J. S. E. PANASEVITCH.

GAS HEATER AND COOKER.

APPLICATION FILED SEPT. 3, 1919.

1,345,807.

Patented July 6, 1920.

2 SHEETS—SHEET 1.

Fig. 2.

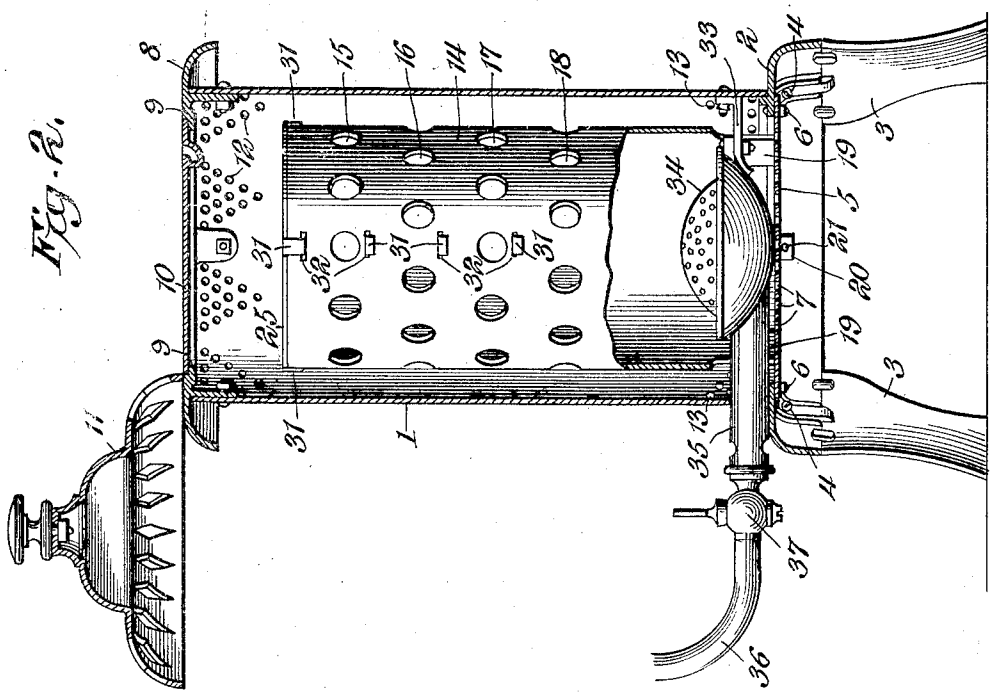
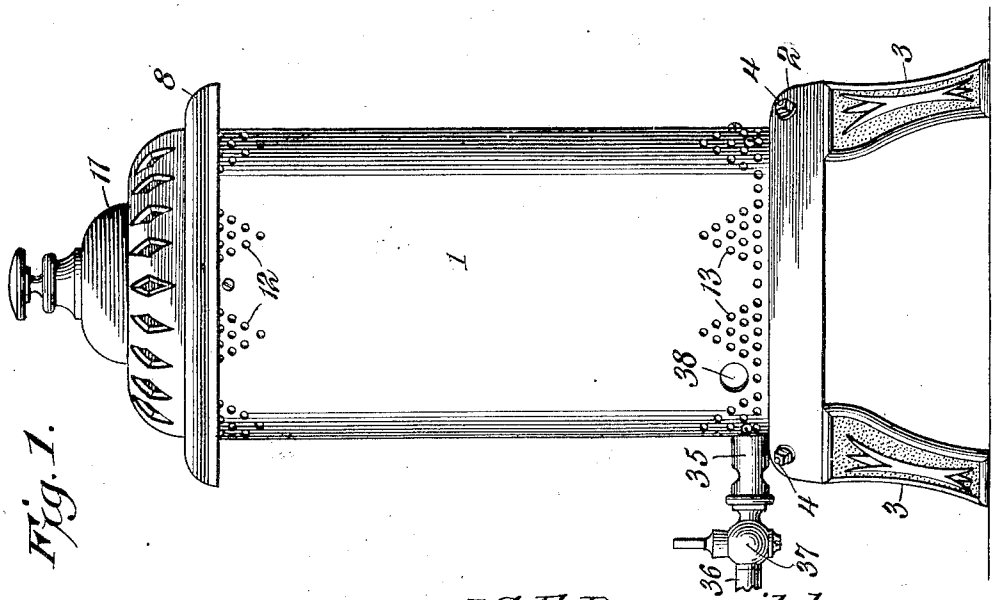


Fig. 1.



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WITNESSES

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2 SHEETS—SHEET 2.

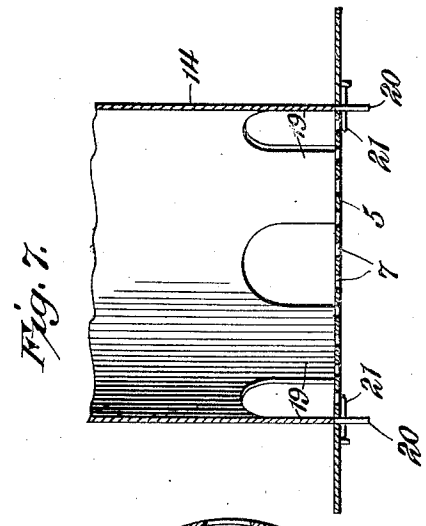


Fig. 7.

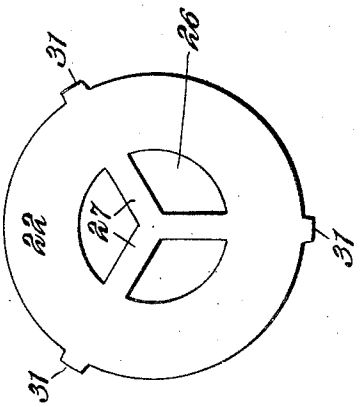


Fig. 8.

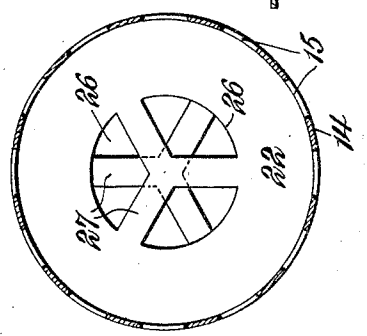


Fig. 5.

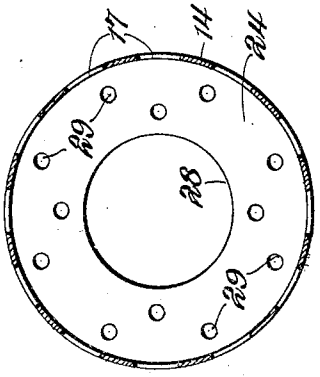


Fig. 6.

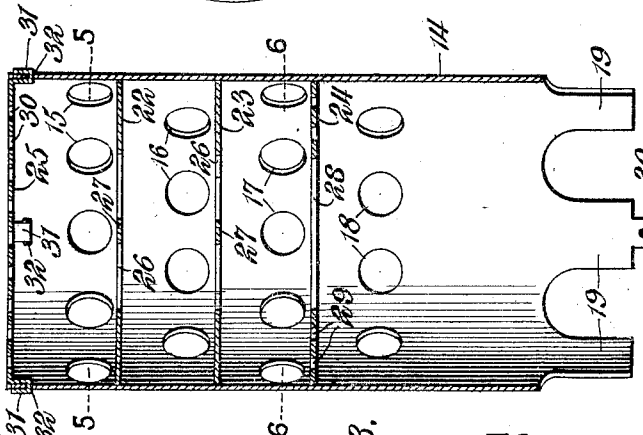


Fig. 3.

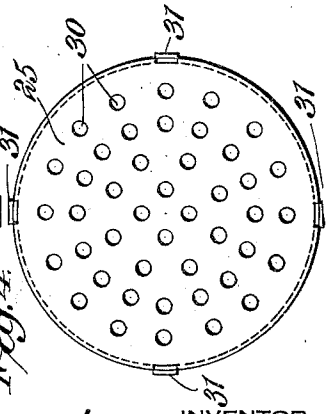


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN S. E. PANASEVITCH, OF NORTHAMPTON, MASSACHUSETTS.

GAS HEATER AND COOKER.

1,345,807. Specification of Letters Patent. Patented July 6, 1920.

Application filed September 3, 1919. Serial No. 321,430.

To all whom it may concern:

Be it known that I, JOHN S. E. PANASEVITCH, a citizen of the United States, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented a new and useful Gas Heater and Cooker, of which the following is a specification.

This invention has reference to gas heaters and cookers, and its object is to provide a simple and efficient construction for the purpose, which may be inexpensively manufactured and is portable.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming a part of this specification, with the understanding, however, that the invention is not confined with any strict conformity to the showing of the drawings, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

Figure 1 is a side elevation of the gas stove.

Fig. 2 is a vertical diametrical section, with some parts in elevation, and with the top of the stove swung to one side.

Fig. 3 is a vertical diametrical section of the inner cylinder of the stove.

Fig. 4 is a plan view of the structure shown in Fig. 3.

Fig. 5 is a section on the line 5—5 of Fig. 3.

Fig. 6 is a section on the line 6—6 of Fig. 3.

Fig. 7 is a vertical diametrical section of the inner cylinder on a different plane from that of Fig. 3.

Fig. 8 is a plan view of one of the partitions, illustrating the manner of fastening the partition to the shell of the cylinder.

Referring to the drawings, there is shown, in Figs. 1 and 2, a casing 1 which may be of the usual cylindrical form, common to portable gas heaters, but is not necessarily limited to such particular shape. The casing 1 is mounted on a base 2 in the form of an annulus, like gas stoves in general, and feet 3 are provided for sustaining the base 2 in an elevated position. For the purposes of rigidity and stability the feet 3 are held to the base 2 by bolts 4. Furthermore the base 2 carries a bottom plate 5 held to the base by bolts 6 and provided with numerous perforations 7 whereby air from the atmosphere finds ready passage into the interior of the casing 1. The top of the casing 1 carries a crown ring 8 provided with an opening surrounded by a ledge 9 for the reception of a removable lid 10. The crown ring 8 is arranged to carry a cap or dome 11 such as is customarily provided in gas stoves, and this may be made of ornamental configuration to enhance the appearance of the stove. Also the casing 1 has top and bottom series 12 and 13 of perforations for the entrance of air into the casing at the lower end and the escape of air from the casing at the upper end.

Within the casing 1 there is lodged a drum or cylinder 14 having its upright walls provided with series 15, 16, 17 and 18 of perforations, such perforations being preferably of like size and extending circumferentially of the drum 14. At the lower end the drum is formed with legs 19 spaced apart, some of the legs having extensions 20 passed through suitable perforations in the bottom plate 5 and anchored to said bottom plate by pins 21 traversing the legs, or in any other suitable manner, preventing accidental displacement of the drum.

At different levels in the drum there are located plates 22, 23 and 24, and the drum has a cover plate 25. The plates 22 and 23 are each provided with a central passage 26 with jointed strips 27 traversing and dividing the passage 26 into a circular series of separate passages, each plate 22 and 23 having in the particular construction shown, three strips 27 and three passages 26, the plates being so arranged that the passages and strips of one plate alternate with those of the other in the direction of the height of the stove as seen in Fig. 5. The plate 24 (Fig. 6) is formed with a central passage 28 with a surrounding series of perforations 29 between the central passage 28 and the outer margin of the plate.

The plate 25 (Fig. 4) which constitutes the top of the drum 14 is formed with numerous perforations 30 constituting the only

passages through the plate and so arranged as to include the entire area of the plate.

Each of the plates 22 to 25 is provided with marginal tongues 31 shown in Figs. 2, 3, 4 and 8, which tongues are extended through perforations 32 in the upright wall of the drum 14 and are appropriately bent to fasten the plates in place and at the same time support these plates.

Within the casing 1, at a short distance above the plate 5, are brackets 33 projecting toward the longitudinal section line of the casing and designed to support a burner 34 having a pipe 35, which may be of the Bunsen type, extending to the exterior of the casing and there connected to a gas supply pipe 36 and including a controlling valve 37.

Through one side of the casing 1 adjacent to the burner 34 is a passage 38 of such size as to readily admit a lighted match, and sufficiently close to the burner so that with the gas turned on the gas jets issuing from the burner may be lighted from the exterior of the drum 14, the hole 38 being close to one of the passages between the legs 19 of the drum.

While the drum 14 is indicated as being made of sheet material, such as sheet metal, it is to be understood that it may also be made of fire brick, the two structures differing in material and to an extent in operation in that the fire brick takes longer to heat and will retain heat longer than sheet metal, but otherwise it is immaterial whether fire brick or sheet metal be employed, except that in the case of fire brick the weight of the stove as a whole is greater than when sheet metal is used.

The first plate over the burner, namely, the plate 24, is made of heavier gage metal than the next higher plate 23, and so to the top plate. This is because the plate 24 is subjected to more intense heat than the succeeding plates higher up.

The stove is readily adaptable, with gas as the heating agent, for either or both heating and cooking, no unpleasant odors occurring, while the arrangement of the plates and perforations in the drum or mantle causes perfect combustion and efficient radiation of heat throughout all parts of the stove.

What is claimed is:

1. A gas stove comprising a heat radiating casing, a drum within the casing spaced from the side walls thereof, said drum having superposed series of circumferentially arranged passages through its upright wall, and division plates or partitions in superposed order within the drum, with each plate carried by the drum immediately below a corresponding circumferentially arranged series of passages, the lowermost plate or partition having a central passage through it with surrounding perforations, the higher plates having passages through them smaller than the central passage through the lowermost plate and in staggered relation, and the top of the drum being provided with numerous small passages or perforations therethrough, the plate nearest the heating element being of heavier gage than the plate above the same and so on up to the top plate.

2. A gas stove comprising a heat radiating casing, a drum within the casing spaced from the side walls thereof, said drum having superposed series of circumferentially arranged passages through its upright wall, and division plates or partitions in superposed order within the drum, with each plate carried by the drum immediately below a corresponding circumferentially arranged series of passages, the lowermost plate or partition having a central passage through it with surrounding perforations and higher plates having passages though them smaller than the central passage through the lowermost plate and in staggered relation, and the top of the drum being provided with numerous small passages or perforations therethrough, each plate also having tongues projecting therefrom and the drum having passages for receiving the tongues to support and anchor the plates in place in the drum.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature.

JOHN S. E. PANASEVITCH.