

No. 737,649.

PATENTED SEPT. 1, 1903.

A. F. MURPHY.

OIL BURNER.

APPLICATION FILED DEC. 20, 1902.

NO MODEL.

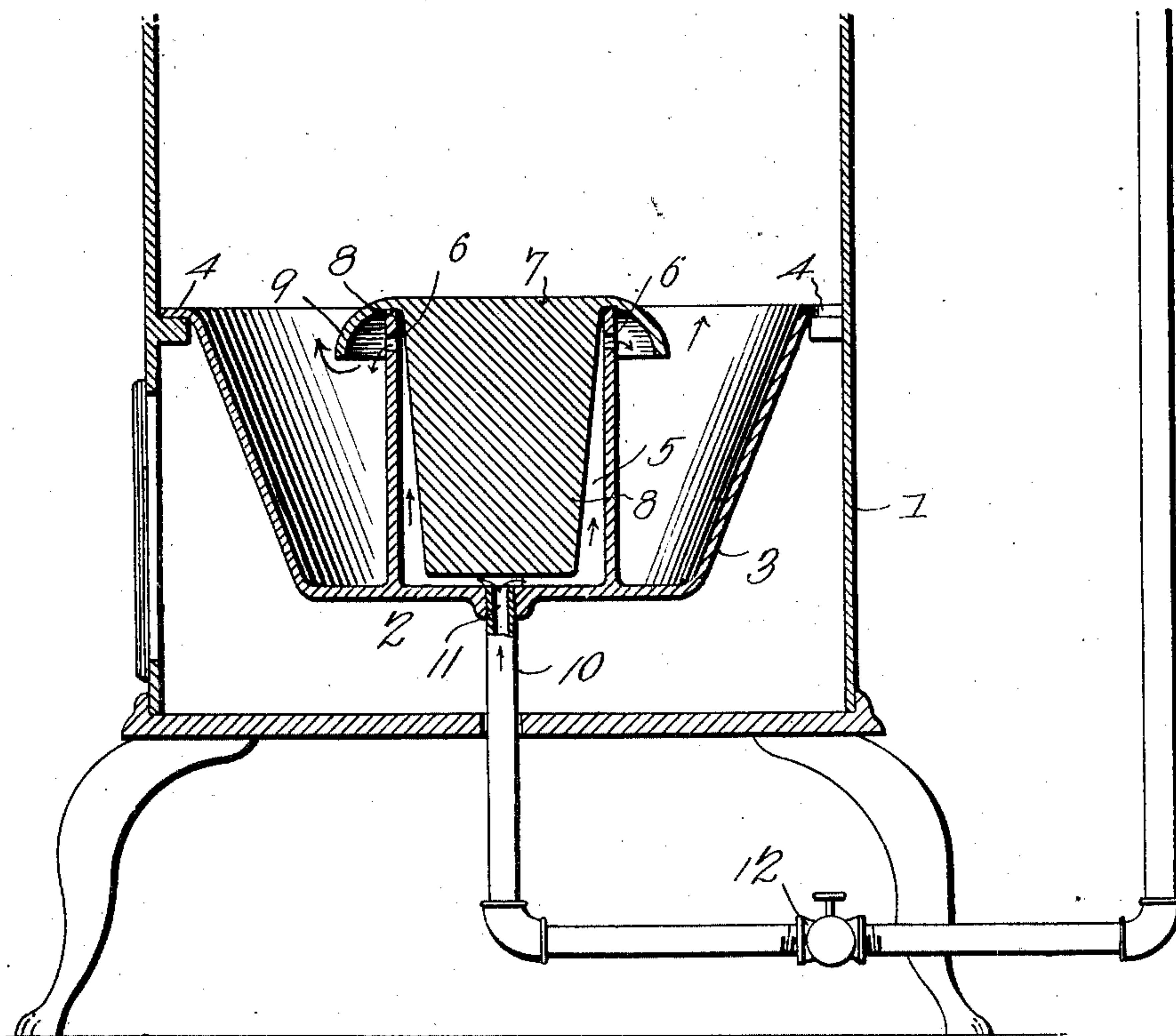


Fig. 1.

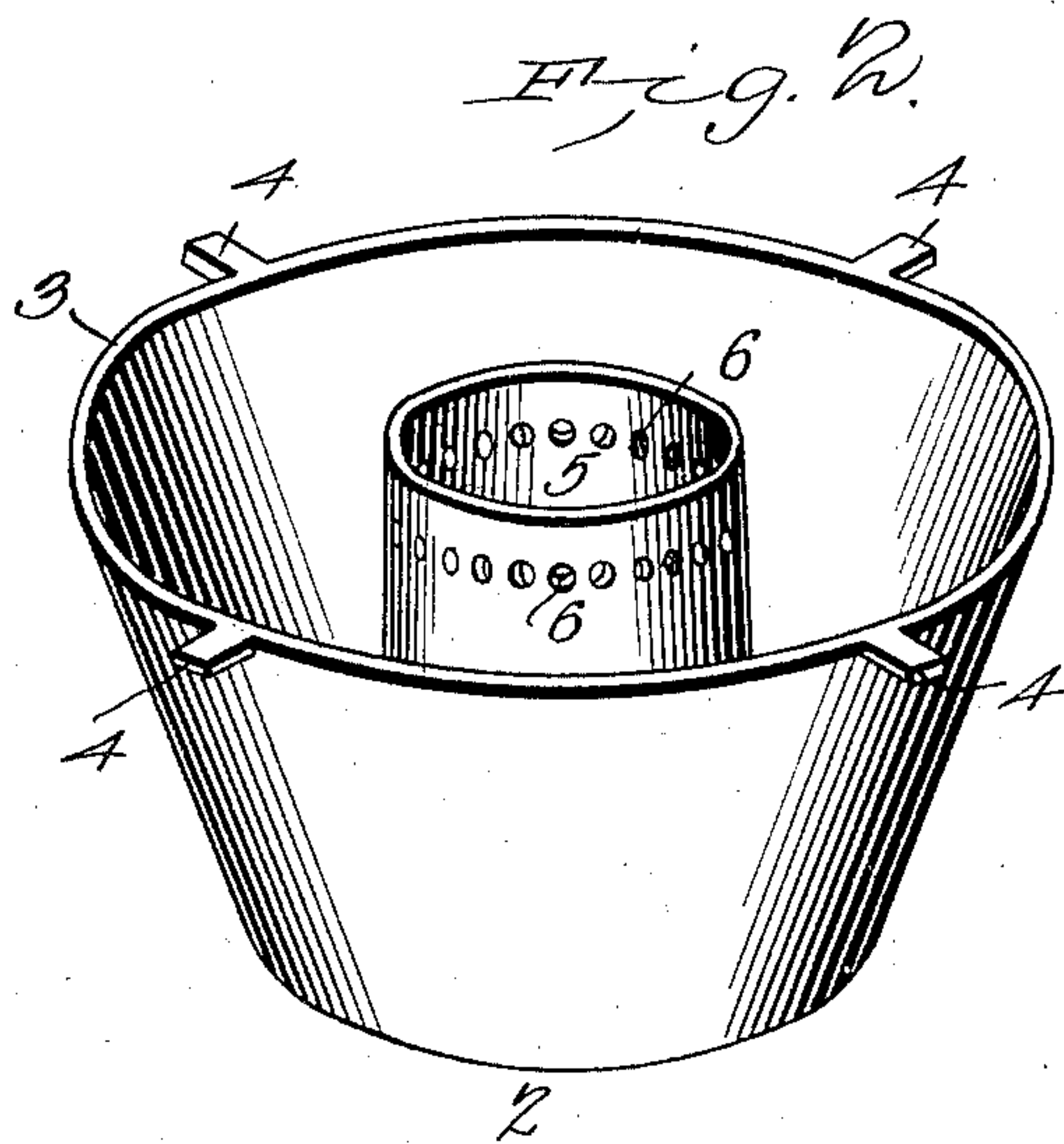


Fig. 2.

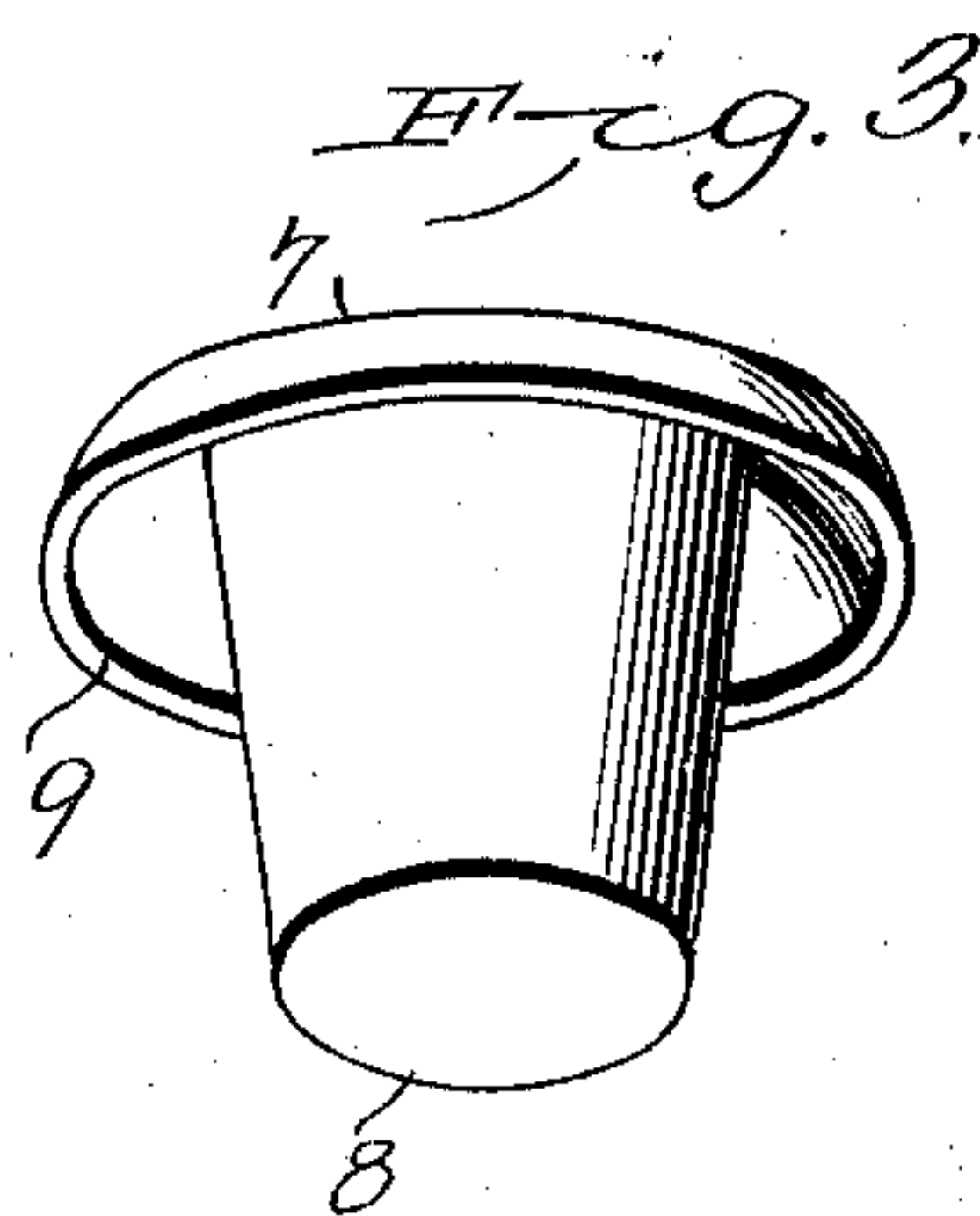


Fig. 3.

Witnesses
E. J. Stewart
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UNITED STATES PATENT OFFICE.

ALFONSO F. MURPHY, OF CLEBURNE, TEXAS.

OIL-BURNER.

SPECIFICATION forming part of Letters Patent No. 737,649, dated September 1, 1903.

Application filed December 20, 1902. Serial No. 136,071. (No model.)

To all whom it may concern:

Be it known that I, ALFONSO F. MURPHY, a citizen of the United States, residing at Cleburne, in the county of Johnson and State of Texas, have invented a new and useful Oil-Burner, of which the following is a specification.

My invention relates to oil-burners, and has for its object to produce a device of this nature which will be simple of construction, efficient in operation, and in which no air can reach the burner proper except at the point of combustion.

To these ends the invention comprises in an oil-burner the combination with a base-pan wholly closed except at its top, of a cup seated in the pan, said cup being of a height substantially equal to the depth of the pan, and a cap seated over the cup, whereby the cup is completely protected from air except at its top or combustion-point.

The invention further consists of the details of construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a sectional elevation showing my device as applied to a stove. Fig. 2 is a perspective view of the burner, the top being removed. Fig. 3 is a bottom perspective of the cap.

Referring to the drawings, 1 indicates a stove in which is mounted the burner 2. The burner is provided with a base-pan 3, which may be any suitable form, but preferably cylindrical, as in the drawings. This pan is provided at its top with lugs 4, which engage suitable lugs on the wall of the stove for supporting the pan and retaining the same distant from the sides of the stove to permit of the ready passage of air. Formed in the pan and integral therewith is a cup 5. This cup comprises a vertical cylinder, provided near its upper end with suitable orifices 6. Mounted upon the cup is a cap 7, having a central depending lug or core 8, which enters the top of the burner and prevents lateral displacement of the parts, and with a depending and outwardly-projecting flange 9, which extends downward a sufficient distance to protect the orifices 6 in the burner. The core 8 extends downward in the burner to a point sufficiently near its bottom for the oil upon its entry into the burner to contact with the hot metal of

the core and be vaporized. The vapor passes upward between the sides of the burner and core and out through the orifice 6.

10 is the oil-pipe, which enters the bottom of the burner, as at 11, for delivering oil thereinto in the usual manner.

12 is a suitable cut-off in the oil-pipe.

The operation of the device is as follows: The operator first turns on the oil, permitting it to flow into the cup 5 until the same is properly flooded. The flow of oil is then cut off and the oil in the burner lighted. When the burner has become sufficiently heated, the oil is again turned on and becomes vaporized in the usual manner by contact with the hot metal of core 8 and passes upward and outward through the holes 6 and beneath the flange 9 of the cap. The air enters the stove through the usual ventilators, passes upward between the walls of the stove and the pan 3, then downward beneath the flange 9 of the cap, where it becomes heated and mixes with the heated oil-vapor, thus establishing perfect combustion.

It will be observed that as there is no air-opening in the base-pan it is impossible for the air to reach the burner except at the top or combustion-point. By my construction I produce a device which will burn the oil in a perfect manner, consuming the soot and other impurities, thus preventing smoke, odor, or the like. In attaining this end I believe myself to be the first to produce a burner in which the air can reach the burner proper only at the combustion-point, and I do not, therefore, limit myself to the precise details herein shown, as various minor changes may be made therein without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an oil-burner, the combination with a base-pan wholly closed except at its top, of a cup seated in the pan provided with burner-openings, said cup being of a height substantially equal to the depth of the pan, and a cap seated over the cup; whereby the cup is completely protected from air except at its top or combustion-point.

2. In an oil-burner, the combination with a base-pan wholly closed except at its top, of

a cup proper seated in the pan, said cup formed integral with the pan and provided with burner-openings and being of a height substantially equal to the depth of the pan, and a removable cap seated over the cup.

3. In an oil-burner, the combination with a base-pan wholly closed except at its top, of lateral supporting-lugs formed at the top of the base-pan and adapted to sustain the same distant from the walls of a stove, a cup seated in the pan and provided with burner-openings, said cup being of a height substantially equal to the depth of the pan, and a cap seated over the burner.

4. In an oil-burner, the combination with a base-pan wholly closed except at its top, of

a cup seated therein and provided with burner-openings, and a removable cap adapted to be seated over the cup and having a central core to enter the cup.

5. In an oil-burner, the combination with a base-pan wholly closed except at its top, of a cup seated therein and having lateral orifices formed near its top, and a cap having a flange adapted to protect said orifices.

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

ALFONSO F. MURPHY.

Witnesses:

D. A. ROSS,

W. E. KILLOUGH.