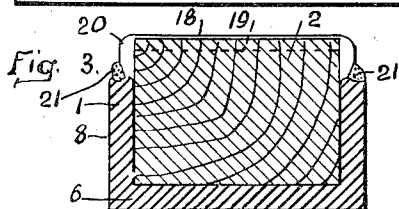
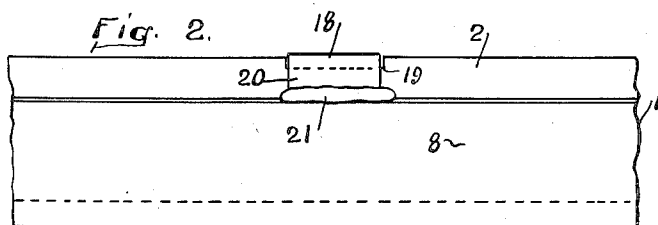
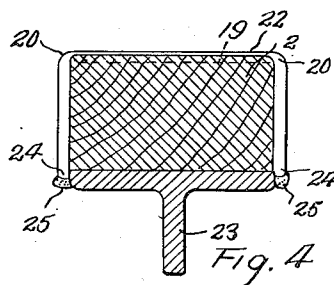
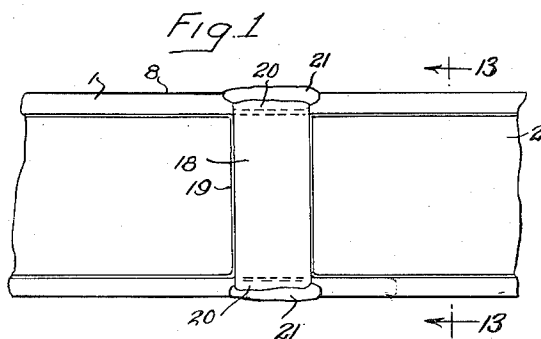


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STRUCTURAL STEEL NAILER

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STRUCTURAL STEEL NAILER

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2 Claims. (Cl. 189—40)

This invention relates to metallic structural members for building frameworks, and especially to the provision of non-metallic nailing strips secured to such members for the purpose of more easily attaching walls, floors, ceilings or roofs.

An object of our invention is to provide nailing strips secured in metallic structural members for building frameworks.

Another object is to provide a nailing strip secured to a structural steel member in such a way that additional lateral stiffening is created.

Another object is to provide such a structural member and nailing strip combination which may be assembled at the factory, preferably by the use of welding.

Another object is to provide means of securing a nailing strip to a structural member without necessitating deforming that member by bending its flanges to grasp the nailing strip.

In the drawing:

Figure 1 is a plan view of a structural member with a nailing strip secured thereto by an angled retaining rod.

Figure 2 is a side elevation of the structural member shown in Figure 1.

Figure 3 is a cross section along the line 13—13 of Figure 1.

Figure 4 is a cross-sectional view of a modification of the nailing strip construction shown in Figure 3, with the nailing strip secured to a T-section member by an elongated angled retaining rod.

Referring to the drawing in detail, 1 is a metallic structural member such as is used in frameworks of buildings: it may be of various shapes of cross section, such as U-shaped or channel section, T-section or L-section. When such metallic members are used to form the framework for a building whose walls, ceilings, floors and/or roofs are of non-metallic material, it becomes a difficult problem to attach these to the framework in a substantial and satisfactory manner, and yet at a low cost of construction. We have found that the use of wooden nailing strips secured to the metallic structural member solves this problem in an entirely satisfactory manner. This nailing strip permits the use of ordinary nails and screws by which the walls and other non-metallic materials may be attached, and also makes the structure considerably lighter than if metallic materials had been used throughout.

In Figure 1 is shown a metallic structural member 1 of an ordinary channel steel type. Fitted into the metallic structural member 1 is a non-metallic nailing strip 2, preferably of wood. The

nailing strip 2 is secured to the structural member 1 and is pressure-welded at its lower end to the web 6 of the structural member 1. This type of nailing strip obviates the necessity of making punch- or drill-holes in the structural member 1, and accordingly lends itself readily to mass production and factory assembly of such structural members.

In Figures 1, 2 and 3 is shown a nailing strip 2 held within a channel section structural member 1 by angled retaining rods 18. These retaining rods 18 are of flat form and of substantially rectangular cross section: they pass through a shallow transverse groove 19 in the nailing strip 2, beyond which they are bent downward as at 20 and joined to the flanges 3 of the structural member 1 by a long welded connection 21. This type of construction has the advantages of a broad contact of the flat retaining rod on the nailing strip, of restraining the nailing strip from slipping or splitting, and of providing an extra long welded contact 21 with the flanges 3. This type of construction also provides a certain amount of added lateral stiffness to the combined member since it ties together the opposite flanges 3 of the channel member 1.

Figure 4 illustrates the use of a bent retaining rod 22 used to hold a nailing strip 2 to a structural member 23 of a T-section type. This retaining rod 22 passes through a shallow groove 19 and is bent at its corners 20 in a manner similar to the type shown in Figures 1, 2 and 3. The free ends 24 are joined to the T-section member 23 by a welded connection 25. This form of combined member requires no punch holes, provides a large surface of contact where the retaining rod grips the nailing strip, partially restrains a tendency of the nailing strip to split, is easily assembled and lends itself readily to mass production.

Thus it will be seen that we have provided constructions which permit the combining of wooden or other non-metallic nailing strips with metallic structural members in a way which gives greater structural strength, yet which facilitates inexpensive assembly and mass production. The members are made lighter and stronger thereby, and the attachment of walls, floors, ceilings and/or roofs is correspondingly facilitated.

It will be understood that we desire to comprehend within our invention such modifications as may be necessary to adapt it to varying conditions and uses.

Having thus fully described our invention, what

we claim as new and desire to secure by Letters Patent is:

1. A new article of manufacture, comprising a structural member, a nailing strip of different material from said structural member, and means for securing said nailing strip to said structural member, said means comprising a plurality of retaining members passing transversely across said nailing strip through a groove therein, said retaining members being bent downwardly at their opposite ends to engage said structural member by welded connections at said ends.

2. A new article of manufacture, comprising a

structural member, a nailing strip of different material from said structural member, and means for securing said nailing strip to said structural member, said means comprising a plurality of retaining members of flat rectangular cross section passing transversely across said nailing strip, said retaining members being bent downwardly at their opposite ends to engage said structural member by welded connections at said ends.

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