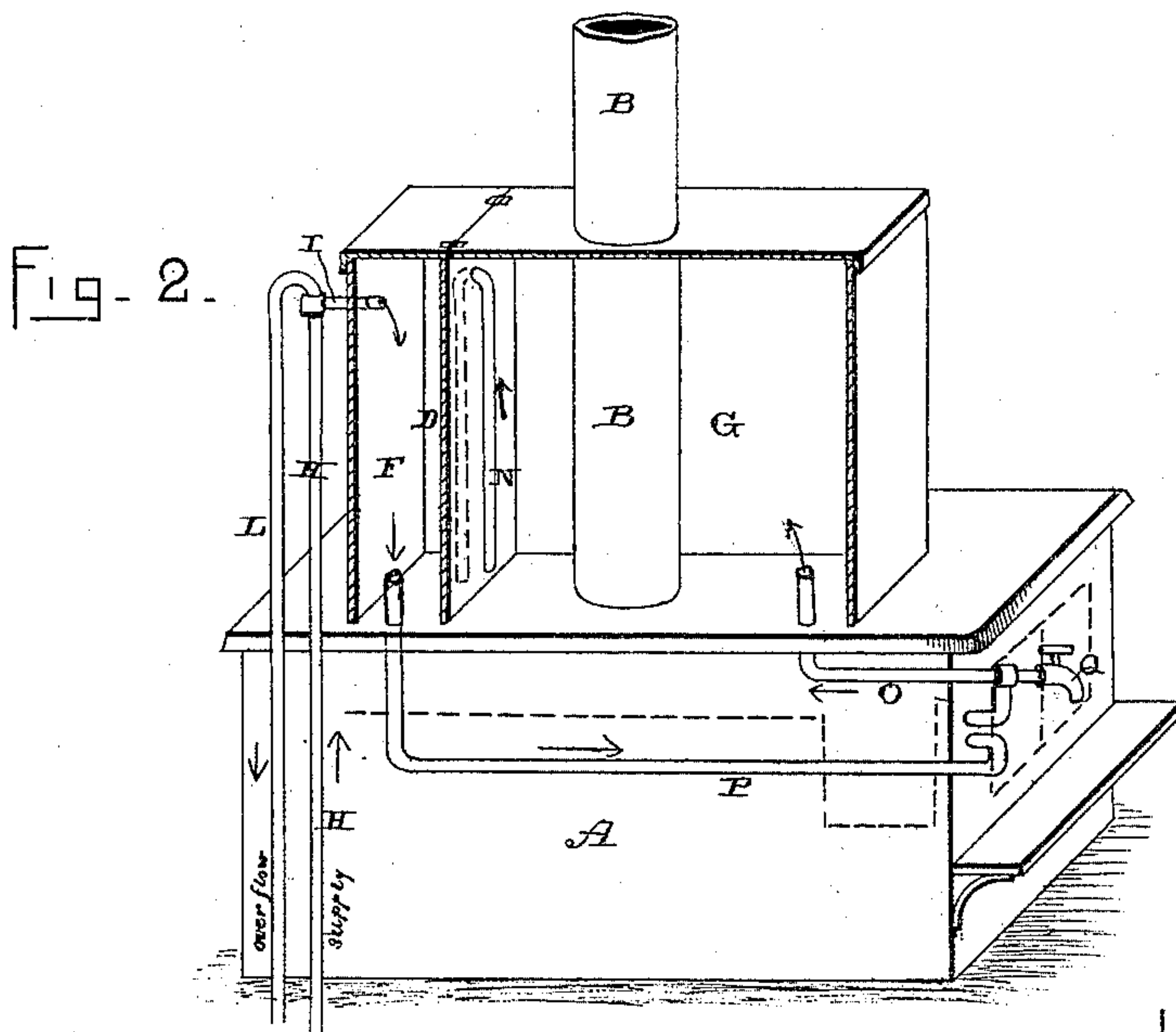
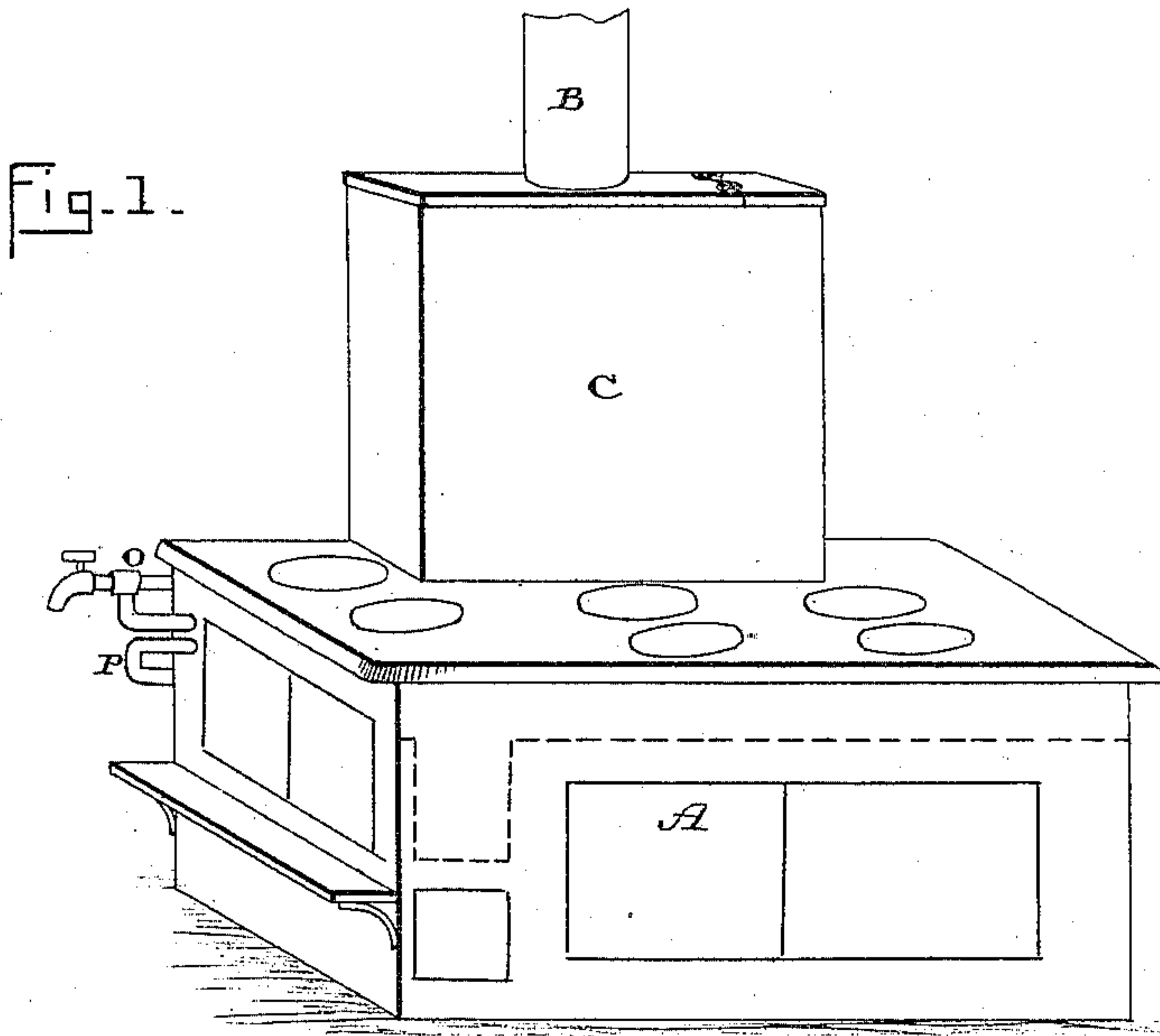


(No Model.)

C. S. QUIMBY & R. S. MACNAMEE.  
WATER HEATER FOR STOVES.

No. 436,671.

Patented Sept. 16, 1890.



Witnesses:

E. T. Ellis,  
J. M. Nesbit.

Inventors.

Charles S. Quimby,  
Richard S. MacNamee,  
per J. A. Schumann, atty.

# UNITED STATES PATENT OFFICE.

CHARLES S. QUIMBY AND RICHARD S. MACNAMEE, OF PICKERING,  
PENNSYLVANIA.

## WATER-HEATER FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 436,671, dated September 16, 1890.

Application filed April 15, 1889. Serial No. 307,293. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES S. QUIMBY and RICHARD S. MACNAMEE, of Pickering, in the county of Chester and State of Pennsylvania, have invented certain new and useful Improvements in Water-Heaters for Stoves; and we 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in water-heaters for stoves; and it consists in the combination and arrangement of parts, which will be more fully described hereinafter, and pointed out in the claims.

The objects of our invention are to attach to the top of the stove a chamber or reservoir by means of which an abundant supply of hot water is furnished to those who cannot afford the expensive boilers now in use, to heat it with a small amount of fuel and without having it occupy so much of the top of the stove as is necessary to heat the same amount of water in pots or kettles, and to so construct the reservoir that the whole volume of cold water which is placed therein at any time cannot immediately come in contact with the hot water and thus cool it.

Figure 1 is a perspective of a stove and our heater attached thereto. Fig. 2 is a similar view from the opposite side thereof, the parts being shown in section.

A indicates a cooking-stove of any desired construction, and B the pipe which passes through our heater C, which is divided into a hot-water chamber G and cold-water-supply reservoir F by means of a suitable partition D. The hot-water chamber G is preferably made considerably larger than the cold-water-supply reservoir, and the stove-pipe B passes through the said hot-water chamber and assists in heating the water placed therein. A cover is provided for the supply-reservoir F to allow water to be poured therein or to allow access for the purpose of cleaning.

Placed adjacent to the fire-box is a water-back of any construction, and connected with

the said water-back at its lower edge is a pipe P, which has its opposite end extending into and preferably a suitable distance above the bottom of the supply-reservoir F. A pipe O is connected with the upper edge of the said water-back and has its opposite end extending into and a suitable distance above the bottom of the hot-water chamber G.

It is intended to supply the cold-water reservoir through its top; but, if desired, it can be supplied through a supply-pipe H from any desired water-source.

Connected with the supply-pipe H is an overflow-pipe L, which will prevent the supply-reservoir from running over when being filled either through the top or through the supply-pipe H.

A spigot Q is connected with the pipe O for drawing hot water.

Connecting the supply-chamber F and the hot-water chamber G is a siphon N, the purpose of which will be described hereinafter.

The operation of my invention is as follows: The supply-reservoir F being filled with cold water, it flows through the pipe P to the water-back, through the water-back, and thence through the pipe O to the hot-water chamber G. Having supplied the two chambers with a desired quantity of cold water, and a fire being started in the fire-back, the following circulation begins: As the water in the water-back becomes heated, it rises upward to the upper portion of the water-back through the pipe O, which is connected therewith, into the hot-water chamber G. As the water in the chamber G becomes heated in the above manner and through the medium of the stove-pipe B, which passes through the said chamber, the surface of the water rises in said chamber G above the surface of the water in the supply-reservoir F, which will cause the siphon N to immediately commence to operate in the usual manner, being governed by well-known laws. The circulation is from the water-back to the chamber G, through the siphon N to the supply-reservoir F, thence through the pipe P to the lower portion of the water-back. Thus it will be seen that the water placed in the cold-water-supply reservoir F cannot come in contact with the hot-water



chamber until it has first passed through the water-back and become heated by the fire in the fire-back.

From this construction it will be seen that  
5 hot water can be drawn through the spigot Q immediately after filling the chamber F with cold water by reason of the fact that the cold water must first pass through the water-back and become heated before it can reach the  
10 said spigot, which is connected with the upper portion of the said water-back. If a separate chamber for the supply of cold water was not provided and it was supplied to the hot-water chamber directly, it would cool the  
15 hot water therein, and if hot water is then wanted it cannot be obtained, for time for heating it must be allowed.

Having thus described our invention, we claim—

20 1. The combination, with the stove and a water-back connected therewith, of a hot and a cold water chamber, pipes connecting the hot and cold water chambers with the water-back, and a siphon connecting the said cham-  
25 bers, substantially as specified.

2. The combination, with the stove and a water-back connected therewith, of a cold and a hot water chamber, a pipe connecting the lower portion of the water-back and the cold-water chamber, a pipe connecting the upper 30 portion of the water-back and the hot-water chamber, and a siphon connecting the two chambers, substantially as set forth.

3. The combination, with the stove and a water-back connected therewith, of a hot and 35 a cold-water chamber placed therein, a pipe connecting the hot-water chamber and the upper portion of the water-back, a pipe connecting the lower portion of the water-back and the cold-water chamber, the siphon, and 40 a spigot or cock connected to the upper pipe, for the purpose set forth, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES S. QUIMBY.

RICHARD S. MACNAMEE.

Witnesses:

HARRY G. HOWARD,

JOHN S. JARDINE.