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C. DARGENT

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WATER HEATER

Filed April 12, 1929

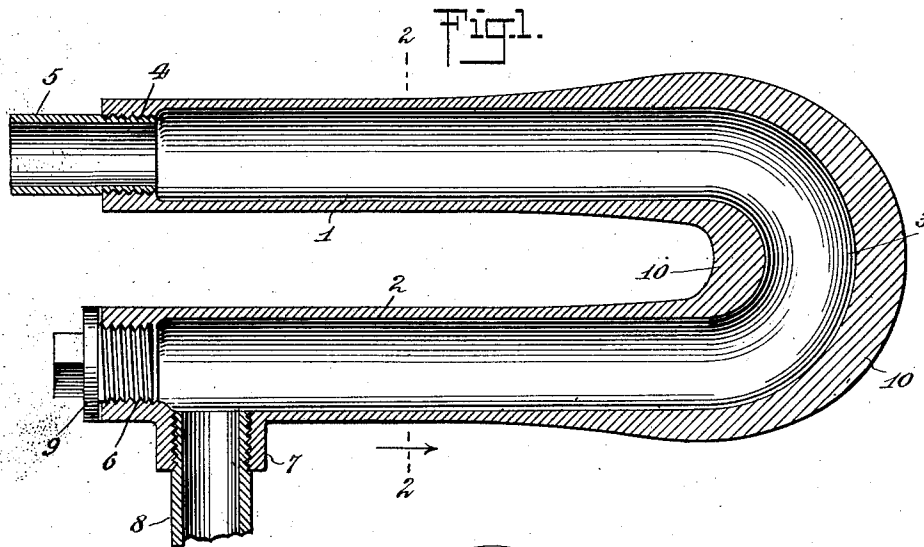


Fig. 2.

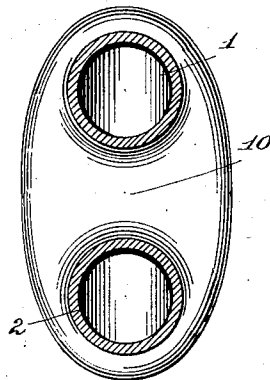
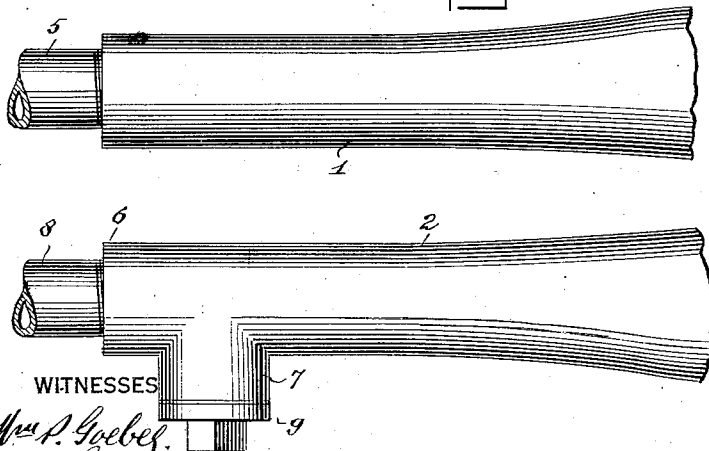


Fig. 3.



WITNESSES

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WATER HEATER

Application filed April 12, 1929. Serial No. 354,627.

This invention relates to water heaters, and particularly to an improved heater to be used in a domestic furnace, the object being to provide a very simple and efficient structure capable of being used with substantially any kind of heating furnace.

Another object of the invention is to provide a water heater wherein the outlets are so formed that the connecting pipes may be arranged at different angles according to the way the openings are provided in the furnace.

A further object, more specifically, is to provide a water heater for heating furnaces wherein the bottom or end part of the heater is thickened at the parts which are subjected to most intense heat.

In the accompanying drawings,—

Figure 1 is a longitudinal vertical sectional view through the heater disclosing an embodiment of the invention;

Figure 2 is a sectional view through Figure 1 on the line 2—2;

Figure 3 is a fragmentary side elevation showing the left-hand part of the heater and associated parts illustrated in Figure 1.

Referring to the accompanying drawings by numerals, 1 and 2 indicate two tubular sections merging into an arc-shaped section 3, said sections being preferably integral throughout and formed from a casting, as for instance, cast iron. The section 1 is provided with an internally threaded portion 4 adapted to receive the threaded end of pipe 5. The section 2 is likewise provided with an internally threaded portion 6 and also with a boss 7 internally threaded for receiving the pipe 8. As shown in Figure 1 a threaded plug 9 is screwed into portion 6 so that the circulation of water will be, for instance, from pipe 5 to pipe 8 or in a reverse direction, as desired. Under some circumstances it is difficult to connect up the heater by reason of the particular location of the openings in the furnace, and when

this is the case pipe 8 may be shifted to portion 6, as shown in Figure 3, and the plug 9 shifted to the boss 7. The device is intended to be used in a heating furnace commonly found in dwellings. The heating furnace may be what is known as a hot water furnace, a steam furnace or a warm air furnace. The design of the furnace is to provide heat for the dwelling or other building and the hot water heater shown in Figure 1 is adapted to be positioned somewhere in a fire box so as to receive a proper amount of heat to heat water in a domestic boiler or other container. Preferably the heater is arranged so that the thickened portion 10 will be at the hottest part so that the heater as a whole may properly resist the action of the fire and give maximum efficiency. The pipes 5 and 8 may be connected to any desired container or domestic boiler and may extend substantially in any direction after leaving the furnace.

What I claim is:—

1. A hot water heater, comprising a one piece substantially U-shaped body approximately twice as long as wide formed with parallel tubular members merging into an arc-shaped section having walls appreciably thicker than the tubular members, the bore in said parallel members and in said arc-shaped section being of uniform diameter throughout.

2. A water heater, comprising a substantially U-shaped tubular body formed with a threaded portion at the outer end of each leg of the U-shaped body adapted to receive a pipe, said threaded portions being in the same plane, a single threaded boss at one side of one of said threaded portions extending at a right angle to said threaded portions, said body at the end opposite said threaded portions being arc-shaped and having walls appreciably thicker than the walls of said legs, and a plug adapted to fit into said threaded boss or one of the threaded por-

tions according to the desired direction of the inlet and outlet.

3. A water heater, comprising a hollow U-shaped body formed with a single casting having three threaded openings at one end and at the opposite end formed with solid walls appreciably thicker than the walls of the threaded ends, the bore of said body being of uniform diameter throughout.

Signed at Brooklyn in the county of Kings and State of New York this 9 day of April A. D. 1929.

CHARLES DARGENT.

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