

W. A. WALLACE & A. CRUME.
LIQUID FUEL BURNER.
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981,504.

Patented Jan. 10, 1911.

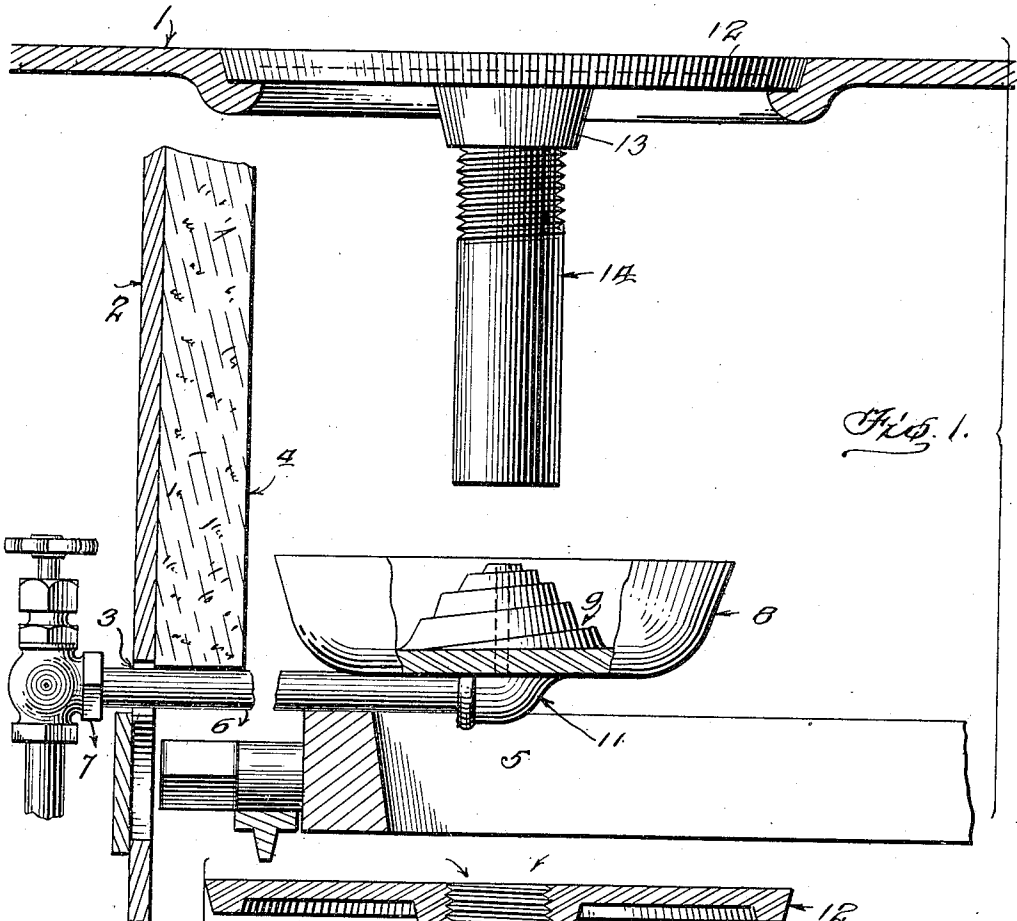


Fig. 1.

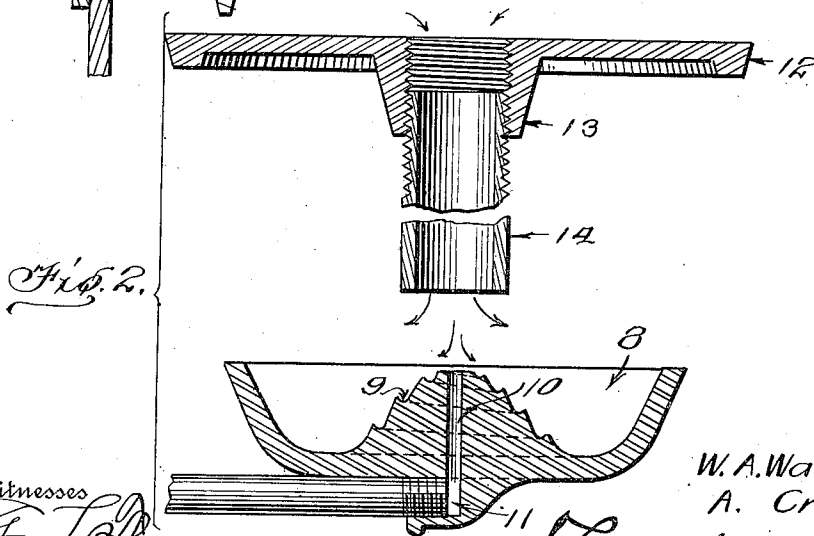


Fig. 2.

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UNITED STATES PATENT OFFICE.

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LIQUID-FUEL BURNER.

981,504.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, WILLIAM A. WALLACE and ALBERT CRUME, citizens of the United States, residing at Brush, in the county of Morgan and State of Colorado, have invented certain new and useful Improvements in Liquid-Fuel Burners; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to liquid fuel burners and to that class intended for use in kitchen ranges and the like.

The object of this invention is to provide a simple device, easily applied to and removed from any kitchen range or the like which will take the least amount of fuel and develop the best results, such results being attained by the particular construction of the several parts.

Other objects will be apparent from the following specification and appended claim.

We illustrate our invention in the accompanying drawings, in which:—

Figure 1 is an elevation of the burner with the fire box, etc., in section, and Fig. 2 is a sectional view through the burner.

Referring to the drawings by numeral, 1 designates the top of a range having an opening as for the usual lids of a range, 2 the front wall of the range having a hole 3 drilled through the same for the admission of a fuel supply pipe to be described later.

4 indicates the usual fire resisting lining such as fire brick or the like and 5 the grate.

The above being common to any range except for the opening 3 through which the fuel supply pipe 6 passes, said pipe communicating liquid fuel from a reservoir, not shown, through the globe valve 7 which regulates the flow of the liquid to the burner 8 which is bowl shaped and has a cone rising from the center thereof. This cone has a spiral groove 9 about the same and has a vertical bore 10 communicating with the nip-

ple 11 on the bottom of the burner to which said pipe 6 is secured.

The burner is intended to rest on the grate directly below an opening in the top of the range and in said opening is placed a cover or lid 12 which has an internally threaded boss 13 in which a section of pipe 14 is intended to be screwed. When placed correctly, the lower end of the pipe 14 is about one inch above the cone in the burner 8, any adjustment being had by screwing or unscrewing the section of pipe into or out of the boss 13 on the lid 12. The lower drafts are closed and the necessary supply of oxygen to maintain the proper combustion is through the lid 12 and pipe 14 and by having a spiral groove about the cone in the burner the oil as it flows from the bore 10 has a longer course to travel and permits an air space between the rows of flames, resulting in proper combustion.

What we claim to be new is:—

A liquid fuel burner, comprising a saucer-shaped receptacle having a central, upwardly extending conical-shaped projection which is centrally apertured and having a lateral opening communicating with the central aperture and a spiral duct about its convex surface, said duct terminating at its upper end in the central aperture through said conical shaped projection and its lower end being flush with the bottom of the receptacle, a threaded pipe fitting in the lateral opening communicating with the aperture leading through said conical projection, forming a support for the receptacle, a lid, a boss in the under surface thereof having a threaded aperture therein, and an open ended pipe threaded at one end and engaging the threaded aperture in the boss and positioned centrally over the apex of said conical-shaped projection in the receptacle and spaced apart therefrom.

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

WILLIAM A. WALLACE.

ALBERT CRUME.

Witnesses:

FRED J. FREESE,

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