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(54) **SIDING PANEL ASSEMBLY WITH SPLICING MEMBER AND INSULATING PANEL**

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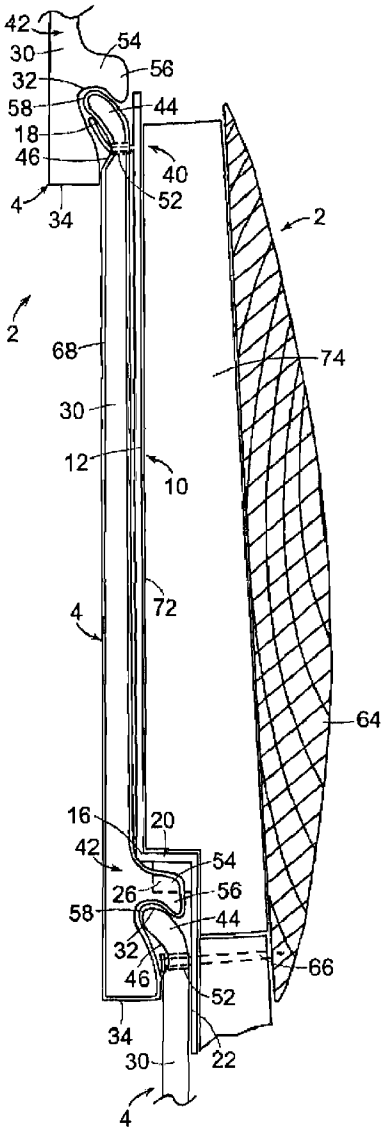
(57) **ABSTRACT**

A siding panel assembly comprising includes a siding panel having a substantially planar member having an upper portion angled outwardly and a pair of first apertures proximate a lateral edge of the substantially planar member. A flange with a pair of notches extends from the substantially planar member and terminates in a lip extending downwardly from a rear edge of the flange. A recess is formed in a rear surface of the substantially planar member. A first insulating panel is secured to the siding panel. A splicing member includes a first substantially planar member, a pair of flanges, a shoulder extending inwardly from the first substantially planar member, a second substantially planar member extending downwardly, and a pair of projections. A second insulating panel is secured to a rear surface of the splicing member.



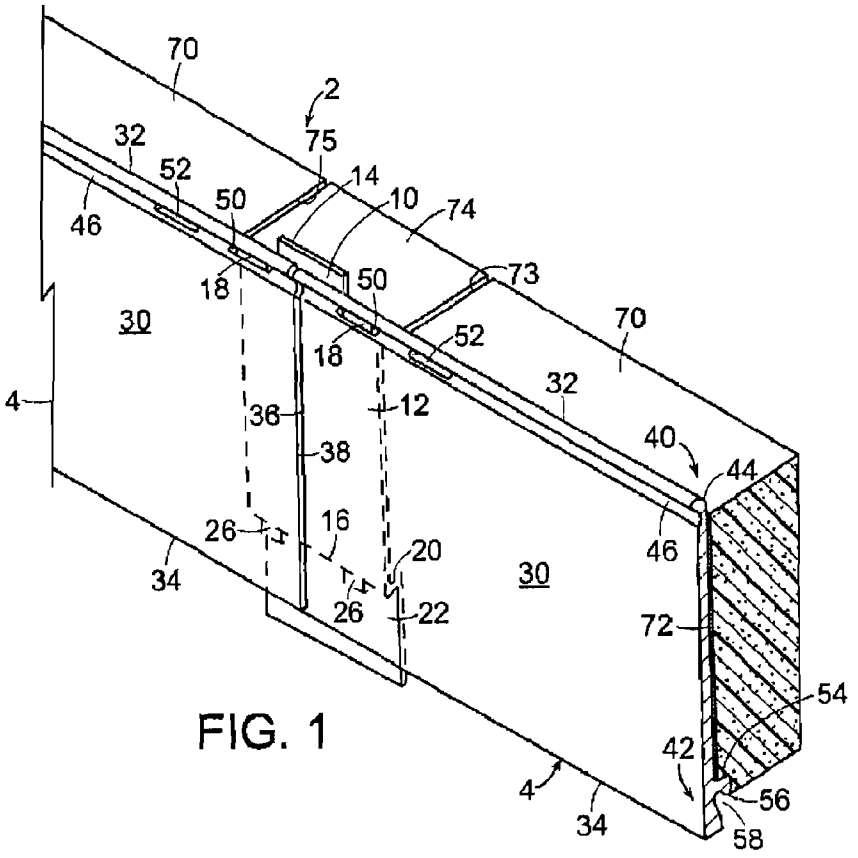


FIG. 1

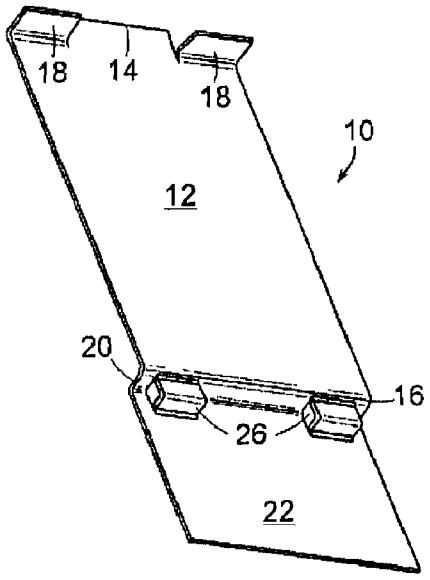


FIG. 2

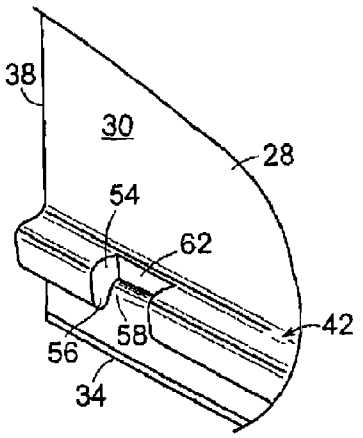


FIG. 3

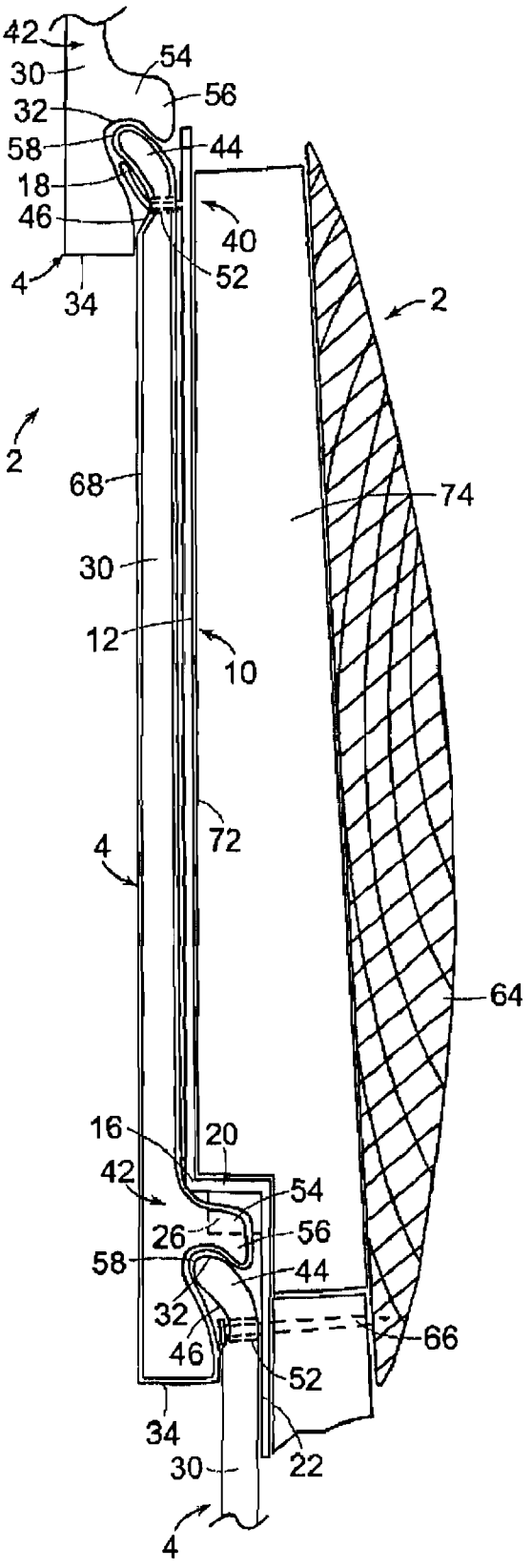

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FIG. 4

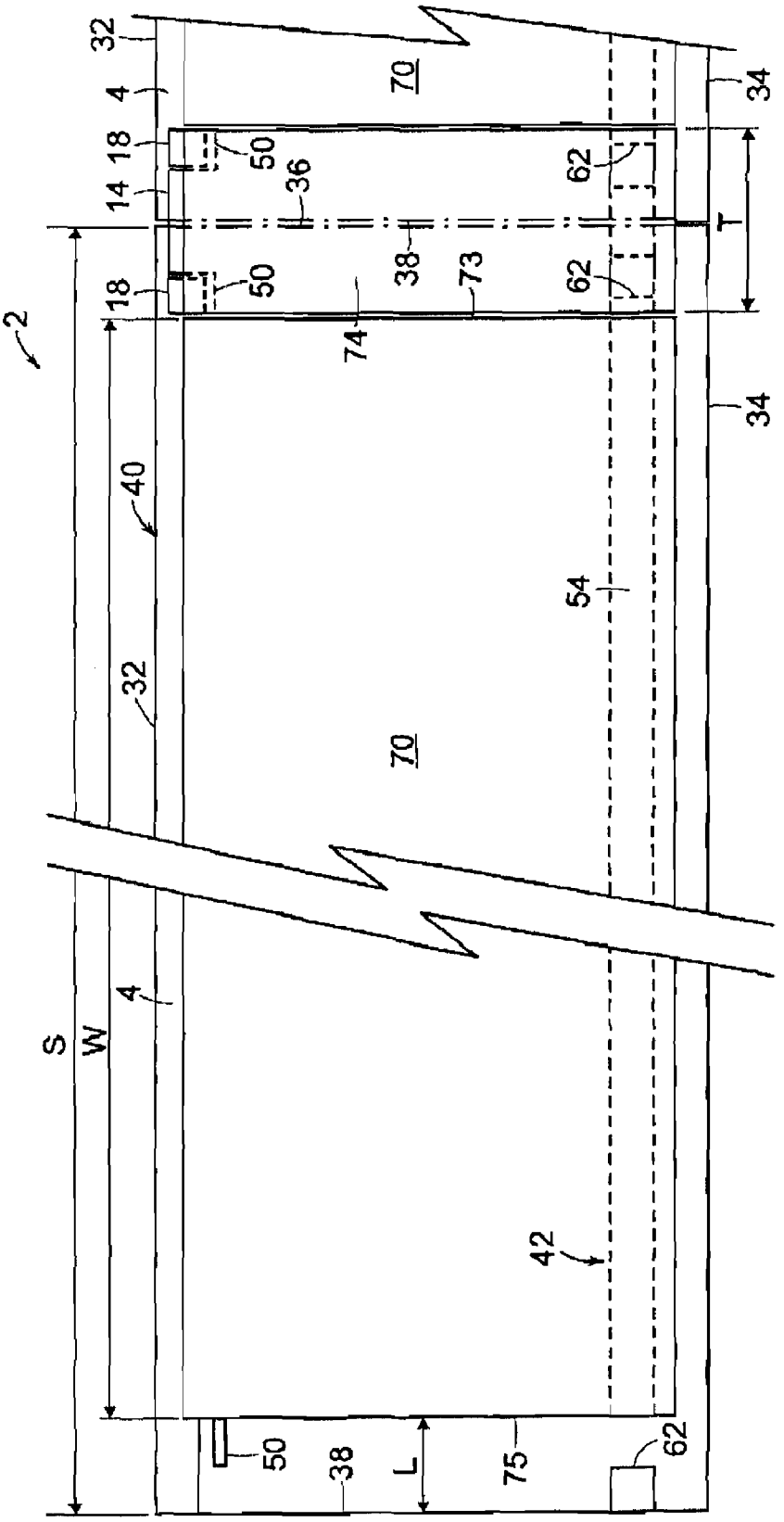

FIG. 5

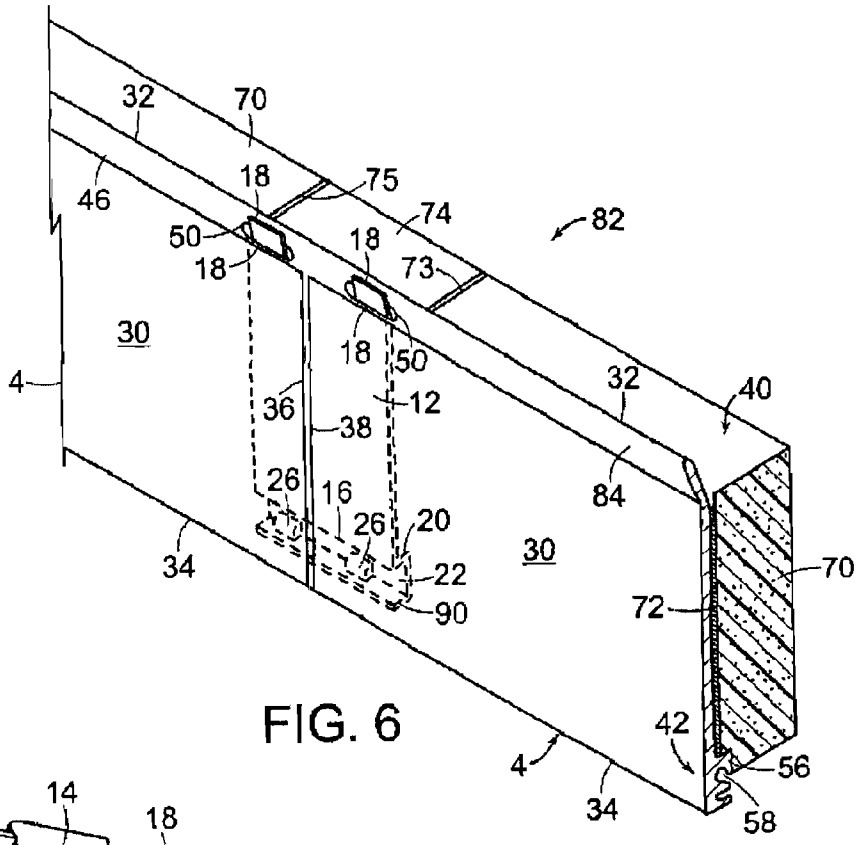

FIG. 6

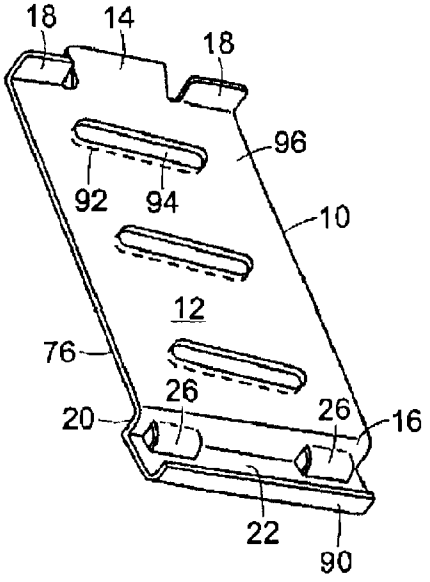

FIG. 7

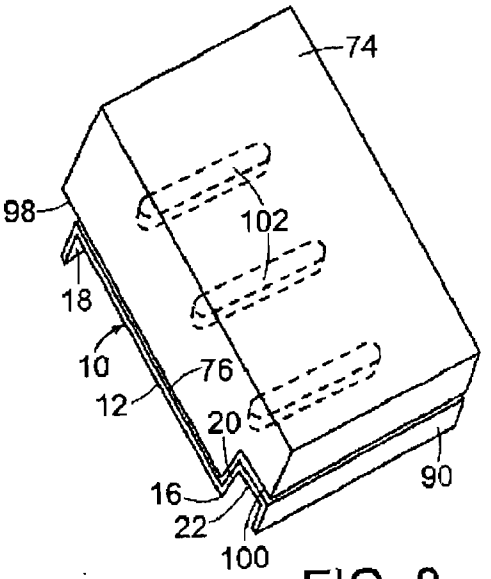

FIG. 8

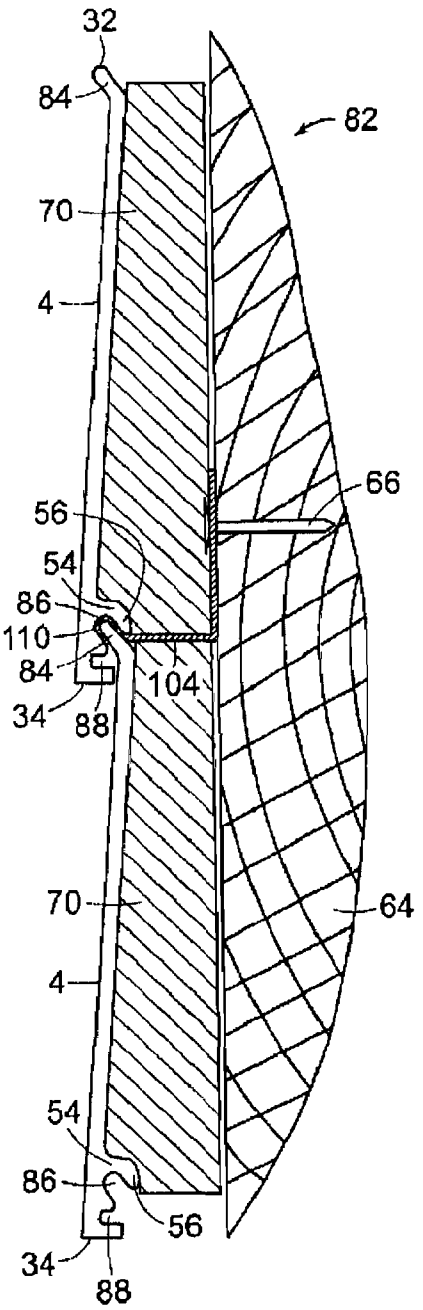
32
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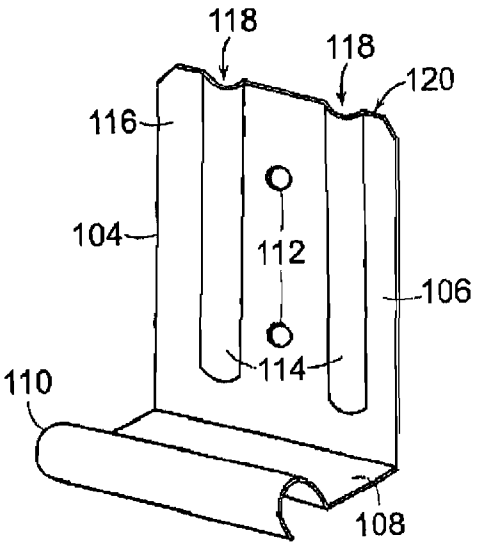
FIG. 9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112
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FIG. 10

SIDING PANEL ASSEMBLY WITH SPLICING MEMBER AND INSULATING PANEL

FIELD OF THE INVENTION

[0001] This invention relates generally to a siding panel assembly, and, in particular, to a siding panel assembly having a splicing member and an insulating panel.

BACKGROUND OF THE INVENTION

[0002] Siding, or wall siding, is commonly used to cover the exterior surfaces, e.g. walls, of structures. Such siding is often formed of metal, such as aluminum, or thermoplastic materials, such as polyvinyl chloride (PVC). Siding panels of such thin material are typically overlapped with horizontally adjacent panels to allow for thermal contraction and expansion. Other siding may be formed of thicker materials, for example, reinforced cement, or blends of polymer and wood fibers. Such siding panels cannot be overlapped due to their increased thickness. The vertical lateral edges between horizontally adjacent are butted together, but may tend to separate, forming unsightly gaps between horizontally adjacent panels.

[0003] Such siding is typically installed in multiple rows of panels, with each row overlapping the panels to which it is vertically adjacent. Adjoining panels are overlapped in this manner to provide protection for the structure from the elements.

[0004] Siding panels installed on vertical surfaces may be formed with one or more sections or courses. The courses are often combined with horizontal shoulders to form a siding profile. The courses may be declinations, that is, downwardly extending flat portions, which combine with the horizontal shoulders to form a clapboard profile. The courses may have a dutch lap construction, which includes an upper portion that angles downwardly and outwardly to an upper edge of a downwardly extending lower portion.

[0005] It would be desirable to provide a siding panel assembly having a splicing member and an insulating panel that reduces or overcomes some or all of the difficulties inherent in prior known devices. Particular objects and advantages of the invention will be apparent to those skilled in the art, that is, those who are knowledgeable or experienced in this field of technology, in view of the following disclosure of the invention and detailed description of certain preferred embodiments.

SUMMARY

[0006] The principles of the invention may be used to advantage to provide a siding panel assembly with a splicing member and an insulating panel. In accordance with a first preferred embodiment, a siding panel assembly comprising includes a siding panel having a substantially planar member having an upper portion angled outwardly and a pair of first apertures proximate a lateral edge of the substantially planar member. A flange with a pair of notches extends from the substantially planar member and terminates in a lip extending downwardly from a rear edge of the flange. A recess is formed in a rear surface of the substantially planar member. A first insulating panel is secured to the siding panel. A splicing member includes a first substantially planar member, a pair of flanges, a shoulder extending inwardly from the first substantially planar member, a second substantially planar member extending downwardly, and a pair of projections. A second insulating panel is secured to a rear surface of the splicing member.

[0007] In accordance with another preferred embodiment, a siding panel assembly includes a siding panel with a substantially planar member having an upper portion angled outwardly and a pair of apertures, each aperture being formed proximate a lateral edge of the substantially planar member. A flange extends rearwardly from the substantially planar member proximate a lower edge thereof and terminates in a lip extending downwardly from a rear edge of the flange. A pair of notches is formed in the flange. A recess is formed in a rear surface of the substantially planar member beneath the flange and is angled upwardly and outwardly. A first insulating panel is secured to a rear surface of the siding panel. A splicing member includes a first substantially planar member having an upper edge and a lower edge. A pair of flanges extends outwardly from opposed sides of the first substantially planar member along the upper edge. A shoulder extends inwardly from the entire lower edge of the first substantially planar member. A second substantially planar member extends downwardly from an inner edge of the shoulder. A pair of projections extends downwardly from the shoulder and inwardly from the second substantially planar member. A second insulating panel is secured to a rear surface of the splicing member. A clip has an aperture formed therein, a curved flange configured to receive a portion of the upper portion of the siding panel, and at least one rib formed thereon.

[0008] In accordance with a further embodiment, a siding panel assembly includes a pair of horizontally adjacent siding panels. Each panel has a substantially planar member formed of a mixture of a polymer and wood flour, a top lock and a bottom lock, an upper portion angled outwardly, and a pair of apertures, with each aperture being positioned proximate a lateral edge of the substantially planar member. A pair of notches is formed in the bottom lock. A cap formed of a polymer encapsulates the siding panel. A first insulating panel is secured to a rear surface of the siding panel. A splicing member includes a first substantially planar member having an upper edge and a lower edge. A pair of flanges extends outwardly from opposed sides of the first substantially planar member along the upper edge. A shoulder extends inwardly from the lower edge of the first substantially planar member. A second substantially planar member extends downwardly from an inner edge of the shoulder. A pair of projections extends downwardly from the shoulder and inwardly from the second substantially planar member, with each projection having a width slightly larger than a width of one of the notches. A second insulating panel is secured to a rear surface of the splicing member. A clip has an aperture formed therein and a curved flange configured to receive a portion of the upper portion of the siding panel.

[0009] Substantial advantage is achieved by providing a siding panel assembly having a splicing member and an insulating panel. In particular, certain embodiments of such a siding panel assembly having a splicing member and an insulating panel allow horizontally adjacent siding panels to be secured to one another in tight fitting fashion, providing a tight seal between them with no discernible gap and reducing the chance of moisture getting behind the siding panels, and providing improved insulating capabilities.

[0010] These and additional features and advantages of the invention disclosed here will be further understood from the following detailed disclosure of certain preferred embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. **1** is a perspective front view, shown partially broken away, of a siding assembly having a pair of horizontally adjacent siding panels secured to one another with a splicing member and having insulating panels positioned behind the siding assembly.

[0012] FIG. **2** is a perspective view of the splicing member of the siding assembly of FIG. **1**.

[0013] FIG. **3** is a perspective rear view, shown partially broken away, of a portion of a siding panel of FIG. **1**.

[0014] FIG. **4** is an elevation view of one of the siding panels of FIG. **1**, shown installed on a wall of a structure between two vertically adjacent siding panels, each of which is shown partially broken away.

[0015] FIG. **5** is rear elevation view of the siding assembly of FIG. **1**.

[0016] FIG. **6** is a perspective front view, shown partially broken away, of an alternative embodiment of a siding assembly having a pair of horizontally adjacent siding panels secured to one another with a splicing member and having insulating panels positioned behind the siding assembly.

[0017] FIG. **7** is a perspective view of the splicing member of the siding assembly of FIG. **6**.

[0018] FIG. **8** is a rear perspective view of the splicing member of the siding assembly of FIG. **6**, shown with an insulating panel secured to its rear surface.

[0019] FIG. **9** is an elevation view of one of the siding panels of FIG. **6**, shown installed with a clip on a wall of a structure beneath a vertically adjacent siding panel.

[0020] FIG. **10** is a perspective view of the clip of FIG. **9**.

[0021] The figures referred to above are not drawn necessarily to scale and should be understood to provide a representation of particular embodiments, and are merely conceptual in nature and illustrative of the principles involved. Some features of the siding panel assembly having a splicing member and an insulating panel depicted in the drawings have been enlarged or distorted relative to others to facilitate explanation and understanding. The same reference numbers are used in the drawings for similar or identical components and features shown in various alternative embodiments. Siding panel assemblies having a splicing member and an insulating panel as disclosed herein would have configurations and components determined, in part, by the intended application and environment in which they are used.

DETAILED DESCRIPTION OF CERTAIN PREFERRED EMBODIMENTS

[0022] Unless otherwise stated, or otherwise clear from the context below, directional references used here are based on the orientation of components and assemblies shown in the appended drawings. These directional references assume wall siding attached to the walls of a structure such as a house. These directional references are given in reference to the surface plane, such as the ground, upon which the structure sits, and the plane of the wall of the structure itself. Horizontal, therefore, refers to a direction which is substantially parallel to the surface plane. Vertical refers to a direction which is substantially parallel to the wall of the structure and substantially perpendicular to the surface plane. Outwardly refers to a direction moving substantially horizontally away from the structure upon which the siding is attached while inwardly refers to a direction moving substantially horizontally toward the structure. Downwardly refers to a direction moving substantially vertically toward the surface plane and upwardly refers to a direction moving substantially vertically away from the surface plane. Lower and upper refer to vertical directions with lower being closer to the surface plane than upper. Left and right are in reference to directions given when one is looking at the structure.

[0023] The present invention may be embodied in various forms. A preferred embodiment of a siding assembly **2** is shown in FIG. **1**. As seen here, a portion of two siding panels **4** are shown secured to one another with a splicing member or splicer **10**. Splicer **10** is seen in more detail in FIG. **2**, and in certain preferred embodiments may be formed of metal, e.g., aluminum. Splicer **10** includes a first substantially planar member **12** having an upper edge **14** and a lower edge **16**. Each of a pair of flanges **18** extends outwardly from an opposed side of planar member **12** proximate or along upper edge **14**. In a preferred embodiment, each flange **18** is formed by cutting planar member **12** and folding a portion of planar member **12** outwardly. A shoulder **20** extends inwardly from lower edge **16**. A second substantially planar member **22** extends downwardly from an inner edge **24** of shoulder **20**. A pair of projections **26** extends downwardly from shoulder **26** and outwardly from second substantially planar member **22**. In a preferred embodiment, splicer **10** and, naturally, projections **26** are formed by stamping a sheet of metal, e.g., aluminum.

[0024] As seen in FIGS. **1**, **4** and **5**, splicer **10** can be seen in use with a pair of horizontally adjacent siding panels **4**. Siding panels **4** can have a wide variety of configurations, but preferably include a substantially planar member **30** having a top edge **32**, a bottom edge **34**, a left lateral edge **36** and a right lateral edge **38**. A top lock **40** extends along substantially planar member **30** proximate top edge **32**, and a bottom lock **42** extends along substantially planar member **30** proximate bottom edge **34**. The top and bottom locks **40**, **42** can have a wide range of shapes, and are configured to have complimentary shapes so that vertically adjacent siding panels can be interlocked together.

[0025] In certain embodiments, top lock **40** comprises a reduced thickness portion **44** of substantially planar member **30** that is angled slightly outwardly and defines a groove **46** along a front surface **48** of substantially planar member **30**. A pair of first apertures **50** are located in groove **46**, one first aperture **50** positioned proximate left lateral edge **36** of siding panel **4** and the other first aperture **50** positioned proximate right lateral edge **38** of siding panel **4**. A plurality of second apertures **52** is located in groove **38** between the pair of first apertures **50**. As described in greater detail below, second apertures **52** serve to receive fasteners, such as nails, to retain siding panel **4** to a structure. Thus second apertures **52** are spaced apart from one another a distance sufficient to retain siding panel **4** on the structure. In certain preferred embodiments, second apertures **52** are spaced **16** inches from one another along groove **46**. However, it is to be appreciated that second apertures **52** may be spaced from one another at any desired distance. In a preferred embodiment, first apertures **40** and second apertures **46** are slots.

[0026] In the illustrated embodiment, bottom lock **42** comprises a flange **54** extending rearwardly from substantially

planar member **30** proximate bottom edge **34** and terminating in a lip **56** extending downwardly from a rear edge of flange **54**. A recess **58** is formed in a rear surface **60** of siding panel **4** beneath flange **54**. In a preferred embodiment, recess **58** curves inwardly and upwardly and is configured to mate with and receive the angled reduced thickness portion **44** of a vertically adjacent siding panel **4** as described in greater detail below in connection with FIG. **4**. As seen in FIG. **3**, a pair of notches **62** are formed in flange **54** proximate each of left lateral edge **36** and right lateral edge **38** (the notch **62** proximate right lateral edge **38** is shown here from a back side of siding panel **4**). Notches **62** are configured to receive corresponding projections **26** of splicers **10** when adjoining siding panels **4** are connected together as described in greater detail below. In a preferred embodiment, notches **62** have a width that is slightly smaller than a width of projections **26** so that projections **26** fit tightly into notches **62**.

[0027] Siding panels **4** are secured to wall **64** of a building by way of nails **66** installed through second apertures **52**. As noted above, apertures **52** have the form of slots in a preferred embodiment. As those skilled in the art can appreciate, nails **66** are driven into wall **64** only to the extent that they capture top lock **40** while allowing siding panel **4** to float, or move, longitudinally along wall **64**, thereby accommodating thermal expansion and contraction of siding panel **4**. It is to be noted that when successive rows of siding panels **4** are installed vertically above lower rows, the seams between horizontally adjacent siding panels **4** are offset from one another, both for aesthetic reasons and to reduce the chance of moisture getting behind siding panels **4**.

[0028] Horizontally adjacent siding panels **4** are secured to one another by splicer **10** as illustrated in FIGS. **1**, **4**, and **5**. A splicer **10** is first slid into position behind an installed siding panel **4** (seen in FIG. **4** as the lowermost siding panel **4**, shown partially broken away) by slipping second substantially planar member **22** down behind the upper edge **32** of the installed siding panel **4**.

[0029] A first siding panel **4** is then positioned above the previously installed siding panel **4** with its right or left lateral edge **36**, **38** positioned approximately in the middle of splicer **10**, and its bottom lock **42** of the first siding panel **4** engaged with the top lock **40** of the previously installed siding panel **4**. As the first siding panel **4** engages the previously installed panel, its notch **62** is engaged with a corresponding projection **26** of splicer **10**. As noted above, the engagement of projection **26** in notch **62** is preferably a tight fit. The flange **18** of splicer **10** above the corresponding projection **26** is extended through the corresponding first aperture **50** of the first siding panel **4** and then folded upwardly along a front surface of groove **46**.

[0030] The second horizontally adjacent siding panel **4** is installed in similar fashion, with its bottom lock **42** engaging the top lock **40** of the previously installed siding panel **4**, its notch **62** engaging the other projection **26** of splicer **10**, and the other flange **18** of splicer **10** extending through the first aperture **50** of the second siding panel **4** and bent upwardly along a front surface of groove **46**. The horizontally adjacent first and second siding panels **4** are secured to wall **64** by way of nails **66**, which are driven through second apertures **52** in known fashion.

[0031] In a preferred embodiment, the distance from notches **62** to the respective lateral edges of siding panel **4** and the spacing between projections **26** are sized such that when horizontally adjacent siding panels **4** are installed, a tight seal is formed between the siding panels with no discernible gap visible between them. This serves to enhance the aesthetic appeal of the siding and helps to prevent moisture from passing behind the siding panels **4**. The expansion and contraction of siding panels **4** is accommodated at the ends of the rows of siding panels, where the corresponding left and right lateral edges **36**, **38**, respectively, are hidden behind trim pieces.

[0032] In a preferred embodiment, siding panels **4** are formed of a blend of polymer and wood fiber, along with other constituent elements. In certain preferred embodiments, the polymer is PVC and the wood fiber is wood flour. As illustrated in FIG. **4**, siding panel **4** may be encased within a cap **68**. Cap **68** is preferably formed of a polymer, e.g., PVC, and serves to protect siding panel **68** from the elements and provides an aesthetically pleasing appearance. It is to be appreciated that in other embodiments siding panels **4** can be formed of other materials, e.g., reinforced concrete.

[0033] Siding assembly **2** includes a first insulating panel **70** positioned behind siding panel **4** and secured thereto with a suitable fastener. In certain embodiments, first insulating panel **70** is secured to siding panel **4** with adhesive **72**. In certain embodiments, adhesive **72** may extend across substantially the entire front surface of first insulating panel **70**. It is to be appreciated that adhesive **72** can first be applied directly to siding panel **4** or to first insulating panel **70**, or to both siding panel **4** and first insulating panel **70**.

[0034] In certain embodiments, first insulating panel **70** extends a point just below lip **56** of bottom lock **42** upwardly to a point between above apertures **52** and below top edge **32** of siding panel **4**, thereby exposing the top portion of siding panel **4**, which allows a vertically adjacent siding panel to be positioned above siding panel **4**, as seen in FIG. **4**. A notch **71** is provided at a lower edge of a front surface of first insulating panel **70**, and serves to receive flange **54** of siding panel **4**.

[0035] As seen in FIG. **5**, first insulating panel **70** has a width W that is less than a width S of siding panel **4**, thereby exposing notches **62** at left and right lateral edges **36**, **38** of siding panel **4** in order to provide clearance to allow splicers **10** to engage notches **62**. In certain embodiments, the left and right lateral edges **73**, **75** of first insulating panel **70** are offset from the respective left and right lateral edges **36**, **38** of siding panel **70** by a distance L, which is approximately equal to half of the width T of splicer **10**. Thus, when first insulating panel **70** is secured to siding panel **4**, lateral edges **36**, **38** of siding panel **4** are exposed beyond first insulating panel **70** by an amount equal to about ½ of width T. This allows one half of each splicer **10** to be positioned behind each of the two adjacent siding panels **4** to which it is engaged, and which it connects together.

[0036] A second insulating panel **74** is positioned behind and is secured to splicer **10** with a suitable fastener, such as an adhesive. Second insulating panel **74** has a front surface **74** that is contoured to mate with a rear surface **76** of splicer **10** so that second insulating panel **74** nests tightly against splicer **10**. In certain embodiments, second insulating panel **74** is secured to splicer **10** with adhesive. In certain embodiments, the adhesive may extend across substantially the entire front surface of second insulating panel **74**. It is to be appreciated that the adhesive can first be applied directly to splicer **10** or to second insulating panel **74**, or to both splicer **10** and second insulating panel **74**.

[0037] In other embodiments, the adhesive may be applied to various portions of either or both of siding panel **4** and first insulating panel **70**, and to portions of either or both of splicer

10 and second insulating panel 74, but not across the entire area of contact between siding panel 4 and first insulating panel 70, nor across the entire area of contact between splicer 10 and second insulating panel 74.

[0038] In other embodiments, siding panel 4 can be secured to first second insulating panel 70, and splicer 10 can be secured to second insulating panel 74 with double-sided tape. Other suitable means of securing siding panel 4 to first insulating panel 70 and splicer 10 to second insulating panel 74 will become readily apparent to those skilled in the art, given the benefit of this disclosure.

[0039] First and second insulating panels 70, 72 may be formed, for example, of an expandable polystyrene (EPS) foam, or polyurethane. Other suitable materials for first and second insulating panels 70, 72 will become readily apparent to those skilled in the art, given the benefit of this disclosure.

[0040] Another embodiment of a siding assembly 82 is illustrated in FIGS. 6-10. In this embodiment, there is no reduced thickness portion of siding panel 4; its upper portion 84 is simply angled outwardly. Upper portion 84 of siding panel 4 is captured in a recess 86 of a vertically adjacent siding panel 4 that angles upwardly and outwardly, as seen in FIG. 9. In certain embodiments a horizontally extending groove 88 may be cut in the rear surface of siding panel 4 beneath flange 54 and just above bottom edge 34, which allows siding panel 4 to be produced with less material, thereby reducing its cost, and its weight.

[0041] In the illustrated embodiment, as seen most clearly in FIG. 7, splicer 10 includes a horizontally extending lip 90 extending inwardly from a bottom edge of second substantially planar member 22. When in use with siding panel 4, lip 90 extends beneath lip 56 of flange 54 of siding panel 4. In certain embodiments, one or more ribs or projections 92 is formed on rear surface 76 of first substantially planar member 12, by punching corresponding recesses 94 into the front surface 96 of first substantially planar member 12. Projections 92 serve to provide increased strength for splicer 10. In the illustrated embodiment, three substantially horizontally extending projections 92 are formed on splicer 10, however, it is to be appreciated that any number of projections 92 may be formed on splicer 10, and that each of them may be oriented in any direction.

[0042] As seen in FIG. 8, second insulating panel 74 is secured to rear surface 76 of splicer 10. The front surface 98 of second insulating panel 74 is configured to mate with rear surface 76 of splicer 10. Thus, in order to accommodate shoulder 20 and second substantially planar member 22 of splicer 10, a notch 100 is formed on the lower front surface of second insulating panel 74. Similarly, a plurality of recesses 102 is formed in front surface 98 of second insulating panel 74, with each recess 102 being configured and positioned to accommodate and receive a corresponding projection 92 of splicer 10. As discussed above, second insulating panel 74 may be secured to splicer 10 with a suitable fastener, such as an adhesive or double-sided tape.

[0043] As illustrated in FIGS. 9-10, siding panel 4 may be secured to wall 64 of a building with a clip 104. Clip includes a substantially planar member 106, which extends substantially vertically when installed with siding panel 4 on a wall 64 of a structure. A leg 108 extends substantially horizontally outwardly from a bottom edge of substantially planar member 106. A flange 110 is positioned at the outer edge of leg 108 and has a curved shape. In the illustrated embodiment, curved flange 110 is substantially hemi-spherical in cross-section. As seen in FIG. 9, flange 110 is configured to receive upper portion 84 of siding panel 4, thereby capturing siding panel 4 and securing it to wall 64. One or more apertures 112 extend through substantially planar member 106, and one or both may receive a nail 66 to secure clip 104 to wall 64.

[0044] In certain embodiments, one or more projections or ribs 114 is formed on front surface 116 of substantially planar member 106 of clip 104 by punching corresponding recesses 118 into the rear surface 129 of substantially planar member 106. Ribs 114 serve to provide increased strength for clip 104. In the illustrated embodiment, two substantially vertically extending ribs 114 are formed on clip 104, however, it is to be appreciated that any number of ribs 114 may be formed on clip 104, and that each of them may be oriented in any direction. Clip 104 may be formed of any suitable material such as metal, e.g. aluminum.

[0045] Thus, while there have been shown, described, and pointed out fundamental novel features of various embodiments, it will be understood that various omissions, substitutions, and changes in the form and details of the devices illustrated, and in their operation, may be made by those skilled in the art without departing from the spirit and scope of the invention. For example, it is expressly intended that all combinations of those elements and/or steps which perform substantially the same function, in substantially the same way, to achieve the same results are within the scope of the invention. Substitutions of elements from one described embodiment to another are also fully intended and contemplated. It is the intention, therefore, to be limited only as indicated by the scope of the claims appended hereto.

What is claimed is:

1. A siding panel assembly comprising, in combination:
a siding panel comprising:
a substantially planar member having an upper portion angled outwardly and a pair of first apertures, each aperture formed proximate a lateral edge of the substantially planar member;
a flange extending rearwardly from the substantially planar member proximate a lower edge thereof and terminating in a lip extending downwardly from a rear edge of the flange;
a pair of notches formed in the flange;
a recess formed in a rear surface of the substantially planar member beneath the flange and being angled upwardly and outwardly;
a first insulating panel secured to a rear surface of the siding panel;
a splicing member comprising:
a first substantially planar member having an upper edge and a lower edge;
a pair of flanges extending outwardly from opposed sides of the first substantially planar member along the upper edge;
a shoulder extending inwardly from the entire lower edge of the first substantially planar member;
a second substantially planar member extending downwardly from an inner edge of the shoulder; and
a pair of projections extending downwardly from the shoulder and inwardly from the second substantially planar member; and
a second insulating panel secured to a rear surface of the splicing member.

2. The siding panel assembly of claim 1, further comprising a clip having an aperture formed therein, and a flange configured to receive a portion of the upper portion of the siding panel.

3. The siding panel assembly of claim 2, wherein the clip further comprises at least one rib.

4. The siding panel assembly of claim **1**, wherein a width of the first insulating panel is less than a width of the siding by panel by an amount approximately equal to a width of the splicing member.

5. The siding assembly of claim **1**, wherein the first insulating panel is secured to the siding panel and the second insulating panel is secured to the splicing member by adhesive.

6. The siding panel assembly of claim **1**, wherein the splicing member includes at least one recess formed in a front surface thereof, each recess defining a corresponding projection on a rear surface of the splicing member.

7. The siding panel assembly of claim **6**, wherein the second insulating panel includes at least one recess formed in a front surface thereof and receiving one of the projections of the splicing member.

8. The siding panel assembly of claim **1**, wherein a front surface of the second insulating panel includes a notch to receive the shoulder and second substantially planar member of the splicing member.

9. The siding panel assembly of claim **1**, wherein a front surface of the first insulating panel includes a notch at a lower edge thereof that receives the flange of the siding panel.

10. The siding panel assembly of claim **1**, further comprising a lip extending outwardly from a lower edge of the second substantially planar member of the splicing member.

11. The siding panel assembly of claim **1**, wherein each lateral edge of the first insulating panel is spaced from a corresponding lateral edge of the siding panel by a distance approximately equal to half of a width of the splicing member.

12. The siding panel assembly of claim **1**, wherein the substantially planar member is formed of a mixture including a polymer and wood flour.

13. The siding panel assembly of claim **12**, wherein the polymer is PVC.

14. The siding panel assembly of claim **1**, wherein each projection has a width slightly larger than a width of one of the notches.

15. The siding panel assembly of claim **1**, further comprising a cap encapsulating the siding panel.

16. A siding panel assembly comprising, in combination:

a siding panel comprising:

a substantially planar member having an upper portion angled outwardly and a pair of apertures, each aperture formed proximate a lateral edge of the substantially planar member;

a flange extending rearwardly from the substantially planar member proximate a lower edge thereof and terminating in a lip extending downwardly from a rear edge of the flange;

a pair of notches formed in the flange;

a recess formed in a rear surface of the substantially planar member beneath the flange and being angled upwardly and outwardly;

a first insulating panel secured to a rear surface of the siding panel;

a splicing member comprising:

a first substantially planar member having an upper edge and a lower edge;

a pair of flanges extending outwardly from opposed sides of the first substantially planar member along the upper edge;

a shoulder extending inwardly from the entire lower edge of the first substantially planar member;

a second substantially planar member extending downwardly from an inner edge of the shoulder; and

a pair of projections extending downwardly from the shoulder and inwardly from the second substantially planar member;

a second insulating panel secured to a rear surface of the splicing member; and

a clip having an aperture formed therein, a curved flange configured to receive a portion of the upper portion of the siding panel, and at least one rib formed thereon.

17. The siding panel assembly of claim **16**, wherein a width of the first insulating panel is less than a width of the siding by panel by an amount approximately equal to a width of the splicing member.

18. The siding assembly of claim **16**, wherein the first insulating panel is secured to the siding panel and the second insulating panel is secured to the splicing member by adhesive.

19. A siding panel assembly comprising, in combination:

a pair of horizontally adjacent siding panels, each panel comprising:

a substantially planar member formed of a mixture of a polymer and wood flour, having a top lock and a bottom lock, an upper portion angled outwardly, and a pair of apertures, each aperture being positioned proximate a lateral edge of the substantially planar member; and

a pair of notches formed in the bottom lock;

a cap formed of a polymer and encapsulating the siding panel;

a first insulating panel secured to a rear surface of the siding panel;

a splicing member comprising:

a first substantially planar member having an upper edge and a lower edge;

a pair of flanges extending outwardly from opposed sides of the first substantially planar member along the upper edge;

a shoulder extending inwardly from the lower edge of the first substantially planar member;

a second substantially planar member extending downwardly from an inner edge of the shoulder; and

a pair of projections extending downwardly from the shoulder and inwardly from the second substantially planar member, each projection having a width slightly larger than a width of one of the notches;

a second insulating panel secured to a rear surface of the splicing member; and

a clip having an aperture formed therein and a curved flange configured to receive a portion of the upper portion of the siding panel.

20. The siding panel assembly of claim **19**, wherein the bottom lock comprises a flange extending rearwardly from the substantially planar member proximate a lower edge thereof and terminating in a lip extending downwardly from a rear edge of the flange, a recess being formed in a rear surface of the substantially planar member beneath the flange and the notches being formed in the flange.

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