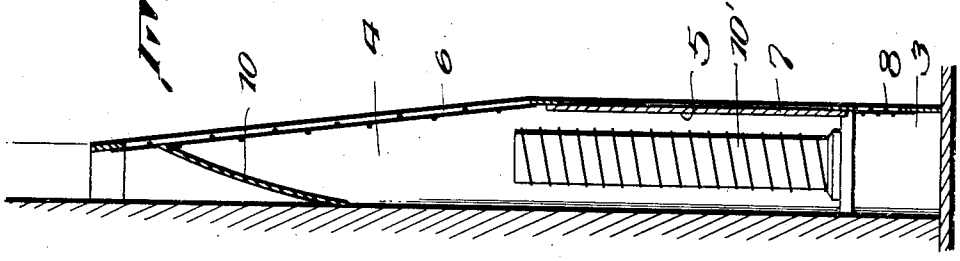
O. P. SCOTT.

ELECTRIC SIDE WALL HEATER.

APPLICATION FILED MAY 5, 1921.

1,401,447. Patented Dec. 27, 1921.

Fig. 2.



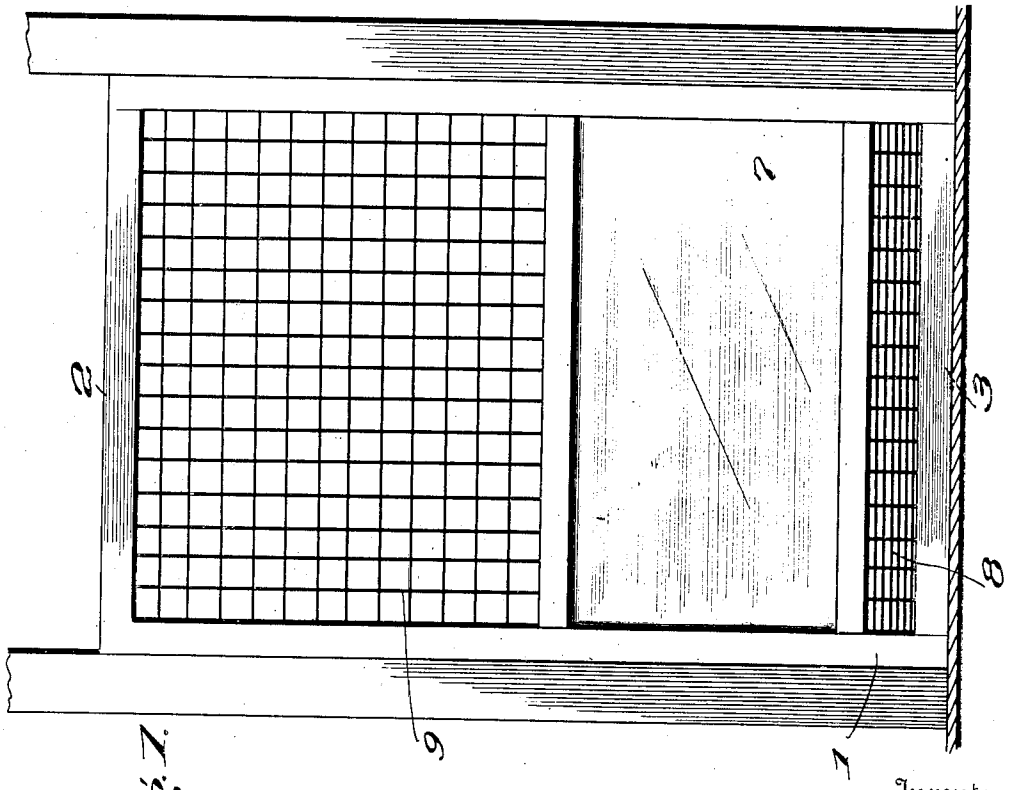


Fig. 1.

Inventor

Oliver P. Scott

By W. C. Attorney

Attorney

UNITED STATES PATENT OFFICE.

OLIVER P. SCOTT, OF TACOMA, WASHINGTON.

ELECTRIC SIDE-WALL HEATER.

1,401,447. Specification of Letters Patent. Patented Dec. 27, 1921.

Application filed May 5, 1921. Serial No. 467,052.

To all whom it may concern:

Be it known that I, OLIVER P. SCOTT, a citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented new and useful Improvements in Electric Side-Wall Heaters, of which the following is a specification.

The invention relates to an electric side wall heater,

The object of the present invention is to improve the construction of side wall heaters and to provide a simple, practical and efficient electric side wall heater adapted to be readily installed between the studding of a wall or in a similar position, and capable of taking the cold air from the floor and of heating the same and discharging the heated air into the room at an elevation and in a direction for efficiently heating the same.

Another object of the invention is to provide an electric side wall heater of this character capable of being readily arranged in substantially or nearly flush relation with the wall and adapted to present a neat and attractive appearance.

With these and other objects in view, the invention consists in the novel construction, combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing, in which like numerals of reference designate corresponding parts in the several figures—

Figure 1 is a front elevation of an electric side wall heater constructed in accordance with this invention; and

Fig. 2 is a vertical sectional view of the same.

In the accompanying drawing, in which is illustrated the preferred embodiment of the invention, the electric side wall heater comprises in its construction an upright oblong frame 1, constructed of metal or other suitable material and composed of spaced, vertical sides and top and bottom connecting portions 2 and 3. The sides of the frame 1 have tapered upper portions 4 and present lower vertical edges 5 and upper inclined edges 6, the top 2 being narrower than the bottom portion or base 3, as clearly shown in Fig. 2 of the drawing. The base 3, which is designed to be mounted at the floor line, as shown, is of sufficient width to form a firm support for the heater and the vertical front edges of the sides of the frame receive a panel 7 constructed of sheet metal or other suitable material and closing the lower portion of the front of the heater. The lower edge of the vertical front panel is spaced from the base to provide an air inlet for the passage of air into the side wall heater at the bottom thereof. A grill or grating 8 of perforated or reticulated material of any suitable character, is provided and is arranged in the verticl plane of the panel 7. The inclined edges 6 of the sides of the frame receive an inclined grating or grill 9 of reticulated material, and the said upper grating 9 extends upwardly from a point adjacent the upper edge of the solid panel 7 to the top of the frame. The upper grating constitutes an open upper portion or outlet for the heated air, which is deflected outwardly and downwardly by a slightly curved inclined deflecting plate or member 10 constructed of any suitable material and mounted between the upper portions of the sides of the frame. The inclined deflecting plate or member extends upwardly and forwardly from a point approximately centrally of the tapered upper portions of the sides of the frame at the rear edge of the same and the said deflecting plate or member terminates at a point spaced from the top 2 of the frame. This deflecting plate or member may be arranged in any elevation between the upper portions of the sides of the frame for throwing the heated air outwardly and downwardly, and the air is caused to circulate through the side wall heater and is heated by an electric heating element 11 of any preferred construction, preferably consisting of a core of refractory material, such as fire clay, porcelain or the like, and a resistance coil or coils, but any other suitable form of heater may, of course, be employed. The heater 10 is supported above the base in spaced relation with the same in rear of the panel 10, and it extends upwardly to the top of the panel and may project above the same, if desired. The heater may or may not be provided with a rear wall, as the wall in which it is installed may be utilized for this purpose. The heat causes the air to rise within the heater and the cold air is drawn in from the floor and is discharged at a point above the same in

a heated condition, and the heating element is arranged so that the air is exposed directly to and contacts with the heating element, which is located in the air passage formed by the frame and the panel, which constitute a casing. As the cold air is taken from the floor and is discharged a short distance above the same in an outward and downward direction, it will be apparent that the circulation of the air through the side wall heater will operate efficiently in heating the room or apartment in which it is installed, and that a thorough circulation of the air will be produced by the heater.

What is claimed is:—

1. A side wall heater of the class described including a frame comprising sides and connecting top and bottom portions, a lower solid panel connecting the lower portions of the sides and spaced from the bottom portion to provide an inlet and terminating short of the top of the frame to leave an outlet for the discharge of heated air, a heating element supported between the sides of the frame in rear of the solid panel in position to permit the air to contact directly with the heating element, and a deflector mounted between the sides of the frame and located above the said panel.

2. A side wall heater of the class described including a frame comprising sides and connecting top and bottom portions, a lower solid panel connecting the lower portions of the sides and spaced from the bottom portion to provide an inlet and terminating short of the top of the frame to leave an outlet for the discharge of heated air, a heating element supported between the sides of the frame in rear of the solid panel in position to permit the air to contact directly with the heating element, upper and lower gratings arranged above and below the solid panel, and an inclined deflecting plate or member mounted between the sides of the frame in rear of the upper grating and arranged to direct the discharged heated air outwardly and downwardly.

3. A side wall heater of the class described comprising an open, oblong frame and having spaced sides and connecting top and bottom portions, the sides being provided with tapered upper portions and presenting lower vertical edges and upper inclined edges, a solid panel connecting the sides and arranged at the vertical edges thereof, said panel being spaced from the bottom of the frame to form an air inlet, a lower grating mounted on the frame at the air inlet, an upper inclined grating arranged at the inclined edges of the sides of the frame and forming an outlet for the discharge of heated air, a heating element arranged in the space in rear of the solid panel in position to act directly on the air passing through the heater, and spaced from the bottom thereof, and a deflecting plate or member mounted in the upper portion of the frame and arranged to throw the heated air outwardly through the upper grating.

4. A side wall heater of the class described comprising an open, oblong frame and having spaced sides and connecting top and bottom portions, the sides being provided with tapered upper portions and presenting lower vertical edges and upper inclined edges, a solid panel connecting the sides and arranged at the vertical edges thereof, said panel being spaced from the bottom of the frame to form an air inlet, a lower grating mounted on the frame at the air inlet, an upper inclined grating arranged at the inclined edges of the sides of the frame and forming an outlet for the discharge of heated air, a heating element arranged in the space in rear of the solid panel in position to act directly on the air passing through the heater, and spaced from the bottom thereof, and an inclined slightly curved deflecting plate or member extending forwardly and upwardly from the rear edges of the tapered portions of the sides of the frame midway the length of the same and terminating at the upper grating at a point spaced from the top of the frame to discharge the heated air outwardly and downwardly.

In testimony whereof I have hereunto set my hand.

OLIVER P. SCOTT.