No. 649,111. Patented May 8, 1900.

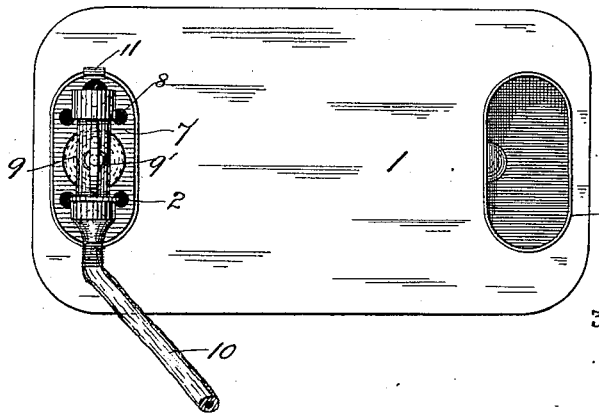
F. SCHIFFERLE.

WATER HEATER.

(Application filed Aug. 9, 1899.)

(No Model.)

Fig. 1.



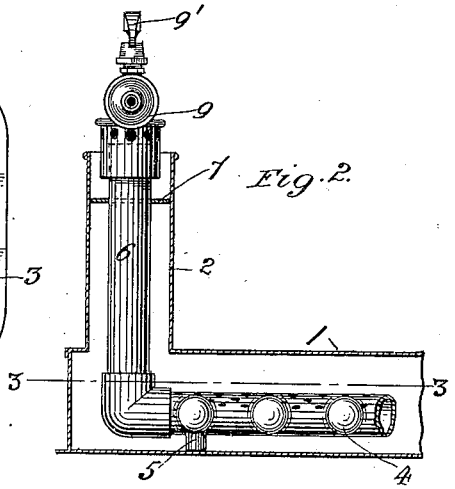


Fig. 2.

Fig. 3.

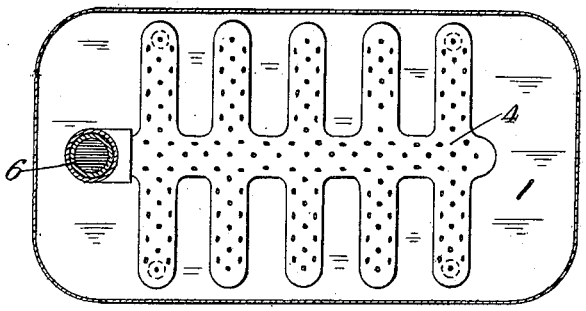


Fig. 4.

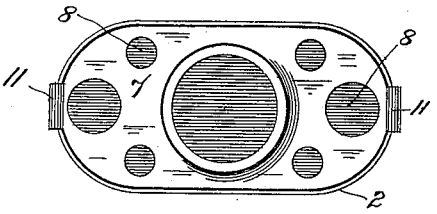


Fig. 5.

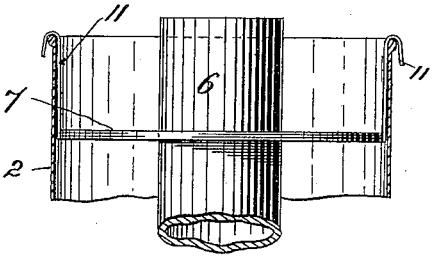
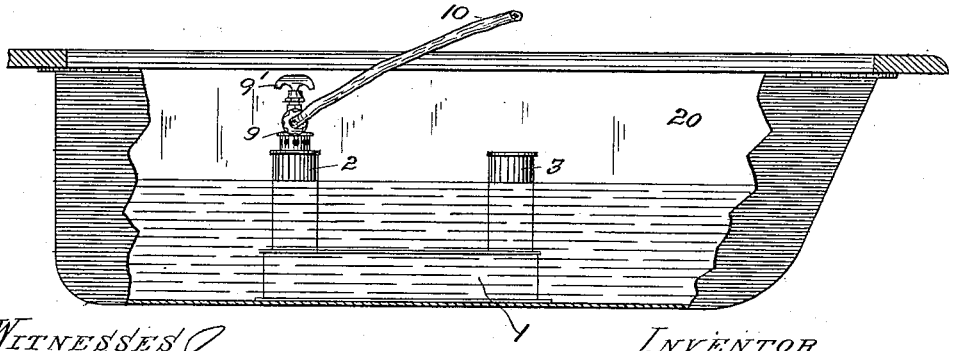


Fig. 6.



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UNITED STATES PATENT OFFICE.

FRIDOLIN SCHIFFERLE, OF ST. LOUIS, MISSOURI.

WATER-HEATER.

SPECIFICATION forming part of Letters Patent No. 649,111, dated May 8, 1900.

Application filed August 9, 1899. Serial No. 726,679. (No model.)

To all whom it may concern:

Be it known that I, FRIDOLIN SCHIFFERLE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Water-Heaters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in water-heaters; and it consists in the novel construction and arrangement of parts more fully set forth in the specification and pointed out in the claim.

In the drawings, Figure 1 is a top plan of the heater. Fig. 2 is a middle vertical longitudinal section taken through the casing, the burner being shown in elevation, the casing and burner being, however, both broken away. Fig. 3 is a horizontal section on line 3 3 of Fig. 2, showing the section of the entire casing and top plan of the entire base of the burner. Fig. 4 is a top plan of the air-inlet flue, showing the upper end of the gas-pipe and centering-plate through which the pipe projects, the burner valve-casing being removed. Fig. 5 is a side elevation of the centering-plate and upper end of the pipe passing through it, the air-inlet flue being shown in section; and Fig. 6 is a side elevation of the heater shown submerged within a tub of water, the walls of the tub being shown broken away.

The object of my invention is to construct a heater which is portable and which can be partially submerged within a vessel, tub, or tank of water, the heat from the casing of the heater gradually raising the temperature of the water to any desirable degree.

In detail the invention may be described as follows:

Referring to the drawings, 1 represents a hollow casing or drum of any convenient shape or configuration, the same being provided with an air-inlet flue 2 at one end and an outlet-flue 3 at the opposite end. Within the casing 1 and relatively in a plane below the bases of the flues 2 and 3 is confined a gas or vapor burner 4, of any of the prevailing forms, the burner being supported above the floor-casing by legs or knobs 5 to allow for the free circulation of air about the pipes of the burner. Leading to the burner-pipes is a gas-supply pipe 6, which passes through the inlet-flue 2 and is centrally disposed and held therein by a centering-plate 7, through an opening of which the upper end of the pipe projects. The plate 7 is provided with perforations or openings 8 for the free passage of air therethrough into the interior of the casing. Coupled to the upper projecting end of the pipe 6 is the valve-casing 9 of the ordinary Bunsen-burner type, to the nozzle of which is adapted to be coupled any gas tube or hose 10, leading to any gas-fixture. (Not shown.) The centering-plate 7 is suspended within the flue 2, from the upper edge of the latter by means of arms 11, which hook over the said edge, as best seen in Fig. 5. In this way the plate may be readily removed and replaced should occasion arise to make repairs to the heater. The flues 2 and 3 are substantially equal as to height, and when the heater is submerged the upper ends of the flues are allowed to remain above the water-line, as best seen in Fig. 6, in which 20 represents a tub of ordinary construction. The gas is turned on by the cock or valve 9′ and lighted over the burner-pipes by inserting a lighted stick into the casing through the flue 3.

While I have here shown a gas-burner confined within the casing, I do not limit myself thereto, as any other form of burner would answer the same purpose, such as gasoline-burners and the like. Neither do I wish to be confined to the precise form of the casing, as any suitable shape will answer the same purpose.

Having described my invention, what I claim is—

A water-heater comprising a hollow casing, an air-inlet, and an escape-flue leading from the same, a burner confined within and supported a suitable distance above the bottom of the casing, and located in a plane relatively below the bases of the aforesaid flues, a gas-supply pipe projecting from the heater through the air-inlet flue, a detachable cen-

tering-plate holding said pipe in position, the plate being perforated around the pipe for the free admission of air into the casing, upwardly-extending arms forming a part of the plate and having hooked ends loosely embracing the upper edges of the air-inlet flue whereby the same is readily detachable, and a valve-casing carried by the pipe above the centering-plate, the parts operating substantially as and for the purpose set forth.

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

FRIDOLIN SCHIFFERLE.

Witnesses:
EMIL STAREK,
G. L. BELFRY.