(No Model.)

P. VANHORN.

OIL BURNING ATTACHMENT FOR STOVES.

No. 563,897. Patented July 14, 1896.

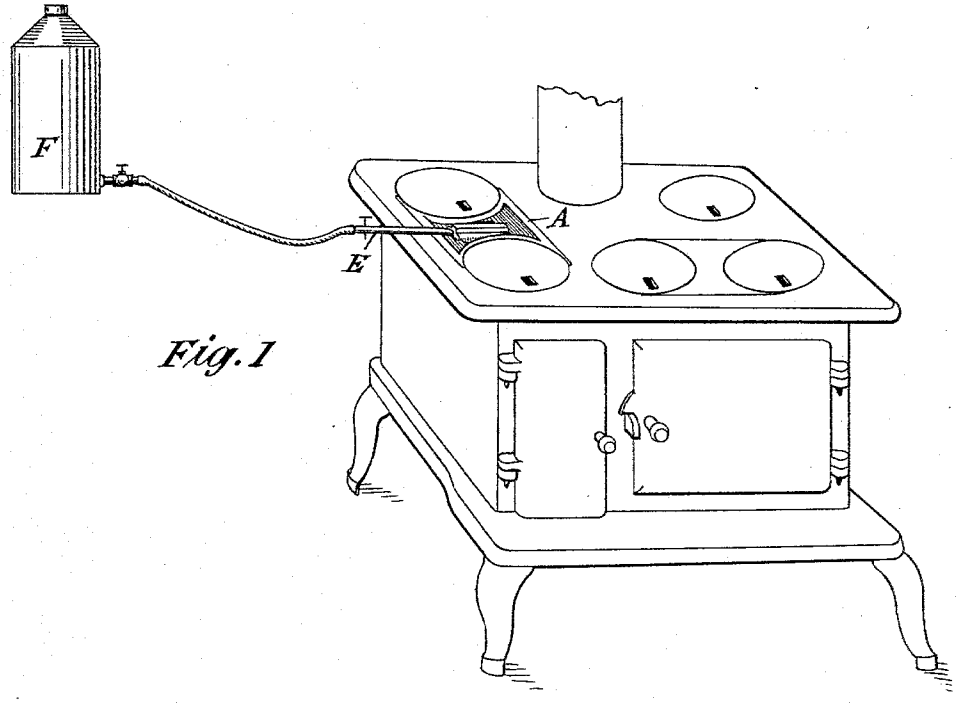


Fig. 1

Fig. 2

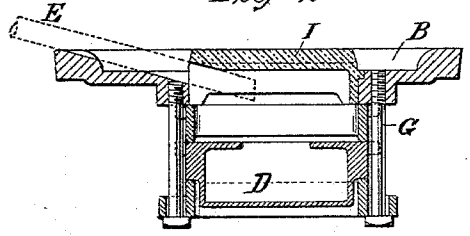


Fig. 3

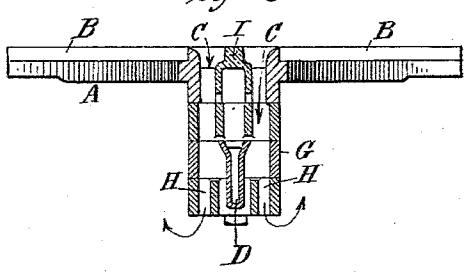
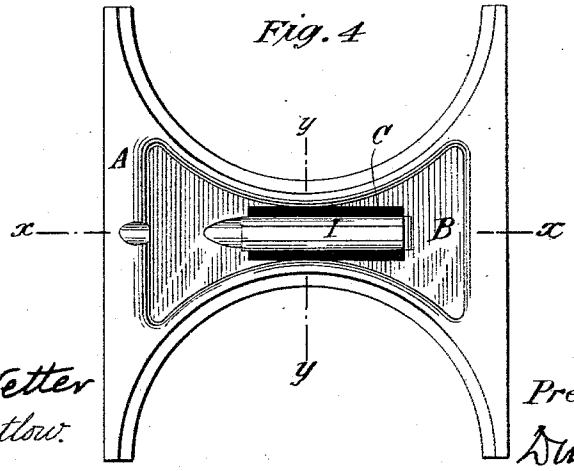


Fig. 4



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UNITED STATES PATENT OFFICE.

PRESTON VANHORN, OF BROOKLYN, NEW YORK.

OIL-BURNING ATTACHMENT FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 563,897, dated July 14, 1896.

Application filed August 19, 1895. Serial No. 559,741. (No model.)

To all whom it may concern:

Be it known that I, PRESTON VANHORN, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Oil-Burning Attachments for Stoves, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

The present invention relates to improved means for attaching to an ordinary coal-burning stove or range an oil or similar fluid burner, the object being to make such attachment so that the burner shall not interfere with the common employment of the top of the stove, and so that the action of the burner will not be interfered with by various cooking utensils placed on the stove.

The invention consists of a lid or center piece or like removable part of a stove provided with an oil or fluid burner, such lid or center piece being of the same size and shape as the corresponding part of the stove, so as to be interchangeable therewith, so that whenever it is desired to use oil as a fuel in lieu of coal the ordinary lid or center piece of the stove can be removed and the lid or center piece bearing the oil-burner be substituted therefor, said burner being attached to the lid without projecting above the upper surface thereof, and the lid being provided with a depression or groove adjacent or around the upper end of the burner for the purpose of insuring that the same be supplied with a downward draft of air in suitable quantity under the ordinary conditions of the use of the stove.

In the drawings, Figure 1 represents in perspective an ordinary cook-stove provided with my improvement. Fig. 2 is a cross-section on plane *x x* of Fig. 4 of a center piece provided with a burner constructed according to my plan. Fig. 3 is a cross-section on plane *y y*. Fig. 4 is a plan view of the center piece.

Referring to the views in detail, A represents a center piece or center lid of a stove. In the upper face of the lid is a depression or groove B, from which the center passage C opens through the lid into the burner below. This burner may be of any suitable construction, but preferably it is composed of the retort D, having side passages D′, into which oil drips from the pipe E, connected to a source of supply, as the reservoir F. This retort is inclosed, as shown, by the side walls G. The lower end of the burner is provided with the gas-passages H.

I is a cover or shield for the end of the supply-pipe, which cover is removable from the lid for the purposes of igniting the oil and adjusting the supply-pipe. This shield only partially fills the opening in the top of the burner, the air-supply slots C being left open.

To insure a continuous and proper downward draft of the air, the groove or depression B is provided, which is of such extent or spread that none of the ordinary cooking vessels likely to be placed on the stove will entirely cover the same. Thus it is insured that the proper supply of air will be had to the burner. At the same time it is not required that any special care should be exercised as to the disposition of cooking vessels on the stove, and none of the burner parts project above the stove-top to interfere with placing such vessels. In starting the burner a few drops of oil are allowed to drip into the retort and the same is ignited. After the retort becomes sufficiently heated the oil as it drips into the same will be turned into gas or vapor under the high heat and mingling with the air drawn into the burner it bursts into flame below and around the burner, and at a point practically the same as where would be the burning-point of a mass of coals as ordinarily used in such a stove. By these means a common cook stove or range can be converted into an oil-stove without loss of efficiency and with a gain in convenience and saving of time well understood.

I am aware that it has been variously proposed to use oil-burners in ordinary coal-stoves, and I make no broad claim for mechanism therefor.

My invention consists, essentially, of a lid or center piece of a stove, to which is attached a depending oil-burner, and in the upper horizontal face of which is formed a depression or groove adapted to insure the supply of air to the burner.

What is claimed as new is—

1. In combination with a lid, center piece, or like part of a coal-stove, an oil-burner at-

tached thereto and depending therefrom in such manner as to enter the fire-box of the stove, said burner being provided with an air flue or passage joining a groove or depression in the face of the lid, and a pipe leading from a source of fuel supply to said burner, substantially as set forth.

2. In combination, the center piece A having the depression B, the oil-burner attached to the under side of the piece, and provided with an air-flue C opening into said depression, and a pipe for supplying oil to the burner from above the piece, and the shield I, substantially as set forth.

3. In combination with a lid, center piece, or other like part of a stove, an oil-burner attached thereto and depending therefrom substantially as shown and described, consisting essentially of a casing G, a retort D within said casing, the downdraft-passages C being formed between the retort D and the walls of said casing, and an oil-supply pipe for conducting oil into said retort, said retort being provided with side passages D′ opening into the said downward-draft passages.

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