Nov. 10, 1936. A. M. LANE 2,060,088

REFLECTOR FOR HEAT RADIATORS

Filed July 28, 1934

Fig. 1.

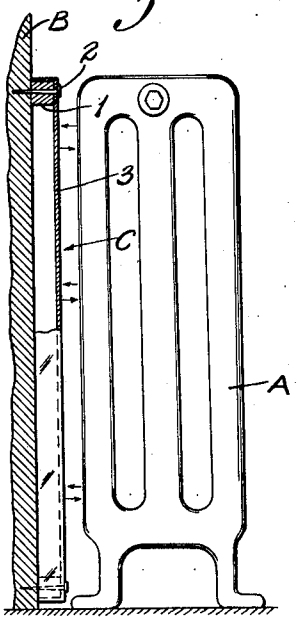


Fig. 2.

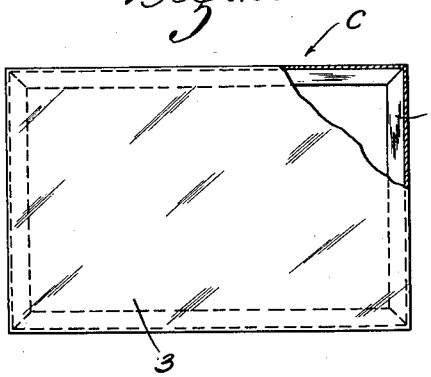


Fig. 3.

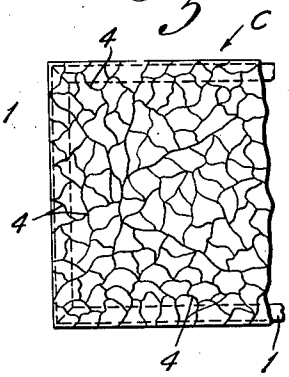


Fig. 5.

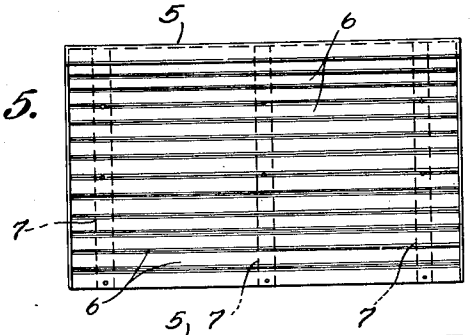


Fig. 4.

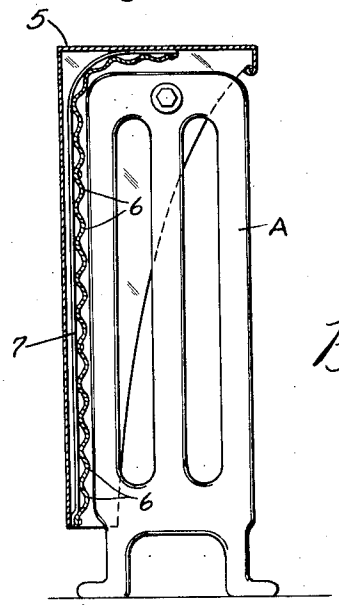


Fig. 6.

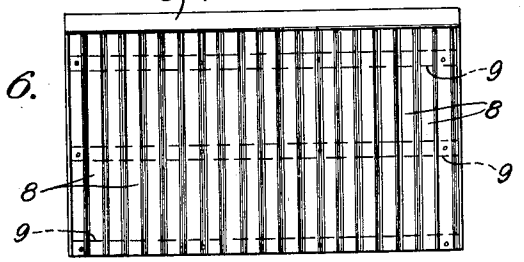
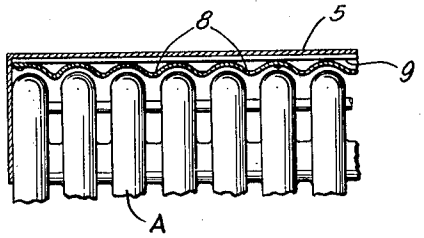


Fig. 7.



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UNITED STATES PATENT OFFICE

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REFLECTOR FOR HEAT RADIATORS

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Application July 28, 1934, Serial No. 737,397

3 Claims. (Cl. 237—79)

This invention relates to reflectors for heat radiators, particularly heat radiators of the kind used in house heating systems. In such systems, the radiators are usually located adjacent to the walls of the building and there is a considerable heat loss through said walls and a consequent cooling of the wall opposing portion of the radiator and decreased efficiency of the radiator. The principal object of the present invention is to minimize such heat loss and to utilize the heat radiating from the wall side of the radiator as a means for raising the temperature thereof. The invention consists in interposing between the radiator and the adjacent wall a device having a highly polished surface that will reflect or throw back upon the radiator heat radiating therefrom. It also consists in providing said device with a multiplicity of highly polished surfaces or facets adapted to reflect the heat at different angles. It also consists in the construction and combination and arrangement of parts hereinafter described and claimed.

In the accompanying drawing, which forms part of this specification and wherein like symbols refer to like parts wherever they occur,

Fig. 1 is an end elevation of a common type of heat radiator, the radiator being shown located adjacent to a wall and provided with a heat reflecting device embodying my invention,

Fig. 2 is a front elevation of the heat reflecting device shown in Fig. 1,

Fig. 3 is a fragmentary view of a modified form of heat reflecting device having a multiplicity of heat reflecting faces disposed at different angles,

Fig. 4 is a view similar to Fig. 1 showing a radiator equipped with a shield provided with a horizontally corrugated heat reflecting device,

Fig. 5 is a front elevation of the combined shield and reflector shown in Fig. 4,

Fig. 6 is a view similar to Fig. 5, showing a vertically corrugated reflector, and

Fig. 7 is a horizontal section of the combined shield and reflector shown in Fig. 6, the radiator being shown in plan.

Referring to Figs. 1 and 2 of the accompanying drawing, my invention is shown in connection with a common type of heat radiator A that is located adjacent to but spaced from the wall B of the room to be heated. Secured to the wall B back of the radiator A is a suitable heat reflecting and insulating device C comprising a frame 1 that is secured to the wall by suitable fasteners 2. The frame 1 is spaced from the radiator A and has its outer or radiator opposing side covered with material 3 having a smooth, highly polished surface adapted to reflect heat radiating from the adjacent portion of the radiator. A suitable reflecting material may comprise highly polished sheet aluminum cemented or otherwise secured to heavy paper. With this arrangement, the heat radiating from the rear side of the radiator strikes upon the highly polished surface of the material 3 and is reflected or thrown back upon the radiator and thus serves to maintain the rear side of the radiator at a temperature more nearly corresponding to that of the other portions of the radiator. The air space between the reflector and the radiator prevents heat loss by conduction and the dead air space back of the sheet of heat reflecting material serves as an insulator to minimize heat loss through the adjacent wall.

In the construction shown in Fig. 3, the sheet of heat reflecting material is provided with a multiplicity of irregularly shaped surfaces or facets 4 adapted to reflect the heat rays at various angles, whereby such rays are adapted to strike the sides of the radiator coils as well as the rear faces thereof.

In the construction shown in Figs. 4 and 5, the radiator is shown equipped with a common type of shield 5; and the sheet of heat reflecting material is corrugated horizontally, as at 6, and is secured to the top and sides of the shield by upright strips 7 of flat section, which serve to space the reflecting material from the shield. With this arrangement, the horizontal corrugations serve to deflect the heat rays at different angles.

In the construction shown in Figs. 6 and 7, the radiator shield is shown provided with a sheet of heat reflecting material which is vertically corrugated, as at 8, to project between the radiator coils. This vertically corrugated reflector is secured to the shield preferably by means of horizontal strips 9 of flat section.

Obviously, the hereinbefore described arrangement admits of considerable modification without departing from the invention. Therefore, I do not wish to be limited to the precise arrangements shown and described.

What I claim is:

1. In combination, a heat radiator and a device located alongside of and spaced from said heat radiator comprising a layer of paper and a sheet of metal permanently secured to said paper having a highly polished surface adapted to reflect or throw back upon the radiator heat radiating from the adjacent side thereof, said layer of

paper and the sheet of metal secured thereto being bent into a series of corrugations.

2. In combination, a heat radiator, a shield therefor, and a heat reflecting device interposed between said radiator and said shield, said device comprising a layer of nonmetallic material and a sheet of metal permanently secured thereto and provided on its radiator opposing face with a highly polished surface adapted to reflect or throw back upon the radiator heat radiating therefrom.

3. In combination, a heat radiator and a sheet located alongside of and spaced from said heat radiator, said sheet comprising a layer of nonmetallic material and a layer of aluminum permanently secured thereto having a highly polished surface adapted to reflect or throw back upon the radiator heat radiating from the adjacent side thereof, said sheet being bent opposite said heat radiator into a series of corrugations that extend horizontally substantially from end to end of said heat radiator.

ALFRED M. LANE.