

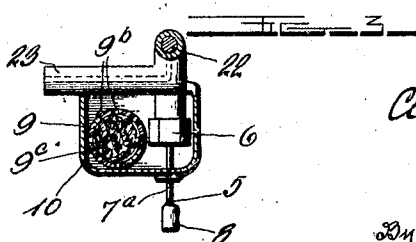
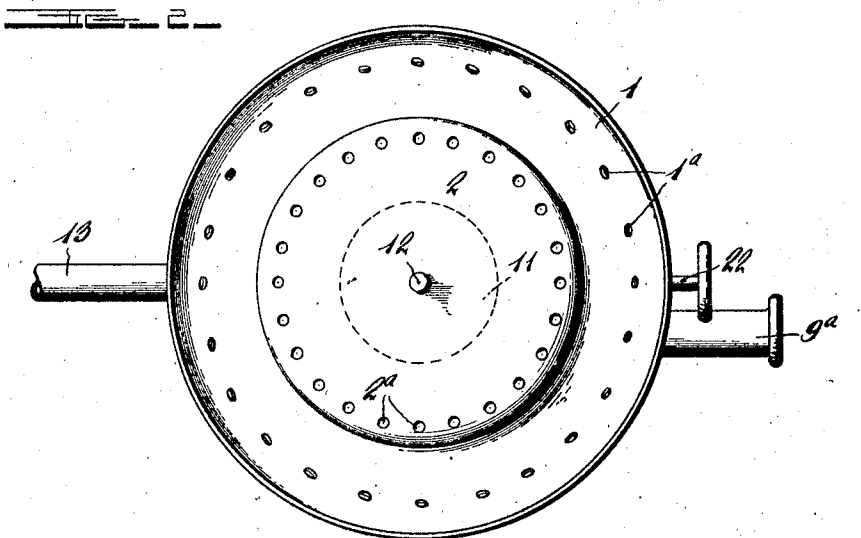
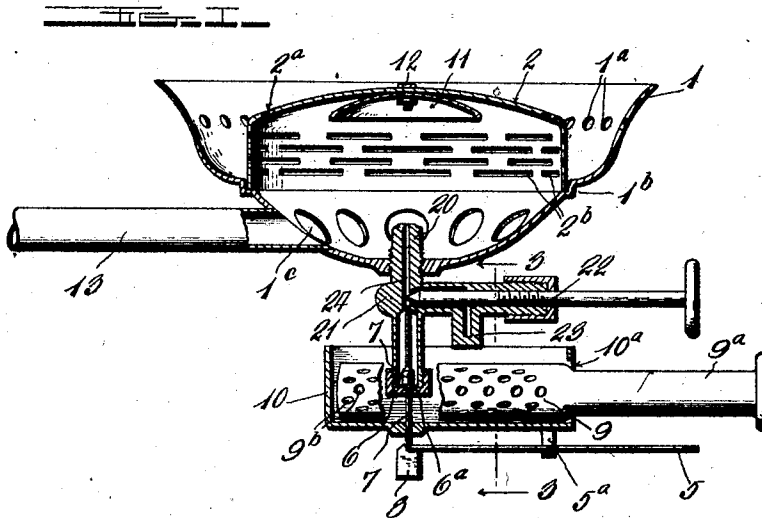
Jan. 15, 1924.

1,480,628

C. W. MUMMERY

OIL BURNER

Filed Nov. 27, 1922



Inventor

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UNITED STATES PATENT OFFICE.

CLYDE W. MUMMERY, OF RICHMOND, MICHIGAN.

OIL BURNER.

Application filed November 27, 1922. Serial No. 603,557.

To all whom it may concern:

Be it known that I, CLYDE W. MUMMERY, citizen of the United States, residing at Richmond, in the county of Macomb and State of Michigan, have invented certain new and useful Improvements in Oil Burners, of which the following is a specification.

This invention relates to oil burners suitable for burning kerosene, gas, or other hydrocarbons, and it is intended especially for use in camping stoves and heating stoves altho it may be used elsewhere if desired.

The particular features of improvement relate first to the means for starting the generation of vapor; second to the means for cleaning out the valve or to dislodge and remove carbon deposits and the like; and third to the special construction of the burner body and cap. Other details of improvement will be apparent from the following description and the accompanying drawings.

In the drawings, Fig. 1 is a vertical section of a burner containing the improvement, Fig. 2 is a top plan view thereof, Fig. 3 is a section on the line 3—3 of Fig. 1.

In the drawings, the body of the burner comprises a cup shaped casing indicated at 1 having an outwardly flared or expanded upper edge provided with air holes 1^a spaced apart around the same. This cup has a seat 1^b on which rests the burner cap 2 with a downwardly extending flange the lower edge of which rests on said seat. The top of the cap has holes 2^a and the flange of cap has slits 2^b, these holes and slits being spaced apart at suitable distances around the cap. Beneath the cap the cup 1 has a plurality of holes 1^c which are rather large in size, and admit the main supply of air into the mixing chamber under the cap.

The cup shaped body is screwed on a threaded nipple 20 projecting from a valve casing 21 containing the needle valve 22 and connected by the nipple 23 with any suitable source of fuel supply, not shown, such as a pressure tank or the like. It will be noted that the needle valve opening connects with a vertical bore 24 in valve casing, which has a depending extension on which is screwed a cupped member 6 which contains a valve seat 6^a. Cooperating with this seat is a valve plug 7 mounted on a wire 7^a which may be worked up and down across the

needle valve opening, in the passage 24.

This wire extends downwardly thru the fitting 6 and is provided at its lower end with a weight 8 which holds the valve 7 closed against the seat 6^a, and the wire is also connected to a lever 5 which may be vibrated to work the wire up and down in the valve casing, the lever being pivoted at 5^a to a lug on the bottom of a cup 10 which is attached to the valve casing and is supported directly thereunder.

This cup 10 is open at one side as indicated at 10^a to permit the insertion thereinto of a starter or lighter which consists of a tubular member 9 with a handle 9^a at its outer end and which is perforated at its inner end as indicated at 9^b, and contains a filling of asbestos wicking 9^c in perforated part.

The cup 1 is connected by an aluminum rod 13 with another burner of similar construction, so that heat is conducted from one burner to the other and it will be unnecessary to use a starter in both.

In operation, the starting device 9 is removed from the burner and dipped into alcohol or the like and lighted with a match and then inserted in the cup 10. This will heat the parts and start the generation of vapor which is discharged thru the jet hole at the top of the nipple 20 into the burner body where it impinges against an inverted cup shaped deflector 11 secured to the top of the burner cap by a screw 12. This distributes or atomizes the fuel which escapes thru the holes and slits in the burner cap, air being supplied thru the holes 1^c in the body of the burner under the cap as well as thru the holes in the rim of the body.

When it becomes necessary to clean the valve or carbon or other deposits a lever 5 is vibrated thereby raising or lowering the wire 7^a and working the same across the needle valve opening. When the lever is released the weight 8 closes valve 7 against the seat 6^a, thereby preventing any leakage at the bottom while the burner is in operation. The flared flange at the top of cup 1 serves to prevent the wind blowing out the flame whereby the burner is particularly serviceable on camp stoves or where it is exposed to strong drafts.

The invention is not limited to the particular details shown, but various changes may be made within the scope thereof.

I claim:

1. A burner comprising a valve casing, a cupped body mounted thereon and having an outwardly flared perforated rim, and a burner cap seated in the body, said cap having a depending slotted flange, the body having air holes therein below the cap.

2. A burner having a valve casing with a passage therein extending transversely of the valve seat, and a cleaning wire movable in said passage, across said seat.

3. A burner as set forth in claim 2, said passage having a valve seat near its outer end, and a valve mounted on said wire and adapted to close against said seat.

In testimony whereof, I affix my signature in presence of two witnesses.

CLYDE W. MUMMERY.

Witnesses:

E. T. CONGDON,
EARLE M. FRENCH.