(No Model.)

W. C. EYMANN.

COOKING STOVE.

No. 563,028. Patented June 30, 1896.

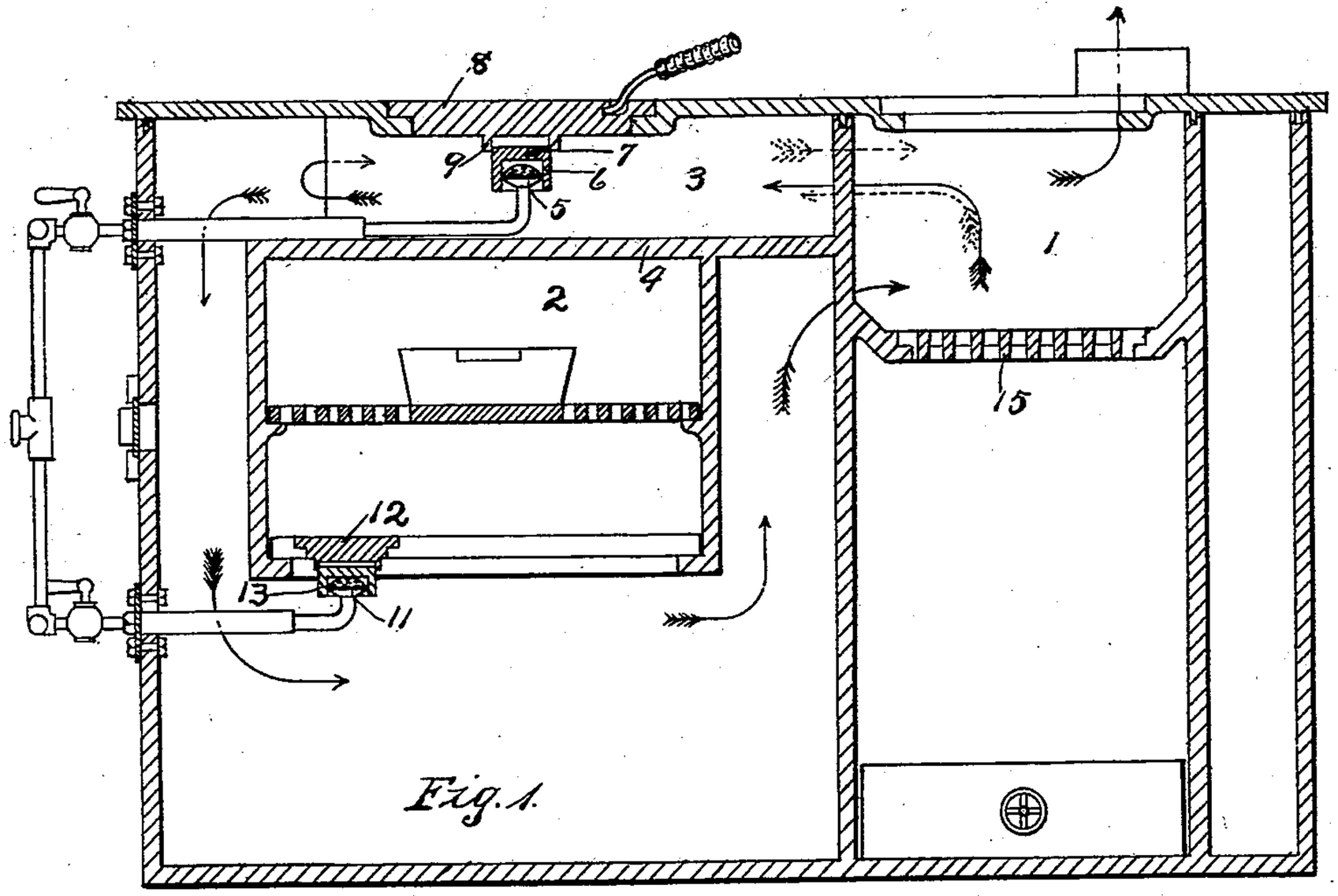

Fig. 1.

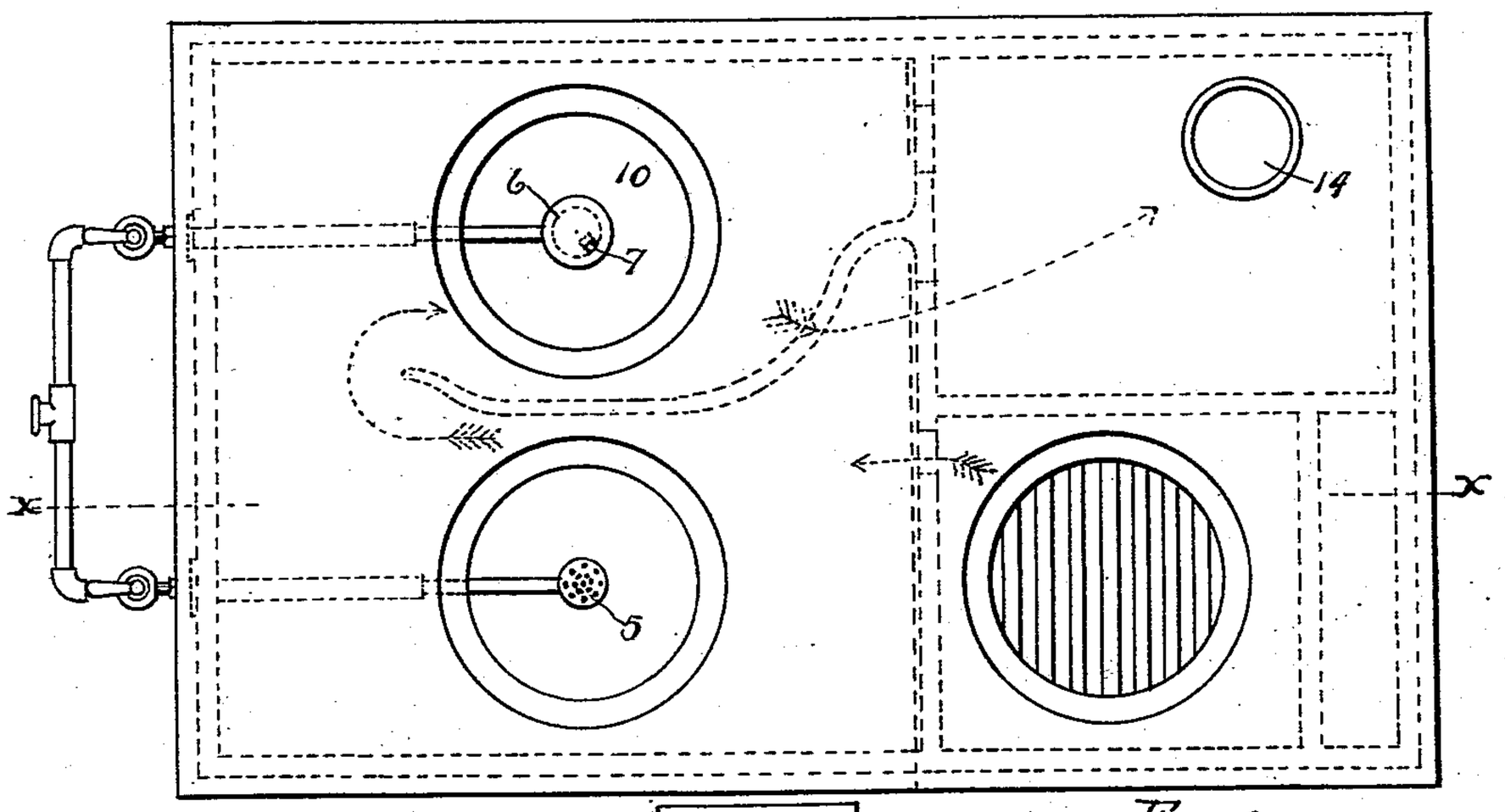

Fig. 2.

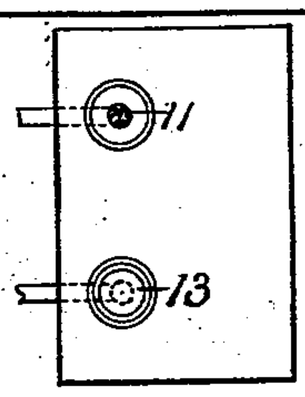

Fig. 3.

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UNITED STATES PATENT OFFICE.

WALTER C. EYMANN, OF ANAHEIM, CALIFORNIA.

COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 563,028, dated June 30, 1896.

Application filed November 11, 1895. Serial No. 568,581. (No model.)

To all whom it may concern:

Be it known that I, WALTER C. EYMANN, a citizen of the United States, residing at Anaheim, in the county of Orange and State of California, having invented an Improvement in Coal and Gas Burning Stoves and Ranges, of which the following is a full, clear, and exact description.

This invention relates to that class of stoves and ranges which is adapted to utilize either gas or coal and solid fuel, and more particularly to the stove of this class for which Letters Patent of the United States have been granted to Albert Stecke, December 25, 1894, No. 531,602.

The object of this invention is to provide a means of overcoming certain faults in the construction and certain difficulties and inconveniences in the operation of the above-mentioned stove.

A further object of this invention is to protect all places exposed to the action of the products of combustion, and prevent such places from collecting soot and other products of combustion.

The form in which I have chosen to embody my invention for illustration is fully shown in the accompanying drawings, in which—

Figure 1 is a vertical sectional elevation taken on line *x x* of Fig. 2. Fig. 2 is a plan of the same. Fig. 3 is a plan, drawn to a reduced scale, of the position of the burners for heating the oven, with respect to the bottom of said oven.

The general shape of the stove in which I have chosen to illustrate my improvement is the same as that shown in the invention of said Stecke, but it is evident that this improvement could be applied to any stove or range of this nature.

The same reference-figures in the different views refer to the same parts.

Referring to the drawings, I provide the stove with a fire-pot 1 and grate 15 of suitable shape for burning solid fuel. At one side of the fire-pot is placed an oven 2, suitable burners 11 being provided to heat said oven. The oven is separated from the chamber 3 by the partition 4, and this chamber is connected by the customary openings with the fire-pot 1 and with the outlet 14. Within this chamber 3 are placed the gas-burners 5, two being shown for convenience, although it is evident that the number or relative position may be changed to suit different circumstances without avoiding the spirit of the invention. As a means of protecting these burners from the destroying action of the products of combustion, and to prevent them from becoming clogged by the lodgment of soot, I provide a cap 6, which may be made of any shape suitable to that of the burner used, as I do not wish to be confined to the shape shown. This cap is provided with a slot 7, adapted for the insertion of a cover-lifter.

Directly above the cap 6 is the cover 8, which is made separate from the cap for this reason: Oftentimes when coal or solid fuel is used it is desirable to remove the cover and to place a cooking vessel in the opening, so that the products of combustion may come directly into contact with the bottom of said vessel.

If the cover 8 and protecting-cap 6 were made in one piece, then it would be either necessary to always have the cover on when solid fuel is used, or else to expose the gas-burner to the products of combustion, which would rapidly destroy it. Hence such a construction would mean either a loss of heat or a shortening of the life of the burner. To avoid each of these difficulties, I have made the cover and protecting-cap separate, as above described.

On the bottom of the cover I provide a rim 9, extending slightly below the top of the cap 6, so that the soot and the products of combustion may be prevented from striking and lodging upon the top of the cap 6 and in the slot 7. The shape given to this rim must evidently be such as to correspond with that of the cap 6. Hence for illustration I have shown it circular.

To heat the oven 2, I provide burners 11, of any suitable shape. To protect these, the caps 13 are supplied, and these caps are made separate from the covers 12.

The advantages of this invention thus are that it can be applied to any stove in which it is desired to use either gas or solid fuel. The gas-burners are at all times protected

from the action of the products of combustion and from becoming clogged with soot. When coal or solid fuel is used, and it is desired that the bottom of the cooking utensils should be brought into direct contact with the products of combustion, the covers can be removed and the vessels placed in the openings, while the protecting-caps remain undisturbed upon the burners. The protecting-caps are prevented from becoming a lodging-place for the collection of soot.

While I have described my invention with more or less completeness as regards the details thereof, and as being embodied in more or less precise form, I do not desire to be limited thereto unduly, as I contemplate all proper changes of form, omission of parts, and the substitution of equivalents as circumstances may suggest or necessity render expedient.

I claim—

1. In a stove having gas-burners arranged at openings in said stove, covers for said openings and protectors for said burners, said protectors being separate from said covers, and said covers having on their under sides a rim adapted to surround the tops of said protectors, substantially as described.

2. In a stove having gas-burners arranged at openings in said stove, protectors for said burners, and covers for said openings separate from said protectors, and adapted to shield the tops of said protectors, substantially as described.

3. In a combined gas and coal burning stove, a chamber adapted for the combustion of coal, a second chamber provided with burners for the combustion of gas, a means of protecting said gas-burners from the products of combustion of said coal, openings for exposing cooking utensils directly to the products of combustion of said coal, and covers separate from and adapted to shield said means of protecting said gas-burners, and adapted to close said openings, substantially as described.

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Witnesses:

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