To all whom it may concern:

Be it known that I, Fay C. Hayes, a citizen of the United States, and a resident of Altamont, county of Albany, and State of New York, have invented certain new and useful Improvements in Portable Hot-Water Systems, of which the following is a full, clear, and exact description.

This invention relates particularly to an attachment for heating water to be used on any kind of a stove or range having a burner for a gaseous fuel, such as an ordinary gas range, or a kerosene or gasoline stove or the like.

The principal object of the invention is to provide a device in the form of a receptacle or tank having a coil connected with its lower portion that can be readily attached or placed on or near a range with the coil on top of the burner and a circulation of water will be started that will heat the contents of the tank.

A further object is to provide a draw-off pipe for the hot water in the tank, that will always take the water from the upper portion near the water level and that will automatically rise and fall so that the water is always drawn off at the upper portion no matter whether the tank be full or nearly empty.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claim at the end of the description.

In accompanying drawings showing an embodiment of my invention, Figure 1 shows a gaseous range with the invention attached. Fig. 2 is a fragmentary vertical section through the range and heater. Fig. 3 shows a vertical section through the tank taken in the line III—III of Fig. 1; and Fig. 4 is a side elevation of the double coil.

The invention is shown as formed of a suitable tank or receptacle 6 that may have a hinged top 7 for pouring the water into the tank. A coil of pipe 8 is connected with the lower portion of the tank by one end 9 extending out from the bottom of the tank. The other outer end 10 of the coil 8 is caused to pass back into the tank a short distance above the connection of the end 9.

The coil is so located that the tank can be supported at the rear of the range R and the coil extending forward can be positioned on top of the burner member 5. When the burner is lighted the hot water in the coil will rise to the upper portion and hence will pass out through the connection 10 into the tank and obviously the hot water will rise to the top of the water level in the tank. And the cooler water at the bottom of the tank will pass into the coil pipe 9 causing a circulation in the usual well known manner.

In order to always be able to draw off water from the upper portion or near the water level in the tank, no matter whether the tank be full or nearly empty, I provide an automatically shiftable outlet pipe that is governed by a float. The pipe 13 carrying a faucet or cock 14, extends into the tank, and has a movable connection with an inclined pipe 15. A float 16 is attached to the upper end of the inclined pipe 15 and so adjusted that the upper end of the pipe 15 will always remain just below the water level in the tank. Whenever the water is drawn off, the weight of the pipe will draw it and the float downwardly and the float will always keep the pipe suspended with its end just below the water level. As shown, an L 17 connects the pipe 13 with the pipe 15, and has a movable connection with the horizontal pipe 13 so that the pipe 15 can swing up and down, yet form a reasonably tight joint. The pipe 13 is shown as extending forward to the front of the range for convenience in drawing off the hot water through the faucet 14. The coil may comprise an involute 18 at the bottom connected at the center to an involute 19.

It will thus be seen that a very convenient and simple form of portable water heater is provided and that it can be connected or attached to any form of range, or to the burner for a gaseous fuel, and that the coil can be placed on the burner, and a cover plate on the coil to receive the usual cooking vessel, just as if the coil were not used, therefore not interfering with the usual operation of the range.

It is apparent that the device is independent of any water supply system, that water is simply poured in at the top whenever necessary. It will also be seen that the water can always be drawn off from the upper portion or near the water level in the tank and therefore the hottest water is always on top, which is a great convenience.
be understood that this device is very simple and economic of construction requiring merely the tank with the coil having its extremities secured in the tank near the bottom. And the draw-off device comprises merely the two pipes connected by the L, with the float at the top of the pipe in the tank, and a faucet or other form of cock provided at the outer end of the draw-off pipe.

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

A portable water heater comprising a hot water tank adapted to be removably supported by a stove, and in which the level of the water may vary, a water circulating pipe projecting laterally from the base of the tank and having both ends in communication with the said tank, said pipe having its outer portion formed in a coil that is disposed so that the burner of the stove will heat the coil, a discharge pipe having one end projecting into the base portion of the tank, a movable inlet pipe within the tank, means for pivotally connecting one end of said inlet pipe to the discharge pipe, a controlling valve for said discharge pipe, and means for retaining the free end of the inlet pipe adjacent the level of the water in the tank.

This specification signed and witnessed this fifteenth day of April A. D. 1911.

FAY C. HAYES.

Witnesses:
I. W. KINSMAN,
A. L. SUTERLY, Jr.