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CORNER POST FOR SIDING

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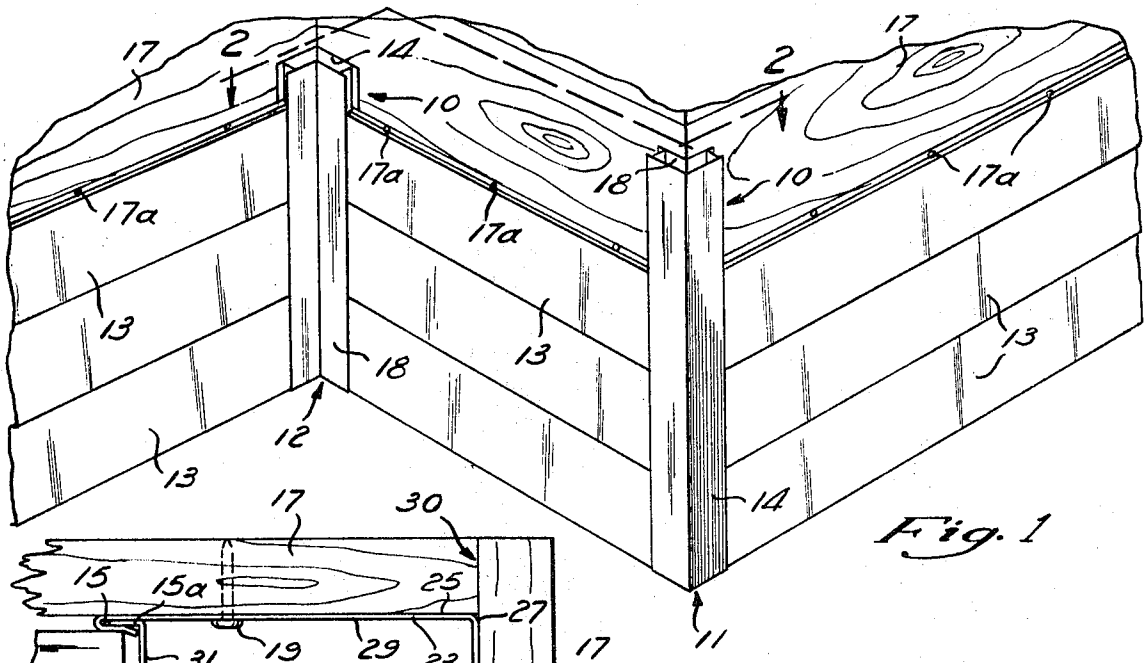


Fig. 1

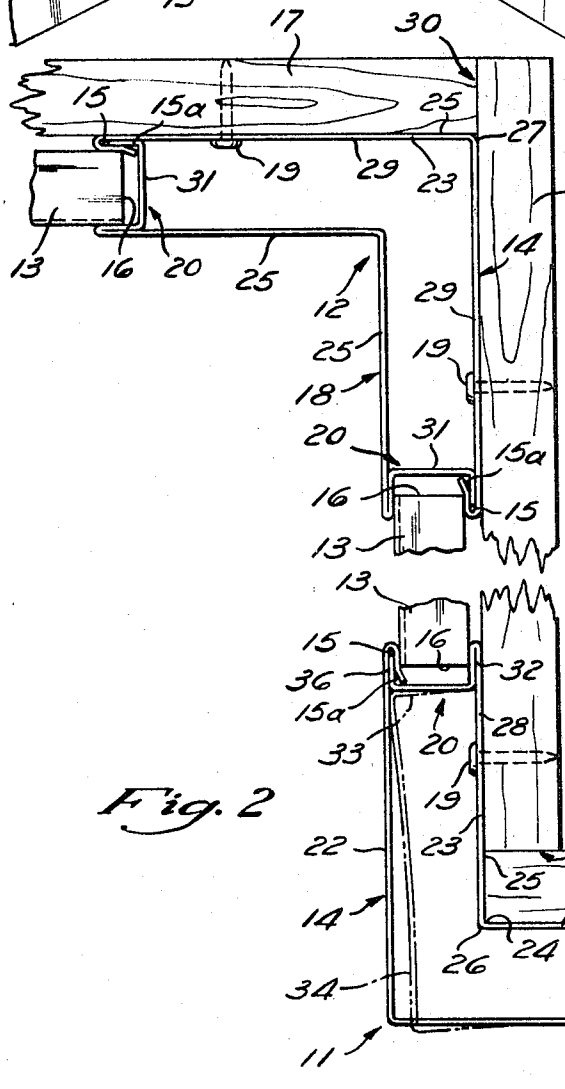
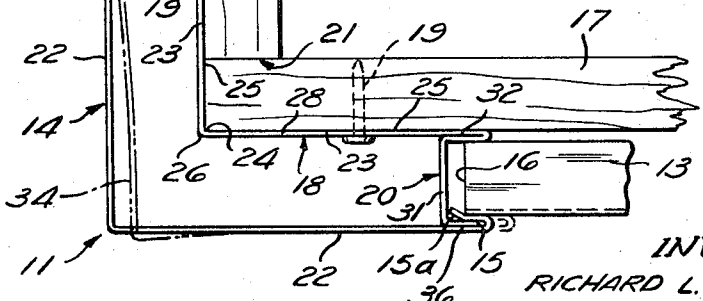


Fig. 2



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CORNER POST FOR SIDING

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ABSTRACT OF THE DISCLOSURE

A corner post assembly, particularly adapted for use with metal siding and the like, is disclosed. The corner post assembly includes two elongated L-shaped members, one having channels along its edges and the other having grooves along its edges. By interlocking the grooves of one member and a portion of the channels of the other member an elongated box section assembly is formed with sliding receiving channels along its edges. This assembly is adapted for use on either inside or outside building corners. The configuration permits the exposed member on an outside corner to be installed or removed after the siding is installed.

BACKGROUND OF THE INVENTION

This invention relates to building construction and more particularly to a novel and improved corner structure particularly adapted for use with metal siding and the like.

PRIOR ART

Corner posts to be used with metal siding have commonly been formed with longitudinal channel sections adapted to hold the siding ends against underlying sheathing and to conceal the siding ends from view. These corner posts for use with metal siding have usually been formed of one piece as, for instance, shown in U.S. Pat. No. 1,521,938.

For appearance, since these corner posts are normally fastened to a building by nails and the like, they are usually provided with longitudinal fastening flanges adapted to be subsequently concealed by the siding. The order of installation, siding over corner post flange, prevents any satisfactory removal of the corner post in case of damage since it is not practical to remove the obstructing siding. Since a corner post is one of the first members to be installed, it is subject to a high risk of damage during material handling and construction operations, particularly in the erection of a new building. An outside corner of a building is especially vulnerable to accidental damage during the movement of equipment and materials.

When constructed of thin walls the one piece type of corner post shown in Pat. No. 1,521,938 may be difficult to install. If too much holding force is applied, its corner may spread to an angle greater than 90° making it difficult to align. This type of one piece structure may also make the positioning of a siding panel on a short wall section, for instance, between a corner post and a door or window, difficult. There may be insufficient clearance to insert the siding ends into a channel of the corner post and the continuous structure of the post prevents the interferring outside channel wall of the post from being temporarily deflected towards the corner of the post.

Siding and corner posts are generally secured to the same support structure. This support structure is usually in the form of sheathing, but may also be an open building frame or old wood siding. When used hereinafter the term sheathing is meant to include all forms of support structure.

SUMMARY OF THE INVENTION

This invention relates to a novel and improved corner post assembly particularly adapted for use on buildings with metal siding. A two piece assembly, consisting of two elongated L-shaped members, is employed to overcome the disadvantages of the prior art and to offer several additional advantages.

The novel and improved cross-sectional design of both the first member and the second member of this invention permit use of a given corner post on either an outside or an inside building corner. On an outside corner, the second member is fastened to the building and the first member is snapped onto this second member forming an elongated L-shaped box section. This fastening procedure is reversed in an inside corner where the first member is fastened to the building and the second member is snapped into it forming an identical box section. The versatility of these sections reduces tooling cost and inventories, besides facilitating material estimating procedures, since identical structures are used in both types of corners. Ordinarily, in the past, inside and outside building corners were covered with entirely different corner posts.

The provision of a two piece corner post, as will be shown, also minimizes the risk of damage during the siding installation and offers a simple means of repair or replacement in the event of damage. The first and second members are adapted to provide a simple snap-on method for securing one member to the other. At an outside corner the member to be exposed may be secured to the other member fastened directly to the building after the siding has been installed over a portion of the other member. As a result, the exposed member of the corner post assembly is not subject to the risk of damage during construction activities.

Furthermore, this corner post assembly is adapted to absorb a portion of an impact after it is installed and thereby reduce damage in the event of an accidental blow. This is a result of a combination of physical proportions, securing means, and resiliency. When in position, both L-shaped members are separated from mutual contact by a distance at least equal to the thickness of the siding. This separation distance exists along substantially the full width of each longitudinal side of the members. The edge of both sides of the first member are reversely formed into a groove which is adapted to snap onto a siding channel of the second member. With both members substantially unrestricted by each other and with the only connection between them being a slip fit, the exposed element whether in an inside corner or an outside corner is free to deflect and absorb force components along either wall. If the exposed member at an outside corner is slightly damaged it may be easily snapped-off for a convenient repair without disturbing the siding. In the event that this exposed member is damaged beyond repair it may be easily replaced.

With this invention, the member to be concealed in either an inside or an outside corner tends to be self-aligning to the building corner since its perpendicular surfaces are guided by associated sheathing walls until the actual corner of the concealed member may abut and be supported by the sheathing corner. The one piece corner post of the prior art commonly does not have a corner in contact with the building and may be difficult to align. A further advantage of this invention may be found in an outside building corner where a short wall section would normally provide insufficient clearance for the insertion of the siding ends into the siding channel of the prior art. Without the first member of this invention installed on an outside corner, the outer wall of the siding channel of the installed second member may be displaced to facilitate the insertion of the siding ends more readily than the cor-

responding area of common one piece continuous corner posts. Furthermore, the cross-sectional shape of both corner post members allows each member to be nested with identical sections to provide compact packaging for storage and shipping. The box-like structures of prior continuous one piece corner posts prevent nesting since they are not adapted to fit one inside the other.

OBJECTS OF THE INVENTION

It is an important object of this invention to provide a novel and improved corner post assembly for use with building siding.

It is also an important object of this invention to provide a novel and improved corner post assembly for use on either an inside or outside building corner.

It is a further important object of this invention to provide a novel and improved corner post assembly that reduces the likelihood of damage and allows easier repair.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a fragmentary perspective view showing an area of a building having an inside and outside corner employing the corner post assembly of this invention.

FIG. 2 is a plan view of the corner post assemblies indicated by section 2—2 of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the figures, the corner post assembly **10** is shown on both an outside corner **11** and inside corner **12** of a building. Siding panels **13** are shown fastened to the building sheathing **17** by means of nails **17***a*. Each corner joint assembly **10** is formed of a first member **14** and a second member **18**. At the outside corner **11** the second member **18** is positioned against the sheathing **17** and the exposed first member **14** conceals the ends **16** of siding panels **13** and the second member **18**. Conversely, at the inside corner **12** the first member **14** is against the sheathing **17** and the exposed second member **18** conceals the siding ends **16** and the first member **14**.

The first member **14** and the second member **18** of this invention are formed, preferably but not necessarily, from sheet metal. As shown in FIG. 2 the first member **14** is formed by rolling sheet metal strips into a right angle and rolling its edges into reverse bends forming a pair of grooves **15** with flanged entrances **15***a*. Similarly, the second member **18** is rolled into a right angle and its edges are rolled into a pair of channel sections **20**. Only the outer planar surfaces **22** of the first member **14** and the inner planar surfaces **25** of the second member **18** need be finished since their opposite sides are not exposed when the assembly **10** is installed in either an inside corner or an outside corner. At the outside corner **11** the second member **18** is normally fastened by nails **19** before installation of the siding panels **13** over the sheathing **17**. The inner planar surfaces **25** of the second member **18** may be fully mated to the associated outside surfaces **23** of the sheathing **17**. During installation the second member **18** tends to be self-aligning to the building corner **11** since each of its inner planar surfaces **25** is guided by an associated outside surface **23** of sheathing **17** until the actual corner **24** of the second member **18** abuts and is supported by the actual sheathing corner **26**. The channels **20** of the second member **18** are displaced from corner **24** to provide space to nail the second member **18** through planar sides **28** separately to each sheathing wall. The distance between these channels **20** and corner **24** permit nails **19** to be located beyond a butt joint **21** with enough clearance from the channel **20** to drive nails **19** with a hammer.

Siding panels **13** are installed by first inserting their ends **16** into channels **20** and then by nailing them to sheathing walls **17**. After the siding **13** has been installed on the sheathing walls **17** at an outside building corner **11** a first member **14** is snapped on the second member **18**. This is accomplished by elasticly deforming both the

second member **18** and the first member **14** to those positions indicated by phantom lines **33** and **34** in FIG. 2. As shown here, the longitudinal groove **15** of one edge of the first member **14** is slipped onto an associated channel wall or tongue **36**. The first member **14** is then forced towards the opposite channel **20** to allow an identical groove **15** to snap over its associated channel wall **36**. Entrance of the channel walls **36** into grooves **15** is faciliated by the enlarged or flanged groove opening **15***a*. With the first member **14** in position, the second member **18** and the nails **19** fastening the assembly to the building are hidden from view.

Structural design and resiliency of both the second member **18** and the first member **14** provide the snap-on method of installation. The first member **14** and second member **18** do not obstruct each other when they are deflected to secure the first member **14**. Furthermore, the deflection of the first member **14** and the second member **18** necessary to position the second groove **15** over its associated channel wall **36** is within the elastic limit of the members. The first member **14** and second member **18** are preferably proportioned so that a slight condition of stress remains when they are interlocked to prevent any wind induced vibration or rattling.

The procedure of securing the first member **14** to the second member **18** may be reversed to remove it without destruction. Removal is particularly desirable in the event of damage. The corner post assembly is deflected towards one edge of the assembly to slide a groove **15** off its associated channel wall **36**. Once the groove **15** and channel wall **36** of one edge of the corner post assembly are disengaged the other set may be simply off without restriction. An accidental blow to the first member **14** may be partially absorbed by deflection of the first member **14** since it is free to slip relative to the second member

The inside corner **12** shows the functions of the first member **14** and the second member **18** reversed from those described at the outside corner **11**. Here, the first member **14** is fastened directly to the sheathing **17** by means of nails **19** with the second member **18** snapped into it. The grooves **15** of the first member **14** are displaced from corner **27** to provide space to nail the first member **14** through planar sides **29** separately to each sheathing wall. The distance between these grooves **15** and corner **27** permit nails **19** to be located beyond a butt joint **30** with enough clearance from the groove **15** to drive nails **19** with a hammer. The first member **14** is fastened to the sheathing walls **17** with the siding panels **13** subsequently installed over its grooved edges **15**. The second member **18** is then snapped into the grooves **15** of the first member **14**, one channel **20** at a time, with the procedure similar to that described above for an outside corner. It should be understood that the first member **14** and second member **18** are identical whether they are used in an outside or inside corner.

Metal siding **13** may be backed with insulating material (not shown) and consequently may require a wider channel **20** on second member **18** although the same first member **14** may be used for any siding thickness. As mentioned above, the first member **14** and second member **18** are formed with grooves **15** and channels **20** respectively for mutual engagement. It is understood that similar results could be obtained by forming the channels **20** on the first member **14** and the grooves **15** on the second member **18**. As shown, the grooves **15** open toward the corner **27** of the first member **14** permitting the installation and removal of the exposed first member **14**; on an outside corner **11** with the siding **13** in place.

In summary, the described corner post assembly may be installed on both inside and outside building corners. The two piece assembly permits one of its members, depending on the type of corner, to be fastened directly to the building. The other member may be snapped onto the fastened member. This snap-on method permits installation of the exposed member at an outside corner

after installation of the siding thereby reducing the likelihood of damage during construction activities and offering a simple means of repair or replacement in the event of subsequent damage.

Although a preferred embodiment of this invention is illustrated, it is to be understood that various modifications and rearrangements may be resorted to without departing from the scope of the invention disclosed herein.

I claim:

1. A building comprising siding supporting structure forming substantially perpendicular walls intersecting at an inside corner and an outside corner, a similar corner post assembly at each corner, each corner post assembly including first and second elongated L-shaped members, locking means releasably connecting said members together so that they form an elongated box section having longitudinal channels along its edges, siding panels on said support structure with their ends positioned in an associated channel, said first member being secured directly to said supporting structure at said inside building corner and said second member being secured directly to said supporting structure at said outside corner, said locking means permitting installation and removal of said first member from said outside corner while said siding panels remain in place.

2. A building according to claim 1 wherein said elongated members each provide two substantially perpendicular planar portions intersecting and joined at a corner and extending to an edge parallel to said corner, said first member being formed with a reverse bend at each of its edges extending back along and substantially parallel to the associated planar portion to form a lock groove, said second member being formed with a lateral portion extending substantially perpendicular from each planar portion at a location spaced from and parallel to said edge, each lateral portion providing tongue extending therefrom substantially parallel to the associated planar portion and adapted to be inserted into a groove, said members being proportioned so that the tongues of said second member are insertable into the grooves of said first member to connect said members so that they form an L-shaped box assembly providing siding receiving channels extending inwardly from the associated edges, the reverse bends of said first member terminating at a location spaced from its corner a distance sufficiently great to permit said first member to be fastened to the corner of the building by nails extending through the planar portions of said first member between its corner and said reverse bends, said lateral portions of said second member being spaced from its corner a distance sufficiently great to permit said second member to be fastened to said building at said corner thereof by driving nails through said planar portions between said lateral portions and said corner, the material forming said members being sufficiently flexible to permit each member to be deformed from its unstressed condition without exceeding the elastic limit thereof so that one tongue may be passed into and out of its associated lock groove while the other tongue is located in its associated lock groove.

3. A building as set forth in claim 1 wherein said locking means includes a groove extending along each edge of one of said members and a projection fitting into an associated groove formed along each edge of the other of said members, and said members are formed of material having sufficient elasticity to permit engagement and disengagement of associated grooves and projections without permanently deforming said members.

4. A building as set forth in claim 3 wherein said

other member provides said channels and said projections are part of said channels, said grooves on said one member are spaced from the associated corner thereof by planar sections and the channels of said other member are spaced from its corner by planar sections, said first member being secured directly to said supporting structure at said inside corner by fasteners extending through its planar sections, said second member being secured directly to said supporting structure at said outside corner by fasteners extending through its planar sections.

5. A building as set forth in claim 4 wherein said members are formed of sheet metal, said channels and said grooves being displaced from said corners a sufficient distance to permit said first and second members to be nailed to said supporting structure without damaging said member.

6. A building as set forth in claim 1 wherein said L-shaped members each have planar sides extending from a corner, the first of said members being formed with longitudinal locking grooves along the edges of its planar sides opening in directions toward its corner, the second of said members being formed with longitudinal channel sections along the edges of its planar sides opening in directions away from its corner, said channels each being provided with a portion adapted to fit into an associated locking groove and cooperate therewith to secure said members together when both channel portions are in their associated grooves, said channels and grooves being displaced from said corners a sufficient distance to permit said first or said second member to be secured to said siding support structure at said corner thereof with fasteners driven through both planar sides of said first or said second member, said members being formed of a material having sufficient elasticity to permit said members to be connected and disconnected by positioning one channel portion in an associated groove and thereafter removably positioning the other channel portion in its associated groove by deforming one or both of said members within their elastic limit.

7. A building according to claim 6 wherein said channel sections are adapted to receive the ends of exterior building siding, and said members are constructed to allow elastic engagement and disengagement between said grooves and said channel portions after said siding is installed in said channel.

8. A building according to claim 7 wherein said first and said second members are constructed of sheet material of substantially uniform thickness.

9. A building according to claim 8 wherein said first and said second members are formed from sheet metal strips and said grooves and said channel sections are formed by rolling said sheet metal into said grooves and said channels.

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