

No. 694,660.

Patented Mar. 4, 1902.

E. J. MULLER.
WATER HEATER.

(Application filed Aug. 10, 1901.)

(No Model.)

Fig. 1.

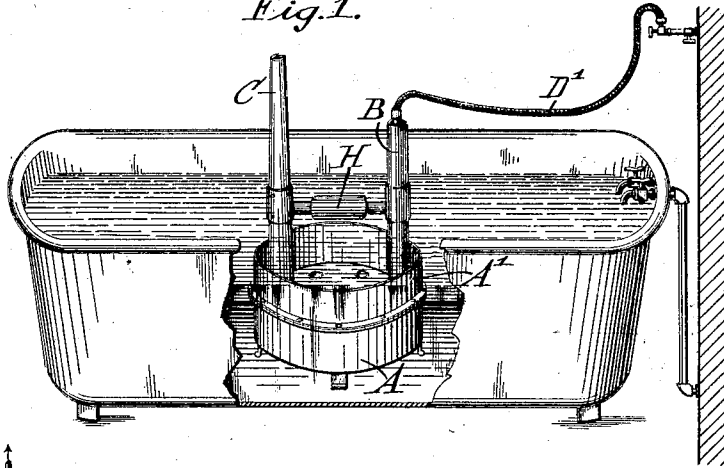


Fig. 2.

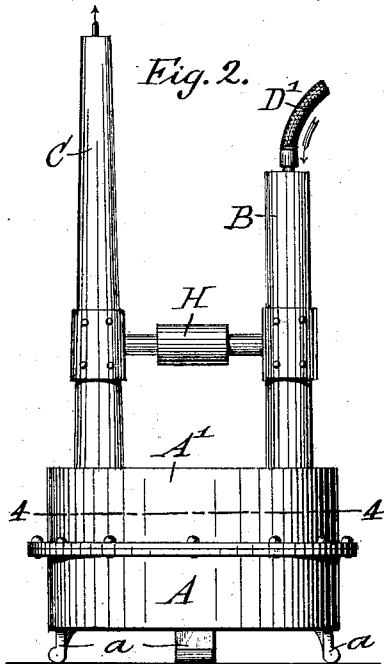


Fig. 3.

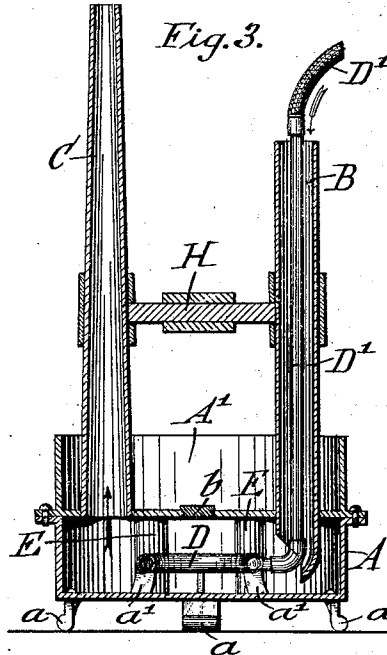
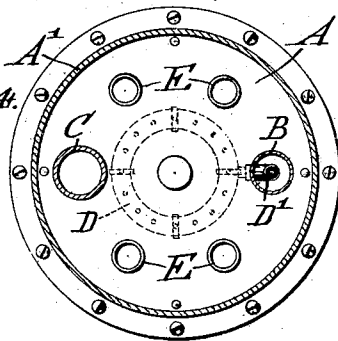


Fig. 4.



WITNESSES:

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WATER-HEATER.

SPECIFICATION forming part of Letters Patent No. 694,660, dated March 4, 1902.

Application filed August 10, 1901. Serial No. 71,560. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. MULLER, a citizen of the United States, residing in New York, borough of Brooklyn, in the State of New York, have invented certain new and useful Improvements in Water-Heaters, of which the following is a specification.

This invention relates to an improved water-heater which is intended to be used for heating the water in a bath-tub or other vessel in a quick and effective manner.

During the summer months it is frequently the case that the use of the kitchen-range is discontinued and the cooking done upon a gas-range or otherwise. In this case no hot water is supplied to the bath-tubs, &c.

The object of this invention is to supply a handy and convenient device by which water can be heated quickly and conveniently either in a bath-tub, washboiler, or other vessel; and the invention consists of a water-heater which comprises a combustion-chamber, an air-supply pipe passing through the top of the same, a chimney for the products of combustion also communicating with the combustion-chamber, a burner in said combustion-chamber, and a fuel-supply pipe passing through the air-inlet pipe to the burner.

In the accompanying drawings, Figure 1 represents a perspective view of my improved water-heater as placed in a bath-tub for heating the water in the same. Fig. 2 is a side elevation of the heater. Fig. 3 is a vertical central section on line 3 3, Fig. 4; and Fig. 4 is a horizontal section on line 4 4, Fig. 2.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the lower or combustion chamber of my improved water-heater, which chamber is closed at the sides and bottom and provided with supporting-feet *a*. Through the upper wall of the chamber A extends an air-supply pipe B and a chimney C for carrying off the products of combustion. In the combustion-chamber is arranged a burner D of circular or other shape, which is supported on suitable legs *a'*, said burner being connected by a supply-pipe D', which passes through the air-supply pipe B, with a gas-cock or other suitable supply of gaseous or liquid fuel. The burner is lighted by means of a taper introduced

through the air-supply tube or through a hole in the side wall or top of the combustion-chamber, which is then closed by a suitable screw-plug *b*, as shown in Fig. 3. Above the combustion-chamber is arranged an open chamber, which is formed by a wall A', which may be of approximately the same height as the wall of the combustion-chamber and in which the water is subjected to the heat of the said wall and of the chimney, so as to be heated, and thereby establish an upward circulation of the water in the bath-tub, washboiler, or other vessel. The top and bottom of the combustion-chamber may be provided with a number of vertical circulating-pipes E, so that the cooler water at the lower part of the vessel can pass up into the open chamber, so as to assist in the circulation and the quick and uniform heating of the water in the vessel. The air-supply pipe B and chimney C are connected by a transverse handle H, which is attached, by means of sleeves or otherwise, to the supply-pipe and chimney, respectively, and which facilitates the convenient carrying of the heater and placing it in position in the vessel in which it is to be used. The air-supply pipe and chimney may be of any height sufficient to provide for a good depth of water and prevent ingress of water to the interior of the combustion-chamber.

When the heater is submerged below the water in the bath-tub, washboiler, or other vessel and the burner lighted, the walls of the combustion and the heating chamber are quickly heated, and thereby a circulation of water established and the required degree quickly reached. The gas-supply is then shut off and the heater lifted from the vessel.

The heater can be manufactured at a comparatively low price and furnishes a valuable and convenient arrangement in all cases when water is to be quickly heated and when no other source of heat is available for the purpose.

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

A water-heater, consisting of a supported combustion-chamber, a heating-chamber surmounting the same, an air-supply pipe passing through the top wall of the chamber and having a gas-supply pipe passing there-

through, a chimney, a handle-brace connect-
ing said pipe and chimney, vertical water-
circulating tubes connecting the top and bot-
tom of the combustion-chamber, a central
5 opening in the top wall of the combustion-
chamber, and means for closing the same,
substantially as set forth.

In testimony that I claim the foregoing as
my invention I have signed my name in pres-
ence of two subscribing witnesses.

EDWARD J. MULLER.

Witnesses:

PAUL GOEPEL,

JOSEPH H. NILES.