H. M. SANDERS.
WATER DISTRIBUTING APPARATUS.
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WATER-DISTRIBUTING APPARATUS.


To all whom it may concern:

Be it known that I, Henry M. Sanders, a citizen of the United States, residing at Waco, in the county of McLennan and State of Texas, have invented certain new and useful Improvements in Water-Distributing Apparatus, of which the following is a specification.

This invention relates to hot and cold water distributing apparatus, and my object is to produce apparatus of this character for use primarily in connection with heating or cooking stoves for the purpose of utilizing the waste heat therefrom and thus furnish economically a supply of hot water for the kitchen, bath room or other point.

With this general object in view and others as hereinafter appear the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawing, in which—

Figure 1, is a substantially central vertical section of apparatus embodying my invention. Fig. 2, is a horizontal section of the valve for effecting the distribution of hot or cold water to a kitchen and hot and cold water to a bath room.

In the said drawings, 1 indicates the upper portion of a stove and 2 the short collar projecting upward therefrom to receive the lower end of a short stove pipe section 3 communicating with the larger pipe 4 of suitable length and diameter, or said pipe 3 may, if desired form an integral portion of pipe 4. The upper end of pipe 4, is preferably diametrically reduced as at 5 to engage the stove pipe section 6, of ordinary size, which pipe is adapted to be connected to the flue or chimney opening, not shown, so that the heat, smoke and other products of combustion may pass up through the flue or chimney in the usual manner.

Indicates a tank supported upon and surrounding pipe 4 for the greater part of its length with a water tight relation, and 8 a pipe communicating with and projecting upward from the tank 7 for the escape of steam generated therein and also for another purpose hereinafter explained.

9 indicates a drain cock communicating with the lower end of the tank for the purpose of withdrawing the water and sediment from the tank when desired.

10 indicates a reservoir having its upper end in about the same horizontal plane as pipe 8, and divided by partitions 11 into chambers, 12, 13, and 14, the chamber 13 being an air chamber to insulate the water of chambers 12 and 14 in order that the water in chamber 12 which may become heated more or less shall not materially affect the temperature of the water in chamber 14.

15 indicates a pipe connecting the lower end of chamber 12 with the upper end of tank 7 and 16 a valve controlling the supply of water from reservoir chamber 12 to said tank and in this connection it should be stated that the reservoir may be disposed contiguous to the tank as shown or it may be arranged outside of the house wherein the stove is located or at any other suitable point and that it may be supported in any suitable manner, the support being omitted as unimportant to a proper understanding of the invention.

17 indicates a vertical cylindrical valve casing containing a cylindrical plug valve 18 provided with segmental passages 19, 20 and 21, and 22 indicates a handle whereby said valve may be turned.

23 indicates a pipe connecting the lower end of the tank with opening 24 in the valve casing.

25 indicates a pipe connecting the lower end of chamber 14 of the reservoir with opening 26 in the valve casing diametrically opposite opening 24.

27 indicates a pipe leading from opening 28 in the valve casing to the sink, not shown.

29 indicates a pipe connected to opening 30 in the valve casing and adapted to lead to a bath room or other point below the plane, preferably, of tank 7.

31 indicates a pipe connected to opening 32 in the valve casing and adapted to lead to the bath room or other point and said pipes 29 and 31 will be provided with faucets, 29a and 31a respectively of any suitable or preferred type, pipe 27 being likewise provided with a faucet 27a if desired.

As shown the valve is set to supply hot water from the tank and cold water from the reservoir to the bath room or other point to which pipes 29 and 31 lead, and if the pipes
29 or 31 are provided with faucets as suggested such position may be the normal one for the valve, it being likewise noted that valve passage 19 is not in communication with any of the openings of the valve casing and consequently no water can be supplied for kitchen use. When it is desired to supply hot water for the kitchen, valve 18 is turned until passage or port 19 establishes communication between openings 24 and 28 of the casing, in which position of adjustment, it will be noticed that water is free to pass from the tank, through said port or passage and into pipe 27. At the same time such adjustment of the valve throws port or passage 20 out of communication with valve casing openings 24 and 30 and port or passage 21 out of communication with openings 26 and 32. When it is desired to supply cold water to the kitchen the operation of the valve is reversed so as to establish communication through port or passage 19 between openings 26 and 28. If hot water also is desired in the bathroom the controlling faucet or valve hereinbefore referred to is opened and a supply of hot water is obtained. If cold water is desired in the bathroom, the corresponding valve or faucet of pipe 31 is opened as will be readily understood.

It will be apparent that the temperature of the water in the tank is raised not only because of the heat of the products of combustion passing up through pipe 4 but also if disposed close to the stove, by the heat radiated upwardly therefrom and by the heat imparted to pipe 4 and the tank by conduction from the stove.

Should the water in the tank be brought to a boiling point, the steam generated will pass off through the pipe 4 without endangering the apparatus, and it will also be noted that by having said pipes projecting about as high as the tank there will be no danger, when the latter is filled, of the water overflowing from said pipe.

From the above description it will be apparent that I have produced a water distributing apparatus possessing the features of advantage enumerated, and I wish it to be understood that I do not desire to be restricted to the exact details of construction shown and described as obvious modifications will suggest themselves to one skilled in the art.

Having thus described the invention what I claim as new and desire to secure by Letters Patent is:

1. In an apparatus of the character described, the combination of a stove and its stove pipe, with a tank surrounding and bearing a water-tight relation to a portion of said pipe, a pipe communicating with and projecting above the tank, a reservoir, a valve-controlled pipe connecting the reservoir with the tank to supply the latter with water, a valve casing, pipes connecting the valve casing with the lower portion of the tank and reservoir, a pipe leading from the casing, and a valve in said casing provided with a port or passage to establish communication between the pipe leading from the tank or the pipe leading from the reservoir with the third or valve casing pipe.

2. In an apparatus of the character described, the combination of a stove and its stovepipe, with a tank surrounding and bearing a water-tight relation to a portion of said pipe, a pipe communicating with and projecting above the tank, a reservoir, a valve-controlled pipe connecting the reservoir with the tank to supply the latter with water, a valve casing, a pair of pipes communicating with and projecting above the tank, a reservoir, a valve-controlled pipe connecting the reservoir with the tank and reservoir with the casing, and a valve in the casing provided with a pair of ports adapted at times to connect the pipes leading from the tank and reservoir to the first-named pipes connected to the casing and at other times to break communication between said sets of pipes.

3. In an apparatus of the character described, a tank, a reservoir with a pair of insulated chambers, a valve-controlled pipe connecting one of said chambers with the tank, a valve casing connected to the lower portion of the tank and to the other reservoir chamber, a pair of pipes connected to the valve casing, and a valve in said casing provided with a pair of ports, one adapted to establish communication between the tank and one of said pair of pipes and the other between said reservoir chamber and the other set of said pipes.

4. In an apparatus of the character described, the combination of a stove and its stovepipe, with a tank surrounding and bearing a water-tight relation to a portion of said pipe, a pipe communicating with and projecting above the tank, a reservoir, a valve-controlled pipe connecting the reservoir with the tank to supply the latter with water, a valve casing, pipes connecting the valve casing with the lower portion of the tank and reservoir, a pipe leading from the casing, a valve in said casing provided with a port or passage to establish communication between the pipe leading from the tank or the pipe leading from the reservoir with the third or valve casing pipe, and a drain cock for the tank.

5. In an apparatus of the character described, the combination of a stove, a stove pipe, a dumbly enlarged section in said stovepipe, a tank surrounding and bearing a water-tight relation to the said enlarged section, and provided with a drain cock and an upwardly projecting pipe, a reservoir having a pair of chambers insulated from each other,
a valve-controlled pipe connecting one chamber of the reservoir and the upper portion of the tank, a valve casing connected to the lower portion of the tank and to the lower portion of the other chamber of the reservoir, pipes connected to the valve casing to conduct water therefrom, and a valve in the casing and provided with ports whereby hot or cold water may be discharged through one of said pipes, hot water through the second one and cold water through the third.

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

HENRY M. SANDERS.

Witnesses:

Edwin G. Hogan,

J. L. Wise.