

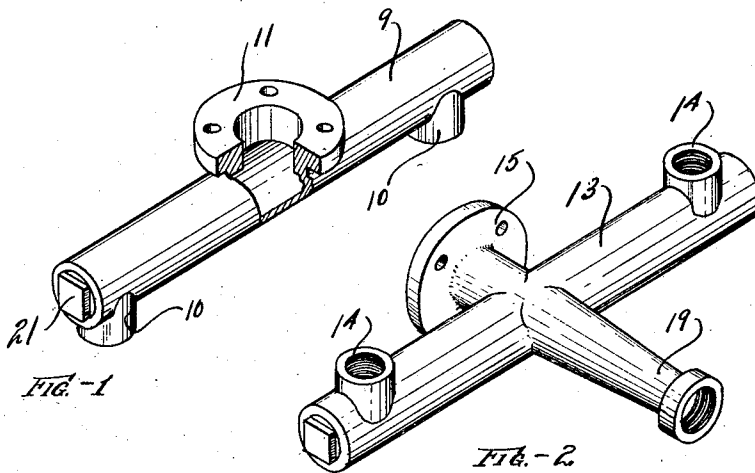
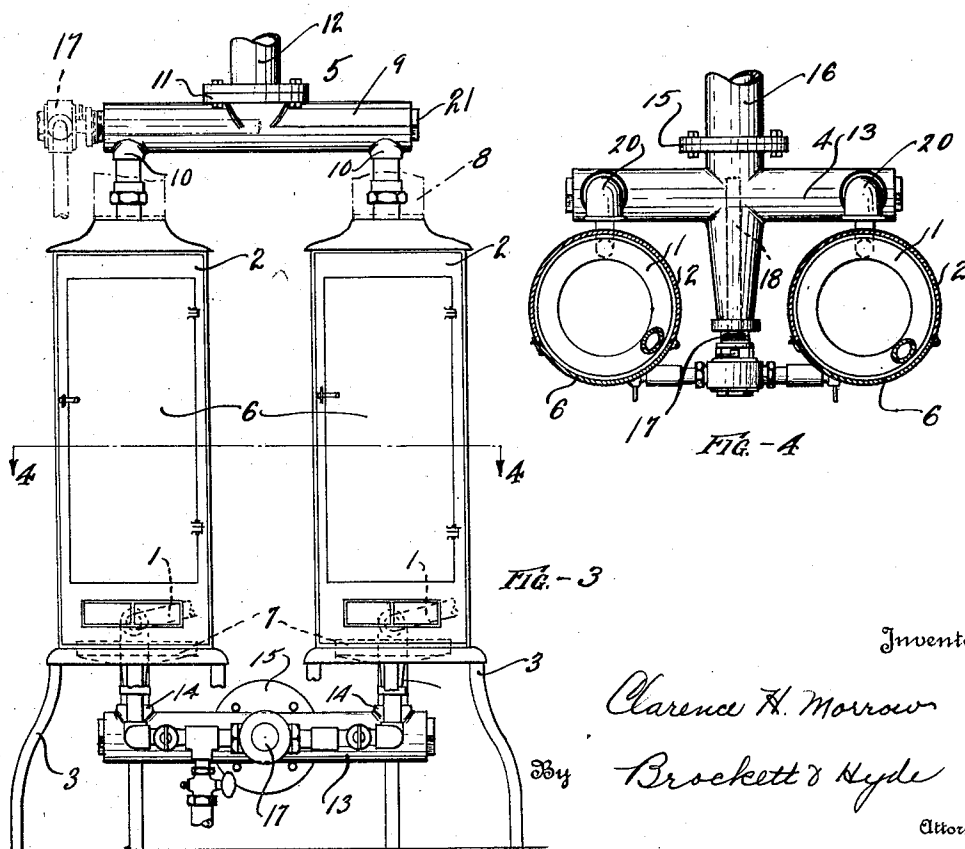
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COUPLING MEANS FOR HEATERS

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COUPLING MEANS FOR HEATERS

Application filed August 8, 1927. Serial No. 211,509.

This invention relates to coupling means for heaters whereby a pair of ordinary domestic hot water heaters may be arranged and adapted for service as in the nature of an auxiliary, in supplying hot water for the radiators or heating system in a home.

The invention relates specifically to manifold castings whereby proper connection may be made between the water inlets and outlets of the heaters and the radiating system with the utmost convenience and neatness; and whereby a thermostat not usually employed with either a heater of the type to which reference has been made or such a heating system as described, may be incorporated in one of said castings in a manner in which it will function with the greatest efficiency.

The exact nature and further objects and advantages of my invention will be apparent from the following description taken in connection with the accompanying drawings in which Fig. 1 is a perspective view of one of the manifolds which forms a part of my invention; Fig. 2 is a similar view of the other manifold; Fig. 3 is a front elevation of a pair of hot water heaters in assembly according to my invention; and Fig. 4 is a horizontal section along the line 4—4, Fig. 3.

Hot water heating units, such as those to which my invention pertains, have become fairly standard in the art as to the arrangement of their principal parts, and as illustrated in Fig. 3, such a heater comprises a heating coil 1 encased within a jacket 2 mounted upon pedestal 3, the coil having a cold water inlet 4 at the back of the heater, a hot water outlet 5 at the top, a door 6 at the front, a burner 7 arranged beneath the coil, and a flue 8 adapted to carry off the products of combustion.

The heaters are arranged for pipe threaded water connections. The main pipes of house heating systems however are of considerable diameter and therefore arranged for flanged connections. According to my invention, I provide the manifold illustrated in Fig. 1 for connection between the hot water outlets of a pair of heaters arranged as indicated in Figs. 3 and 4, and the hot water inlet or riser of the radiating system. The manifold com-

prises a generally tubular member 9 having its ends normally closed by plugs 21, downwardly extending threaded openings 10 at each end adapted for connection with the water outlets of the heaters, and medially thereof a flanged opening 11 adapted for direct connection with the upwardly extending riser 12 of the radiating system.

For the cold water inlets of the heaters I provide likewise a manifold 13 having laterally extending threaded openings 14 at its ends, the ends being closed by plugs as before, and medially thereof a flanged opening 15 for immediate connection with the cold water or return pipe 16 of the radiating system. I provide on the casing 13 opposite the flanged opening 15 thereof an open ended well 19 adapted when in assembly as in Figs. 3 and 4 to project forwardly between the heaters. The extremity of the well is threaded to receive the head 17 of a thermostat, the thermostatic elements 18 of which may thus extend into the well to a point in the line of flow of cold water entering the manifold through the flanged opening 15. The thermostat operates in the usual manner, being provided with a valve controlled by the thermostatic elements 18 and in turn controlling the fuel supply to the burners 7 of the heaters, the manifold casting 13 being proportioned thus so that not only are the cold water inlets of the heaters most conveniently accommodated, and the thermostatic elements positioned to be most sensitive to the cold water temperature, but also the head of the thermostat and adjusting mechanism thereof equally conveniently located in the front of the heaters yet clear of the doors thereof and well protected. The manifold 13 may be arranged to accommodate a difference in elevation between the return pipe 16 and the cold water inlet pipes 4 by pipe connections 20 as indicated.

Occasionally installation conditions require that the thermostat be placed at the outlet end of the heaters. In such event one of the plugs 21 may be removed from the upper manifold casting, the thermostat inserted endwise into the casting, and the plug used to replace the thermostat in the lower

casting ends, the threads of the castings, the thermostat head and the plugs being standard. Such a thermostat arrangement is shown in broken lines, Fig. 3, in which it will be noted that the thermostatic elements extend to a position adjacent the connection with the riser 12.

What I claim is:

A manifold adapted for connection to spaced twin water heaters, and comprising a hollow body portion having two aligned horizontally extending arms, each provided with a vertical opening adapted for connection to one of said heaters, and having a rearward arm adapted for connection with a water circulating pipe, said body portion intermediate its ends having a horizontal well arm aligned with said rearward arm and extending forwardly and open at its end, whereby said well arm may receive the thermally responsive elements of a thermostat having its head positioned at the well arm end opening, and the thermally responsive elements of said thermostat will extend into the path of flow between said rearward arm and said horizontally extended arms.

In testimony whereof I hereby affix my signature.

CLARENCE H. MORROW.

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