

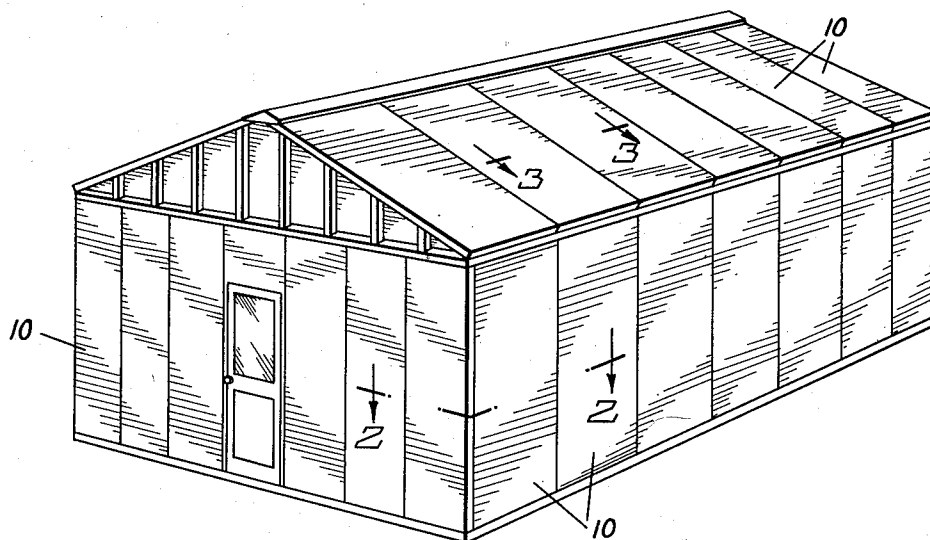
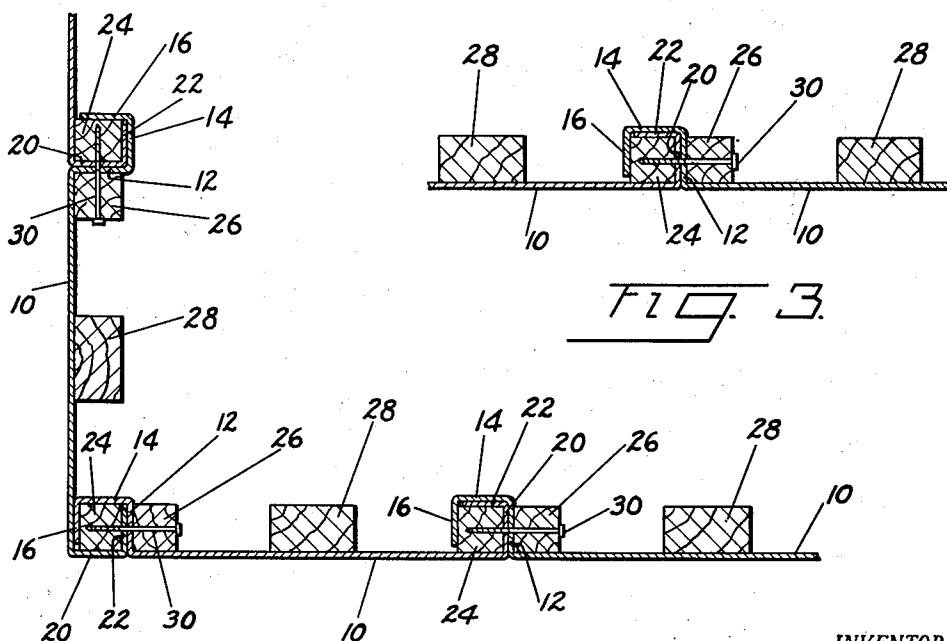
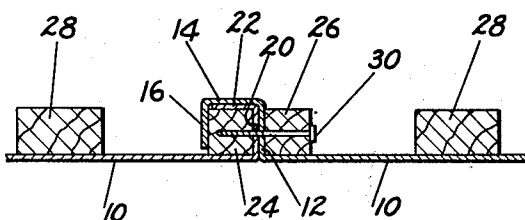
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WALL CONSTRUCTION PANEL

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WALL CONSTRUCTION PANEL

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1 Claim. (Cl. 189—34)

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This invention relates to an improved structural wall panel.

An object is to provide an improved structural wall panel which is light of weight, simple construction, and inexpensive as to cost. Such panel is so formed that it may be easily interlocked with other similarly formed wall panels to make a complete wall structure. Such panels may be articulated together to form side walls, roof walls, or other walls of buildings.

Another object is to provide a composite wall panel formed in part of sheet material and in part of other structural material which panel possesses rigidity, structural strength and great durability and wherein a multiplicity of such panels may be quickly and securely fastened together by unskilled labor to form a lightweight, rigid, inexpensive and durable wall.

Such panels are particularly appropriate for use in the fabrication of garages, small houses, or other similar buildings.

The panels are adapted to be formed of sheet material such as metal sheets associated with other structural materials such as wood strips. Sheet aluminum is a suitable material for such use. Such metal sheet has its opposite linear marginal portions bent upon themselves to form two marginal channels. Structural reinforcing strips are associated with the channels and the construction is such that the channel margins may be interlocked to form a wall.

One marginal channel opens outwardly toward the front face of the panel and is adapted to receive an inwardly projecting marginal channel portion of a similar adjacent panel. The other marginal channel opens inwardly parallel to the rear face of the panel and contains a reinforcing filler strip and forms the marginal portion which is adapted to be received within the outwardly open marginal channel of the adjacent panel.

A meritorious feature of this invention is that each panel is provided along each linear margin with a marginal channel and each marginal channel is reinforced with a reinforcing or filler strip. The marginal channel which opens outwardly toward the outer face of the panel has its reinforcing strip disposed along its inner side wall upon the inner face of the panel. The marginal channel which opens inwardly parallel to the inner face of the panel has its reinforcing strip disposed therein and extending there-through and serving as a filler reinforcing strip. These reinforcing strips may be formed of wood or other suitable material.

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Preferably each panel is of a generally rectangular shape. Each panel, in addition to having its linear margins provided with marginal channels strengthened by reinforcing strips, is also provided with a median reinforcing strip secured to its inner face and extending lengthwise thereof parallel to the other two reinforcing strips and substantially midway therebetween.

Other objects, advantages and meritorious features will more fully appear from the following specification, claim and accompanying drawings wherein:

Fig. 1 is a perspective of a building such as a garage fabricated of panels embodying my invention.

Fig. 2 is a horizontal sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a rotated cross sectional view taken on the section line 3—3 of Fig. 1.

In the building shown in Fig. 1 of the drawing, the side wall and the roof are formed of panels embodying my invention interlocked together particularly as shown in Fig. 2. Each panel is formed of a sheet of material, preferably metal, and is of a generally rectangular shape. The metal sheet is indicated by the numeral 10. The linear marginal portions of the sheet are bent upon themselves to form marginal channels. One marginal channel opens outwardly toward the front face. The other marginal channel opens inwardly parallel to the rear face of the panel.

The marginal channel which opens outwardly is formed by bending the marginal portion of the panel sheet inwardly as at 12 at a right angle to the face of the panel and then bending the portion 14 at a right angle to the portion 12 and then bending the portion 16 outwardly normal to the front face of the panel and at a right angle to the portion 14. This forms a channel which is rectangular in cross section, which opens outwardly toward the front face of the panel, and which is adapted to receive a marginal portion of an adjacent panel to secure the two panels together.

That margin of the panel opposite to the portion just described is bent upon itself as at 20, at a right angle to the face of the panel, and is then bent at a right angle to such portion 20 forming a side wall 22 which is disposed parallel to the face of the panel. This forms a marginal channel which is open inwardly parallel to the rear face of the panel. Disposed within this marginal channel is a reinforcing filler strip 24. The positioning of this filler strip within the channel

forms a structurally reinforced rigid marginal edge portion.

A reinforcing strip 26 is secured adjacent to the side wall 12 of the other marginal channel of the panel as shown in Fig. 2 of the drawing. This forms a structurally reinforced rigid edge along this margin of the panel. A reinforcing strip 28 is secured to the inner face of the panel substantially midway between and parallel to the reinforcing strips 24 and 26 all as shown in Fig. 2 of the drawing.

These reinforcing strips may be secured in any suitable manner to the sheet metal panel so as to form a rigid panel structure possessing substantial strength and durability. In one type of building employing panels of approximately eight feet in length and having a width of twenty-eight inches the strips 24 and 26 were 2 x 2's and the reinforcing strip 28 was a 2 x 4. In such embodiment the reinforcing strips were formed of wood. Half-hard aluminum sheets of .032 gauge were used. It is of course obvious that sheet material and structural strips of any suitable character may be employed and that any dimensions given are merely illustrative.

To secure the panels together the outwardly open channel of one panel has positioned therein the filler strip filled channel of the other panel. A nail or other securing member 30 may be driven through the reinforcing strip 26 into the reinforcing strip 24 to secure two adjacent panels together. The panels may be quickly assembled in interlocked relationship so as to fabricate the wall of the building. They may be assembled to form a side wall or a roof wall or any other wall structure desired to be so formed.

Any water that leaks through a joint between the two panels and enters the outwardly open channel along the margin of a panel will flow down such a channel as through a gutter and be discharged from the end thereof. The wall structure therefore is watertight. The panels are interlocked securely together. The wall structure is rigid because the panels themselves possess such rigidity and when interlocked provide a rigid expanse of wall.

What I claim is:

A structural wall panel comprising a metal sheet having each of its two opposite linear marginal portions bent upon itself defining a marginal channel, one of said marginal portions being formed by one marginal portion being bent rearwardly normal to the face of the panel and then bent inwardly parallel to the face of the panel providing a channel opening inwardly parallel to the rear face of the panel, a wood filler reinforcing strip extending through said channel and filling the same, the other marginal portion being formed by the other linear marginal portion of the panel being bent rearwardly normal to the face of the panel and then bent outwardly parallel to the face of the panel and then bent frontwardly normal to the face of the panel providing a channel which opens frontwardly toward the front face of the panel and is disposed laterally offset and to the rear of the plane of the extended front face of the panel; a wood filler reinforcing strip extending along the rear face of the panel adjacent to the inner side of said last mentioned channel and secured thereto, said last mentioned channel having interior dimensions slightly greater than the exterior dimensions of the first mentioned channel and its contained filler strip.

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