

No. 683,073.

Patented Sept. 24, 1901.

**F. SCHIFFERLE.
WATER HEATER.**

(Application filed May 17, 1901.)

(No Model.)

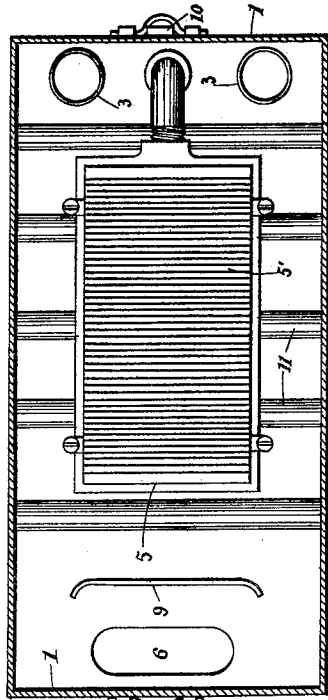


Fig. 2.

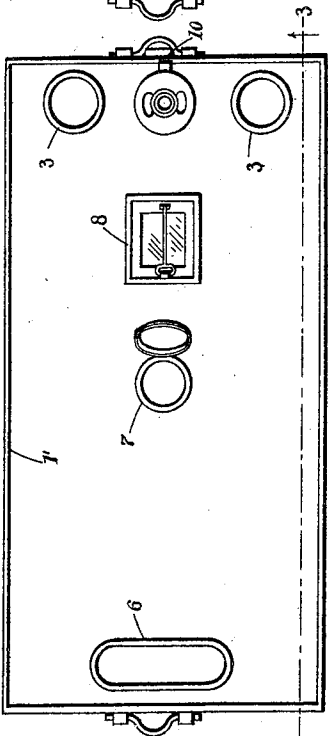


Fig. 1.

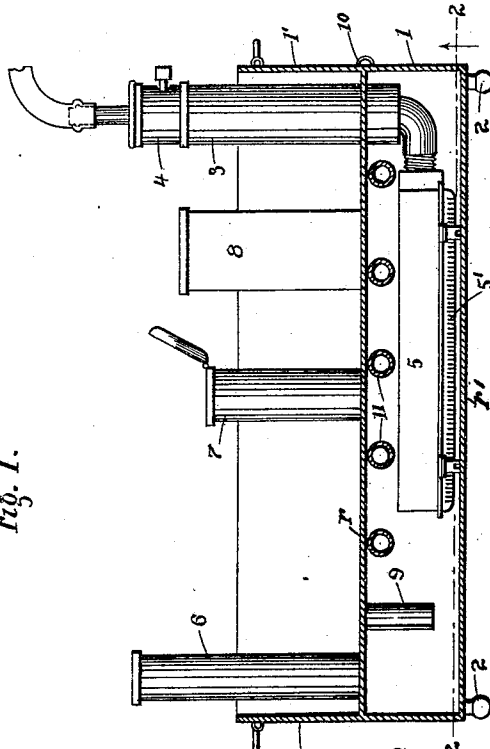


Fig. 3.

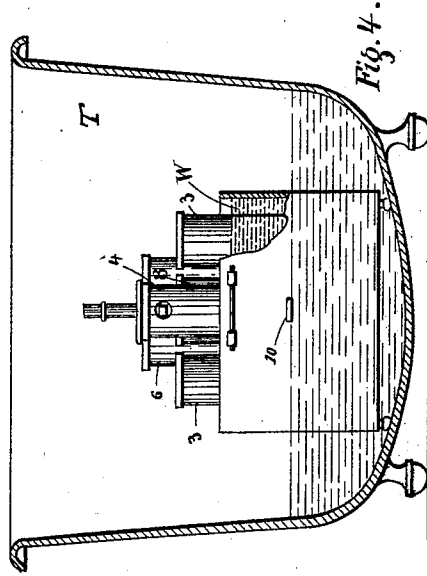


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

FRIDOLIN SCHIFFERLE, OF ST. LOUIS, MISSOURI.

WATER-HEATER.

SPECIFICATION forming part of Letters Patent No. 683,073, dated September 24, 1901.

Application filed May 17, 1901. Serial No. 60,702. (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, 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 of heater more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a top plan of the heater. Fig. 2 is a horizontal section on line 2 2 of Fig. 3 looking up. Fig. 3 is a vertical section on line 3 3 of Fig. 1, and Fig. 4 is an end view showing the device partially submerged in water in a bath-tub.

The present invention is an improvement on the heater shown and described in United States Letters Patent issued to me under date of October 2, 1900, numbered 658,963, and has for its object to increase in a measure the efficiency of the heater and to simplify the means by which the same is held submerged in the water intended to be heated. It presents further and other advantages better apparent from a detailed description of the invention, which is as follows.

Referring to the drawings, 1 represents a hollow casing of any convenient shape or configuration supported on legs 2 and being provided at one end with a series of air-inlet flues 3, projecting from the top wall or roof r of the casing and extending a suitable distance below said roof to effect a better distribution of the inflowing air within the casing. Located along the medial longitudinal line of the casing and between the flues 3 is a tube 4 for the reception of the feed-pipe, (not shown,) which is coupled to the burner 5, mounted in the casing. Like in my patent referred to, the burner is composed of a closed pan or casing provided with a cover-plate having a series of transversely-cut parallel slits 5', through which the flame issues; but in my present device the cover-plate forms the bottom of the burner instead of the top, the flame being thus directed

against the base or bottom wall r' of the casing and the products of combustion being utilized to better advantage than in my patented construction. The escape-flue 6, the lighting-tube 7, and testing or sight tube 8 are the same as in my patented construction, as is also the deflecting wall or plate 9.

In my present improvement in order to keep the casing weighted down when placed into a bath-tub (see Fig. 4) I extend the vertical walls of such casing beyond the roof thereof to a point slightly below the height of the lowest tube 7 of the series projecting from the roof of the casing, such extension-walls 1' forming a basin into which a sufficient quantity of water W may be initially poured to keep the casing down in the water which is subsequently turned on in the tub. The water in the tub is not generally permitted to rise above the water-mark 10, which is in the form of a short tube or lip painted, preferably, red. In order to reduce the time necessary to heat the water in the tub T , I may provide the heater with a series of transverse water-tubes 11, located between the side walls of the combustion-chamber between the deflecting-wall 9 and flues 3 3 and tube 4 and lying in a plane below the water-mark 10, the water circulating through said water-tubes, as is obvious.

It is of course apparent that any and all equivalents fall within the spirit of my present invention.

Having described my invention, what I claim is—

1. A water-heater comprising a hollow casing having top and bottom walls, and vertical walls connecting the same, a burner located within the casing, the vertical walls of the latter being extended a suitable distance above the top wall or roof of the casing thereby forming a basin to be filled with water for purposes of weighting down the casing, substantially as set forth.

2. A water-heater comprising a hollow casing, a series of air-inlet flues and an escape-flue leading from the same, a burner within the casing, the vertical walls of the casing being extended a suitable distance above the roof thereof but below the top of the flues,

thereby forming a basin adapted to be filled with water for purposes of weighting down the casing, substantially as set forth.

3. A water-heater comprising a hollow casing, a series of air-inlet flues and an escape-flue leading from the same, a burner confined within the casing, a series of water-tubes disposed across the casing above the burner, the vertical walls of the casing being extended a
5
10 suitable distance above the roof thereof but

below the top of the flues thereby forming a water-basin adapted to weight down the casing substantially as set forth.

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

FRIDOLIN SCHIFFERLE.

Witnesses:

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