April 5, 1949. K. L. BABCOCK 2,466,353

WALL REGISTER AND THE LIKE

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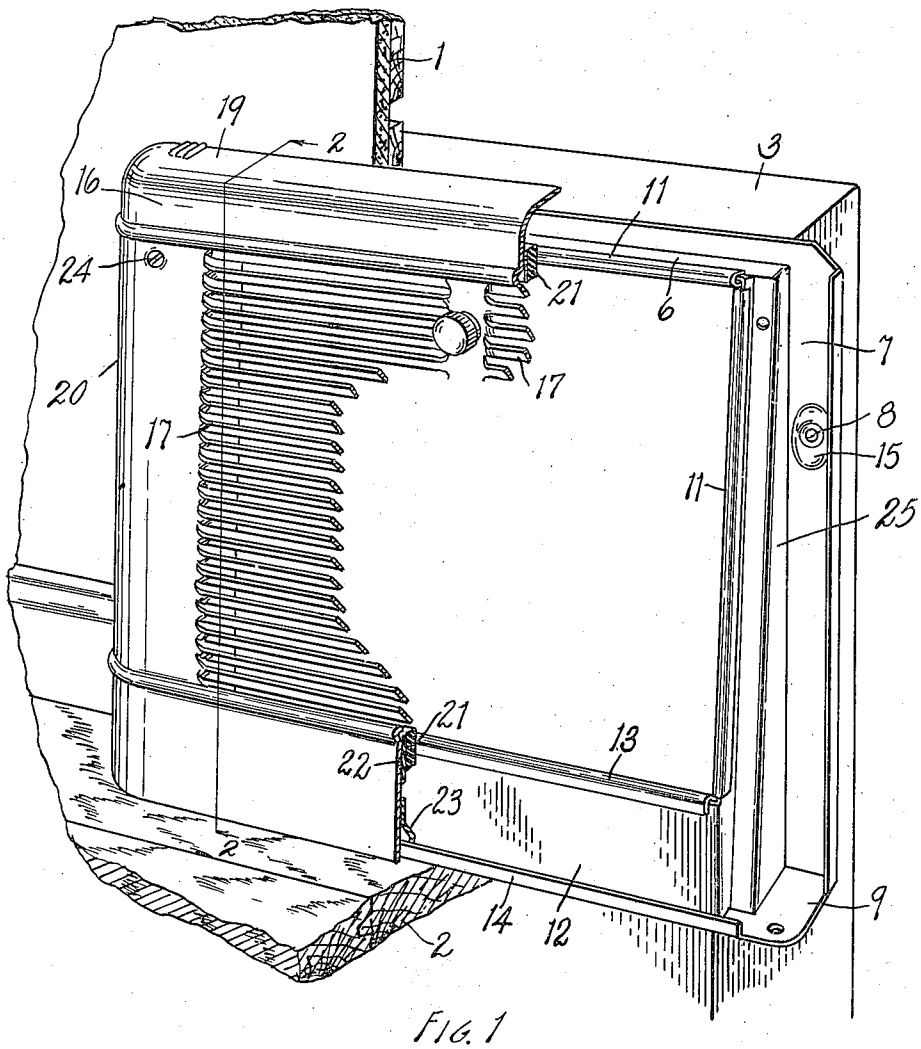



FIG. 1

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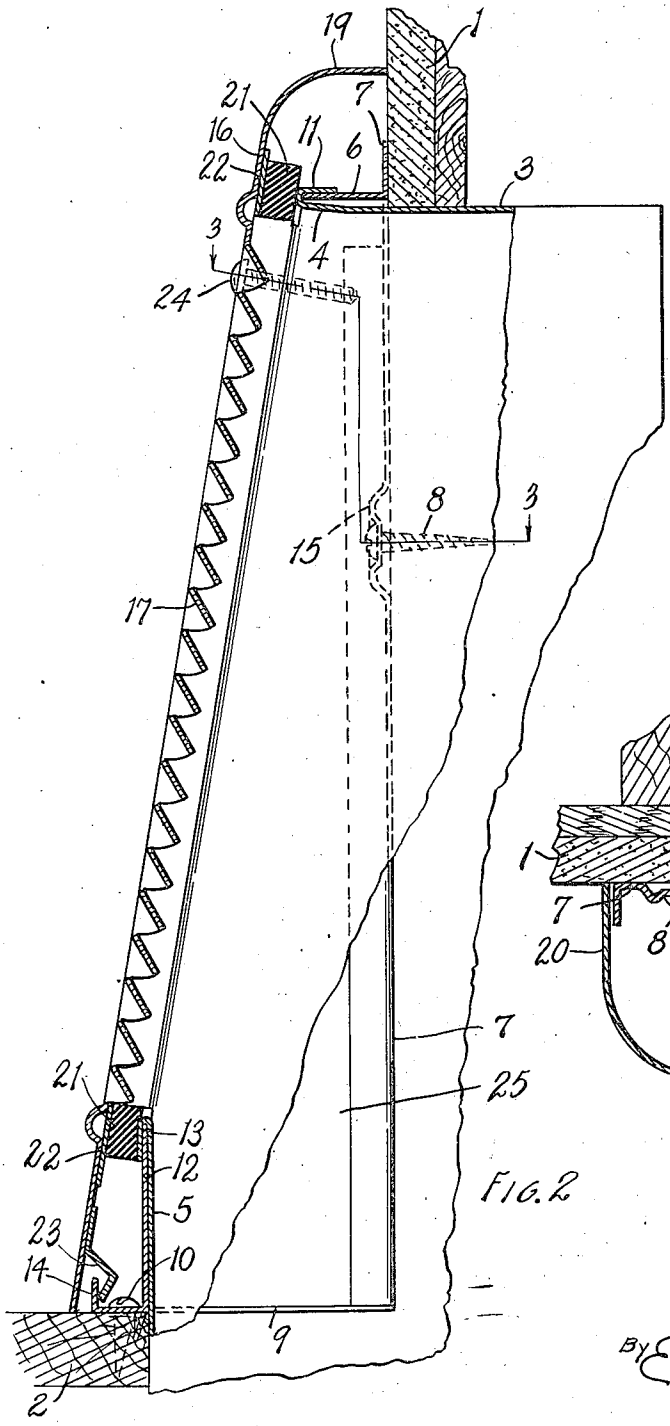



FIG. 2

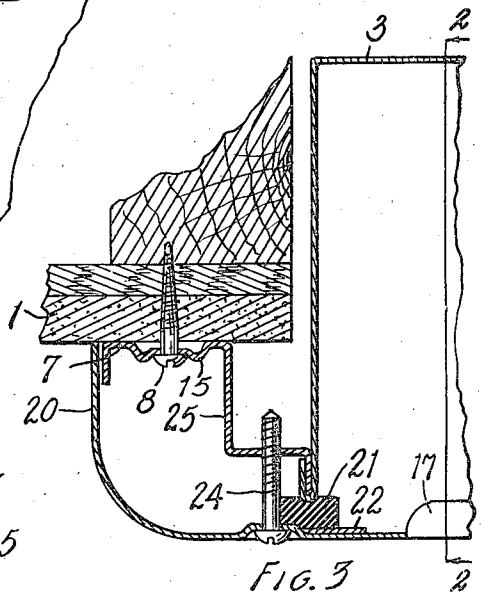



FIG. 3

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# UNITED STATES PATENT OFFICE

2,466,353

## WALL REGISTER AND THE LIKE

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Application September 15, 1945, Serial No. 616,565

5 Claims. (Cl. 98—114)

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The main objects of this invention are:

First, to provide a register structure which is very easily installed and provides a substantially air-tight connection to the stackhead and around the grille so that air leakage such as commonly results in streaked walls is eliminated.

Second, to provide a register structure which is easy to install and one comprising a frame and a removable face plate which permits the installing of the parts with the exception of the face plate and the ready installing of the face plate which prevents its being marred during finishing and under other conditions.

Third, to provide a wall register in which the floor opening is effectively covered and infiltration of the air around the stackhead which also results in streaked walls, prevented.

Fourth, to provide a structure in which the ornamental face has an integral grille and may be easily removed for cleaning as occasion may require.

Fifth, to provide a structure having these advantages which is very economical to produce and assemble.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a fragmentary perspective view of a structure embodying my invention as installed, certain parts being shown conventionally.

Fig. 2 is an enlarged fragmentary view partially in vertical section on line 2—2 of Figs. 1 and 3.

Fig. 3 is an enlarged fragmentary view in horizontal section on the broken line 3—3 of Fig. 2.

In the accompanying drawings illustrating a commercial embodiment of my invention as installed, 1 represents a wall and 2 the floor of a room. The stackhead 3 is provided with outwardly projecting bendable flanges 4 and 5, the flange 5 being the bottom flange and constituting an extension of the front wall of the stackhead.

I provide a frame 6 formed as a stamping or of stamped top, bottom and side parts welded together, the joint not being illustrated. The frame is provided with side flanges 7 adapted to receive wall attaching screws 8 and a bottom flange 9 lapping upon the floor 2 and secured thereto as by the screws 10.

The sides and top of the frame opening are surrounded by forwardly projecting frame portions 25 and 6 respectively (see Figs. 2 and 3), the

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side and top edges of the stack being folded over the frame as shown at 11 and preferably clamped down as there indicated, forming a close seam between the stack and the frame.

The front wall 5 of the stack is folded over the upper edge of the bottom frame member 12 as shown at 13. This provides an effective sealed connection between the stackhead and the frame.

The side members of the frame are preferably of stepped section as shown in Figs. 1 and 3, while the top member is of angle section, as shown in Figs. 1 and 2.

The bottom member of the frame has an upstanding flange 14 along its front edge. The side flanges 7 are preferably struck up or embossed at 15 to receive the screws 8, this permitting some springing action as the screws are adjusted to clamp the frame against the wall.

The face member 16 is provided with an integral louver section 17. The face member has a rearwardly projecting top flange 19 and rearwardly projecting side flanges 20 adapted to contact the wall as shown in Figs. 2 and 3 respectively.

A gasket 21 of suitable resilient material conventionally illustrated in the drawings as being of rubber is disposed between the face plate and the stackhead flanges in surrounding relation to the louver.

Reinforcing strips 22 are provided on the inner side of the face member and surrounding the louver to receive the thrust of the gasket as the face plate is clamped to the frame.

The face plate is provided with a flange-like downwardly projecting hook 23 secured on the inner side thereof to engage the flange 14 of the frame.

Screws 24 preferably located near the top of the face plate have threaded engagement with the frame, as shown in Fig. 3, and coact with the forwardly projecting portion 25 in securing the face plate and applying clamping sealing stress to the gasket.

With the parts thus arranged, the face plate may be installed after the wall and floor have been finished, thus avoiding the soiling or disfiguring of the face plate. The face plate may be readily removed as occasion requires.

The structure is very easily installed and the walls are protected as the air cannot escape around the register parts as is a common result with the registers now in general use. A further advantage is the economy with which the parts may be manufactured and assembled.

Having thus described my invention, what I

claim as new and desire to secure by Letters Patent, is:

1. In a wall register, the combination with a stackhead having an opening formed by outwardly projecting bendable flanges along the top and sides of said opening and a bendable extension along the lower edge of said opening, of a supporting frame defining a second opening and provided with bottom and side attaching flanges adapted to be secured to a wall and floor surrounding said stackhead, the bottom attaching flange having an upturned lip at its front edge, said stackehad flanges and extension being disposed through the opening of said frame and folded over the inner edges of the frame defining said second opening, the sides of said frame having forwardly offset angle portions between said side attaching flanges and the inner edges of said frame, a face member provided with a louver, said face member having rearwardly projecting flanges at the top and sides thereof embracing said frame and adapted to engage the wall to which said frame is attached, a gasket disposed between the face member and the stackhead flanges in surrounding relation to the louver of the face member, a downwardly projecting angled attaching clip on the inner side of the lower portion of said face member engaging the rear side of said upturned lip on the bottom attaching flange of said frame, and screws for securing said face member to said angled offset portions of said frame arranged adjacent the top thereof and coacting with said angled attaching clip in securing said face member in compressing engagement with said gasket.

2. In a wall register, the combination with a stackhead having an opening formed by outwardly projecting bendable flanges along the top and sides of said opening and a bendable extension along the lower edge of said opening, a supporting frame defining a second opening and provided with bottom and side attaching flanges adapted to be secured to a wall and floor surrounding said stackhead, the bottom attaching flange having an upturned lip at its front edge, said stackhead flanges and extension being disposed through the opening of said frame and folded over the inner edges of the frame defining said second opening, the sides of said frame having forwardly offset portions between said attaching flanges and the side edges of the frame defining said second opening, a face member embracing said frame, a gasket disposed between the face member and the stackhead flanges and extension in surrounding relation to the opening in said frame member, an attaching clip on the inner side of said face member engaging the rear side of said upturned lip on the bottom attaching flange of said frame, and means for securing said face member to said forwardly offset portions of said frame coacting with said attaching clip in securing said face member in compressing engagement with said gasket.

3. In a register, the combination with a stackhead having an opening formed by outwardly projecting bendable flanges along the top and sides of said opening and a bendable extension along the lower edge of said opening, of a supporting frame defining a second opening and provided with co-planar attaching flanges adapted to be secured to a wall and comprising a bottom member having an upturned lip at its front edge, said stackhead flanges and extension being disposed through said second opening in said frame and folded over the edges of said frame defining said second opening, the sides of said frame having portions offset forwardly from said co-planar flanges, a face member provided with a louver and embracing said frame to contact a wall to which the frame is attached, a gasket disposed between the face member and the stackhead flanges and extension in surrounding relation to the louver of the face member, an attaching hook member on the inner side of the face member engaging said lip on the bottom member of said frame, and means for securing said face member to said forwardly offset portions of said frame coacting with said attaching hook member in securing the face member in compressing engagement with said gasket.



4. In a register, the combination with a stackhead having an opening formed by outwardly projecting bendable flanges, of a supporting frame defining a second opening and having exterior co-planar flanges adapted to be secured to a wall, said stack flanges being disposed through the opening in said frame and folded over the edges of the frame defining said second opening, said frame having a portion offset forwardly from said co-planar flanges, a face member provided with a louver and embracing said frame to contact a wall to which the frame is attached, a gasket disposed between the face member and stackhead flanges in surrounding relation to the face member and means for securing said face member to the forwardly offset portion of said frame.

5. In a register, the combination with a stackhead having an opening formed by outwardly projecting bendable flanges, of a frame defining a second opening and having an exterior flange arranged to be secured to a wall, a threaded portion on said frame offset forwardly from said exterior flange, said stackhead flanges being disposed through the opening of said frame and folded over the edges of the frame defining the second opening, a face member provided with a louver and having rearwardly projecting flanges at the top and sides thereof embracing the frame and adapted to engage a wall to which the frame is attached, a gasket disposed between the face member and the folded over edges of the stackhead flanges in surrounding relation to the louver of the face member, and screw means for securing the face member to the threaded portion of said frame in compressing engagement with the gasket.

KENNETH L. BABCOCK.


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