

(No Model.)

J. A. GOODRICH.
RADIATOR.

No. 462,899.

Patented Nov. 10, 1891.

Fig.1.

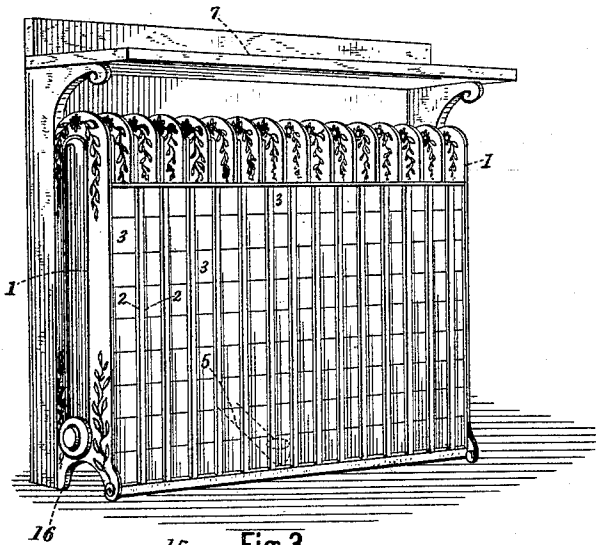


Fig.2.

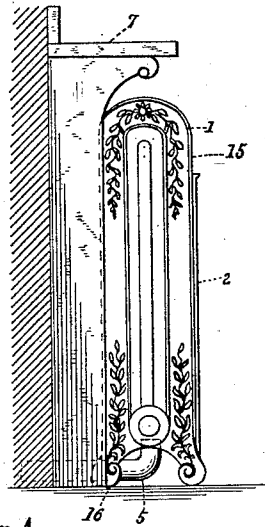


Fig.3.

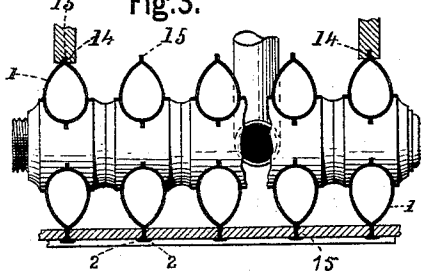


Fig.4.

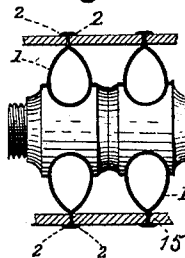
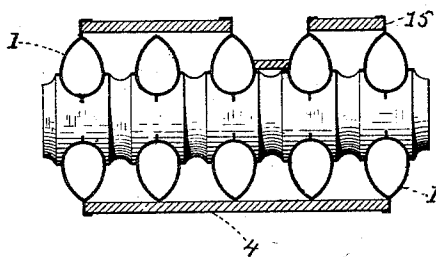


Fig.5.



Witnesses.

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JUDSON A. GOODRICH, OF HAVERHILL, MASSACHUSETTS.

RADIATOR.

SPECIFICATION forming part of Letters Patent No. 462,899, dated November 10, 1891.

Application filed August 27, 1888. Serial No. 283,850. (No model.)

To all whom it may concern:

Be it known that I, JUDSON A. GOODRICH, a citizen of the United States, residing at Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Radiators, of which the following is a specification.

The object of my invention is the combination of a series of direct radiator-sections forming a radiator, with an ornamental or other case or covering-walls having an opening or openings at the lower portion of the same for the admission of air, either from the inside or outside of a building, and a free outlet at the top of the sections for air as it becomes heated and flows up and out from the radiator, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view showing a series of radiator-sections combined with a mantel on the rear side and a suitable covering on the front side. Fig. 2 is a side elevation of the same. Fig. 3 is a horizontal section through a series of sections, showing a suitable way of connecting them with a mantel. Figs. 4 and 5 show modifications of the side coverings or casings.

The radiator-sections 1 may be made and put together in any well-known way, and are provided with ribs 15, having side projections 2, forming grooved slideways between the sections into which slabs of marble or tiles 3 or ornamental cast-iron plates may be passed to form a case for inclosing the radiator. This case or covering may be placed either on one or both sides of the radiator, and may be made of any suitable material; or, if desired, a single slab of marble or suitable material 4, substantially as shown in Fig. 6, may be placed on one or both sides. When used with a mantel, which serves for one side of the casing, the opposite side only is required to be covered, and being the side exposed to view, an ornamental covering is preferable. It is desirable that this case or cover should come down to or nearly down to the floor, and be provided with a suitable opening through which a pipe 5 for admitting fresh air from the outside of the building may be placed. (See Figs. 1 and 2.)

When connecting the radiator with a mantel, a convenient and suitable way is to form vertical grooves in the sides 14 (see Fig. 3) to receive the ribs 15, the lower parts of the mantel being cut out to receive the feet 16 of the radiator-sections; but any other suitable well-known means may be used. By this means a series of direct radiator-sections can be used for either direct or indirect radiation. The cool air coming in at the bottom becomes heated and rises up between the sections through the passage formed by the walls or covering on either side and enters the room in a heated state, thereby keeping up a constant circulation.

The object of a top on the radiator is not only for ornament, but it serves to deflect the air into the room as it becomes heated and flows up against it.

From the above construction it will be noticed that the ribs 15 project outward beyond the sections, so as to receive or provide a protecting-wall where the sections are connected together, which wholly and entirely incloses and surrounds the sections, said wall extending from a point at or near the floor upon which the radiator stands up to a point below the top, substantially as shown in Figs. 1 and 2, so as to provide flues or air-passages which wholly inclose and surround the sections as high as the walls extend, so that the air passing up through the flues receives the heat of the whole surface of the sections as it rises up between them.

I claim as my invention—

1. A series of connected radiator-sections provided with ribs projecting outward beyond the sections from the front and rear edges of the same, each rib having at its extreme outer edge flanges extending laterally, so as to leave a slideway between any two of the same, and a series of plates or panels fitted in said slideways, thereby wholly inclosing the sections and providing flues or air-passages between the sections, substantially as described.

2. A series of two connected radiator-sections having ribs extending out beyond the sections from the extreme front and rear edges of the same, each rib having a projecting flange extending laterally from its outer edge, thereby forming a slideway between the

two sections, and a panel or plate fitted in said slideway so as to wholly inclose the sides of the sections covered by them and provide a surrounding flue or air-passage between them, substantially as described.

5 3. A series of connected radiator-sections having laterally-projecting flanges forming slideways between the sections, and a panel

or plate fitted in said slideways so as to form a flue or air-passage between the sections, substantially as described.

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Witnesses:

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