W. J. SHULTS.

OIL STOVE.

APPLICATION FILED FEB. 23, 1912.

1,075,948. Patented Oct. 14, 1913.

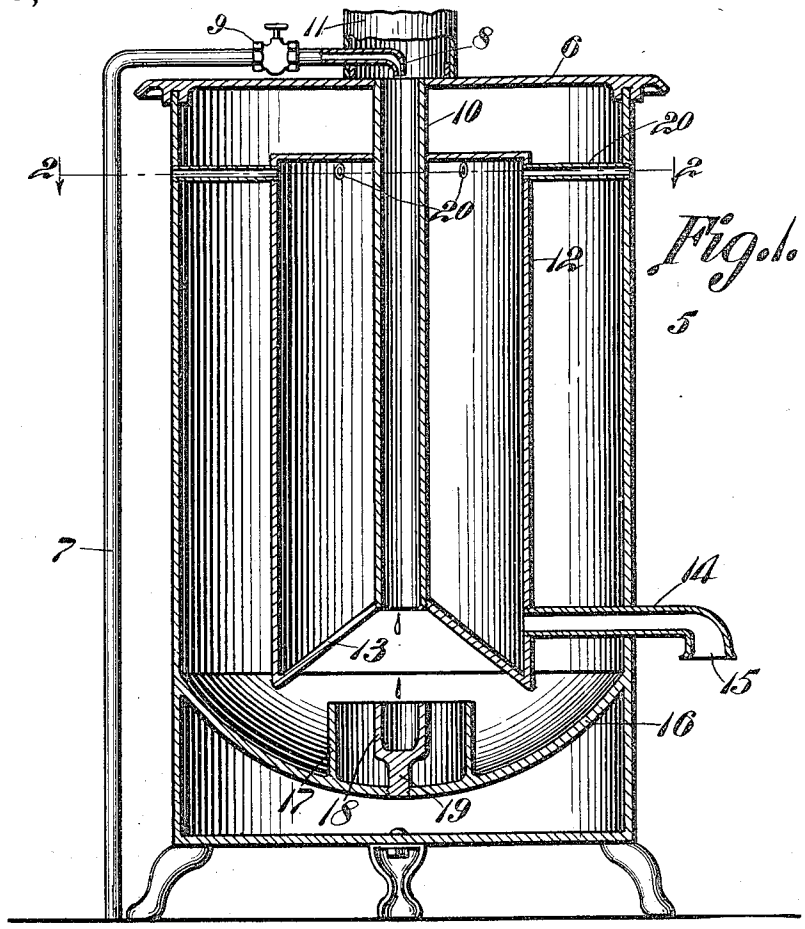


Fig. 1.

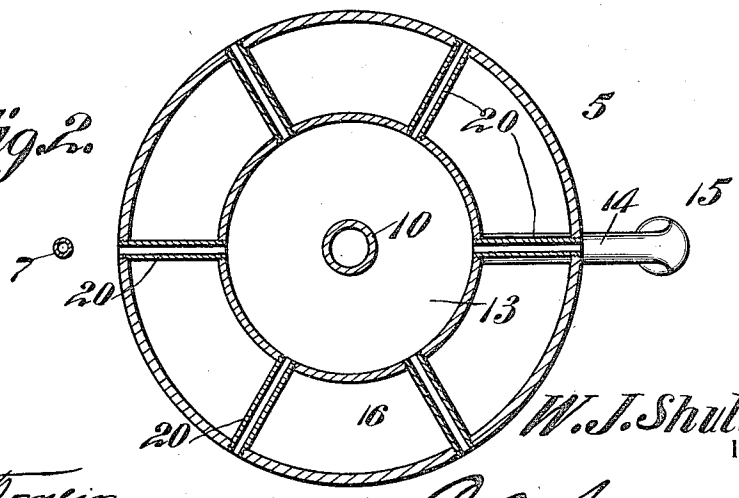


Fig. 2.

Witnesses

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OIL-STOVE.

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To all whom it may concern:

Be it known that I, WILLIAM J. SHULTS, a citizen of the United States, residing in the township of Osage, county of Labette, and State of Kansas, have invented a new and useful Oil-Stove, of which the following is a specification.

This invention relates to oil or hydrocarbon stoves and contemplates the provision of a simple and efficient stove for burning oil or other hydrocarbon or liquid fuels.

The present invention also aims for the production of such a stove wherein a downdraft drip pipe is passed through a heating drum to support combustion at the bottom and around the sides of the drum for effectively heating the drum.

Another object is to provide a stove wherein a high degree of combustion shall result, and which shall consume any waste or foreign matter, or smoke.

To the above and other ends, this invention resides in the construction and combination of parts elicited in the following description and pointed out in the appended claim, it being understood that this device is susceptible of alterations or deviations in its details within the scope of the appended claim without departing from the spirit of the invention.

The preferred embodiment of the present invention is illustrated in the accompanying drawings, wherein similar reference characters indicate similar parts, and wherein:

Figure 1 is a vertical section of the stove, part of the stove pipe being broken away. Fig. 2 is a section on the line 2—2 of Fig. 1.

Referring in detail to the drawings, the numeral 5 designates an air tight cylindrical casing having the top or cover 6 and having a dished or concaved false bottom 16. An air or heating drum 12 is arranged concentrically within the casing 5 and has the upper and lower ends thereof spaced a short distance from the top 6 and the false bottom 16 of the said casing. This drum 12 has a conical bottom 13, and a down draft drip pipe 10 is attached to the top 6 of the casing passes through the upper end of the drum and is connected to the apex of the conical bottom 13, so as to communicate through the apex of the said conical bottom. The drum 12 is provided with an inlet pipe 14 connected thereto adjacent its lower end and passing through the casing 5, and which has the outer end thereof deflected downwardly in the form of a bell-mouth 15, and a plurality of radial outlet pipes 20 are connected to the drum 12 adjacent its upper end and are connected to the casing 5. A drip cup 18 is supported below the lower end of the downdraft drip pipe 10, the said drip cup having a stem or shank 19 screw-threaded into the bottom 16, and a baffle ring 17, which is of equal diameter throughout, rises from the bottom 16 and is spaced from and encompasses the drip cup 18, the drip cup and baffle ring having their upper ends in the same horizontal plane and terminating below the conical bottom 13. A fuel supply pipe 7 bearing a suitable valve 9 for controlling the passage of fuel therethrough passes over the top of the casing and has a nozzle 8 projecting over the upper end of the down draft drip pipe 10, whereby the fuel may be dripped down the pipe 10 and into the cup 18. The usual stove pipe 11 is also connected to the top 6 of the casing 5 to carry off the gases, and create a downward draft through the pipe 10 and an upward draft around the drum 12.

In use, to start the combustion of fuel within the stove, a piece of paper, rag or the like, is placed on the drip cup 18 and the fuel is permitted to drip slowly from the nozzle 8, and the paper, rag or the like is ignited by a match or the like inserted into the casing in order to evaporize the fuel dripping down the pipe 10. The flames will be carried outwardly below the bottom 13 of the air or heating drum 12 and then upwardly around the sides thereof, and the baffle ring 17 projecting upwardly from the bottom 16 projects into the path of the flames to arrest the lower portions of the flame, thereby heating the said baffle ring and the drip cup 18. The drip cup 18 being heated assists in the generation of the fuel into a vapor for supporting the combustion of the fuel, and the baffle ring 17 being heated assists in the consumption of any waste or foreign matter, and the smoke. Air is admitted into the drum 12 through the inlet pipe 14 and the air in passing into the drum 12 becomes heated and then passes out through the outlet pipes 20 to heat the room, or the like in which the stove is placed. After the combustion of the fuel has started, the supply of fuel may be increased through the nozzle 8 by opening the valve 9 farther, and by regulating the flow of the liquid through the valve 9 the heat may be increased or decreased in pro-

portion to the amount of fuel consumed, and the flames in passing outwardly below the bottom 13 of the drum and upwardly around the sides and top thereof effectively heat the drum, the conical bottom 13 tending to retain the flames thereunder and thereby increase the heating effect of the flames. In this manner a high degree of combustion will result for the production of a maximum heating effect in proportion to the supply of fuel.

Having described the invention, what is claimed as new is:—

An oil stove embodying an imperforate cylindrical casing having an integral imperforate bottom and a raised integral imperforate concaved false bottom, the false bottom having an integral upstanding concentric baffle ring, a heating drum suspended concentrically within the casing and having a conical bottom of greater diameter than and overhanging the baffle ring, a down draft drip pipe passing through the drum and connected to the apex of the conical bottom, and a drip cup within the baffle ring having a shank engaging through the false bottom.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM J. SHULTS.

Witnesses:
JOHN T. RING,
A. M. HOUGH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."