

Figure 5 is a section on line 5-5, Fig. 4.

Figure 6 is a section similar to Fig. 3 but showing the stove adapted to be used for cooking purposes.

Figure 7 is a section on line 7-7, Fig. 6.

Referring to the figures by characters of reference 1 designates the casing of the stove which preferably is cylindrical and closed at its top and bottom, there being suitable legs or other supports 2 whereby the bottom of the stove can be held above the floor level.

A partition 3 is secured within the back portion of the casing 1 and terminates a short distance from the top of the casing to provide an upper outlet space 4 and it also terminates above the bottom of the casing to provide a lower outlet space 5. The partition 3 cooperates with the back portion of the casing 1 to form a flue 6 extending from the space 5 to the space 4 but a damper 7, which is hingedly connected at 8 to the upper end of partition 3 is adapted to bear against the inner surface of the casing 1 and close communication between the space 4 and the flue 6. This damper can be operated by means of an exterior handle 9 joined to the damper by a rod 10 journaled in the casing. An outlet sleeve 11 extends from the casing 1 adjacent to the upper end of flue 6 and opens into the flue.

2

Side partitions 12 extend forwardly from the sides of partition 3 to the front portion of casing 1 to which they are joined and these side partitions thus cooperate with the wall of the casing to define side flues 13.

The space defined by the partitions 3 and 12 is divided into a bottom chamber 14, a middle chamber 15 and an upper chamber 16, there being doors 17, 18 and 19 in front of the respective chambers whereby access thereto may be had readily to the chambers. Each of these doors can be formed with the usual sliding damper 20 whereby the flow of air through the door can be regulated. The dampers can be of any suitable construction and have only been illustrated generally.

Chamber 14 is divided from chamber 15 by an imperforate partition 21 while chamber 15 normally is separated from chamber 16 by a grate 22. When the stove is to be used for cooking purposes, however, the grate can support an imperforate plate 23 which serves to close communication between chambers 15 and 16.

Assuming that the stove is to be used for heating purposes only, the plate 23 is removed from chamber 16 through the opening of door 19, thereby exposing the grate so that it can support fuel. Damper 7 is closed and when the fuel is ignited the products of combustion will flow over the top edges of partitions 12 downwardly within flues 13 into the bottom chamber 14 and thence through space 5 into the bottom of flue 6 and upwardly to outlet 11. Thus hot gases will maintain the surface of the casing 1 at a high temperature and loss of heat will be materially reduced. Ashes falling through the grate will be received in chamber 15 and can be removed through the opening of door 18. Door 17 is used to permit convenient access to the bottom chamber 14 for cleaning purposes.

Should it be desired to use the stove for cooking, plate 23 would be utilized. This plate is placed on the grate 22, damper 7 is opened and the damper in door 19 is also opened. Fuel is placed on the plate instead of upon the grate and is burned in chamber 16, the hot products of combustion flowing directly from chamber 16 into space 4 and thence through 6 and outlet 11. Heat will be conducted through plate 23 to chamber 15 which thus serves as an oven in which food may be cooked.

Obviously a stove of this type can be easily transported, readily set up for use, and thus is adapted especially to meet the conditions found

3

in remote cold regions where the weight and size of equipment carried is a major consideration.

What is claimed is:

A combined space heater and cook stove including a cylindrical casing closed at the top and bottom and having a smoke outlet at the back, a back partition within the casing and cooperating with the casing to define a flue having an inlet opening adjacent to the lower end of the casing and a second opening adjacent to the upper end thereof, said smoke outlet communicating with the flue, a damper for opening and closing the opening adjacent to the upper end of the flue, thereby to control communication between the flue at its upper end and the interior of the casing, flat side partitions oppositely disposed within and connected to the casing and cooperating with the casing to provide side flues open at their upper and lower ends and communicating with the interior of the casing adjacent to the upper end thereof and at a point above the lower end of the back partition, an imperforate forwardly extended partition at the lower ends of the side flues and joined to the back partition and to the side partitions, said imperforate partition cooperating with the bottom portion of the casing to

4

provide a bottom chamber, a grate above and spaced from the imperforate partition and extending between the side partitions and between the back partition and the wall of the casing, said grate dividing the interior of the casing into a middle chamber and an upper chamber, doors opening into all of the chambers, and a plate removably mounted on and adapted to close the grate, thereby to provide a flat bottom for the upper chamber and to seal said upper chamber from the middle chamber, said middle chamber, when sealed, being out of communication with the upper and lower chambers.

MICHAEL SVEDA.

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The following references are of record in the file of this patent:

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