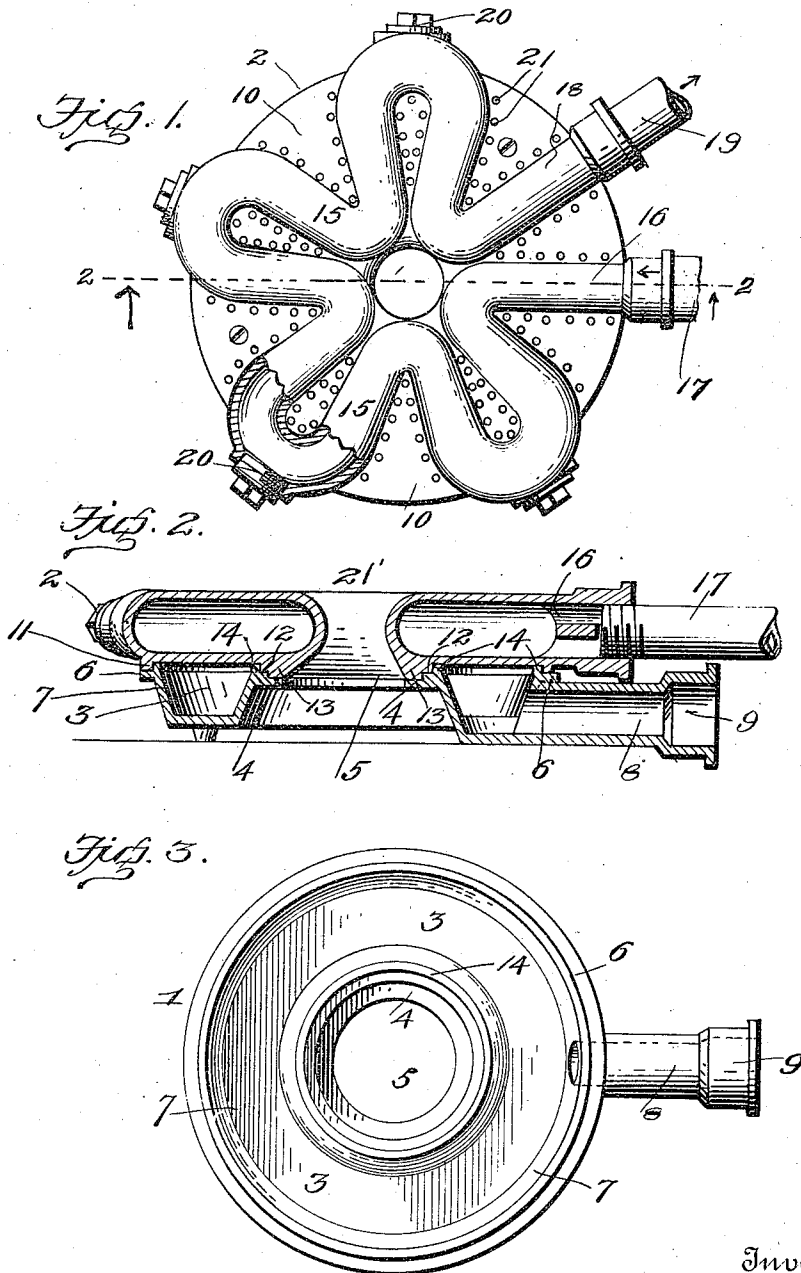


W. A. FEABRANTZ.
 COMBINED GAS BURNER AND HOT WATER HEATER.
 APPLICATION FILED AUG. 25, 1909.

953,262.

Patented Mar. 29, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

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COMBINED GAS-BURNER AND HOT-WATER HEATER.

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Specification of Letters Patent.

Patented Mar. 29, 1910.

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To all whom it may concern:

Be it known that I, WILLIAM A. FEABRANTZ, a citizen of the United States, residing at the city of Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Combined Gas-Burners and Hot-Water Heaters; and I do 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.

This invention relates to a combined gas burner and water heater, adapted to take the place of the regular and ordinary burner of any stove.

The primary object of this invention is to provide a device of this kind wherein the flame which is used for heating the water in the water compartment may, at the same time, be utilized for cooking or other purposes.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a plan view of the burner. Fig. 2 is a vertical transverse section thereof, and Fig. 3 is a plan view of the lower section of the device.

In the embodiment illustrated, the device comprises a lower burner section 1 and an upper section 2, which is mounted upon the lower section and forms the water coils. The lower or burner section comprises an annular trough-like gas mixing chamber 3, provided with the central annular supporting flange 4, leaving the central opening 5, the purpose of which will be disclosed. The burner section is also provided with an annular exterior flange 6 which extends from the outer wall 7 of the gas chamber 3.

The gas inlet pipe 8 extends laterally from the burner section at a suitable point and communicates with the gas mixing chamber 3. The outer end as 9, of the gas inlet pipe 8 is connected with the regular gas pipe of the stove in any suitable manner.

The upper section 2 comprises a base plate 10, which is arranged over the burner section and is provided with the exterior annular depending flange 11, which seats upon the flange 6 of the burner section and with the

interior recessed portion 12, the base 13 of which seats upon the flange 4.

The two sections may be secured together by bolts which are passed through the rim 14 of the burner section and the flange 11 of the other section. The upper section also comprises a plurality of reversely curved or bent coils 15, the outer end of one coil terminating in the outwardly extending feed pipe 16, which is interiorly threaded for suitable connection with the pipe 17, which may connect with a water tank or reservoir which may be supplied from the city water main. The coil at the opposite side of the upper section is also provided with or forms the water outlet 18, which is also interiorly threaded for connection with a suitable outlet pipe 19, which also connects with the water tank or reservoir. By this construction, the water passing through the coils is kept at the same pressure as that in the water main and a constant circulation of water through the coils back to the tank or reservoir is maintained.

The central portions of the coils are provided with removable plugs 20, which may be removed to provide for the insertion of a suitable device for removing any incrustation which may form upon the interior surfaces of the coils.

The base plate 10 is provided with vertical openings 21 along the inner and outer sides of the water coils to provide for the passage of the gas flame.

The opening 5 of the burner section registers with the central opening 21' of the coil forming section and provides an air vent.

Having thus described my invention, what I claim is:

1. A combined gas burner and hot water coil, comprising a lower burner section having an annular gas chamber, a gas inlet tube communicating with said chamber, a horizontal outwardly extending flange formed upon the outer wall of the gas chamber, an inwardly extending flange formed at the inner wall of the chamber, leaving a central air opening, an upper section comprising a base plate having an opening to register with the air opening of the burner section, a depending exterior flange to seat upon the exterior flange of the burner section and an interior flange formed with an annular recess, leaving a shoulder adapted to seat upon the inner flange of the burner section,

and a series of reversely bent water coils on the base of the upper section, the base of the upper section being apertured along the inner and outer sides of the coils to provide
5 gas openings.

2. A combined gas burner and hot water coil, comprising a lower burner section having an annular gas chamber, a gas inlet tube communicating with said chamber, an outwardly extending flange formed at the outer
10 wall of the gas chamber, an inwardly extending flange formed at the inner wall of said chamber, leaving a central air opening, an upper section comprising a perforated
15 base plate having an opening to register

with the air opening of the burner section, a depending flange to seat upon the exterior flange of the burner section and an interior flange formed with an annular recess, leaving a shoulder adapted to seat upon the inner
20 flange of the burner section, and a series of reversely bent water coils arranged on the base.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.
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WILLIAM A. FEABRANTZ.

Witnesses:

CHARLES O. BIETAU,
CHARLES L. LEE.