

F. P. NEAL.
RANGE.
APPLICATION FILED MAY 17, 1912.

1,062,991.

Patented May 27, 1913.

Fig. 1.

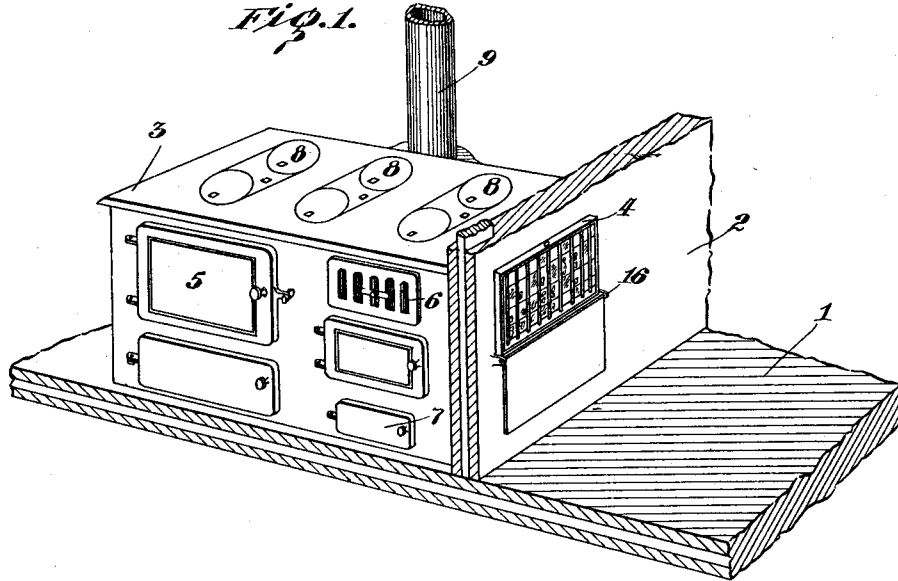


Fig. 2.

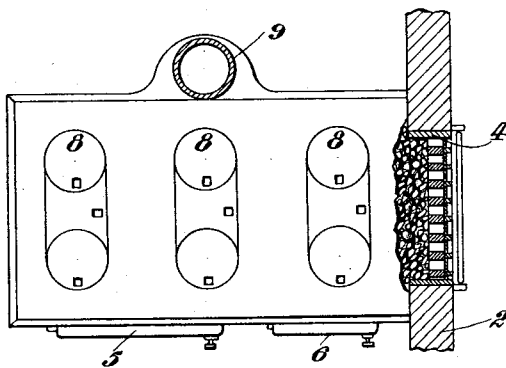


Fig. 3.

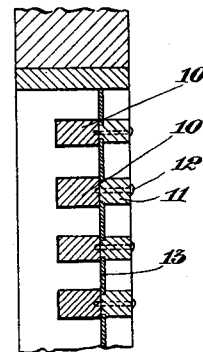


Fig. 4.



Witnesses:
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RANGE.

1,062,991.

Specification of Letters Patent.

Patented May 27, 1913.

Application filed May 17, 1912. Serial No. 697,873.

To all whom it may concern:

Be it known that I, FRANCES P. NEAL, a citizen of the United States, and a resident of North Plainfield, in the county of Somerset, State of New Jersey, have invented certain new and useful Improvements in Ranges, of which the following is a specification.

In certain locations it is very desirable that a range which is used for cooking may be used at the same time for heating purposes and particularly for heating adjoining rooms. Thus in small summer houses, bungalows and the like where no other heating system such as a furnace is provided, and where the amount of heat required is relatively slight, the range used in the kitchen for cooking will give off heat far in excess of that required for this purpose, which heat if it could be used in an adjoining room, such as a living room, would be sufficient for the comfort of its occupants.

The principal object of my invention is to devise a form of range such that it may be used simultaneously for cooking and for heating an adjoining room, using the same fire for both purposes.

Another object of my invention is to combine and arrange the parts of the range so that in the room to be heated it will have the pleasing appearance of a grate fire and that it will be possible to shut off the heat from this room if desired.

Another object of my invention is to provide a means whereby no draft through the fire from the room to be heated shall exist so that the fire will not be quickly burned out, thus wasting the fuel and making it impossible to properly regulate it for the purpose of cooking.

In the drawings accompanying this specification I have shown at Figure 1 a perspective view of my improved range as installed in a house, parts of the walls and floor of the house being shown in this figure. In Fig. 2 I have shown a plan view of my improved range partly broken away to show a section of the grate. In Fig. 3 I have shown a sectional view of a portion of the grate in greater detail than is shown in the other figures. In Fig. 4 I have shown an end view, partly in section, of the door used for shutting off the heat from the room to be heated.

Referring to Fig. 1, 1 is the floor of the house, 2 is the partition wall dividing the

kitchen from the room to be heated, say the living room. In the kitchen is located the range which comprises an outer shell 3, having an extension 4 at its side, which projects through the wall 2. This range is provided with an oven 5 preferably located in the end of the range farthest from the partition wall 2. It also contains a fire box 6 which fire box communicates with the extension 4, as shown in Fig. 2. The range is also provided with the usual ash pit 7, pot holes 8, stove pipe 9 and other appurtenances ordinarily found in ranges of this type. The particular locations of these parts are preferably that shown in the drawings although they may be varied depending upon the particular conditions met with.

At the outer end of extension 4, and in the opening thereof, is a grate consisting of a suitable number of vertical bars 10, which I preferably make of fire brick or other heat resisting material. A portion of these bars 11 is made removable and attachable by means of screws or other means 12. Between the bars I place sheets of transparent, non-inflammable material 13, preferably mica, which sheets are clamped between the bars 10 and the removable parts thereof 11, so that they may be renewed in case of breakage. The purpose of these sheets of mica, or similar material, is to allow the fire to be seen from the room to be heated and at the same time prevent a draft through the fire from that room. Such a draft would quickly burn up the fuel in the fire box and interfere with the proper regulation of the fire for cooking.

In order to shut off the heat from the room to be heated, I provide a door preferably made of alternate layers of iron and asbestos, or similar material, as shown at Fig. 4, the iron being shown at 14 and the asbestos at 15. This door is preferably hinged, as at 16, so that it may be easily dropped from in front of the grate or used to shut the grate off, as desired. The pin of the hinge may be slid out when it is desired to remove the door altogether.

It is thus apparent that with my improved range I am able to use the same fire without any substantial addition thereto both for heating in one room and cooking in another and that it is arranged so that the heat may be more or less or entirely shut off from the room to be heated. It will

also be seen that provision is made in my improved range for preventing a draft from passing through the fire from the room to be heated by means of the mica, or similar material, 13, and that the grate is so arranged that these pieces may be easily renewed.

I do not intend to confine myself to the precise details shown and described herein as it is obvious that many modifications may be made without departing from the spirit of my invention.

What I claim and desire to secure by Letters Patent is:

1. In a device of the kind described, a range containing a fire box having an opening at its side, a grate in said opening composed of a plurality of bars of fire-resisting material, transparent non-inflammable material removably held between said bars and a hinged cover composed of alternate layers of metal and non-conducting material adapted to cover the outside of said grate.

2. In a device of the kind described, a range having a fire box provided with an extension having an opening, a grate composed of a plurality of bars of fire brick located in said opening, sheets of mica removably held between said bars and adapted

to fill the space between them and a hinged cover composed of alternate layers of metal and asbestos adapted to cover the outside of said grate and to completely close said opening.

3. In combination with the partition wall of a house, a range having a fire box provided with a lateral extension projecting through said wall, said lateral extension being closed at its outer end by a grate of fire-resisting material, transparent, non-inflammable material located between the bars of said grate and a cover adapted to cover the end, and completely close the opening of, the lateral extension.

4. In combination with a partition wall of a house, a range having a top surface and containing a fire-box at its side, a grate in said opening, transparent non-inflammable material located outside of the grate and adapted to cover the same, and a cover attached to the partition wall and adapted to cover the grate.

In witness whereof I have hereunto signed my name in the presence of two witnesses.

FRANCES P. NEAL.

Witnesses:

KATHARINE A. WHELAN,
JOHN H. VAN WINKLE, Jr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."