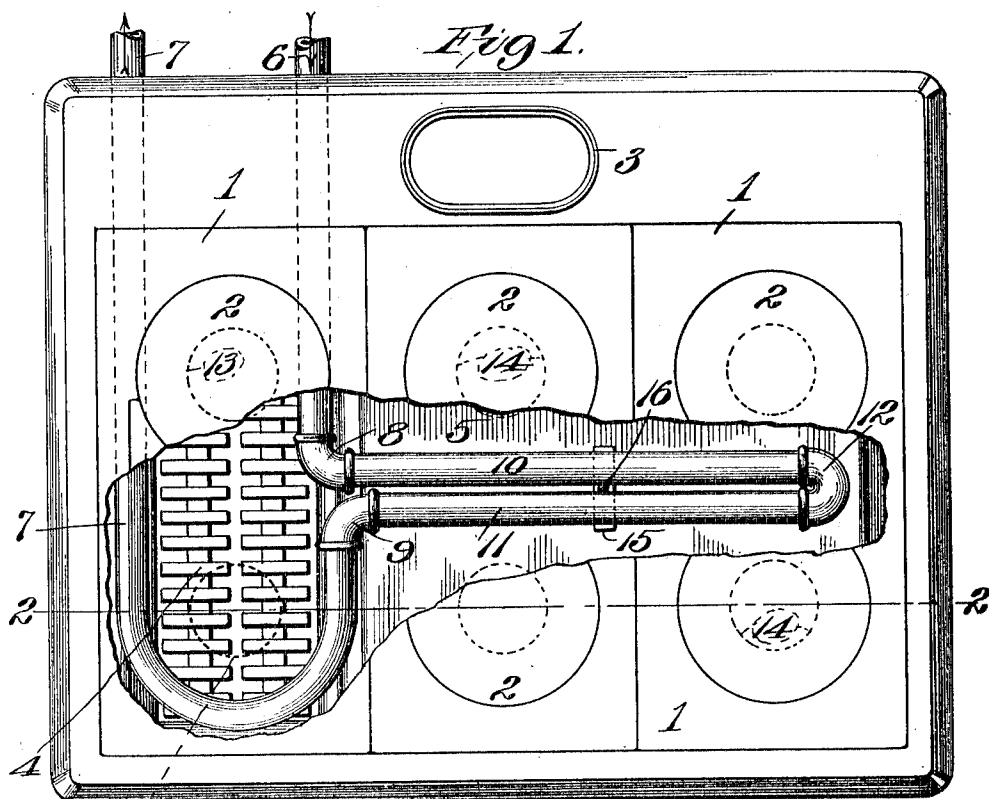
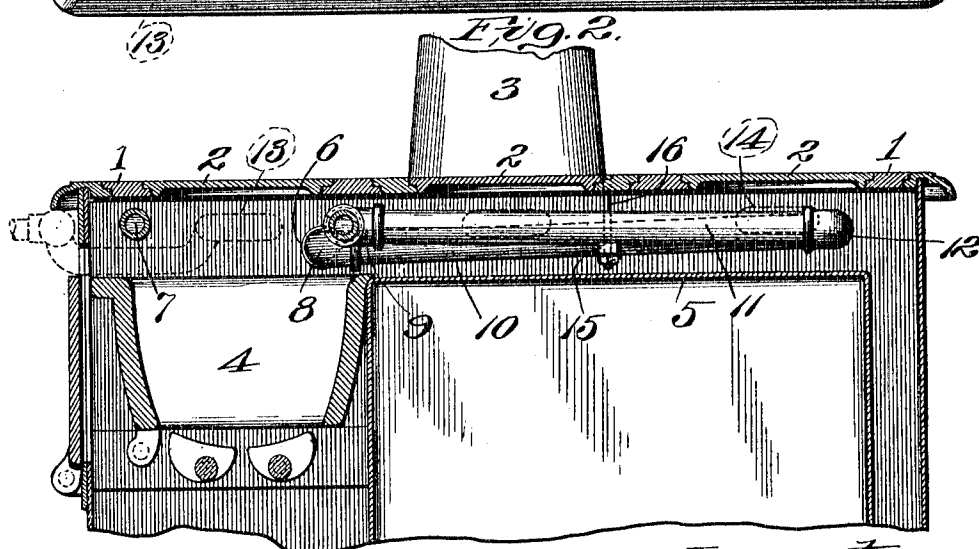


P. A. BRITT.
 WATER HEATER FOR COMBINATION STOVES AND RANGES.
 APPLICATION FILED DEC. 18, 1911.

1,105,616.

Patented Aug. 4, 1914.



Attest:
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UNITED STATES PATENT OFFICE.

PAUL A. BRITT, OF ST. LOUIS, MISSOURI.

WATER-HEATER FOR COMBINATION STOVES AND RANGES.

1,105,616.

Specification of Letters Patent.

Patented Aug. 4, 1914.

Application filed December 18, 1911. Serial No. 666,503.

To all whom it may concern:

Be it known that I, PAUL A. BRITT, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Water-Heaters for Combination Stoves and Ranges, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved water-heater for combination stoves and ranges, and consists in the novel construction and arrangement of parts hereinafter described and pointed out in the annexed claim.

The object of my invention is to provide an improved water-heater for stoves and ranges so that the water heating surface will be increased in area, and extended laterally from the fire-box into the space beneath the top of the stove and above the top of the oven, in such a manner that the lateral water heating extension will not only provide a greater quantity of hot water, but will absorb the waste heat from the fire-box and prevent over-heating and warping of the stove top.

In the drawings: Figure 1 is a top plan view of the combination stove or range having my invention applied thereto, parts of the top being broken away to disclose the water heater; and Fig. 2 is a sectional elevation taken on the line 2—2 of Fig. 1, the lower portion of the stove or range being shown broken away, it having no connection with my invention.

1 indicates the usual removable top sections of the stove or range, in which sections are formed, the usual openings having removable covers 2.

The smoke-outlet is indicated by the numeral 3, the fire-box by the numeral 4, and the top of the oven by the numeral 5.

Located above the fire-box is a water-heating device composed of the straight water pipe 6 and the U-shaped pipe 7 respectively, with which the fire comes in contact.

At the inner end of the pipe 6 are located a pair of elbows 8 and 9 respectively, and extending laterally with relation to the fire-box in the space beneath the top sections 1

is a U-shaped lateral extension composed of a pair of parallel pipes 10 and 11, the outer ends of which are connected by a return elbow 12.

When my invention is applied to a combination stove or range in which either coal or gas is used as fuel, the arrangement of the water heating pipes is exactly the same as I have above described them, and the removable gas burners are indicated by the dotted lines 13 and 14. The gas burners 13 and 14 are removable in the well known manner, and further showing of them need not be made, except to say that when it is desired to burn coal in the fire-box 4 the gas burners 13 are of course to be removed from the fire-box and this is easily done by removing the common detachable fire-box lining and swinging the burners downwardly and outwardly, through the common hinged-door at the front of the fire-box.

15 indicates a supporting bracket for the pipes 10 and 11, said bracket being located beneath said pipes and connected to the stove top by means of a common bolt 16.

The operation is as follows: The fire from the fire-box 4 passes upwardly from the fire-box into contact with the water pipes 6 and 7 and thence rearwardly over the top of the oven 5, and comes in contact with the water heating pipes 10 and 11, which are located substantially as shown, whereby a greater quantity of hot water will be provided and the waste heat will be absorbed and overheating and warping of the top will be prevented. Thus my result will be brought about whether coal or gas be used in the stove or range. Water to be heated enters one of the pipes, (6 in the present instance) and passes through said pipe into the lateral U-shaped extension 10 and 11, thence into the pipe 7 from which the hot water makes its exit to the usual tank or other device (not shown).

What I claim is:

The improved water-heating device for coal and gas stoves, comprising a U-shaped water-heating pipe to be located in the top of the fire-box, a lateral U-shaped extension projecting at a right-angle from said U-shaped pipe, so that it will extend rearwardly within the space between the stove-

top and the oven-top at a central point
where the heat is greatest in said space, to
prevent warping of the stove-top above it,
an elbow for connecting said two U-shaped
5 parts, another elbow, and a pipe connected
to said last-mentioned elbow and projecting
on the exterior of the fire-box.

In testimony whereof, I have signed my
name to this specification, in presence of two
subscribing witnesses.

PAUL A. BRITT.

Witnesses:

R. L. RANKIN,
JOHN C. HIGDON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."