G. H. VOORHEES.

BATH TUB HEATER.

APPLICATION FILED FEB. 6, 1918.

1,292,168. Patented Jan. 21, 1919.

Fig. 1.

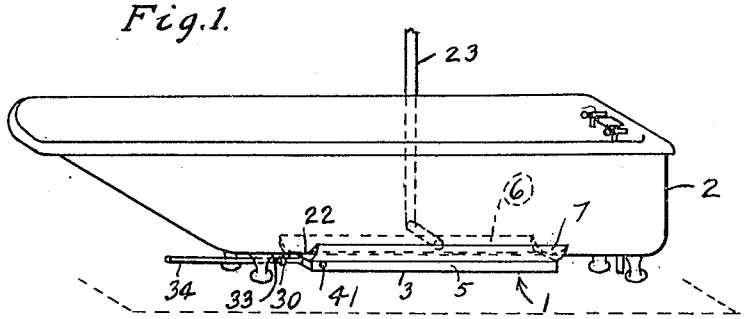


Fig. 2.

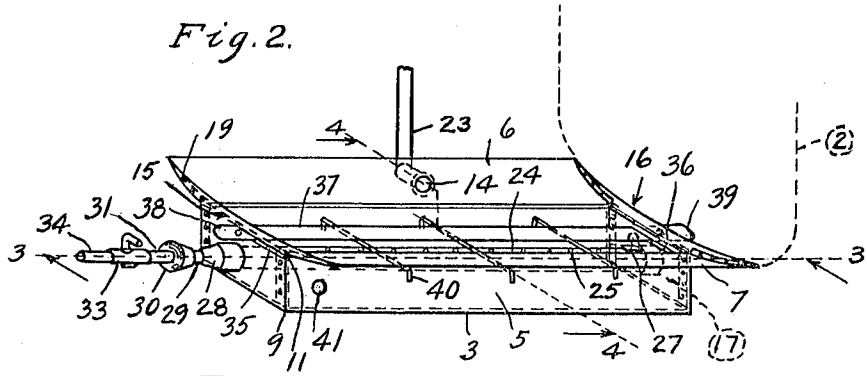


Fig. 3.

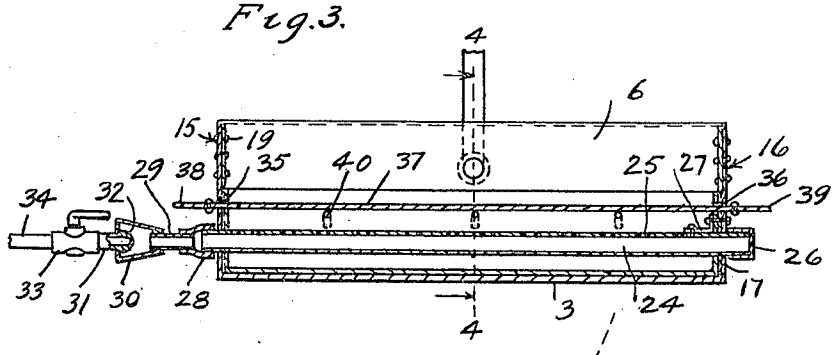
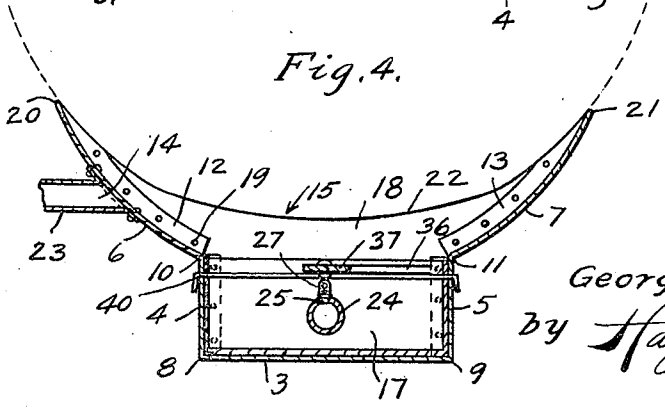


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE H. VOORHEES, OF PASADENA, CALIFORNIA.

BATH-TUB HEATER.

1,292,168. Specification of Letters Patent. **Patented Jan. 21, 1919.**

Application filed February 6, 1918. Serial No. 215,671.

To all whom it may concern:

Be it known that I, GEORGE H. VOORHEES, a citizen of the United States, residing at Pasadena, in the county of Los Angeles and State of California, have invented new and useful Improvements in Bath-Tub Heaters, of which the following is a specification.

My object is to make a gas burning heater adapted to heat a bath tub direct by placing the heater under the bath tub, and my invention consists in the novel features herein shown, described and claimed.

Figure 1 is a perspective of a bath tub with my gas burning heater in position for use.

Fig. 2 is a perspective, upon an enlarged scale, of the heater.

Fig. 3 is a vertical longitudinal sectional detail of the heater on the line 3—3 of Fig. 2.

Fig. 4 is a vertical cross-section on the lines 4—4 of Figs. 2 and 3.

The gas burning heater 1 is mounted directly under the body of the bath tub 2. The details of the heater are as follows: The rectangular flat horizontal bottom 3, the rectangular flat vertical sides 4 and 5, and the curved outwardly flaring wings 6 and 7 are preferably formed of a single piece of sheet iron bent upon a break at the corners 8, 9, 10 and 11. Attaching flanges 12 and 13 are formed integral with or attached to the ends of the wings 6 and 7 and a flue opening 14 is formed through the wing 6. The end pieces 15 and 16 have rectangular portions 17 fitting upon the ends of the bottom 3 and between the ends of the sides 4 and 5, and crescent-shaped portions 18 fitting between the ends of the wings 6 and 7 and secured to the flanges 12 and 13 by rivets 19. The upper outer edges 20 and 21 of the wings 6 and 7 and the curved upper edges 22 of the portions 18 are formed to fit closely against the bottom of the bath tub 2 so that the bath tub will form the top of the stove and force the products of combustion outwardly through the flue opening 14 to the flue 23.

The burner head 24 is a section of large pipe having a plurality of vertically discharging gas orifices 25, and the pipe extends centrally through the ends 15 and 16, there being a cap 26 upon the rear end to close the pipe and a bracket 27 rigidly secured to the pipe and secured to the end piece to hold the burner head from rotating. A reducer coupling 28 is placed upon the forward end of the burner head 24, a pipe nipple 29 is screwed into the coupling 28 to form a mixing tube, a draft regulator or air mixer 30 is screwed upon the mixing tube 29, the pipe nipple 31 carries the gas orifice 32 in its inner end and the nipple is screwed into the mixer 30, the gas cock 33 is screwed upon the pipe nipple, and the supply pipe 34 is screwed into the gas cock.

Horizontal slots 35 and 36 are formed through the ends 15 and 16 and a baffle plate 37 is mounted in the slots and extends outwardly beyond both ends, there being handles 38 and 39 upon the ends of the baffle plate, so that by manipulating the handles 38 and 39 the baffle plate may be moved to a central position directly over the burner head 24 to prevent the flame from beating directly against the bottom of the bath tub so as to avoid danger of burning the bottoms of the feet of the bather, and so that by manipulating the handles 38 and 39 the baffle plate may be moved to one side to allow the flame to beat directly against the bottom of the bath tub when desired. Supporting rods 40 are inserted horizontally and transversely through the side pieces 4 and 5 directly below the baffle plate 37 so as to hold the baffle plate from sagging down upon the burner and so that the baffle plate will slide readily upon the rods.

A match hole 41 is formed through the side piece 5 so that a lighted match may be inserted through the match hole, and the gas cock operated to turn on the gas and start the fire. If the baffle plate is moved to one side the fire will beat directly against the bottom of the bath tub and heat the water in the tub to the desired temperature. Then the baffle plate may be moved to its central position and the bather may get into the bath tub without danger of blistering the bottoms of his feet and allow the fire to continue as long as desired.

Various changes may be made in the details of construction without departing from the spirit of my invention as claimed.

I claim:

A bath tub heater comprising a flat bottom, flat vertical sides extending upwardly from the bottom, curved outwardly flaring wings extending upwardly and outwardly from the sides; there being a flue opening through one of the wings; a flue connected to the flue opening, end pieces secured to

the ends of the bottom and to the ends of the vertical sides and to the ends of the flaring wings, a burner head consisting of a section of large pipe mounted through the ends and extending above the bottom and having vertically discharging gas orifices; there being horizontal slots formed through the ends; supporting rods inserted horizontally and transversely through the sides, and a baffle plate slidingly mounted through the slots in the ends and resting upon the rods.

In testimony whereof I have signed my name to this specification.

GEO. H. VOORHEES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."