Aug. 12, 1952 R. GEOFFRION 2,606,993

HUMIDIFYING RADIATOR

Filed Jan. 4, 1951

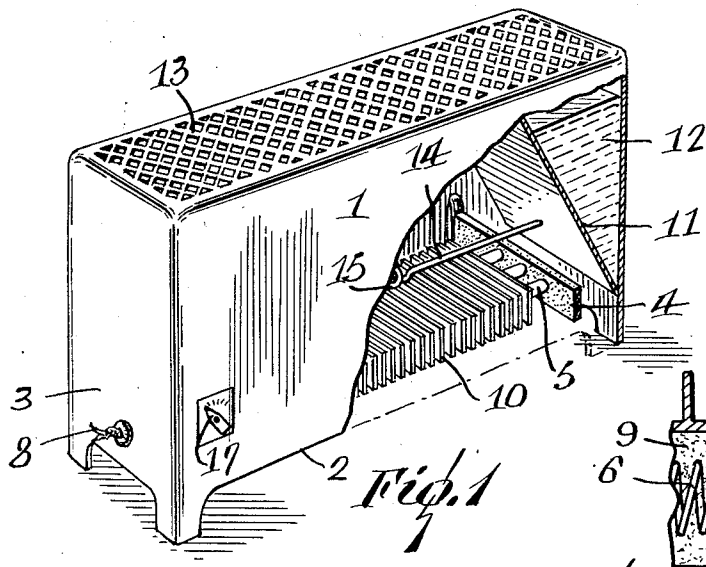


Fig. 1

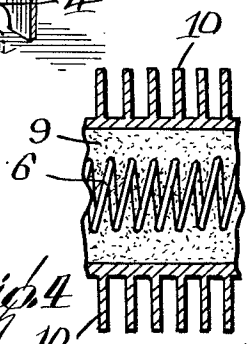


Fig. 4

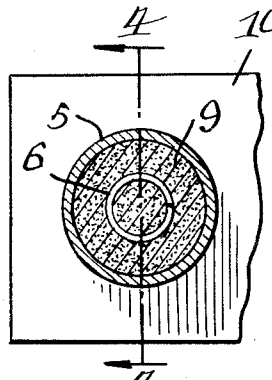


Fig. 2

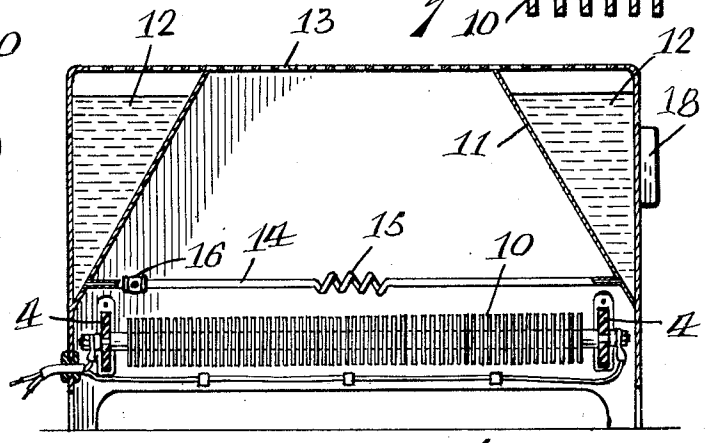


Fig. 3

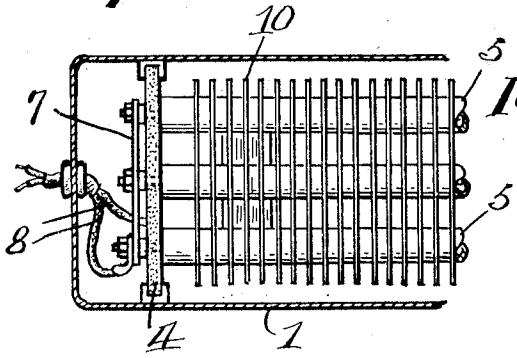


Fig. 5

Inventor:
Roméo Geoffrion
By Arthur Fournier
Attorney

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HUMIDIFYING RADIATOR

Roméo Geoffrion, Montreal, Quebec, Canada

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5 Claims. (Cl. 219—38)

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The present invention pertains to a novel radiator designed for heating internal spaces.

The principal object of the invention is to provide such a radiator that humidifies the air. Another object is to provide such a radiator by which the humidification is proportional to the quantity of heat discharged directly into the air.

The water for humidifying is contained in two pockets formed at the top of the radiator housing at opposite ends thereof. In this connection another object of the invention is to provide means for equalizing the temperature in the pockets while at the same time providing added heating surface in close proximity to the heat generating means.

In the accomplishment of these objects, the housing of the radiator has an open bottom and a reticulated top. Tubes are laid along the bottom, and each contains a resistance coil, after which the tubes are packed with a heat conducting, electrically insulating material.

Baffles are mounted across the upper corners of the housing to form water spaces. The spaces are joined by a pipe lying over and close to the tubes. The center of the pipe is formed with a coil for greater exposure to heat. Also, the pipe is fitted with a valve having its operating handle on the exterior of the housing.

The invention is fully disclosed by way of example in the following description and in the accompanying drawings in which:

Figure 1 is a perspective view of the device, partly broken away;

Figure 2 is a detail cross section;

Figure 3 is a longitudinal section;

Figure 4 is a section on the line 4—4 of Figure 2, and

Figure 5 is a plan section.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

In Figure 1 is shown a radiator housing 1 with an open bottom 2. Inwardly adjacent to the end walls 3 of the housing are mounted insulating strips 4 near the bottom. These strips support a series of longitudinal tubes 5 in a horizontal plane. A conducting coil 6 is mounted in each tube, and their ends lie outside the coils where they are suitably interconnected by bars 7 and to supply conductors 8.

The tubes are packed with a suitable heat conducting, electrically insulating material 9 such as sand, asbestos or the like, to convey heat to the walls of the tubes. Rectangular radiating

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fins 10 enclose the tubes and are common to all the tubes.

Baffles 11 across the upper corners of the housing 1 form a pair of triangular water spaces 12. The entire upper surface of the housing is perforated or reticulated at 13 for escape of heated air from the fins and escape of vapor from the spaces 12. The water is warmed, if desired, by a pipe 14 joining the two spaces as shown in Figure 3. The center of the pipe has a coil 15 for greater exposure to the heat from the fins.

The pipe 14 contains a valve 16 for regulating or stopping the flow through the pipe. The valve is operated by a pointer handle 17 on the lateral wall of the housing 1, as shown in Figure 1. A thermostat 18 is mounted on an end wall to control current in the coils 6 according to room temperature.

It will now be seen that vapor rises from the water spaces 12 to humidify the air in the room, in proportion to the quantity of heat discharged through the intermediate portion of the screen 13.

Although a specific embodiment of the invention has been illustrated and described, it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention as indicated by the appended claims.

What I claim is:

1. In a radiator, a housing having an open bottom and a reticulated top, a series of tubes in said bottom, resistance coils in said tubes, baffles in opposite upper corners of said housing to form water spaces, and a pipe connecting said spaces, said pipe lying over said tubes.

2. In a radiator, a housing having an open bottom and a reticulated top, a series of tubes in said bottom, resistance coils in said tubes, baffles in opposite upper corners of said housing to form water spaces, and a pipe connecting said spaces, said pipe lying over said tubes, and a coil formed in said pipe.

3. In a radiator, a housing having an open bottom and a reticulated top, a series of tubes in said bottom, resistance coils in said tubes, baffles in opposite upper corners of said housing to form water spaces, and a pipe connecting said spaces, said pipe lying over said tubes, a coil formed in said pipe, and a valve in said pipe and having an operating handle on an outer wall of said housing.

4. In a radiator, a housing having an open bottom and a reticulated top, a series of tubes in said bottom, resistance coils in said tubes, said

tubes being packed with a heat conducting, electrically insulated material, baffles in opposite upper corners of said housing to form water spaces, and a pipe connecting said spaces, said pipe lying over said tubes.

5. In a radiator, a housing having an open bottom and a reticulated top, a series of tubes in said bottom, resistance coils in said tubes, said tubes being packed with a heat conducting, electrically insulated material, baffles in opposite upper corners of said housing to form water spaces, and a pipe connecting said spaces, said pipe lying over said tubes, and a coil formed in said pipe.

ROMÉO GEOFFRION.

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The following references are of record in the file of this patent:

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