

Aug. 19, 1952

S. L. DANIELS
SHEET METAL SIDING

2,607,449

Filed Nov. 5, 1947

2 SHEETS—SHEET 1

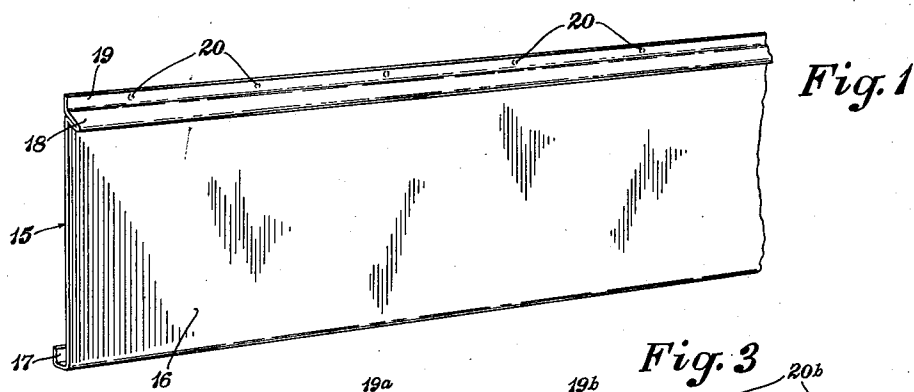


Fig. 1

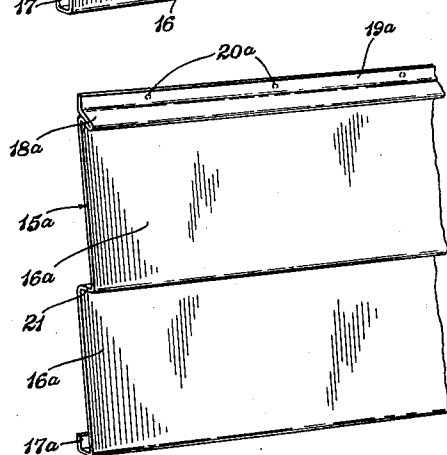


Fig. 2

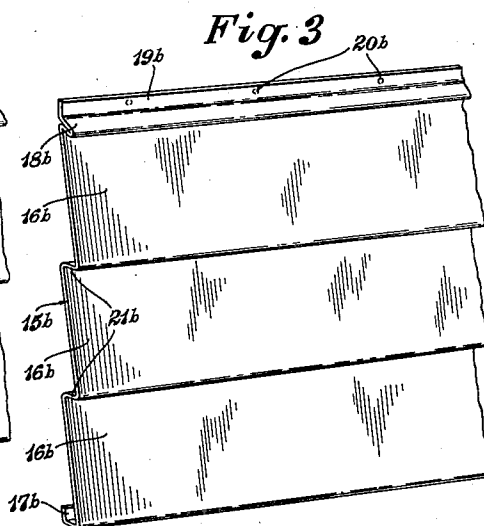


Fig. 3

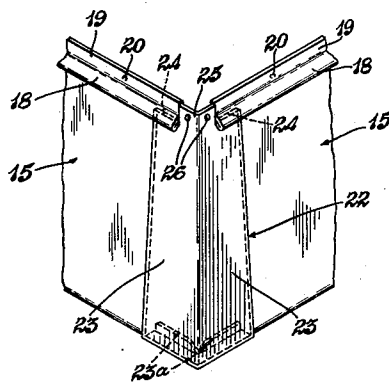


Fig. 5

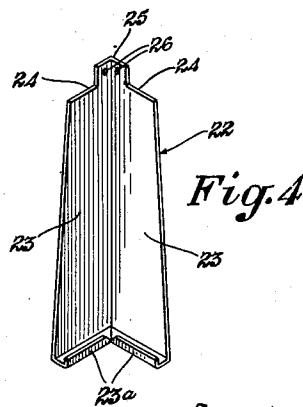


Fig. 4

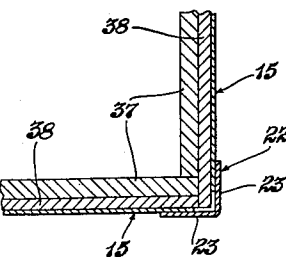


Fig. 6

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2 SHEETS—SHEET 2

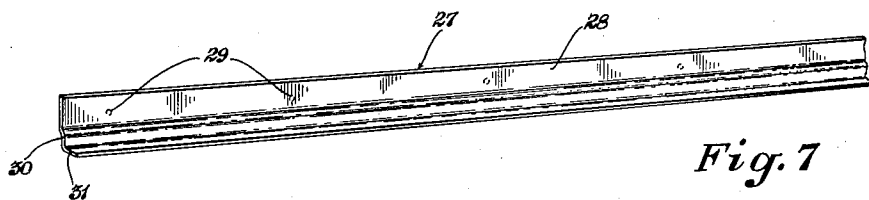


Fig. 7

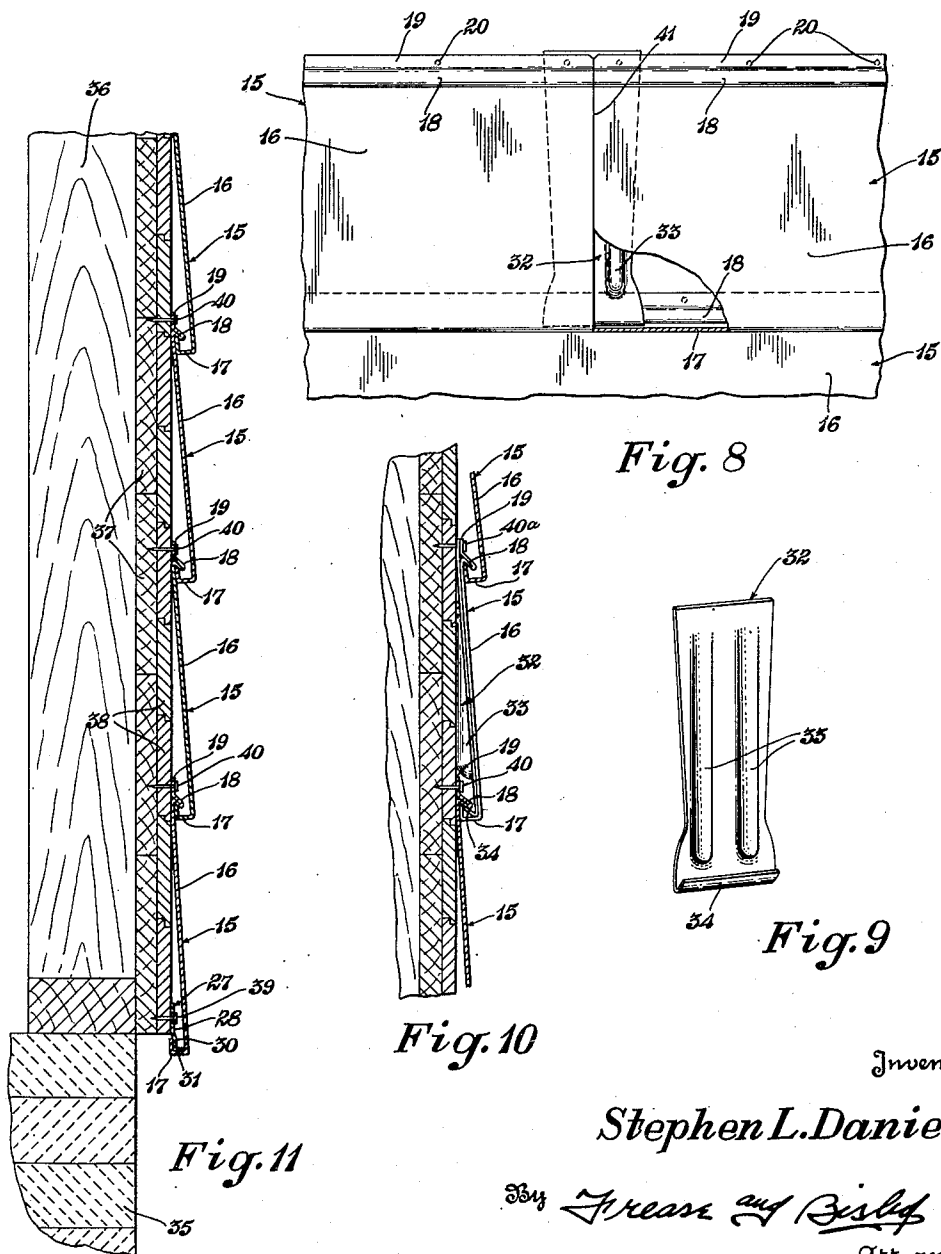


Fig. 8

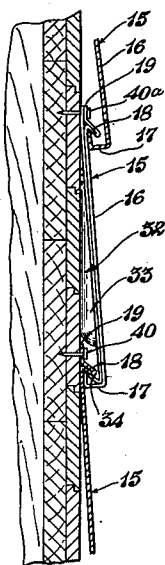


Fig. 10

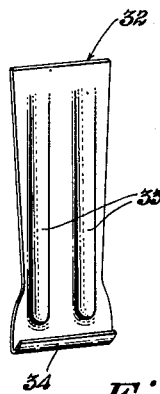


Fig. 9

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UNITED STATES PATENT OFFICE

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SHEET METAL SIDING

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Application November 5, 1947, Serial No. 784,185

1 Claim. (Cl. 189—35)

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The invention relates to a sheet metal covering for the walls of buildings and more particularly to a sheet metal article having the appearance of lapped siding for covering the walls of old buildings, and the present application is an improvement upon my co-pending application, Serial No. 712,437, filed November 26, 1946, now abandoned.

An object of the invention is to generally improve and simplify the construction of sheet metal siding such as disclosed in my co-pending application above referred to.

Another object is to provide an improved interlocking means at the upper and lower edges of each sheet arranged to cover all joints and nail heads and provide watertight joints.

Still another object is to provide a sheet metal siding of this character comprising a metal sheet formed to simulate one, two, three or more lapped siding boards.

A further object is to provide a sheet metal siding of this character having an intumed channel at its lower edge and a downwardly angled, double folded flange near its upper edge, disposed at such an angle as to permit the same to interlock with the channel at the bottom of the next higher sheet, each sheet terminating at its upper edge in a flat nailing flange.

A still further object is to provide an improved sheet metal joint member to be located at the vertical joints between adjacent sheet metal siding members and having upwardly tapered, inwardly disposed ribs therein for supporting the sheet metal siding members adjacent to the vertical joint.

Another object is to provide an improved form of starting strip.

Still another object is to provide an improved corner member having cut out portions at its upper end to receive the angular flanges at the upper portions of the siding sheets.

The above objects together with others which will be apparent from the drawings and following description, or which may be later referred to, may be attained by constructing and installing the improved sheet metal siding in the manner hereinafter described in detail and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of one end portion of a sheet of metal siding embodying the invention showing the same formed to represent a single lap weather board;

Fig. 2 a similar view of a portion of a sheet of siding formed with two laps;

Fig. 3 a similar view showing three laps;

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Fig. 4 a perspective view of the inner side of one of the improved corner members;

Fig. 5 a perspective view of the outer side of one of the corner members showing portions of two adjacent siding sheets associated therewith;

Fig. 6 a horizontal sectional view through a corner of a building showing the corner member lapped over the vertical edges of two adjacent sheet siding members;

Fig. 7 a perspective view of a portion of the improved starting strip;

Fig. 8 an elevation, with parts broken away, of a vertical joint showing the improved joint member associated with abutting end portions of two siding sheets;

Fig. 9 a detached perspective view of the improved vertical joint member;

Fig. 10 a vertical sectional view through a vertical joint; and

Fig. 11 a vertical sectional view of a portion of a wall of a building showing the manner of applying the improved sheet metal siding thereto.

The improved siding is formed of sheets of aluminum or other suitable material, of any desired length and width, formed to represent one or more lapped siding boards and preferably painted in any desired color before being installed.

In Figure 1 is shown a portion of a sheet of metal siding which may be of any desired length which will permit convenient handling and installing upon a building and of such width as to permit the simulation of a single weather board of any desired width, the metal sheet indicated generally at 15 being of such width as to represent a single lapped weather board and comprising the flat portion 16 having the rearwardly disposed channel 17 formed at its lower edge and the downwardly angled integral flange 18 of double thickness formed by folding the metal back upon itself, and terminating in the upwardly disposed, flat nailing flange 19 having the apertures or punch marks 20 therein to facilitate the driving of nails therethrough.

In Fig. 2 is shown a portion of a sheet indicated generally at 15a having two similar angular flat portions 15a separated by the horizontal offset 21 formed therein to give the appearance of two lapped siding boards, the channel 17a at the lower edge of the sheet and the downturned angular flange 18a near the upper edge thereof being the same as in the form of the invention shown in Fig. 1, the sheet terminating at its upper edge in the flat nailing strip 19a having the apertures or punch marks 20a to receive nails or the like.

In Fig. 3 is shown another modification of the

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invention comprising the sheet indicated generally at 15b which is of such width as to permit the formation of three angular surfaces 16b separated by the offsets 21b extending longitudinally throughout the sheet and giving the appearance of three lapped siding boards.

The channel 17b at the lower edge of the sheet and the angular flange 18b near the upper edge thereof may be the same as above described, the sheet terminating at its upper edge in the flat, nailing flange 19b having the punch marks or apertures 20b for receiving nails.

Each of the three forms of siding sheets shown in Figs. 1, 2 and 3 is adapted to be applied or installed upon the outer surfaces of a wall in the same manner, but for the purpose of illustration, only the single lapped sheet 15 is illustrated and described in the remaining figures in which the application of the metal sheet siding to a building is disclosed.

In Fig. 4 is shown an improved corner member for covering vertical joints between sheets on adjacent walls and interlocking therewith, this corner member being indicated generally at 22 and being formed of a sheet of aluminum or other suitable metal of right angle cross sectional shape, each side thereof comprising a similar, angular, flat portion 23 having a rearwardly disposed channel 23a formed at its lower edge to receive the channel portions of the adjacent siding sheets 15, when the corner member is lapped over the adjacent ends thereof, as shown in Figs. 5 and 6.

The upper ends of the flat portions 23 are cut away as at 24 forming the angular extension 25 having nailing apertures 26 therein for nailing the corner piece to the corner portion of the wall, the cut away portions 24 receiving the adjacent end portions of the angular flanges 18 at the upper portions of the siding sheets 15.

The starting strip, indicated generally at 27, comprises a narrow strip of aluminum or other suitable sheet metal of desired length, having the flat nailing flange 28 provided with apertures or punch marks 29 through which nails may be driven to attach the same to the wall of a building, and has the outwardly offset lower portion 30 terminating in the outwardly disposed right angle flange 31 of a width to be received within the channel 17 at the lower edge of the lowermost siding sheet.

The vertical joint member, indicated generally at 32 in Fig. 9, is formed from a sheet of aluminum or the like of a height substantially the height of a siding sheet and is provided on its rear surface with the spaced pair of vertical, upwardly tapered ribs or corrugations 33 extending from a point near the bottom to a point near the top thereof, the lower edge of the member 32 terminating in the rearwardly disposed angular flange 34.

In Fig. 11 is shown the manner in which the improved sheet metal siding is applied to the exterior wall of an old building, to cover the same. A portion of the foundation of the building is indicated at 35, a portion of the studding at 36, sheathing at 37 and wood ship lap siding at 38.

A starting strip 27 is nailed to the lower edge portion of the ship lap siding as by nails 39, the outwardly offset portion 30 of the starting strip being preferably located below the bottom edge of the ship lap siding as shown in said figure.

The sheet metal siding is applied from the bottom to the top of the wall, the rearwardly

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disposed channel 17 of the lowermost sheet 15 receiving the offset portion 30 and the forwardly disposed angular flange 31 of the starting strip and the lowermost sheet 15 is attached to the wall by nails 40 driven through the nailing flange 19 of the sheet and into the wall.

After each sheet 15 has been attached to the wall in this manner the channel 17 at the lower edge of the next upper siding sheet is then hooked under the forwardly and downwardly disposed angular flange 18 of the next lower sheet and the upper sheet is attached to the wall in the same manner by driving nails 40 through the nailing flange 19 of the sheet.

Where the siding sheets are of insufficient length to entirely span the wall from one corner to another, it is necessary to butt the adjoining vertical edges of adjacent sheets together, as indicated at 41, one of the joint members 32 being located between the abutting end portions of the sheets and the wall as shown in Figs. 8 and 9, the ribs 33 contacting the wall and holding the members 32 at the proper angle to contact the rear surfaces of the abutting end portions of the sheets 15 and support them.

Both the member 32 and the abutting end portions of the two sheets 15 are attached to the wall as by nails 40a driven through the nailing flanges 19 of the sheets and through the upper portion of the member 32, the rearwardly angled flange 34 at the lower end of the joint member 32 engaging under the forwardly angled flange 18 of the next lower sheet and being received in the channel portions 17 of the joined sheets.

The corner member 22 is located over the abutting edges of the sheets of adjacent walls covering the corner as shown in Figs. 5 and 6, the channel 24 at the lower end of the corner member receiving the channels at the lower ends of the two siding sheets and the cut out portions 24 at the upper end of the corner member receiving the adjacent end portions of the flanges 18 at the upper portions of the two sheets.

The corner member may be properly positioned over the ends of the two sheets as shown in Figs. 5 and 6 and attached at the upper end to the corner portion of the wall by driving nails through the upper angular extension 25 of the corner piece. Thus the joint is completely covered at the corners of the building.

Although the application of only a single lapped sheet has been illustrated and described in detail, it will be obvious that the double lapped and triple lapped sheets, as shown in Figs. 2 and 3, may be applied in the same manner as above described, the joint members and corner members for these double and triple lapped sheets being shaped to correspond therewith.

I claim:

A sheet metal joint member for location behind the abutting ends of downwardly and outwardly angled sheet metal siding members, said joint member comprising a flat metal sheet adapted to be disposed at the same angle as the siding members and adapted to contact the rear surfaces of abutting end portions of such siding members, a spaced pair of upwardly tapered hollow ribs formed on the rear side of said joint member and extending from a point near the lower end of said joint member to a point near the upper end thereof and adapted to be located on opposite sides of the joint between two siding members and against a backing surface to which the siding is secured, and a

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rearwardly disposed angular flange at the lower end of said joint member for retaining the lower end in position with respect to the siding.

STEPHEN L. DANIELS.

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The following references are of record in the file of this patent:

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