

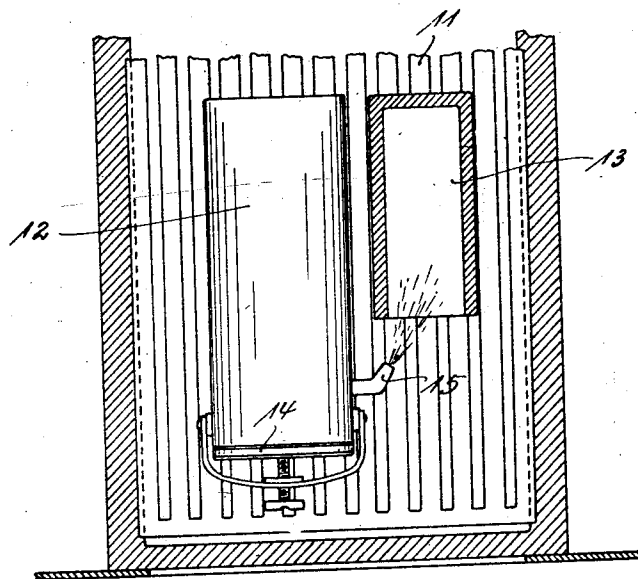
Jan. 19, 1926.

1,570,325

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FUEL GASIFIER FOR KITCHEN RANGES AND THE LIKE

Filed August 18, 1923



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UNITED STATES PATENT OFFICE.

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FUEL GASIFIER FOR KITCHEN RANGES AND THE LIKE.

Application filed August 18, 1923. Serial No. 658,111.

To all whom it may concern:

Be it known that I, FRIEDRICH ALLENDORF, a citizen of the German Empire, and resident of Frankfort-on-the-Main, Germany, have invented certain new and useful Improvements in Fuel Gasifiers for Kitchen Ranges and the like; and I 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 letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to fuel gasifiers and while it is especially designed for use in kitchen ranges, it may be used in furnaces employed in industrial works.

The invention consists in providing a retort made of any suitable material such as cast iron, malleable iron or steel in the form of a long chamber adapted to be readily mounted in the fire box of a range or furnace. The retort is closed at its rear end by a wall, its front end being provided with a removable door or cover to permit charging with any suitable material; an orifice or orifices formed in the wall of the retort near the front end is provided with an angular nozzle so that the outflowing gases generated in the retort are projected longitudinally thereof, and in close proximity to the outer surface so that the flame will be close enough to the latter to heat the same.

Two or more retorts may be so arranged that the gases flowing from one retort are conducted directly into another retort which is open at its front end so that, one retort, so to speak, will flow in the other retort.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming a part of this specification, with the understanding that the invention is not confined to any strict conformity with the showing of the drawing, but may be embodied in any manner which does not make a material departure from the salient features of the invention.

In the drawing:

The figure is a diagrammatic horizontal section of the fire box of a kitchen range showing a closed retort and an open retort mounted therein.

In the form of construction shown, a retort 12 and a smaller sized retort 13 are arranged on the grate 11 of the range. The retort 12 is closed at the front end by a lid 14 and has an angular lateral nozzle 15 the orifice of which directs the gas into the open second retort, 13. The combustible gases flowing out from the closed retort 12 through the nozzle 15 ignite and flow into the second retort 13 so that they burn the fuel contained in this second retort. Any required number of retorts may be arranged side by side in the manner shown.

The retorts are to be filled with any convenient fuel, wood, coal or the like. The fire on the grate of the range heats the retort and gasifies the fuel in the retort. The combustible gases flowing out through the nozzle orifices ignite and produce a considerable heating effect so that the fuel is utilized in a perfect manner.

I claim—

1. The combination of a fire-box, a retort mounted therein comprising a closed chamber having a lateral discharge orifice near one end, a nozzle in said orifice for directing gases generated in the chamber towards the opposite end of said retort, and an auxiliary retort in said fire box mounted in the path of the gases issuing from said nozzle.

2. The combination of a fire-box, a retort mounted therein comprising a closed chamber having a lateral discharge orifice near its front end, a nozzle in said orifice for directing gases generated in the chamber towards the rear end of the retort, and an auxiliary retort mounted in said fire box and open at its front end into which the gases issuing from said nozzle are directed.

In testimony that I claim the foregoing as my invention, I have signed my name.

FRIEDRICH ALLENDORF.