C. H. MILLER.

COMBINED GAS AND HARD FUEL RANGE.

APPLICATION FILED FEB. 3, 1910.

969,793. Patented Sept. 13, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

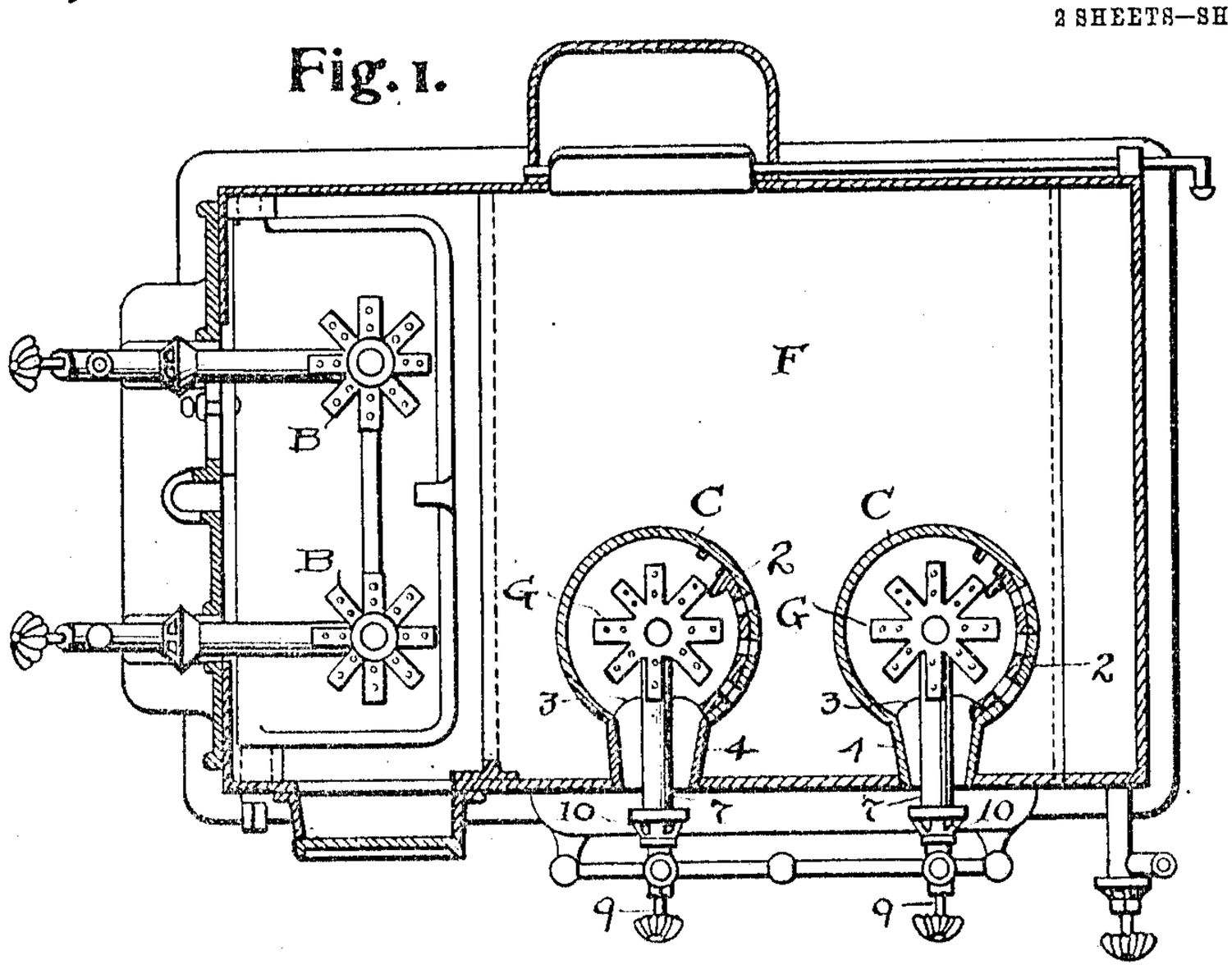


Fig. 2.

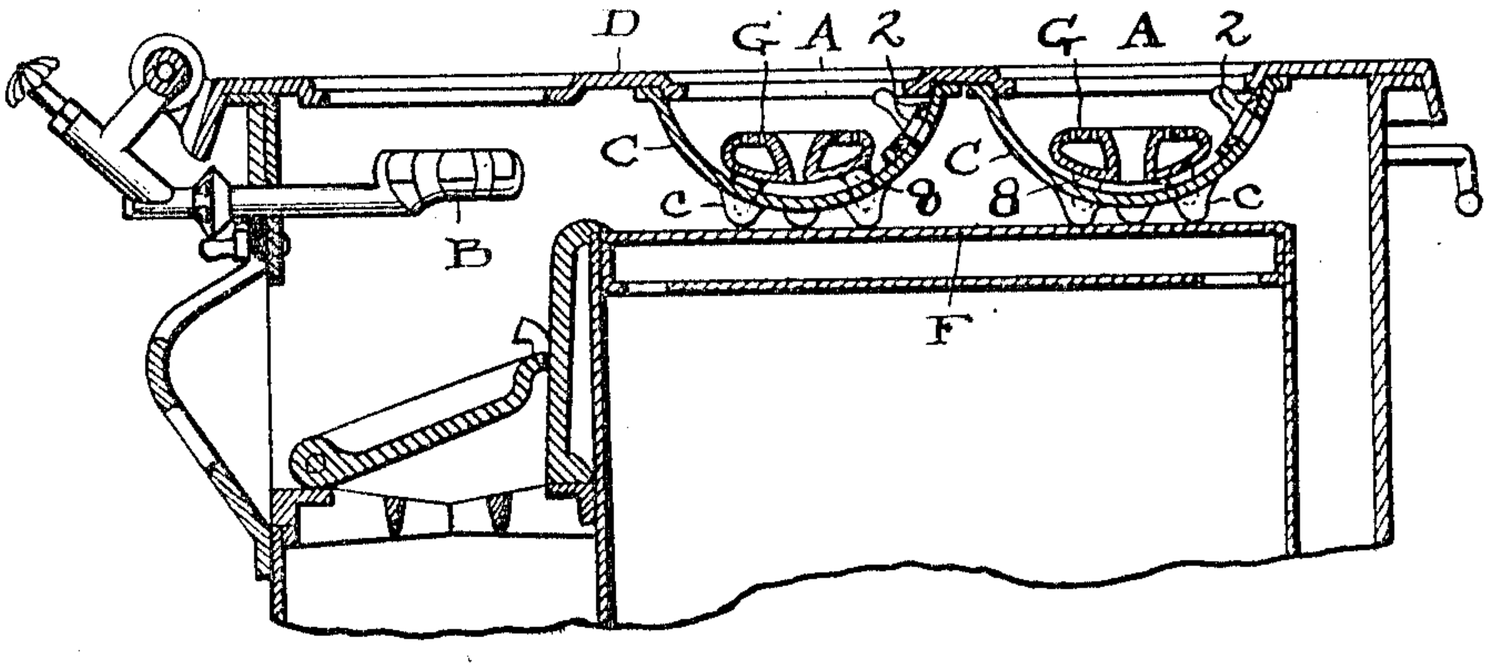
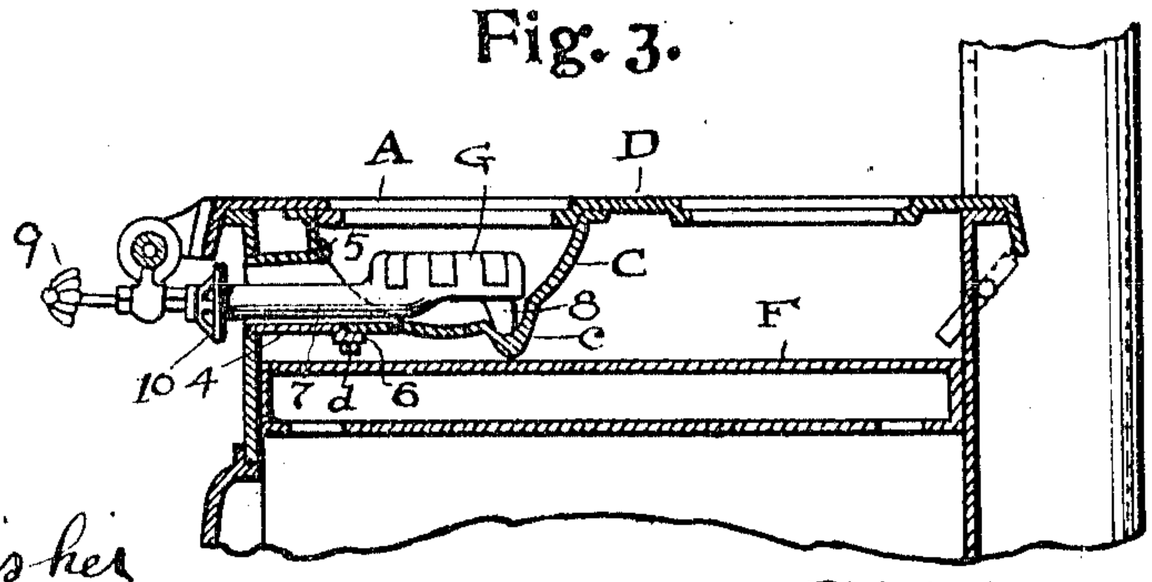


Fig. 3.



ATTEST

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Fig. 4.

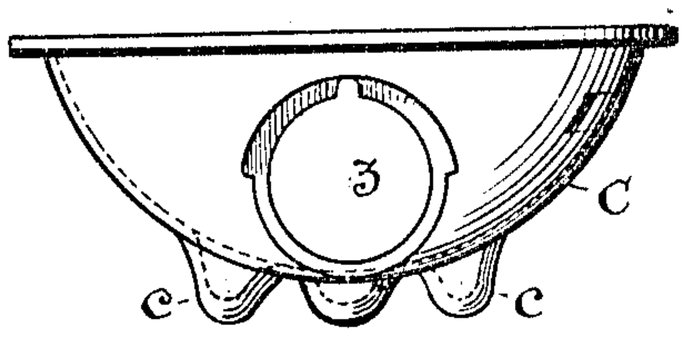


Fig. 5.

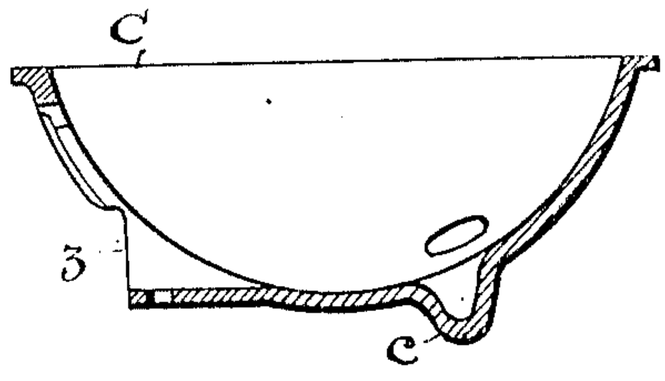


Fig. 6.

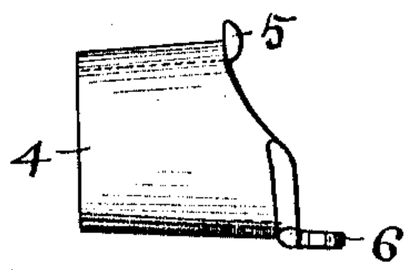


Fig. 7.

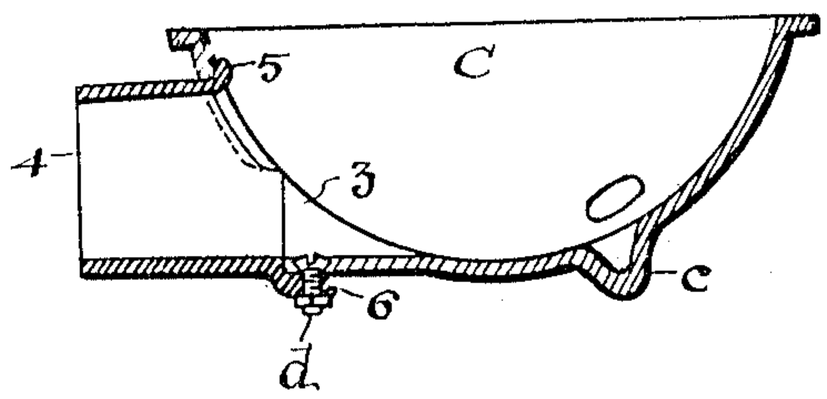
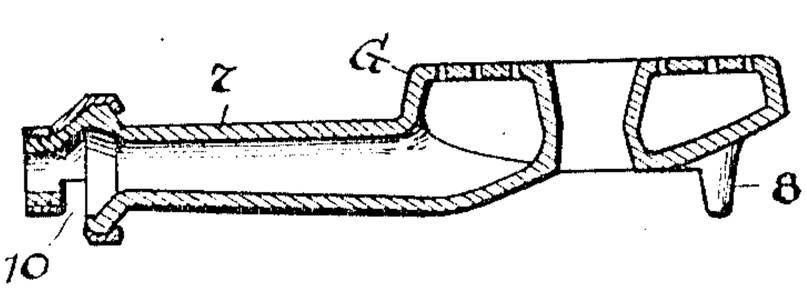


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES H. MILLER, OF CLEVELAND, OHIO.

COMBINED GAS AND HARD-FUEL RANGE.

969,793. Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed February 3, 1910. Serial No. 541,673.

To all whom it may concern:

Be it known that I, CHARLES H. MILLER, citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Combined Gas and Hard-Fuel Ranges, of which the following is a specification.

My invention relates to improvements in combined gas and hard fuel ranges, and the invention consists in that portion of the range which relates particularly to the use of gas with certain of the cooking holes, substantially as herein shown and described and especially pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional plan view of a range embodying my improvements, and Fig. 2 is a vertical sectional elevation of the upper portion of the range lengthwise thereof and with the parts shown in position as in Fig. 1. Fig. 3 is a cross section of the upper portion of the range through the rear burner. Sheet 2 of the drawings shows enlarged views of sundry parts. Thus, Fig. 4 is an enlarged front view of one of the gas burner bowls, and Fig. 5 is a front to rear sectional elevation thereof. Fig. 6 is a side elevation of the neck member for the bowl, and Fig. 7 shows the bowl and neck member united. Fig. 8 is a longitudinal sectional view of the burner.

The range thus shown is a double fuel range or one which is equipped with a fire pot for hard fuel, such as coal or wood, and gas burners for the four several holes of the range as shown.

The present invention has to do exclusively with the holes A and the burners and other parts connected therewith as shown herein, and leaves the entire top of the range open for draft as usual except as the bowls or receptacles C occupy small portions of said draft space and more or less obstruct the through passage from the fire pot. However, it has been found that this obstruction is not really noticeable in the operation of the range because it is comparatively slight at the most and the products of combustion easily pass about the said bowls and operate to heat the same so as to make the front holes A available for cooking the same practically as if the said bowls were not seated therein. The said bowls C are shown as seated within the holes A beneath the top plate D of the range and provided in this instance with flanged edges which engage behind corresponding shoulders or offsets in the said plate and about the depressions therein to receive the lids of the stove as usual, and otherwise such further support for the said bowls as may be needed is afforded by means of projections or feet *c* on their bottom which rest upon the bottom F of the flue or draft space in the top of the range. Presumably these bowls are placed in position when the range is assembled and the construction and arrangement thereof as shown, or the equivalent thereof, serves to hold the said bowls in position. In this instance I show a sliding damper 2 on the inside of the bowl adapted to cover draft holes in the wall thereof and which may be opened or closed according as one fuel or another is used. When gas is burned, especially natural gas, I prefer to have these dampers open to permit such draft as a healthful condition would suggest, but when hard fuel is used and the gas burners —G— are idle said dampers are closed. When closed, the bowls are sealed so far as the products of combustion from the fire pot are concerned and the practical effect and value of the chamber hereinbefore described is obtained with a very much simpler and better construction. The said bowl C has an opening 3 in its immediate front and a separate and attachable neck 4 is shown in this instance as engaged therewith by any suitable means, the particular means in this instance being a lip or catch 5 upon the top and inner edge of the said neck adapted to engage against the edge of the bowl at that point and an offset lip 6 at the bottom with a screw *d* rigidly uniting the parts. Otherwise the said neck extends through a hole in the front wall of the range, and the burner —G— has a stem or shank 7 projecting out through said neck and relatively smaller than the neck so as to afford a draft of air through the neck to the burner. The usual valve with a valve stem 9 is shown and a mixer 10 for air and gas, and the said burner is otherwise removably seated in the bottom of the bowl C but ordinarily remains in position therein.

If hard fuel is used the bowl serves especially well for stewing foods thereon, and a pan or pot can be set over the bowl with no danger of burning while the contents will quickly rise to a boiling point. Again, the bowl can be used with the gas burner

and the outside heat at the same time or separately. When hard coal is burned, which is slow in coming up, parties often resort to the gas for the two front burners to get a meal along more hastily.

Burners G have bottom lugs 8 which are adapted to rest in the hollow feet *c* of the bowl, thereby fixing their position therein.

What I claim is:

1. A combined hard fuel and gas range having one or more cooking holes in its top and front and a bowl seated within each of said holes provided with supporting lugs at its bottom and one of said lugs having a cavity open into the said bowl, in combination with a gas burner having a bottom projection seated in said cavity.

2. A combined solid fuel and gas range having a fire pot and provided with a draft passage under its top and cooking holes in its top and front above said passage, a metallic bowl beneath each of said front holes and constructed with a front opening above its bottom and a draft opening in the side thereof, a damper for said draft opening and a tubular extension for said front opening.

3. A kitchen range having a draft passage and cooking holes in its top, in combination with a bowl in the said draft passage in the top of the range engaged about its edge within the edge of one of said cooking holes, said bowl closed at its bottom and having an opening at its front, a tubular neck projecting through the wall of the range and engaged over said opening, in combination with a gas burner removably seated in said bowl and provided with a tubular shank extending into said neck.

4. A cooking range adapted to use both solid fuel and gas and having a draft passage and cooking holes in its top over the said draft passage, in combination with a bowl closed at its bottom and engaged about its edge at the edge of one of said holes and provided with projections at its bottom resting on the bottom of said draft passage, and a gas burner removably seated in said bowl.

5. A cooking range having a draft passage in its top and cooking holes over said passage, in combination with a bowl arranged in connection with one of said cooking holes and seated in said passage, said bowl having lugs on its bottom resting on the bottom of said passage and adapted to raise the body of the bowl above said bottom, thereby providing draft space beneath the bowl.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. MILLER.

Witnesses:

E. M. FISHER,

F. C. MUSSUN.