(No Model.)

O. PEDERSON.

RADIATOR.

No. 476,894. Patented June 14, 1892.

Fig. 1.

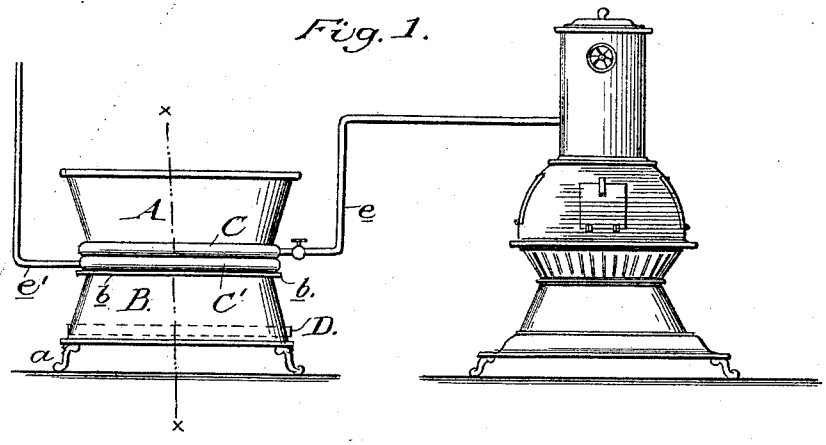


Fig. 2.

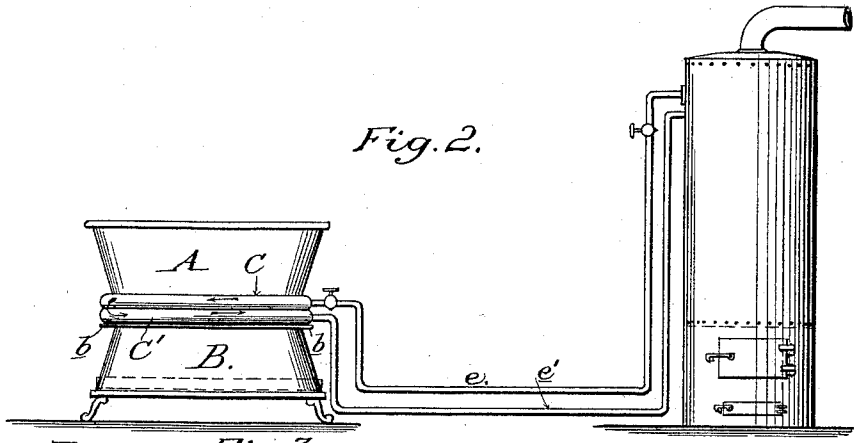


Fig. 3.

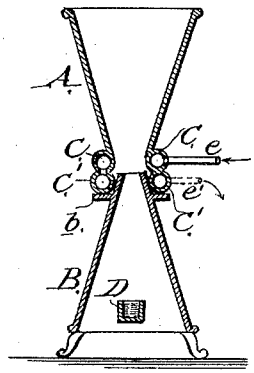


Fig. 4.

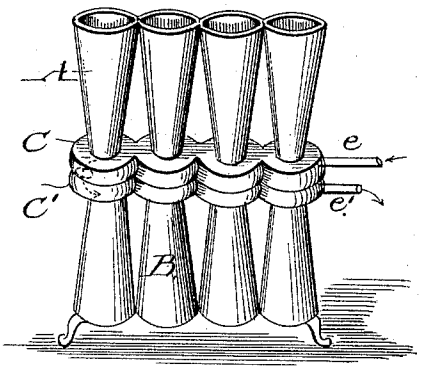
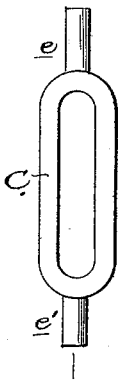


Fig. 5.



WITNESSES

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RADIATOR.

SPECIFICATION forming part of Letters Patent No. 476,894, dated June 14, 1892.

Application filed October 9, 1891. Serial No. 408,212. (No model.)

To all whom it may concern:

Be it known that I, OLE PEDERSON, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Radiators, as set forth in the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved radiator, showing it coupled to the heating-pipes from a stove or heater. Fig. 2 is a similar view showing the radiator attached to a steam-boiler. Fig. 3 is a cross-sectional view on the line *x x* of Fig. 1. Figs. 4 and 5 are radiators of modified form.

My invention relates to means for raising the temperature of apartments by means of the heat from a stove, heater, or boiler; and my invention consists of the constructions and combinations of devices, which I shall hereinafter fully describe and claim.

To enable others skilled in the art to which my invention appertains to make and use the same, I will now describe its construction and indicate the manner in which the same is carried out.

In carrying out my invention I form the radiator of upper and lower tapered or funnel-shaped sections A and B, seated one upon the other and made of any desired material suitably ornamented to make the radiator attractive. These sections are made wider at their outer ends than at the center, where they join, whereby a narrow passage is formed near the middle of the radiator, which assists in arresting the flow of air through the sections long enough to enable the same to be heated before it enters the apartment, as I shall hereinafter fully describe. The lower section B has its lower wide portion raised slightly above the floor-line of the apartment by means of legs or supports *a*, so as to receive the cool stratum of air near the floor, and slightly below the upper surface of said section is formed a surrounding flange *b*, upon which the upper section A is seated and secured in any appropriate manner. This upper section has its narrowest portion communicating with the like portion of the lower section, and surrounding the lower portion of this upper section are communicating tubes or passages C C′, into one of which a pipe *e* from a stove or heater enters and from the other leads a pipe or tube *e′*, which discharges into a chimney or flue or may be returned to the heater to complete the circulation. If desired, certain cocks may be interposed in the pipes to regulate the supply of heat to the radiator.

The sections A and B in Figs. 1 and 2 are elongated; but they may be conical, if preferred, as shown in Fig. 4, and the pipes or tubes which supply the heat to the radiator may lead from a stove, as shown in Fig. 1, or from a steam-boiler, as in Fig. 2, without departing from the spirit of my invention. The radiator may also consist of single upper and lower elongated sections of tapered form or may consist of a series of upper and lower sections suitably joined together. In the lower portion of the lower section is fitted an open-sided tube or trough D, adapted to contain water for moistening the air passing through the radiator and for settling the fine particles of dust which may be carried into the radiator by the air-currents.

The operation of my invention is substantially as follows: The radiator being in position and coupled to the heater, the heat is turned into the pipes and courses through the tubes or passages in the lower portion of the upper section A, where it joins the lower section. The cool air near the floor enters the open lower end of the section B and has its passage through the sections arrested by the contracted middle portion of the radiator long enough to insure its being heated by the heating-tubes at that point, so that when the air escapes from the top of the radiator its temperature has been considerably raised and the air thus heated serves to increase the temperature of the room.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a radiator, upper and lower sections of tapering form in cross-section with their smaller ends communicating, one of said sections having connecting-passages, and means for supplying heat to said passages, substantially as herein described.

2. In a radiator, upper and lower sections seated one on the other and made tapering

from their outer ends inward, communicating tubes or passages at the junction of said sections, pipes connecting with said passages, and means for supplying heat thereto, substantially as herein described.

3. A radiator consisting of a lower section elevated above the floor, having its lower end open and made wider than its upper end and provided near said upper end with a supporting-flange, an upper section fitted upon said flange and having its upper end open and wider than the lower end, circulating tubes or passages in the lower end of said upper section, and means for supplying heat thereto, substantially as herein described.

4. In a radiator, upper and lower sections of tapering form in cross-section, having their contracted ends joining circulating-tubes at said junction, pipes for supplying heat thereto, and a water-trough in the lower section for moistening the air passing through the sections, substantially as herein described.

OLE PEDERSON.

Witnesses:
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