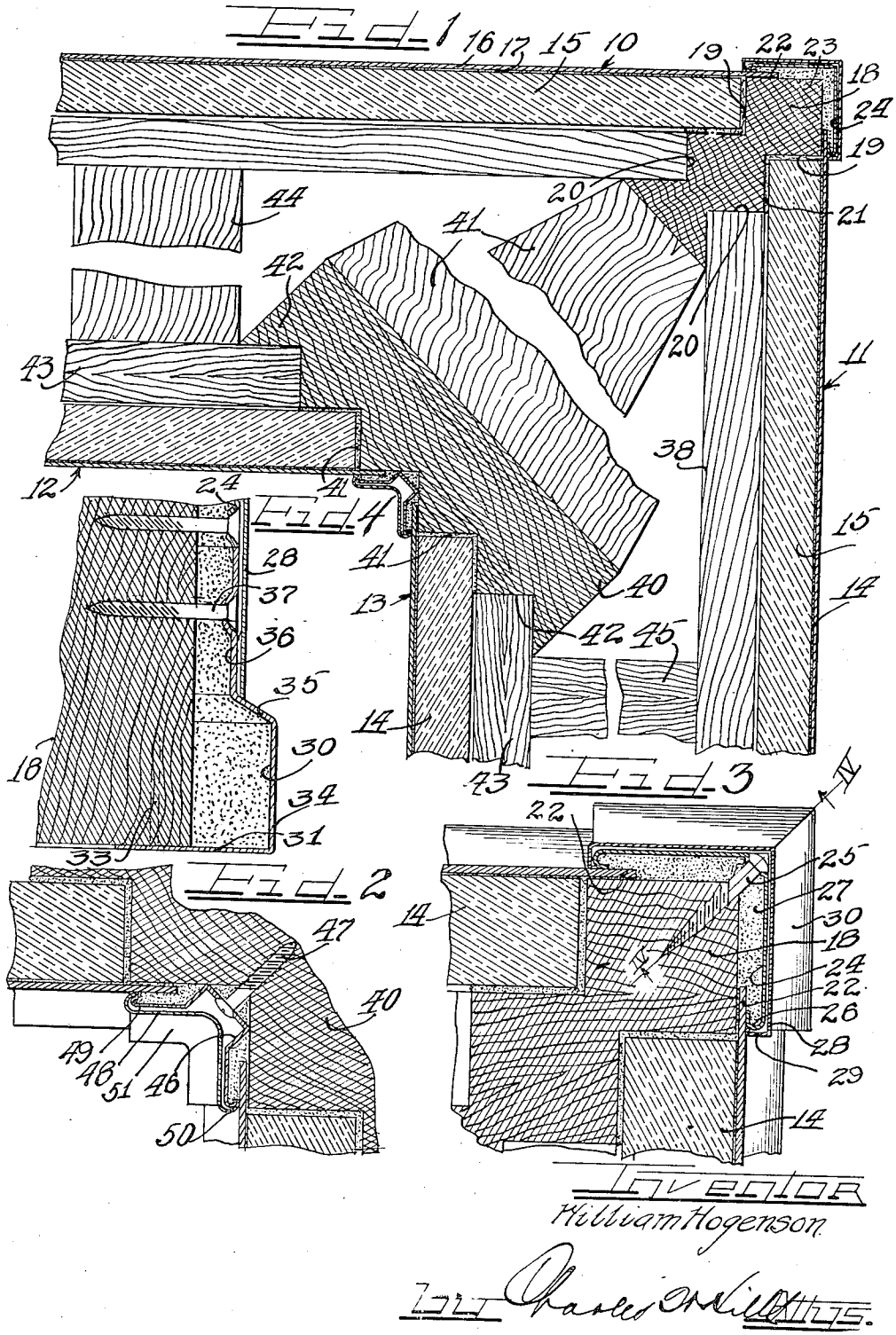
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ENAMELED METAL WALL CORNER CONSTRUCTION

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ENAMELED METAL WALL CORNER CONSTRUCTION

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10 Claims. (Cl. 189—85)

This invention relates to enameled metal wall corner construction and to a method for its assembly.

In my copending application entitled "Enameled metal wall construction", Serial No. 742,029, filed August 30, 1934, there is disclosed a construction wherein the enameled metal plates are prefabricated on insulation board backing so as to provide individual panels of metal veneered board that can be readily assembled in the construction of internal or external walls. Since there is no interlocking of the panels with each other, any panel can be quickly and easily removed from the face side without disturbing any of the adjacent panels.

The metal panels, which usually become warped at the high temperatures employed for burning on the enamel, are cemented under high pressure to rigid insulating boards, both for the purpose of pressing the enameled metal to straighten it out and also to eliminate the tendency of the metal to buckle under climatic conditions. Furthermore, the heavy insulating boards not only prevent sweating of the metal but also act as sound deadener and heat insulation. In wall construction, these panels are supported in spaced relation and the resulting joints are all caulked, so that no metal touches metal and the edges of the panel are protected by a waterproof caulking compound. All of the edges of the enameled metal panels are, at the same time, protected against rusting by the caulking compound.

My present invention relates to the use of this type of metal veneered panel in inside and outside corner constructions and contemplates the provision of novel means for the assembly of the metal veneered panels to present corners of water tight construction and of pleasing appearance.

It is therefore an object of this invention to provide an enameled metal wall corner construction of a novel and improved type wherein the joints formed are water tight and present a pleasing and artistic appearance.

It is a further important object of this invention to provide a wall corner construction using metal veneered panels whereby both internal and external corners can be constructed in a simple and efficient manner.

Other and further important objects of this invention will be apparent from the disclosures in the specification and the accompanying drawing.

This invention (in a preferred form) is illustrated in the drawing and hereinafter more fully described.

On the drawing:

Figure 1 is a broken horizontal sectional view of a corner construction embodying the principles of my invention.

Figure 2 is an enlarged fragmentary sectional view of the inside corner construction shown in Fig. 1.

Figure 3 is an enlarged fragmentary sectional view of the outside corner construction shown in Fig. 1.

Figure 4 is a sectional view taken substantially on the line IV—IV of Fig. 3 with parts in elevation.

As shown on the drawing:

The reference numerals 10 and 11 indicate generally outside walls and the reference numerals 12 and 13 inside walls of enameled metal panel construction embodying the principles of my invention. Each of said walls 10 and 11 is built up of a plurality of panels 14 comprising a backing of rigid insulation board 15 and a veneer of porcelain enameled metal 16 secured thereto by means of a layer of adhesive 17. Said panels 14 are prefabricated by uniting the metal veneer 16 to the insulation board backing 15 under high pressure to cause a firm bond therebetween and prevent warping of the metal veneer under changes in climatic conditions.

In the construction of an external corner, a corner member 18 is used comprising a wood strip having V-shaped rectangular grooves arranged in opposed pairs 19—19 and 20—20 along opposite sides thereof. The outside pair of grooves 19—19 are adapted to receive the adjacent end edges of the insulation board 15 of the panels 14, the joints thereby formed being rendered water tight by the use of a caulking material 21. Said grooves 19—19 are of such size as to snugly receive the end edges of said insulation board backing 15 and permit the extended edges 22 of the metal veneer to overlie the corresponding faces 23 of the corner member 18.

An angularly formed sheet metal retaining strip 24 (Fig. 3) is secured over the external corner by means of screws 25 or other suitable fastening means, so as to overlie the extended marginal portions 22 of the metal veneer panels. Said strip 24 is provided with reversely turned lateral edges 26 which are adapted, by virtue of the resiliency of the sheet metal, to press against the external faces of said marginal portions 22 and form a tight seal therewith. The space thus formed between the corner member 18 and the retaining strip 24 is filled with a caulking compound 27.

An external cover trim 28 is adapted to be snapped in place over the retaining strip 24 and for this purpose is provided with reversely turned flanged edges 29 that engage over the rounded lateral edges 26 of the retaining strip. Said retaining strip and cover trim extend substantially the full height of the corner members 18 but at the top and bottom thereof are supplemented by other sheet metal members that serve as plinths. One of such plinths, indicated by the reference numeral 30, is shown in Fig. 4 and comprises a member formed of stamped sheet metal to provide a lower horizontal flange 31 adapted to be secured to the bottom of the vertical corner member 18 by screws 33 or other suitable fastening means. The plinth 30 extends out beyond the corner edge of said member 18 to provide a space that is filled with the caulking material 27. The projecting portion 34 of the plinth 30 is joined by a beveled portion 35 to an extension 36 that lies in back of the cover trim 28 and flush with the retaining strip 24 in abutting relation therewith. Screws 37 secure the plinth in place through the extension 36.

Horizontally extending stringers 38 lie in back of the panels 11 at spaced intervals to provide suitable supporting structures for the panels. Said stringers 38 are secured at their ends in the opposed pair of rectangular notches or grooves 20.

The inner corner construction includes a vertically extending wooden corner member 40 connected to the outside corner member 18 by means of suitable braces 41. Said corner member 40 is provided along its inner face, which extends diagonally across the corner, with a plurality of pairs of grooves 41—41 and 42—42 for receiving the end edges of the panels making up the inside walls 12 and 13, and the end edges of the inside sets of stringers 43—43, respectively. Other braces 44 and 45 extend between the stringers 43 and 38 to form a rigid wall construction.

As in the outside wall construction, the joints are caulked and retaining strips and cover trim are employed to conceal the corner and overlie the extended marginal portions of the metal veneered panels. In the inside corner construction, the retaining strip 46 is secured by means of screws 47 (Fig. 2) to the corner member 40 and a cover strip 48 is fastened over the retaining strip. Said retaining strip 46 is provided for this purpose with rounded lateral edges 49 over which similarly rounded edges 50 of the cover strip 48 are adapted to be snapped and resiliently retained in place. An inside sheet metal plinth 51 is provided for the inside corner at the base thereof.

I am aware that many changes may be made and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I, therefore, do not purpose limiting the patent granted hereon otherwise than necessitated by the prior art.

I claim as my invention:

1. A wall corner structure comprising a member having a series of rectangular V-shaped grooves, metal veneer panels of insulation board adapted to fit edgewise into said grooves with the edges of the metal veneer overlying corner faces of said member, angularly shaped metal strip overlying adjacent edges of metal veneer panels at said corner faces and secured to said member and a cover strip over said metal strip.

2. A wall corner structure comprising a member having a series of rectangular V-shaped grooves, metal veneer panels of insulation board adapted to fit edgewise into said grooves with the edges of the metal veneer overlying corner faces of said member, angularly shaped metal strip overlying adjacent edges of metal veneer panels at said corner faces and secured to said member and a cover strip over said metal strip and clampingly engaged thereto by its own inherent resiliency, the joints thus formed being filled with caulking.

3. An outside wall corner structure, comprising a wooden corner member having in opposite faces longitudinally extending rectangular V-shaped grooves, furring strips secured at their ends in an inner pair of grooves, metal veneer panels of insulation board fitted edgewise into the outer pair of said grooves with the metal veneer overlying the corner faces of said member and with the rear faces of said insulation board at their margins abutting said furring strips, and cover trim secured to said corner member and overlying the edges of said metal veneer to conceal the same.

4. An inside wall corner structure, comprising a corner member having a plurality of rectangularly shaped grooves longitudinally of one face thereof, metal veneer panels of insulation board fitted edgewise in each of two spaced apart grooves, edges of the metal veneer extending beyond the respective insulation board edges into an intervening groove, a retaining strip secured in said intervening groove to overlie said metal veneer edges and a cover trim fastened to said retaining strip and concealing the same.

5. An inside wall corner structure, comprising a corner member having a plurality of rectangularly shaped grooves longitudinally of one face thereof, metal veneer panels of insulation board fitted edgewise in each of two spaced apart grooves, edges of the metal veneer extending beyond the respective insulation board edges into an intervening groove, a retaining strip secured in said intervening groove to overlie said metal veneer edges and a cover trim fastened to said retaining strip and concealing the same, the joints so formed being filled with caulking.

6. An inside wall corner structure comprising a wooden corner member having a series of V-shaped grooves of rectangular cross section and extending longitudinally of said member in parallel rows, metal veneer panels having bases of insulation board fitted edgewise in two spaced grooves with the edges of said metal veneer extending into the intervening groove, a metal retaining strip overlying said metal veneer edges, fastening means extending through said strip into said corner member and a cover trim resiliently positioned over said retaining trim to conceal the same.

7. A wall corner structure comprising an outer corner member having V-shaped grooves of rectangular cross section in opposite faces, an inner corner member having similar grooves in its inner face with corresponding walls of all grooves parallel to each other and a brace joining the outer and inner corner members and supporting the same.

8. A wall corner structure comprising an outer corner member having V-shaped grooves of rectangular cross section in opposite faces, an inner corner member having similar grooves in its inner face with corresponding walls of all grooves parallel to each other, a brace joining the outer and inner corner members and supporting the

same, metal veneer panels having insulation board backing positioned in the outermost pair of grooves in the outer corner member with the metal veneer on the outside, cover trim overlying and concealing the corner of said outer corner member, similar metal veneer panels positioned in a spaced apart pair of grooves in said inner corner member and cover trim overlying and concealing the inner corner between said last mentioned veneer panels.

9. A wall corner structure comprising an outer corner member having V-shaped grooves of rectangular cross section in opposite faces, an inner corner member having similar grooves in its inner face with corresponding walls of all grooves parallel to each other, a brace joining the outer and inner corner members and supporting the same, metal veneer panels having insulation board backing positioned in the outermost pair of grooves in the outer corner member with the metal veneer on the outside, cover trim overlying and concealing the corner of said outer corner member, similar metal veneer panels positioned in a spaced apart pair of grooves in said inner corner member, cover trim overlying and concealing the inner corner between said last mentioned veneer panels, furring strips in other of said grooves to support said panels and bracing between the inner and outer furring strips.

10. A wall corner structure comprising a vertical member having symmetrically arranged lengthwise extending grooves of triangular cross section and metal veneer panels of insulation board fitted edgewise into said grooves with the margins of the metal veneer overlying the joints formed between the abutting surfaces of said board and grooves.

WILLIAM HOGENSON.