

H. S. HART.  
REGISTER OR VENTILATOR.  
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941,413.

Patented Nov. 30, 1909.

Fig. 1.

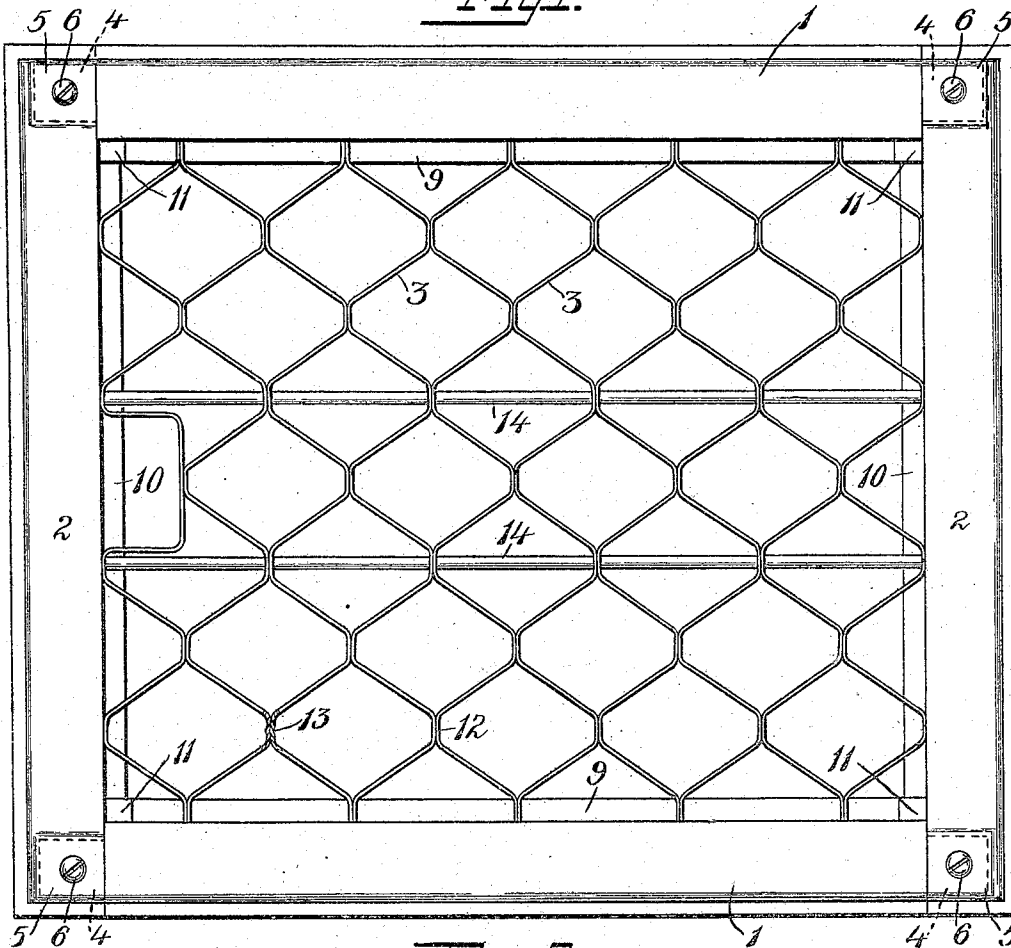


Fig. 2.

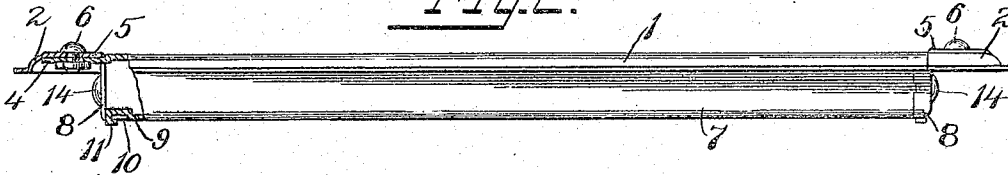
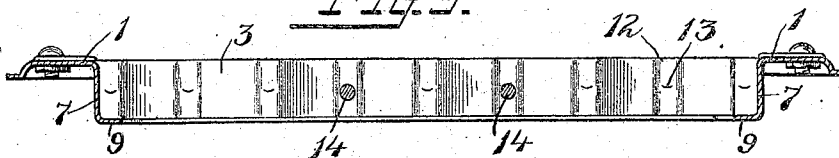


Fig. 3.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## REGISTER OR VENTILATOR.

941,413.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed February 15, 1906. Serial No. 301,134.

*To all whom it may concern:*

Be it known that I, HOWARD S. HART, a citizen of the United States, residing at New Britain, Hartford county, Connecticut, have invented certain new and useful Improvements in Registers or Ventilators, of which the following is a full, clear, and exact description.

My invention relates to registers or ventilators.

The object is to construct a register or ventilator having a maximum area of air passage with a maximum of strength and economy of material.

The principal parts are constructed preferably of sheet metal such as steel, preferably in the manner illustrated in the accompanying single sheet of drawings. It will be obvious, however, that changes in details of construction may be made.

Figure 1 is a plan view of a register or ventilator embodying the improvements of my invention. Fig. 2 is a side view of the same, one corner being broken away to show the method of connecting the parts. Fig. 3 is a transverse section.

1—1 indicate the side portions of the frame.

2—2 indicate the end portions.

3 indicates the body.

Each side has a projecting portion 4 centered and secured in a recessed portion 5 in the adjacent end plate, preferably by a bolt or rivet 6. Each side plate also has a depending wall 7 integral therewith. Each end plate has a depending wall 8 preferably integral with it. The depending walls form the main opening through which the air passes. Each wall 7 has an inturned flange 9 preferably integral therewith, while each wall 8 has an inturned flange 10.

The corners of the side walls are preferably connected together in any suitable manner, as shown in Fig. 2, and the flanges are preferably connected together at the corners. One method of connecting them is illustrated. The flange 9 has a portion 11 passing downward through the flange 10 and turned up on the bottom.

The body of the register or ventilator is preferably formed of zig-zag shaped strips arranged on edge and having their ends supported by the side flanges 9—9, the top edges being substantially parallel or in a single plane with the upper surface of the frame.

The end strips of the body are also supported by the flanges 10—10. Preferably the strips of the body 3 are brought into contact at a plurality of points, as at the point 12, and a slight indentation 13 formed in one strip projecting into a recess in the adjacent strip so as to position the parts and prevent them from being thrown out of place. I also prefer to reinforce the central portion of the body by bars or members running longitudinally, such as 14—14. These bars may pass through openings in the body strips and in the walls 8—8 and have their ends riveted over or upset so as to hold them in position. They serve not only to reinforce the central portion of the body but to tie the two walls 8—8 together and prevent their spreading.

By this construction a register or ventilator of a given size will have a much greater total air passage than any heretofore constructed. At the same time it is possible by this arrangement of body strips placed on edge to provide great strength in the register or ventilator and by the use of a small amount of metal.

In the form of my invention illustrated, the openings in the body are to a certain extent diamond shaped. I do not wish it understood, however, that I consider the invention limited to such a design, as the body strips may be formed in various curves or angles to produce any ornamental effect desired.

What I claim is:

1. A register or ventilator comprising four frame members secured together at the corners, each frame member having an integral depending wall and an integral inturned flange, a grill formed of a plurality of strips arranged on edge and supported by said flanges, and means for reinforcing the central portion of said body strips.

2. A register or ventilator comprising a relatively broad and shallow rectangular frame, having two of its sides formed with integral depending walls and inturned flanges, and a grill supported directly on said flanges and composed of relatively thin strips of sheet metal arranged on edge forming openings between the strips.

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Witnesses:

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