

March 14, 1933.

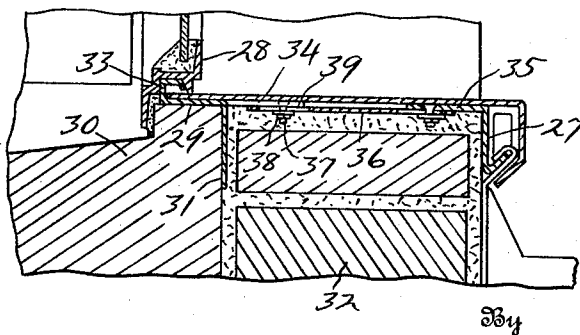
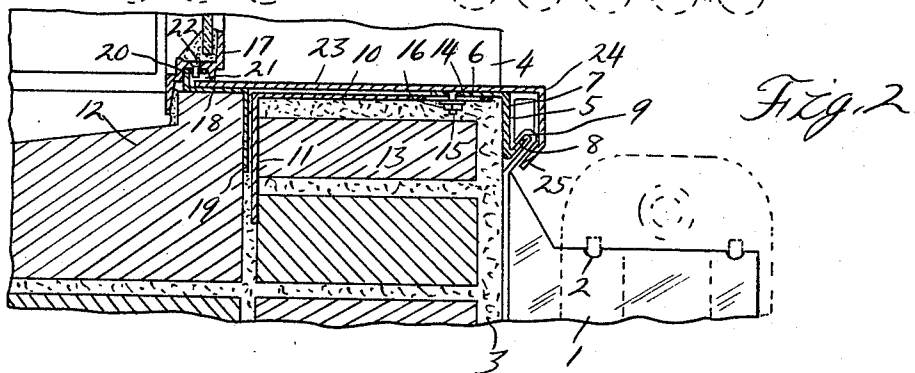
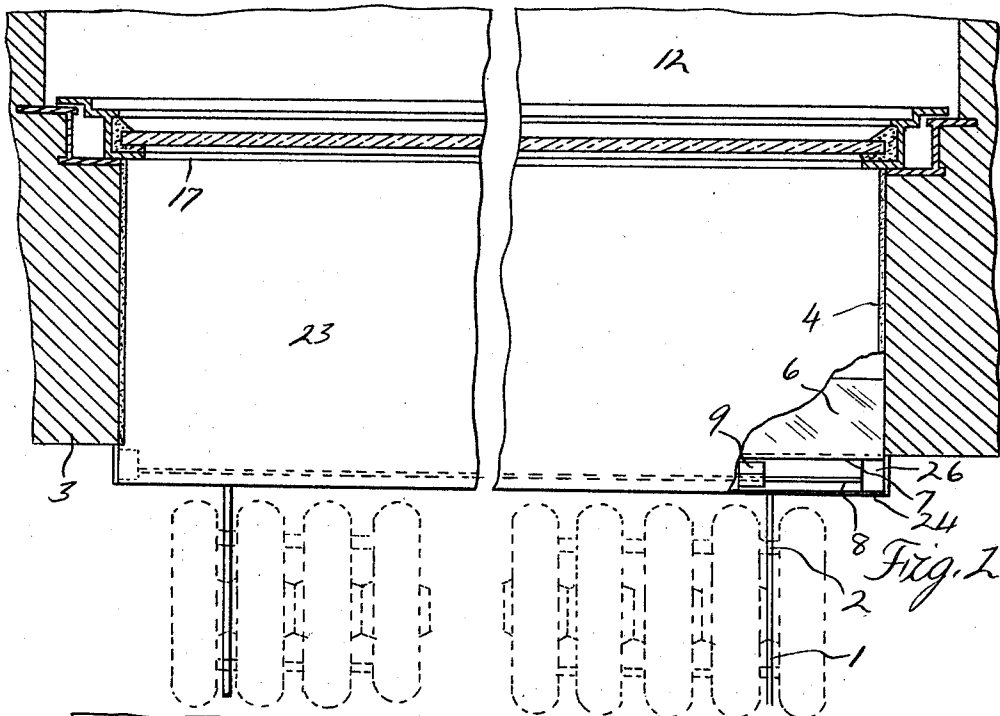
G. I. BARCLAY

1,901,074

RADIATOR SUPPORT

Filed July 19, 1928

3 Sheets-Sheet 1



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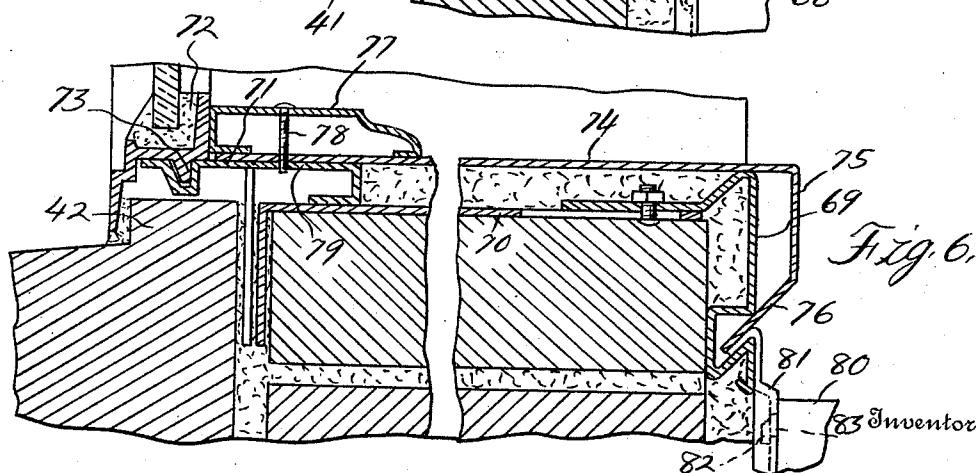
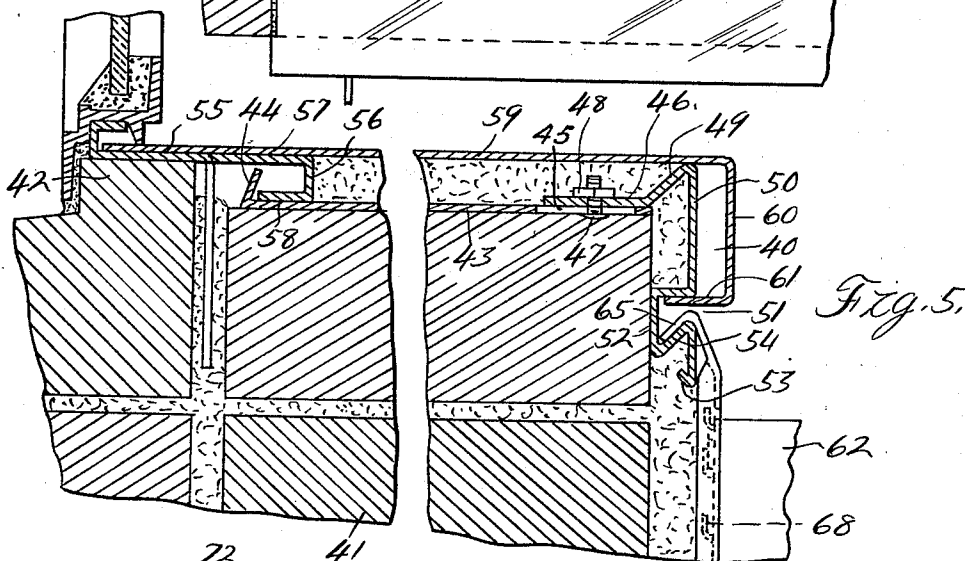
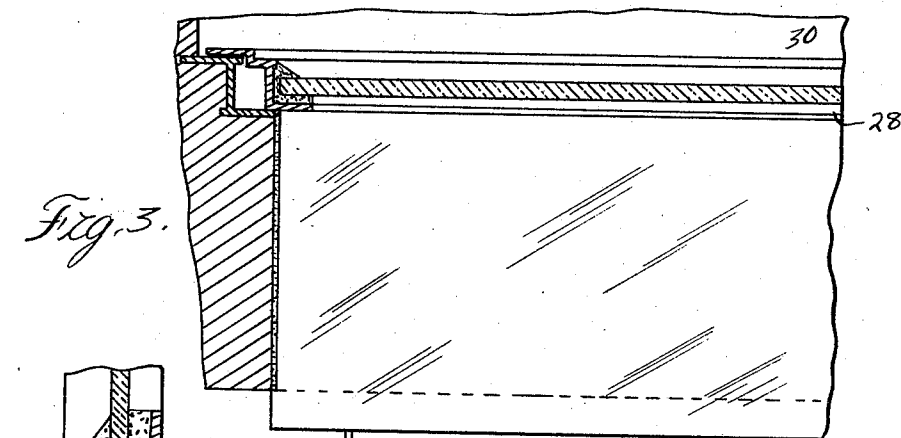
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Fig. 3.



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UNITED STATES PATENT OFFICE

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RADIATOR SUPPORT

Application filed July 19, 1928. Serial No. 294,019.

The invention relates to a radiator support and refers more particularly to a support for a radiator used for heating purposes. The invention has for one of its objects to provide a construction of support which may be readily anchored to the wall in a position to be concealed by the window stool. Other objects are to anchor the support to the wall independently of the stool; to provide for inserting the stool into place after the support has been anchored in place; to provide for variable thicknesses of walls; to provide for holding the window sash in place; and to provide for holding the stool from being accidentally raised from its operative position. With these as well as other objects in view, the invention resides in the novel features of construction and combinations and arrangements of parts as more fully hereinafter set forth.

In the drawings:—

Figure 1 is a plan view with parts broken away of a radiator support embodying my invention;

Figure 2 is a vertical section therethrough; Figure 3 is a view similar to Figure 1, showing a modification;

Figure 4 is a vertical section therethrough; Figures 5, 6, 7 and 8 are views similar to Figures 2 and 4, showing modifications;

Figures 9 and 10 are perspective views of the hangers shown in Figures 5 and 6, respectively, with their sections separated.

The invention is designed to support a steam or hot water radiator by means including the hangers 1, which are adapted to extend between adjacent sections of the radiator and have the notches 2 in their upper edges for engagement by suitable projections upon these sections. These hangers are preferably formed of sheet metal and are adapted to rest against the inner face of the wall 3 having the window opening 4. For supporting the hangers 1, I have provided the support 5, which is preferably formed of sheet metal and has a length substantially equal to the width of the window opening. This support has the horizontal portion 6, which extends into the window opening above the sill portion of the wall and the depending

portion 7, which extends adjacent to and preferably rests against the inner face of the sill portion. The depending portion 7 has the upwardly and inwardly extending flange portion 8 which is engageable by the hooks 9 formed upon the hangers. For anchoring the support 5 to the wall, I have provided the clips 10 which are preferably formed of sheet metal. Each clip rests upon the sill portion of the wall and extends beneath the horizontal portion 6 of the support and has at its outer end the depending tongue 11, which is imbedded in the sill portion, which, in the present instance, is formed of the stone sill member 12 and the brick sill member 13, the tongue 11 being located between the stone and the brick sill members. Each clip 10 has the longitudinally extending slot 14 through which extends the bolt 15, which together with the nut 16 secures the horizontal portion 6 of the support 5 to the clip 10. By reason of this slot, variation in thickness of the wall is provided for.

17 is the window sash located in the window opening 4. For holding this sash in place, I have provided the clips 18, each of which is preferably formed of sheet metal and rests upon the sill portion of the wall at an elevation above that of the associated clip 10 and also has at its inner end the depending tongue 19 extending adjacent to the depending tongue 11 of a clip 10. Each of these clips 18 has at its outer end the upwardly projecting portion 20 which is engageable in the downwardly opening channel 21 formed in the lower bar of the sash and this upwardly projecting portion is preferably secured to the lower bar by suitable means such as the screw 22.

23 is the window stool which forms part of the window frame and is preferably formed of sheet metal and has a length substantially equal to the width of the window opening 4. This stool is insertable into place after the clips 10 and 18, the radiator hanger support 5 and the window sash 17 have been secured in place. This stool is adapted to rest upon the clips 18 and the horizontal portion 6 of the support 5 and to extend beneath the lower bar of the window sash 17. This stool also

has the depending portion 24 at its inner edge which is spaced inwardly from the inner face of the wall 3 a sufficient distance to accommodate the hooks 9 of the radiator hangers. The depending portion 24 terminates in the downwardly and outwardly inclined flange 25, which is substantially parallel to the flange 8 and is spaced therefrom a sufficient distance to accommodate the shanks of the hooks 9. It will thus be seen that the stool 23 is adapted to conceal the radiator support as well as the means for anchoring this support to the wall and the means for holding the window sash in place. It will also be seen that the radiator hangers 1 may be slid laterally into place and are free to be adjusted laterally so that they may properly extend between the radiator sections. For closing the spaces at the ends of the stool 23 and between the depending portion 24 and flange 25 of this stool and the inner face of the wall, I have provided the closures 26 which are adapted to fit into these spaces.

In the modification shown in Figures 3 and 4, the means for anchoring the radiator hanger support 27 and the window sash 28 differs from that shown in Figures 1 and 2, the remainder of the construction, however, being the same. In detail, 29 is one of a pair of clips preferably formed of sheet metal and adapted to rest upon the stone sill member 30 and having the depending tongue 31 adapted to engage between this stone sill member and the brick sill member 32. This clip has at its outer end the upwardly projecting portion 33 which fits into the downwardly opening channel of the lower bar of the sash 28. This clip also has at its inner end the laterally extending tongue 34 which is in substantially the plane of the horizontally extending portion 35 of the radiator hanger support 27. 36 is one of a pair of clips upon the brick sill member 32 and adapted to be adjustably connected to the tongue 34 and the horizontally extending portion 35 by means of the bolts 37 and the nuts 38, the bolts extending through the longitudinally extending slots 39 in the opposite ends of the clip 36. Each clip 36 extends beneath the tongue 34 and the horizontally extending portion beneath the tongue 34 and the horizontally extending portion 35 so that the stool may be supported in the same manner as the stool 23.

The modification shown in Figure 5 differs from the previously described modifications mainly in locating and forming the radiator support 40 to function as a guide for cementitious material upon the sill portion of the wall and also as a guide and an anchor for the plaster at the inner side of the wall and below the support. This support is also anchored to the wall in a different manner. In detail, the brick sill portion 41 of the wall

has its top located at an appreciably lower elevation than that of the stone sill portion 42. 43 is one of a pair of clips preferably formed of sheet metal and having at the outer end the upturned flange 44 and at the inner end the longitudinally extending slot 45. The support 40 is preferably formed of sheet metal and has the horizontally extending portion 46 which is adapted to be adjustably secured to the clips 43 by means of the bolts 47 and the nuts 48, the former engaging in the slots 45. The support has the upwardly and inwardly extending portion 49 and the depending portion 50, the junction between these two portions being preferably rounded and forming a guide for leveling the cementitious material or grout upon the brick sill portion of the wall. The depending portion 50 is spaced inwardly from the brick sill portion and is formed with the longitudinally extending groove forming portion 51 near its lower edge, the groove opening inwardly and the base 52 of the groove forming portion abutting the brick sill portion. The support terminates below the groove forming portion in the upwardly and outwardly extending flange 53 which cooperates with the upwardly and inwardly extending portion 54 of the groove forming portion to form a dove-tail groove which opens outwardly and which is adapted to be filled with plaster at the inner side of the wall below the support. 55 is one of a pair of clips preferably formed of sheet metal for securing one of the clips 43 in place, this clip 55 differing from the clip 29 mainly in being provided with the depending portion 56 at the inner end of the laterally extending tongue 57. This depending portion terminates in the laterally extending portion 58 for engaging the upwardly extending flange 44 of the clip 43.

The stool 59 extends below the lower bar of the window sash and rests upon the cementitious material, the clips 55 and the rounded corner of the support 40 and has the depending portion 60 which terminates in the outwardly extending lateral flange 61, which projects into the inwardly opening groove of the support above the hooks of the radiator hangers, the portions of the support at the edges of the depending portion 60 being rounded.

With this arrangement the rounded corner of the support 40 connecting the portions 49 and 50 forms a guide for assisting the workman in leveling off the cementitious material upon the brick sill portion, the portions 53 and 54 function to secure or anchor the plaster at the inner side of the wall and the vertically extending portion between these portions 53 and 54 forms a guide for this plaster. By reason of forming the cementitious material with a flat upper face in the plane of the rounded corner of the support, the stool 59 may be supported throughout its extent so

that it may be formed of a thinner gauge sheet metal.

To provide for vertically adjusting the radiator, the radiator hangers are formed of the sections 62 and 63 with the sections 62 adapted to engage the radiators and the sections 63 adapted to engage the support 40 and to carry the sections 62. In detail, each section 62 has at its inner edge the transverse tongues 64 and each section 63 has at its upper end the hook 65 for engaging in the inwardly opening channel of the support and resting upon the portion 54. Each section 63 also has the longitudinally extending slot 66 at one edge and the transverse slots 67 opening into this slot 66 and spaced vertically from each other. The slots 67 are formed by striking out the tongues 68, which extend outwardly and then upwardly and are spaced apart distances corresponding to the distance between the tongues 64 to alternatively engage the latter, so that each section 63 is adapted to adjustably support at a plurality of points a section 62. Each section 62 is assembled with its section 63 by passing the section 62 through the slot 66 and engaging the tongues 64 with the tongues 68. The section 62 may be vertically adjusted upon the section 63 by disengaging the tongues 64 from the tongues 68 and reengaging the tongues 64 with other tongues 68.

In the modification shown in Figure 6, the construction of the support 69 is the same as that of the support 40. The clip 70 for securing the support 69 in place has the same construction as the clip 10 shown in Figure 2. The clip 71 for securing the window sash 72 in place is very similar in construction to that of the clip 55, the essential difference being that the clip 71 is formed with the transverse flange 72 for receiving the depending flange 73 upon the lower bar of the sash. The stool 74 in this modification has its outer edge abutting the lower bar of the sash and has at its inner edge the depending portion 75, which terminates in the downwardly and outwardly inclined flange 76 which extends into the inwardly opening groove of the support 69. A suitable trim mold 77 may be provided at the corner between the lower bar of the sash and the stool, this trim mold being secured by suitable means such as the screws 78 which extend through the stool and are threaded into the laterally extending tongue 79 of the clip 71.

The radiator hangers of this modification are also sectional to provide for vertically adjusting the radiator and as shown, each hanger comprises the section 80, which is adapted to engage the radiator and the section 81, which is adapted to engage the support 69. Each section 80 is formed at its outer edge with the downwardly extending hooks 82 which are adapted to be passed through the longitudinally extending verti-

cally spaced slots 83 in the section 81, the spacing of the hooks and slots being such that each section 80 is supported by a number of hooks engaging each section 81.

In the modification shown in Figure 7, the construction at the inner edge of the stool 84 differs, this stool instead of being anchored by having a portion engaging in the inwardly extending opening of the support being anchored by means of screws 85 which are threaded into the depending portion 86 of the support. To provide for securing the stool by means of the screws, the depending portion 87 of the stool has the outwardly offset vertically extending portion 88 through which the screws pass. The stool also preferably has the lower part 89 of its depending portion 87 offset inwardly from the portion 88 to provide sufficient clearance for the passage of the shanks of the radiator hanger hooks 90.

The modification shown in Figure 8 differs mainly in the construction of the support 91, which has the horizontally extending portion 92 above the brick sill portion of the wall and adjustably secured to the clip 93 and the depending portion 94 at the inner side of the wall, which has the inwardly offset vertically extending portion 95 at its lower edge with the upwardly and inwardly extending portion 96 connecting into this portion 95 and adapted for engagement with the hooks 97 of the radiator hangers. The stool 98 has the downwardly and outwardly inclined portion 99, which is adapted to extend above the hooks and to be engaged by the tongues 100 struck out from the main part of the depending portion 94 of the support, whereby the stool will be held from upward displacement.

What I claim as my invention is:

1. A radiator hanger support adapted for use with a wall having a window opening, comprising a member extending into the opening and anchored to the wall, said member having a raised portion forming a guide for cementitious material in the opening, and a stool insertable into the opening above said member and resting upon the cementitious material.

2. A radiator hanger support adapted for use with a wall having a window opening, comprising a member extending into the opening and anchored to the wall and having a depending portion forming a guide for plaster at the inner side of the wall, and a stool insertable into the opening above said member.

3. A radiator hanger support adapted for use in a wall having a window opening comprising a horizontally extending portion projecting into the opening and anchored to the wall, an upwardly and inwardly extending portion, and a depending portion, the junction between said upwardly and inwardly extending portion and depending portion

forming a guide for cementitious material in the opening and said depending portion forming a guide for plaster at the inner side of the wall.

5 4. A radiator hanger support adapted for use with a wall having a window opening, comprising a member having a portion extending into the opening and anchored to the wall, said member having a depending
10 portion with an inwardly opening groove, and a stool insertable into the opening above said member and having a portion extending into the groove.

15 5. A radiator hanger support adapted for use with a wall having a window opening, comprising a member extending into the opening and anchored to the wall and provided with a depending portion formed with an upwardly and inwardly extending portion,
20 a stool insertable into the opening above said support, and means for supporting a radiator including a hanger having a section engageable with said upwardly and inwardly extending portion and movable laterally of
25 said support, a second section, and cooperating means upon said sections for vertically adjustably supporting said sections from said first mentioned section.

30 6. A radiator hanger support for use in a wall having a window opening comprising a portion extending into the opening and anchored to the wall and provided with a depending portion formed with inwardly and outwardly opening grooves adapted to respectively receive the radiator hanger and
35 plaster at the inner side of the wall.

7. A radiator hanger support adapted for use with a wall having a window opening, comprising a member extending into the opening and anchored to the wall, and a stool
40 insertable into the opening above said support and having a portion adapted to extend beneath said member.

45 8. A radiator hanger support adapted for use with a wall having a window opening and a sash therein, comprising a member having a portion at the inner side of the wall and a second portion extending into the opening and anchored to the wall, and a
50 stool insertable into the opening above said support and below said sash and having a portion extending beneath said first-mentioned portion of the support.

55 9. A member adapted to be anchored to a wall having a window opening, said member having a portion extending inwardly from the inner side of the wall, and a stool extending into the opening and having a portion extending beneath the inwardly extending
60 portion of said member.

In testimony whereof I affix my signature.
GUSTAF IVAR BARCLAY.