

(No Model.)

C. GALLE.  
PORTABLE WATER HEATER.

No. 493,022.

Patented Mar. 7, 1893.

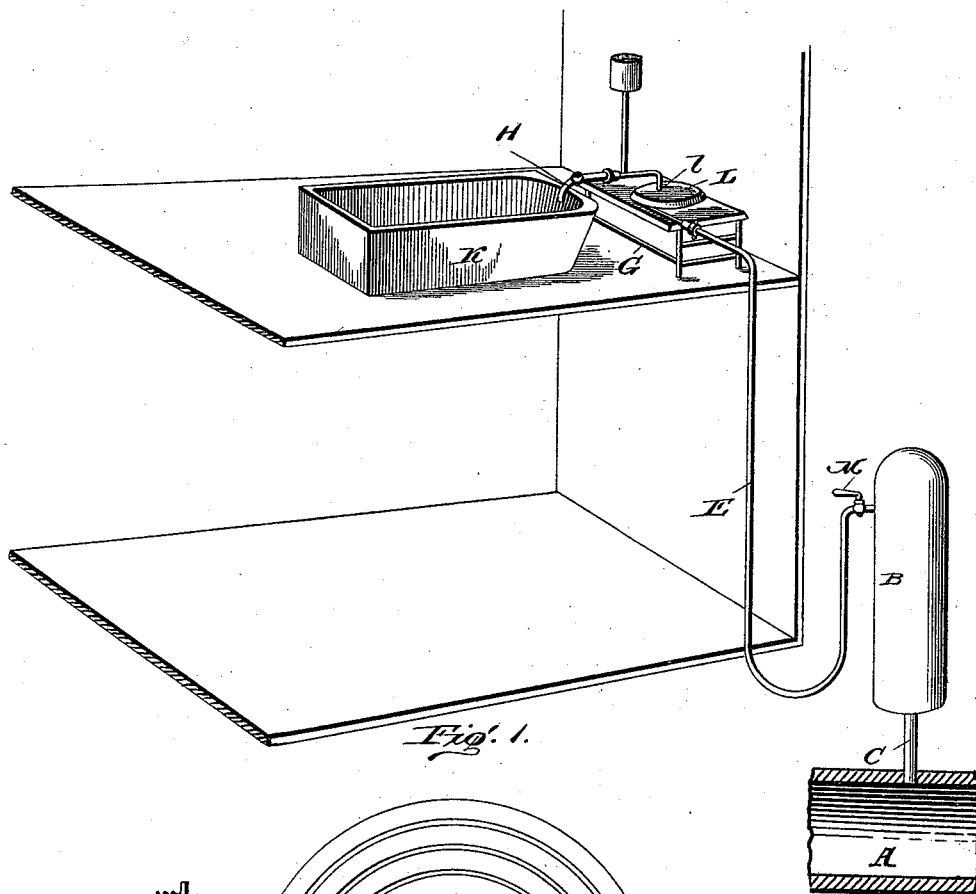


Fig. 1.

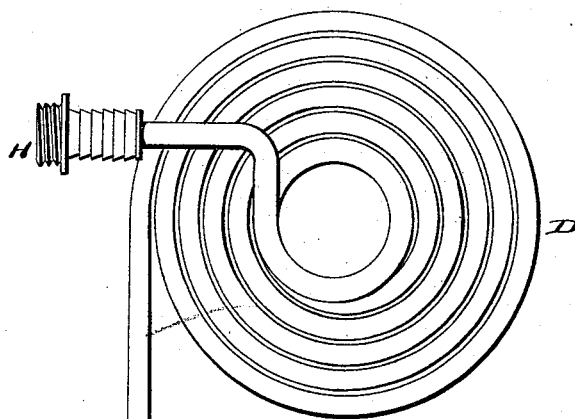


Fig. 2.

Witnesses:

*Wm. Chas. Hill*  
*Arthur L. Bryant*

Inventor:

*Chas. Galle.*

By

*Edson Bros.*  
*Attys.*

# UNITED STATES PATENT OFFICE.

CHARLES GALLE, OF ST. LOUIS, MISSOURI.

## PORTABLE WATER-HEATER.

SPECIFICATION forming part of Letters Patent No. 493,022, dated March 7, 1893.

Application filed August 6, 1892. Serial No. 442,346. (No model.)

### *To all whom it may concern:*

Be it known that I, CHARLES GALLE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Portable Water-Heaters; 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 improvements in portable heaters particularly designed and adapted for use in heating water for bathing purposes; and the object of the invention is to provide a compact light heater adapted to be used instead of the ordinary stationary boiler and to deliver the water to a tub or vessel at any desired temperature.

With these and other ends in view my invention consists in the combination with a source of supply, of a heating coil arranged above a suitable heater, flexible connection between the coil and the source of supply, means for regulating and controlling the admission of liquid to the coil, and a delivery pipe or nozzle attached to the coil.

My invention further consists in the peculiar construction and arrangement of parts as will hereinafter be more fully described and claimed.

In the accompanying drawings,—Figure 1 is a diagrammatic view, and Fig. 2 is a detail view of the heating coil.

Like letters of reference denote corresponding parts in both figures of the drawings, referring to which,—

A designates a section of a water main or pipe which is connected with a suitable tank or receptacle B, by a pipe C. The vessel or tank B is arranged in any suitable place and said tank is connected with a heating coil D by means of a flexible pipe or conduit E.

The heating coil D is adapted to be mounted on or slightly above a gasoline stove G or other suitable source of heat, and one end of said coil is connected, as above described, with the vessel or tank B and to the other end of said coil is attached a delivery pipe or

nozzle H which delivery pipe or nozzle extends into or over a bath tub or other suitable vessel K.

To prevent the escape of heat generated by the heater G, the coil D is covered by a hood or cover L, provided in its top with an opening or aperture I, through which the discharge end *g* of the coil to which the tank B is connected extends. The end *g* of the heating coil, it will be noticed, is above the receiving end of the coil, which extends out horizontally from beneath the hood L, and said discharge end serves as a standard to hold the hood or cover in place on the coil.

A cock or spigot M is arranged at the point where the pipe E enters the tank B or at the point where such pipe connects with the coil D and by turning the said cock or spigot the amount of water admitted to the heating coil can be regulated, and the temperature of the water varied, as desired.

The temperature of the water admitted to the tub or vessel K, will depend upon the amount of water admitted to the coil, the length or size of the coil and the amount of heat to which the coil is subjected.

Instead of using a separate tank or receptacle B the coil D can be connected with an ordinary hydrant which is in turn connected with a main or other source of supply.

The operation and advantages of my improvement will be readily understood and appreciated. When not in use the heating coil can be detached from the supply pipe and stored away in a small space; and by it any desired quantity of water can be heated to the desired temperature. Another advantage of my improvement is that the use of large stationary tank boilers can be discontinued.

I am aware that changes in the form and proportion of parts and details of construction of the devices herein shown and described as an embodiment of my invention can be made without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as fairly fall within the scope of the same.

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

A heater consisting of a single flat coil  
5 adapted to be connected at its outer end to  
any suitable source of liquid supply, and a  
hood or cover placed over the coil and pro-  
vided in its top with an opening or aperture  
10 through which the inner discharge end of the  
coil passes whereby said discharge end serves

as a standard to hold the hood or cover in  
place on the coil, substantially as shown and  
described.

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

CHARLES GALLE.

Witnesses:

LOUIS F. MILLER,  
HENRY SCHONEBECK.