

No. 758,111.

PATENTED APR. 26, 1904.

A. B. SCHOFIELD.
GAS FIREPLACE HEATER.
APPLICATION FILED FEB. 19, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 2.

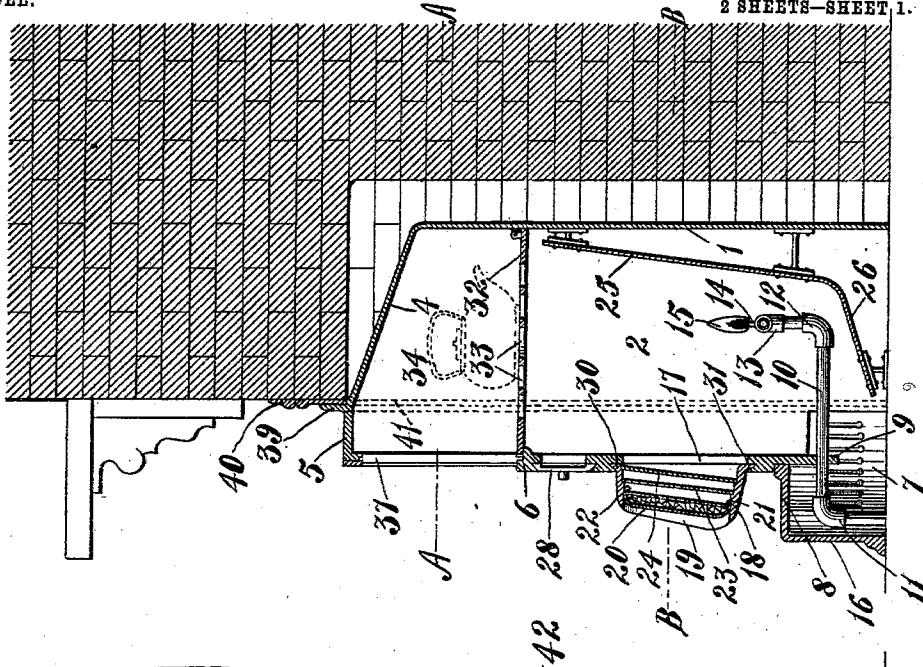
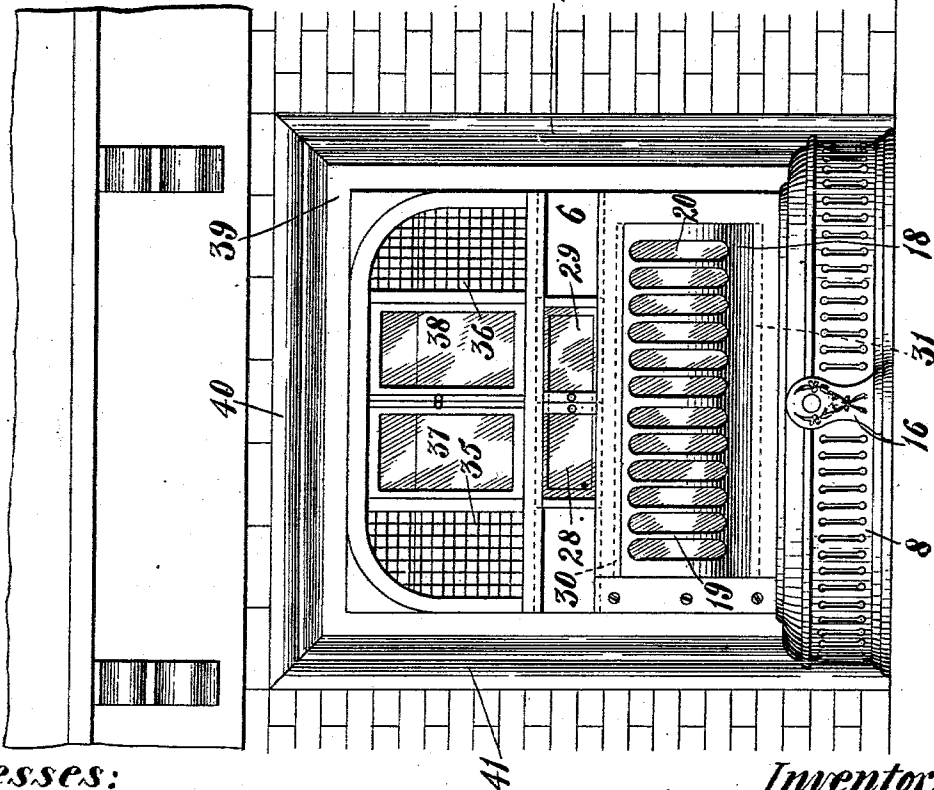


Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 4.

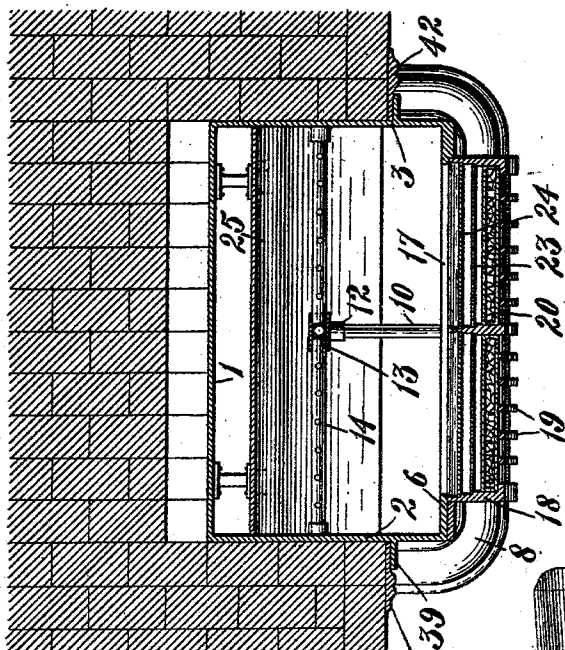


Fig. 5.

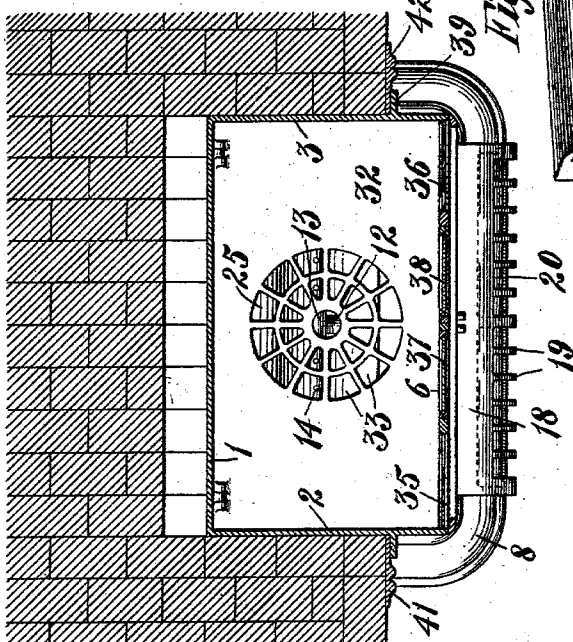
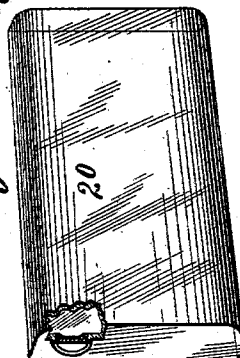


Fig. 5.



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UNITED STATES PATENT OFFICE.

ALBERT B. SCHOFIELD, OF NEW YORK, N. Y.

GAS FIREPLACE-HEATER.

SPECIFICATION forming part of Letters Patent No. 758,111, dated April 26, 1904.

Application filed February 19, 1903. Serial No. 144,030. (No model.)

To all whom it may concern:

Be it known that I, ALBERT B. SCHOFIELD, a citizen of the United States, and a resident of the borough of Brooklyn, in the city and State of New York, have invented a new and useful Gas Fireplace-Heater, of which the following is a specification.

My invention relates to a gas fireplace-heater, with the object in view of economizing space and utilizing to great advantage the heat from the gas-flames.

My invention contemplates the construction of a gas-heater which shall fit into the space commonly left in the wall of the chimney under mantels and utilized for gas-logs and open fire, and which shall at the same time prove eminently effective in heating the air of the room, and provide for heating water or cooking in a simple way, and which shall have a very attractive appearance.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a view of the heater in front elevation as it appears in use. Fig. 2 is a vertical section from front to rear. Fig. 3 is a horizontal section in the plane of the line A A of Fig. 2. Fig. 4 is a similar section in plane of line B B of Fig. 2, and Fig. 5 is a view in detail of the translucent pocket.

The casing of the heater may be a hollow casting consisting of a back 1, sides 2 and 3, a top slanting upwardly and outwardly from the back 1 to the front of the fireplace-opening, as indicated at 4, and then continued outwardly in a horizontal direction for a short distance, as shown at 5, and a skeleton front 6, provided with openings and floor-supporting lugs, as follows: At the bottom of the front there is an opening 7 the full width of the casing, through which air may be freely admitted into the interior of the casing, the said opening being formed by stopping the front at a distance above the bottom of the casing, the opening 7 being shielded by means of a reticulated base-piece 8, which extends from the side wall 2 around to the side wall 3 and is spaced from the front 6. At about its

middle point the front 6 is provided with a depending portion 9, through which there is an opening for the reception of the gas-supply pipe 10, which may be curved downwardly, as shown at 11, within the space between the front of the base 8 and the front 6 of the casing in convenient position to be coupled to the supply-pipe (not shown) leading up through the floor. Within the casing the pipe 10 may be curved upwardly, as shown at 12, and provided with a horizontal or T branch 13, in which gas-burners 14 may be set, or the pipe 13 may be otherwise provided with gas-discharge orifices in any well-known or approved form for the purpose of producing a line or group of gas-flames 15 within the casing.

For the purpose of shielding the pipe 11 wholly from view when the parts are assembled I provide the base-piece with a non-reticulated ornamental part 16 at the front and directly opposite the pipe 11. The front is further provided with an opening 17, located above the position of the base-piece 8, and covered by a removable dish-shaped front piece 18 offset from the front.

The front piece 18 is provided with a series of bars 19 along its front, in the present instance the bars running vertically and representing grate-bars, while immediately behind the line of bars 19 there is located a pocket or reservoir 20, the walls of which are of translucent material for the purpose of introducing therein fragments of colored glass to represent as nearly as may be the color of live coals, or the fragments of glass in the pocket 20 may be white or of other shade than live coals and the desired shade produced by a plate of colored translucent material separate from the pocket, as will hereinafter appear.

The translucent pocket 20 may be inserted in position from the open rear side of the front piece 18 and may be held therein by any well-known or approved means—for example, by small screws 21 and 22, set in the bottom and top inner walls of the front piece 18 immediately to the rear of said translucent pocket—and for the purpose of preventing

liability of breaking under heat I prefer to form the translucent pocket in two or more independent sections, in the present instance two being shown, having their meeting ends hidden at the center behind the central grate-bar. The front piece 18 may further be provided to the rear of the translucent pocket 20 with a plate 23 of colored glass to modify the color of the light shining through the material in the translucent pocket 20, as hereinabove referred to, or the said plate 23 may be omitted entirely and the material within the translucent pocket 20 be alone relied upon to give the appearance desired. Provision is still further made for the introduction of a plate 24 of mica to the rear of the plate 23 for the purpose of shielding the plate 23 and the translucent pocket 20 when the latter are made of fragile substance—such, for instance, as glass.

The plates 23 and 24 may be held in position against the abutments formed on the inner wall of the front piece 18 in a manner quite similar to that shown and described with respect to the translucent pocket 20.

The front piece 18 is located opposite the flame or group of flames 15, so that the light therefrom will shine through the translucent pocket 20 and past the grate-bars 19, giving the heater the appearance of being filled with live coals, and to intensify this light I place within the casing to the rear of the group of flames 15 and at such an angle as to reflect the light therefrom directly toward the translucent pocket 20 a reflector 25 of any material suitable for the purpose—for example, white enamel sheet-iron—and this reflector is preferably continued, as shown at 26, down underneath the group of lights in order to reflect the light and heat upwardly and forwardly along the entire front of the casing.

For the purpose of gaining ready access to the burners within the casing for lighting and observing that all are lighted I provide sliding doors 28 29 at the front of the casing above the front piece 18.

The front piece 18 may be made removable by sliding it endwise into position in front of the opening 17 in the front of the casing. To this end the front piece 18 is provided at its upper and lower rear edges with flanges, (denoted by 30 and 31,) which slide in corresponding grooves formed in the front 6.

The casing of the heater is divided above the doors 28 29 by a horizontal diaphragm 32, in the present instance hinged at its rear to the back of the casing, the part below the diaphragm 32 forming, for convenience of reference, the fire-chamber of the heater and the part above the diaphragm forming the heating-chamber. The diaphragm 32 is provided with openings 33 therethrough for the purpose of permitting the heat to pass from

the fire-chamber into the heating-chamber, and from the heating-chamber (denoted as a whole by 34) the heat passes out into the room through perforated screens 35 36 in the plane of the front 6 of the casing. These screens 35 and 36 are placed at the right and left hand of a pair of central doors 37 38, are arranged to slide into open position back of the screen portions 35 and 36 for the purpose of introducing a tea-kettle or other vessel, as shown in dotted lines in Fig. 2, for heating water or cooking, onto the diaphragm 32 and over the openings therethrough, where it will come into intimate contact with the hot products of combustion from the group of heating-flames 15.

The casing of the heater is further provided at a point opposite the juncture of the slanting wall 4 with the horizontal wall 5 with a flange 39, which flange extends across the top and down both sides of the heater-casing, as indicated in dotted lines.

A facing-piece consisting of a top 40 and side branches 41 and 42 is fitted to straddle the casing of the heater in the position clearly shown in Fig. 1, and when so placed the heater may be pushed into the fireplace, as shown in Figs. 1 and 2, with the flange 39 cramping the facing-piece 40 41 42 between the flange and the margin of the fireplace-opening, thus completely shutting off the opening from the room.

The upward slant of the top 4 causes the heated air to flow freely out through the screens 35 36 into the room, while the colder air is drawn back through the reticulated base 8 and again becomes heated, thus producing a rapid circulation and a very rapid heating of the air in the room. Not only does the heat serve its purpose of heating by the circulation of the air, but the glow through the front piece 18 has the appearance of a cheerful open fire, while the removal of the doors 37 38 above the diaphragm 32 admit of utilizing the heater very advantageously for purposes of heating water and light cooking.

The structure as a whole is a very simple one and comparatively inexpensive.

It is obvious that changes might be resorted to in the form and arrangement of the several parts without departing from the spirit and scope of my invention. Hence I do not wish to limit myself strictly to the structure herein set forth; but

What I claim is—

1. A gas-heater comprising a suitable casing, a fire-chamber provided with a gas-burner, a skeleton front piece offset from the front of the casing, a translucent pocket containing fragments of translucent material seated in the offset skeleton front piece and a plate of colored translucent material interposed between the pocket and flame of the burner.

2. A gas-heater comprising a suitable casing, a fire-chamber provided with a gas-burner, a skeleton front plate offset from the front of the casing, a translucent pocket containing fragments of translucent material located in the offset skeleton front piece and a shield composed of translucent material interposed between the said pocket and flame of the burner.

3. A gas-heater comprising a suitable casing, a fire-chamber provided with a gas-burner, a skeleton front piece offset from the front of the casing and a removable translucent pocket containing fragments of translucent material located in said offset skeleton front piece.

4. A gas-heater comprising a suitable casing, a fire-chamber provided with a gas-burner, a removable skeleton front piece offset from the front of the casing and a translucent pocket containing fragments of translucent material located in said skeleton front piece.

5. A gas-heater comprising a suitable casing, a fire-chamber provided with a gas-burner, a removable skeleton front piece offset from the front of the casing and a removable translucent pocket containing fragments of translucent material located in said offset skeleton front piece.

6. A closed pocket for use in connection with heating devices for holding fragments of translucent material in position to modify light from the flame, the said pocket having imperforate walls of light-transmitting material.

7. A gas fireplace-heater comprising a casing fitted to enter the fireplace-opening, a fire-chamber within the casing provided with a gas-burner, a heating-chamber located over the fire-chamber, the said heating-chamber being provided with an opening in its bottom directly over the fire-chamber and with an opening in its front for the passage of the hot air from the fire-chamber directly through the bottom of the heating-chamber and out at its front into the room and means for supporting a vessel directly in the path of the heated air and hot gases as they pass through the said heating-chamber.

8. A gas fireplace-heater comprising a casing fitted to enter the fireplace-opening, a fire-chamber provided with a gas-burner, a heating-chamber located above the fire-chamber and provided with an upwardly and outwardly slanting top, the said heating-chamber being in open communication with the fire-chamber and the casing being provided at its front with openings at the base of the fire-chamber and at the front of the heating-chamber.

9. A gas fireplace-heater comprising a casing fitted to enter the fireplace-opening, a fire-chamber provided with a gas-burner, a heating-chamber located above and in communication with a fire-chamber, openings in the

front of the casing at the base of the fire-chamber and front of the heating-chamber and a door at the front of the heating-chamber to gain access to the floor of the chamber.

10. A gas fireplace-heater comprising a casing, fitted to enter a fireplace-opening and provided with an outwardly-extending flange across its top and down each side, a skeleton diaphragm dividing the interior casing into a fire-chamber and a heating-chamber, a gas-burner located in the heating-chamber and a skeleton front piece offset from the front of the heating-chamber and having the openings therein covered by translucent material for modifying the rays of light from the burner, the said casing being provided with air-inlet openings at the front of the base of the fire-chamber and with air-outlet openings at the front of the heating-chamber.

11. A gas fireplace-heater comprising a casing fitted to enter the fireplace-opening, a skeleton diaphragm dividing the interior of the casing into a fire-chamber and a heating-chamber, the front of the casing being provided with openings at the front of the heating-chamber and with a broad opening at the base of the fire-chamber, a skeleton front piece offset from the front of the fire-chamber and having the openings covered by translucent material and a removable reticulated base-piece fitted to cover the opening at the base of the fire-chamber.

12. A gas fireplace-heater comprising a casing fitted to enter a fireplace-opening, the said casing being provided with an upwardly-extending flange across its top and down its sides, a face-piece fitted to straddle the casing to form a closure between the flange on the casing and the margin of the fireplace-opening, a diaphragm dividing the interior of the casing into a fire-chamber and a heating-chamber, a gas-burner located in the fire-chamber, the front of the casing being provided with openings at the front of the heating-chamber for the discharge of the heated air and with an opening at the base of the fire-chamber for receiving air to be heated.

13. A gas-heater comprising a suitable casing, the front of the casing being left open at the base and the central portion of the front being extended downwardly into said open space, the said front of the casing being further provided with openings near the upper portion, a diaphragm dividing the interior of the casing into an upper heating-chamber and a lower fire-chamber, a gas-burner located within the fire-chamber, a gas-pipe leading from the burner through the said downwardly-extended central portion of the front of the casing and a removable reticulated base-piece arranged to cover the said opening at the base of the front and hide from view the pipe extending through the front of the casing.

14. A gas fireplace-heater comprising a casing fitted to enter a fireplace-opening, a fire-chamber provided with a gas-burner, a heating-chamber located above the fire-chamber
5 and a skeleton front piece opposite the gas-burner chamber, the said front of the casing being provided with an opening intermediate of the skeleton front piece and heating-chamber for gaining access to the burners.

In testimony that I claim the foregoing as to my invention I have signed my name, in presence of two witnesses, this 17th day of February, 1903.

ALBERT B. SCHOFIELD.

Witnesses:

FREDK. HAYNES,
HENRY THIEME.