

(No Model.)

W. H. HALLOWELL.
HOT WATER HEATING SYSTEM.

No. 566,077.

Patented Aug. 18, 1896.

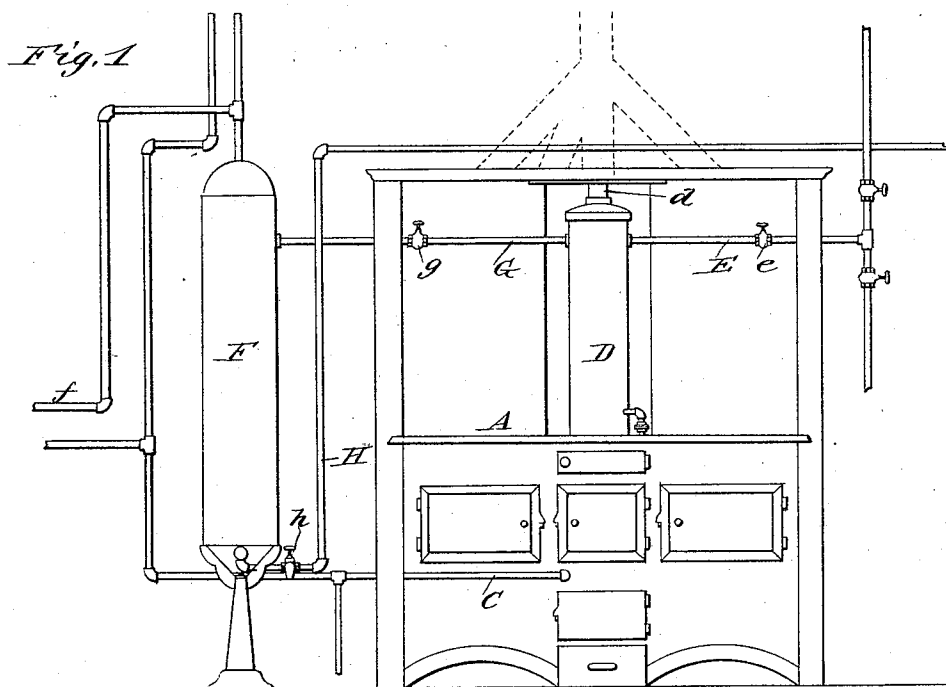


Fig. 2

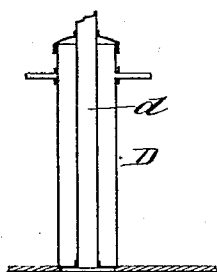


Fig. 3

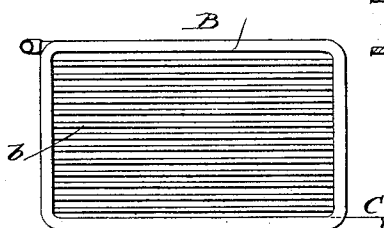
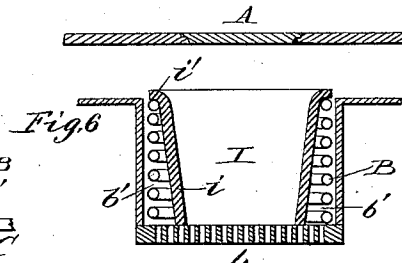
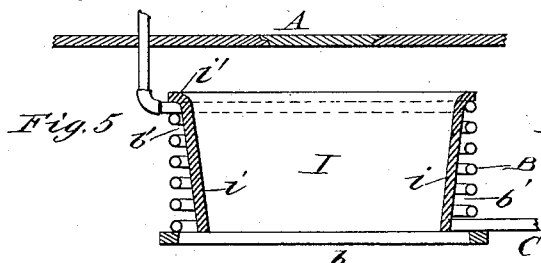
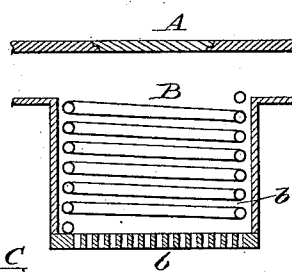


Fig. 4



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM HENRY HALLOWELL, OF NORRISTOWN, PENNSYLVANIA.

HOT-WATER HEATING SYSTEM.

SPECIFICATION forming part of Letters Patent No. 566,077, dated August 18, 1896.

Application filed March 7, 1895. Serial No. 540,833. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY HALLOWELL, a citizen of the United States, residing at Norristown, in the county of Montgomery, State of Pennsylvania, have invented certain new and useful Improvements in Hot-Water Heating Systems; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in hot-water heating systems.

The invention will first be described in connection with the accompanying drawings and then particularly pointed out in the claim.

In the drawings, Figure 1 is a front elevation of a device embodying my invention. Fig. 2 is a sectional view of the main boiler. Figs. 3 and 4 are detail views of my improved coil fire-pot. Figs. 5 and 6 are detail views of my improved lining or summer fire-pot.

Referring to the drawings, A is a range of any ordinary construction whose fire-pot is composed of a coil of pipe B at the sides and a grate b at the bottom, the individual coils of the pipe being separated from each other to leave spaces b' for admission of air. One end of the coil B is connected to the cold-water-supply pipe C, while the other end communicates with a heater-boiler D, having a central flue d, which conveys the smoke from the range to the chimney.

The boiler D is connected to the radiators (not shown) of the heating system by a pipe E and to an ordinary kitchen-boiler F by a pipe G, the pipes E and G each having valves e and g.

The kitchen-boiler F is connected in the usual way to a pipe f, which supplies hot water to the faucets. It is also connected to a pipe H, which forms the return-pipe from the radiators.

The operation of my apparatus thus far described is as follows: The cold water passes through the coil which forms the grate and is heated. Thence it enters the boiler D and passes to the radiators. Returning from the radiators it flows into the kitchen-boiler F. By opening the valve g in the pipe G the hot water in the boiler D may be caused to enter the kitchen-boiler, thereby rapidly heating the water in the same.

In summer-time the valve e may be closed and the radiators shut off from the boiler D. Furthermore, the return-pipe H may be provided with a faucet h, by which the return to the kitchen-boiler may be closed.

One of the essential features of my invention consists in a fire-pot (shown in Figs. 5 and 6) for summer use, this fire-pot I being made of refractory material and having flaring sides i, provided at their upper edges with outward-extending flanges i'. The summer fire-pot is adapted to fit into the coil fire-pot and thus keep a larger part of the heat from the water in the coil, so that the kitchen-boiler and its attached pipes will not become so heated as when the fire-pot I is not used.

It is not the purpose of this invention to entirely cut off the heat from the coils of pipe by using the summer fire-pot, as it is often desirable to warm the rooms somewhat in cold and rainy days in case of sickness during the summer months. It is also necessary to have hot water for culinary purposes. Furthermore, the summer fire-pot, being smaller than the coil, does not hold as much fire, and hence does not cause the generation of an unnecessary amount of heat, as would be the case if the larger coil fire-pot was used in summer.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a hot-water heating system, the combination, with a range, a water-heating device located therein, a boiler connected at its bottom to the water-heating device and a radiator supply-pipe connected to the top of said boiler, of a kitchen-range boiler, a radiator return-pipe connected to the bottom of said range-boiler, a pipe connecting both boilers near their top and means for controlling the flow of water therein from said boiler, and a cold-water-supply pipe connected to the bottom of the water-heating device in the range, substantially as described.

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

WILLIAM HENRY HALLOWELL.

Witnesses:

C. B. WEBER,
HENRY I. FOX.