

L. A. GIRVIN.
 ADJUSTABLE VENTILATING CONNECTION FOR RADIATORS.
 APPLICATION FILED NOV. 30, 1909.

977,088.

Patented Nov. 29, 1910.

Fig. 1.

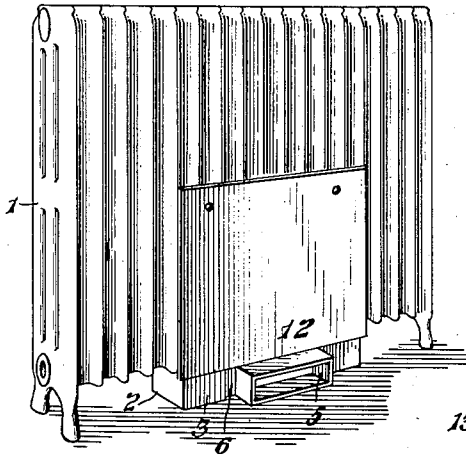


Fig. 2.

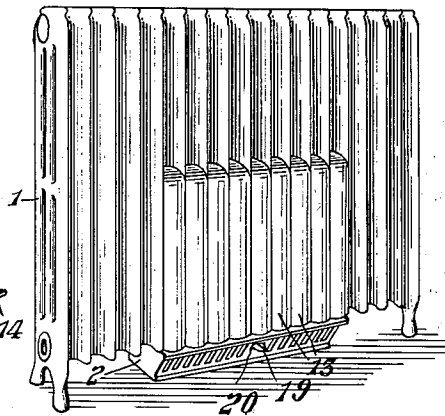


Fig. 3.

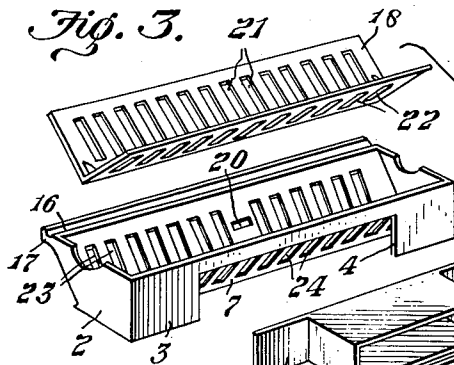


Fig. 9.

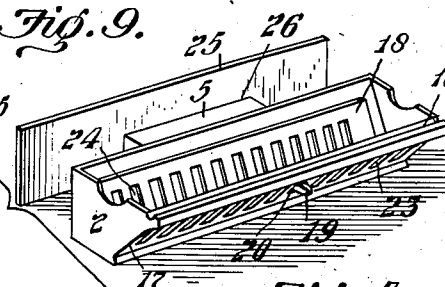
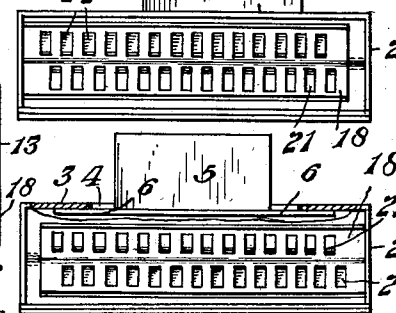
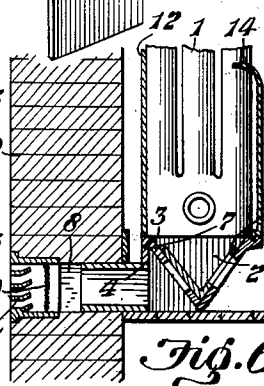
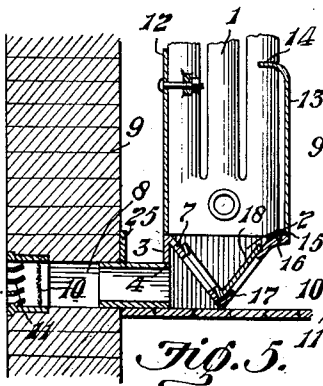


Fig. 4.

Fig. 7.



Witnesses

J. A. Bishop.

Sylvia Boron.

Fig. 5.

Fig. 6.

Fig. 8.

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UNITED STATES PATENT OFFICE.

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ADJUSTABLE VENTILATING CONNECTION FOR RADIATORS.

977,088.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LINCOLN A. GIRVIN, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Adjustable Ventilating Connections for Radiators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the numerals and figures of reference marked thereon, in which—

Figure 1 is a perspective view of the radiator showing the wall thimble in proper relative position. Fig. 2 is a view showing the radiator in the opposite position from that in Fig. 1 or the opposite side of the radiator. Fig. 3 is a detached view showing the different parts of the box, the damper slide, the wall thimble and the wall plate detached from each other. Fig. 4 is a view of the parts described in Fig. 3 assembled. Fig. 5 is a view showing in vertical section a portion of the wall and a vertical section of the radiator, box and damper, also the wall thimble. Fig. 6. is a similar view showing the radiator in close adjustment to the wall. Fig. 7 is a top view of the damper box showing the rear wall of the box closed and the front wall open. Fig. 8 is a similar view showing the front wall closed and the rear wall open. Fig. 9 is a detached perspective view of one of the series of air conducting plates.

The present invention relates to adjustable ventilating connections for radiators and it consists in the novel arrangement hereinafter described and particularly pointed out in the claims.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawings, 1 represents a radiator built up in sections and connected together in the usual manner. The radiator within itself forms no specific part of the present invention. Below the radiator and preferably upon the floor is located a trough shaped box or casing 2, which trough shaped box or casing is provided with the vertical back flange or plate 3, which back flange or plate is preferably located at right angles to a horizontal line. The back flange or plate is provided with the cut out portion 4, which

cut out portion is for the purpose of receiving the ventilating thimble, or air conducting pipe 5, which thimble or pipe is provided with the flanges 6, which flanges are located between the inclined plate 7 and the end portion of the plate 3 as shown in Fig. 1.

For the purpose of providing means for adjusting the radiator to the right or left, reference being had to Figs. 1 and 2, the thimble or pipe 5 is formed of a width less than the length of the cut out portion 4 by which arrangement the radiator proper together with the trough shaped box 2 and its different parts can be moved to the right or left without disturbing the position of the thimble or air conducting pipe 5. The pipe 5 is formed of such a length that it can be entered in the opening 8, which opening is formed in the outer wall of the building and is for the purpose of admitting outer atmospheric air. The air conducting pipe 5 should be formed of a length sufficient to allow proper adjustment of said pipe to and from the wall 9 which is the outer wall of the building or the wall against which or adjacent which the radiator is to be located.

It will be understood that by my peculiar arrangement I am enabled to provide two adjustments, first, lateral or right and left hand adjustment and second, adjustment to and from the wall against which, or adjacent which the radiator is to be placed. This adjustment is of importance, owing to the fact that it is a frequent occurrence that the location of steam or water pipes leading to the radiator must be adjusted, owing to different locations of joist or other floor supports with reference to the specific spot where the radiator is to be placed. It is well understood that if some provision is not made for the adjustment of the radiator after the ventilating thimble or pipe has been placed in the opening of the wall much difficulty is experienced.

It will be understood that for the purpose of excluding dirt the opening 8 should be provided with a suitable screen 10 and grate bars 11. It is well understood that the opening 8 should be located directly below the windows of a building in order that the proper architectural design may be carried out. By reason of this the opening 8 must be located at a particular point with reference to a window, but by the use of my im-

proved connections sufficient adjustment of the radiator is provided without disturbing the air conducting pipe 5 and leaving the opening 8 at its proper architectural point.

5 For the purpose of directing the cold air upward, the radiator proper is provided with the back plate 12, which back plate is located just back of and above the trough shaped box 2 as best illustrated in Fig. 1
10 For the same purpose a series of plates 13 are provided, which plates are provided with the upper curved ends 14, which upper curved ends are entered between the radiator members. The bottom ends of the plates 13
15 are provided with the flanges 15, which flanges are seated in the groove 16 formed in the inclined plate 17. It will be understood that in order to properly connect the series of plates 13 they should be turned edgewise
20 to the radiator entering the tops or upper hooked ends between the radiator members after which said plates are given a quarter turn or brought sidewise to the radiator proper and located so as to properly seat the
25 flanges 15 into the groove 16.

For the purpose of shifting or shunting the current of cold air the sliding damper 18 is provided, which damper is provided with the knob 19, which knob extends through
30 the slot 20. The damper 18 is provided with a series of openings 21 and 22, which openings register with the openings 23 and 24, reference being had to the adjustment of the damper 18. The openings 23 are
35 for the purpose of permitting air to enter the box 2. It is well understood that as the air becomes cooled and by providing the openings 23 such cold air will find its way through the openings 23 and become
40 heated and moved or carried upward by the heat. By this arrangement a circulation of air is brought about. It will be understood that by forming the openings 23 and 24 as shown the damper can be so adjusted that
45 air can be entirely or partially cut off upon either side of the box 2 by which arrangement cold air can enter the box below the radiator in either direction, that is to say all of the cold air can be taken from
50 the outside of the building or all of the air can be taken from the room in which the radiator is situated; or portions of air entering the box 2 may be taken from the room and from the outside, thereby regulating the
55 intake of air in such a manner that proper ventilation is provided for.

In Figs. 7 and 8 the damper is shown in its different positions. In Fig. 5 the damper is shown adjusted in such a manner that the
60 cold air will pass through the openings 24 and 21 but when the damper is brought into the position illustrated in Fig. 6 the atmospheric air will be practically cut off.

It will be understood that by providing the

thimble or pipe 5 with the flanges 6, the trough shaped box 2 can be adjusted to the right or left without forming any opening or space as between the vertical sides of the pipe 5 and the inner ends of the end flanges 3. For the purpose of giving the proper
70 finished appearance the wall plate 25 is provided, which wall plate is provided with the cut out portion 26 in which cut out portion is seated the pipe 5 as illustrated in Fig. 4.

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

1. An adjustable ventilating connection for radiators comprising a trough shaped box adapted to be located directly below a
80 radiator, the sides of said box provided with a series of air intake apertures, said box also provided with a vertical plate depending from the upper edge of one of the sides of said box and having a cut out portion in its
85 lower edge, an air conducting pipe positioned in the cut out portion of said plate and provided with laterally extending flanges adapted to abut against the inner face of the vertical plate and to slide there-
90 on, the cut out portion of the vertical plate being of greater length than the width of said pipe, and a damper provided with air intake openings, said damper adapted to open and close the air intake apertures in
95 the sides of said box, substantially as described.

2. An adjustable ventilating connection for radiators comprising a trough shaped box adapted to be located directly below a
100 radiator, the sides of said box provided with a series of air intake apertures, said box also provided with a vertical plate depending from the upper edge of one of the sides of said box and having a cut out portion in
105 its lower edge, an air conducting pipe positioned in the cut out portion of said plate and provided with laterally extending flanges adapted to abut against the inner face of the vertical plate and to slide there-
110 on, the cut out portion of the vertical plate being of greater length than the width of said pipe, and a damper provided with air intake openings, said damper adapted to open and close the air intake apertures in
115 the sides of said box, and a back plate extended upwardly from the side of the box and adapted to upwardly direct the incoming air, substantially as and for the purpose specified.
120

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

LINCOLN A. GIRVIN.

Witnesses:

C. F. WATTS,
T. J. CORKERY.