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SPLINED BUTT JOINT SYSTEM FOR LUMBER SIDING

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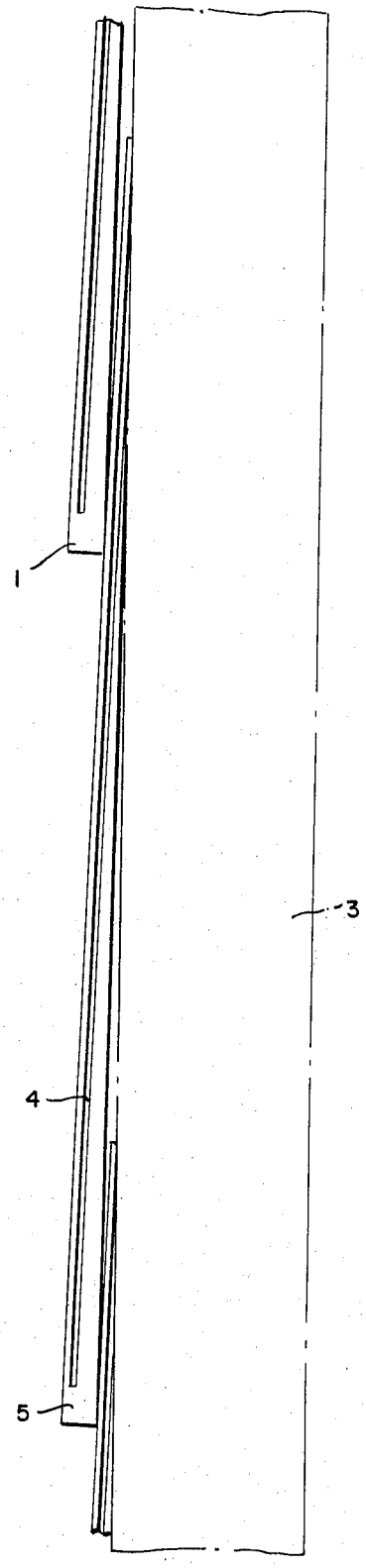


FIG. 2

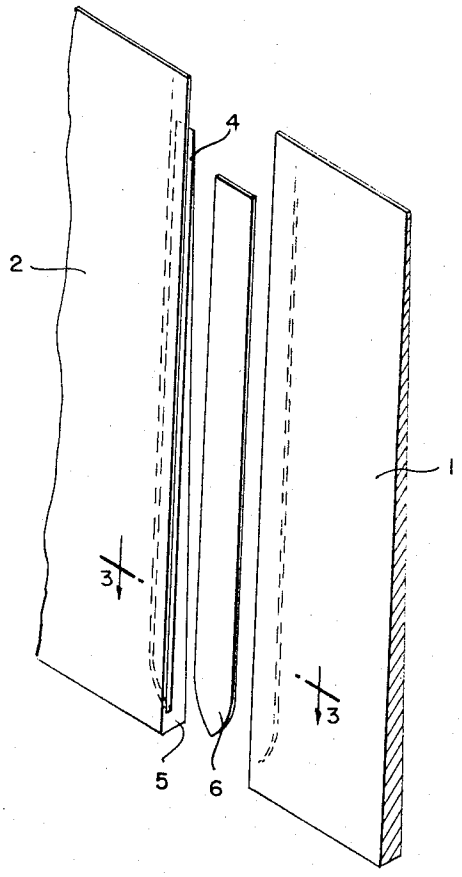
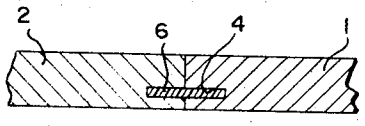


FIG. 1

FIG. 3



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SPLINED BUTT JOINT SYSTEM FOR LUMBER SIDING

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1 Claim

ABSTRACT OF THE DISCLOSURE

A butt joint system for abutting ends of lumber siding where slots are provided in the abutting ends of the siding members with the upper end of the slot being opened and the lower end being closed. A thin flat spline member is inserted within the slots so as to span the butt joint.

The present invention relates to a butt joint system for lumber siding in building construction and has application in either exterior or interior construction. Although wood siding made from sawn logs is the most widely used siding, the term "lumber siding" as used in this specification will be understood to include all siding similar in shape and application regardless of the composition of the material used. In the building trades and especially in house construction where lumber siding is used most extensively the common practice is to nail the siding members directly to vertical studs to form the exterior wall of the building. The common practice is to cut the siding lumber so as to insure that butt joints between siding members will be located at the vertical studs. The members are merely abutted with no joining element between them and nailed or otherwise fastened directly to the studs. Since only the lower edge of each board is nailed so as to leave the major portion undisturbed, warping or misalignment generally occurs after weathering, resulting in an unsightly joint and ofttimes large cracks. In addition, since it is necessary to make the joints over the vertical studs, much material is lost by trimming off the ends of the siding members. This trimming and fitting also requires time and labor.

According to the present invention, the butt end face of each siding ember is provided with a slot or kerf with the slots being in alignment when the siding members are abutted. The aligned slots receive a thin, flat spline member which spans the butt joint and substantially fills the opening provided by the slots. In the case of bevel siding the upper end of the slots open into the backside of the siding and the bottom ends of the slots are closed.

The present invention has the primary object therefore of providing a system of splined butt joints for lumber siding construction which will insure alignment of the siding members or pieces and prevent the appearance of cracks and differential warping of the siding at the joints thus providing an improved overall appearance.

Another object of the present invention is to provide a splined butt joint system for siding which enables a saving in material by eliminating a need for trimming the ends from the siding members and to also save on labor costs and time which has been necessary in the past to fit the siding members to the ararngement of vertical studs.

Another object of the present invention is to provide a prefinished butt end construction for receiving a spline thus eliminating the damage caused by sawing on the job site and eliminating need for touch-ups for prefinished siding.

A still further object of the present invention is to provide a splined butt joint system which eliminates the need for making the butt joints between siding pieces fall directly on the vertical studs.

The means by which the foregoing objects and other advantages, which will be apparent to those skilled in the art, are accomplished are set forth in the following specification and claims and are illustrated in the accompanying drawings. Reference is now made to the drawings in which

FIGURE 1 is an isometric exploded view, partly broken away, of a siding joint incorporating the spline system of the present invention;

FIGURE 2 is a side elevation showing the butt ends of a plurality of siding members in the manner in which they are applied to the vertical studs of a wall; and

FIGURE 3 is a cross section of an assembled spline butt joint taken along lines 3—3 of FIGURE 1.

Referring now to the drawings, the illustrated embodiment has been applied to bevel siding which is the most widely used siding material in the industry. The siding members **1** and **2** are thus wedge shaped in cross section with the thick portion being at the bottom and the thin portion at the top of the member as applied to a thin elongated building. FIGURE 2 illustrates the manner in which the siding members are applied to the vertical studs **3** and overlapped to form an exterior wall. As previously mentioned, only the lower edges of the siding members are nailed or fastened to the stud leaving the major portion of the siding member exposed with its surface free of nails or any other fasteners.

The joint of the present invention is accomplished by forming an elongated kerf or slot **4** in each end of each siding member. As shown most clearly in FIGURE 1, the kerf or slot **4** is made parallel with the front face of the siding member and is open only at the top adjacent the top edge of the siding. Thus the bottom edge **5** of the siding member is left intact and, in the instance of bevelled siding as illustrated, the kerf or slot emerges and opens into the back face of the member.

A spline **6** which is preformed and of a thickness so as to slide snuggly into the mating slots formed in abutting ends of the siding members. The width of the spline **6** will, of course, be a little less than twice the depth of the kerf or slot for any one siding member so as to span the butt joint between the members and to substantially fill the two slots. Although the spline **6** may be made from any suitable material, a phenolic high pressure laminate is recommended because it is relatively inexpensive, will not absorb moisture to any appreciable extent and possesses suitable strength and flexibility to maintain the butt ends of the siding members in alignment against the tendency of differential warping between the butt ends.

Because the kerf **4** emerges on the back face of the siding in the case of bevel siding, the splines **6** may be inserted at any time after the butt joints are made in the instance where the joints do not occur on vertical studs which will normally be the case where the ends of the siding are not trimmed. The present invention thus makes it unnecessary to provide joints on vertical studs thereby saving material. The amount of material saved can be very significant in the case of specially coated wood siding or the like which is quite expensive. In addition, the siding members may be completely prefinished including the formation of kerfs and, unlike conventional tongue and groove structures, only one type of butt end structure need be formed.

While the present invention has been illustrated as being applied to bevel siding, it will be understood that the system may be used on any cross section of siding and with any particular siding material.

It will be readily apparent to those skilled in the art that the present invention provides novel and useful improvements in siding butt joint systems of the character

described. The arrangement and types of structural components utilized within the invention may be subjected to numerous modifications well within the purview of this invention.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A butt joint system for abutting ends of lumber siding members comprising; an elongated slot formed in the end face of each abutting member, said slots being aligned and opening into the end faces of the members, said slots opening into the surface of the members at the upper end thereof and being closed at the bottom, a spline member, said spline member being of suitable thickness to be inserted into the opening formed by said mating slots and of suitable width to substantially fill the opening, said spline being prevented from removal by the closed bottom ends of the slots, said siding members being wedge shaped in cross section with said slots extending parallel to the front face of the member and said slot is positioned so that the upper end thereof opens on the rear face of the siding member.

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52—546, 560, 586