

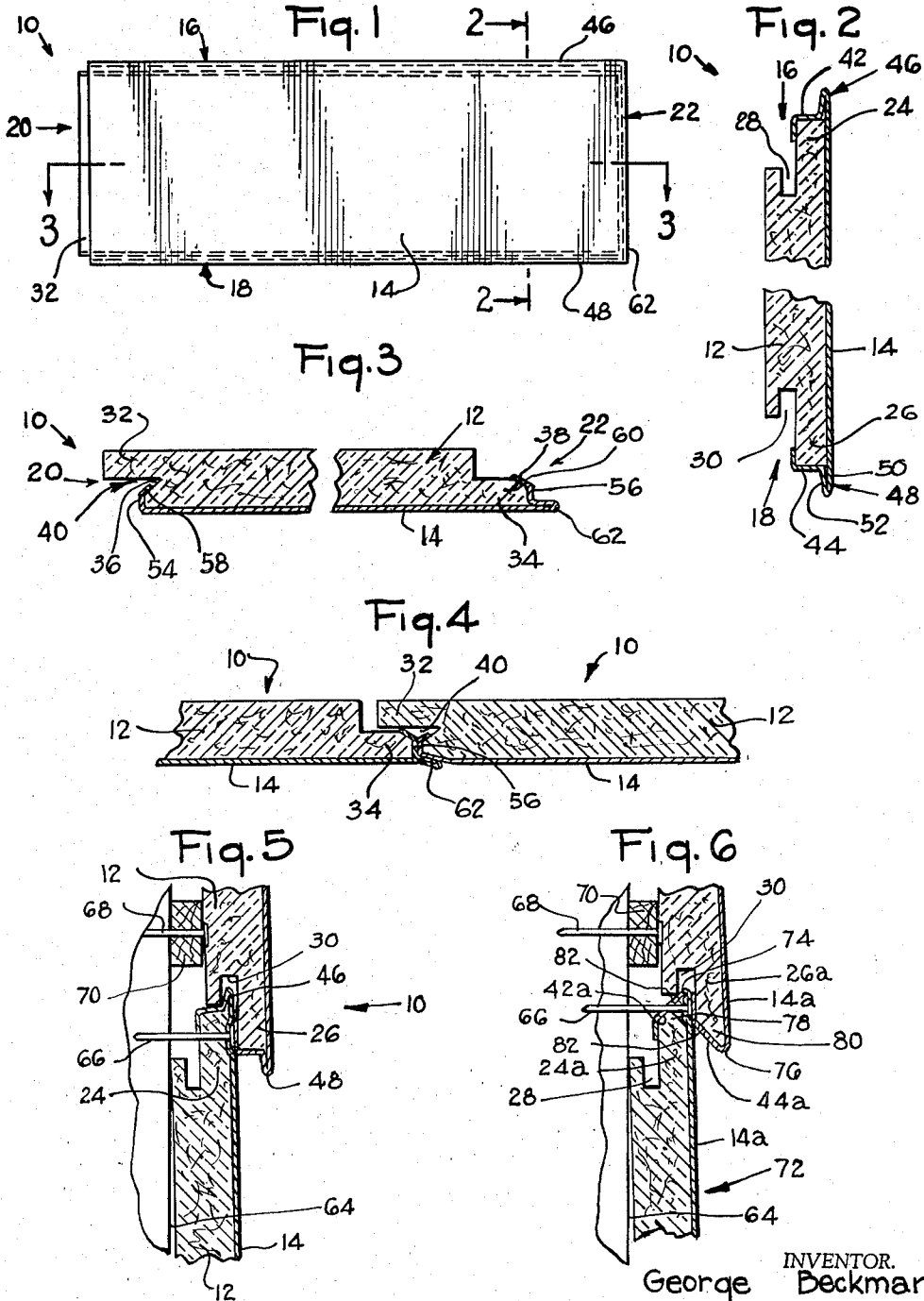
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METALLIC SURFACED SIDING AND ROOFING MATERIAL

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METALLIC SURFACED SIDING AND ROOFING MATERIAL

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This invention relates to siding and roofing materials and pertains particularly to building boards covered with metal or other sheet material.

One object of the present invention is to provide new and improved building boards covered with metal or the like and having flanges or lips, made of the covering material, and arranged along edges of the board to close the joints between adjacent boards against the entry of wind, rain and the like.

A further object is to provide a new and improved covered building board of the foregoing character which is well adapted for use as permanent siding or roofing.

Another object is to provide such new and improved covered boards in which at least some of the lips interlock with grooves formed in edges of the boards.

Another object is to provide the overlapping lower edge of the building board with a concealed and interlocked holding device in the upper part of the underlying board.

Another object is to permit concealed nailing of the underlying board and holding the lower part of the overlying board in place with a concealed and interlocked holding device.

Still another object is to provide such new and improved covered building boards which are low in cost and extremely easy to apply.

Further objects and advantages of the present invention will appear from the following description, taken with the accompanying drawings, in which:

Fig. 1 is a front elevational view of a covered building board to be described as an illustrative embodiment of the present invention.

Fig. 2 is a vertical section, taken generally along a line 2—2 in Fig. 1.

Fig. 3 is a horizontal section, taken generally along a line 3—3 in Fig. 1.

Fig. 4 is a fragmentary horizontal section, somewhat similar to Fig. 3, but showing a vertical joint between two adjacent boards.

Fig. 5 is a fragmentary vertical section somewhat similar to Fig. 2, but showing a horizontal joint between two adjacent boards.

Fig. 6 is a view similar to Fig. 5, but showing a modified construction.

As already indicated, Figs. 1–5 illustrate a siding or roofing board 10 which comprises a relatively thick sheet of building board 12 having its front surface substantially covered with a relatively thin covering sheet 14. Preferably, the sheet 14 is made of metal, but it may be made of plastics or other suitable materials. When made of metal, the sheet 14 is preferably made of a metal which is corrosion-resistant, such as aluminum, for example. For the sake of appearance, it is preferred that the metal cover sheet 14 be suitably coated, as with baked enamel, or the like.

A wide variety of materials may be employed for the building board 12 which serves as the base of the siding or roofing material 10. Any of the common or suitable

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building boards may be employed. Thus, it is merely by way of example that the board 12 is illustrated as being made of insulating fiberboard, which may be coated or impregnated with a waterproofing material, such as asphalt.

The base board 12 is illustrated as being generally rectangular in shape, for convenient application as siding or roofing. Thus, the board 12 has upper and lower side edges 16 and 18, and left and right end edges 20 and 22. In this case, the side edges 16 and 18 are longer than the end edges 20 and 22 but, of course, this is a matter of convenience.

Along the upper and lower side edges 16 and 18, the board 12 has half-lap flanges 24 and 26 which project upwardly and downwardly and extend for substantially the full length of the board. In this case, both half-lap flanges 24 and 26 are at the front of the board 12. Grooves or channels 28 and 30 are formed in the upper and lower side edges 16 and 18, behind the half-lap flanges 24 and 26.

Along the end edges 20 and 22, the board 12 also has half-lap flanges 32 and 34. In this case, however, the half-lap flange 32 is at the rear of the board 12 while the flange 34 is at the front.

For a purpose to be described shortly, the end edges 20 and 22 are formed with rearwardly facing bevels or chamfers 36 and 38. The bevel 36 is in front of the rear half-lap flange 32 and is formed as the front wall of a V-shaped groove 40 in the left hand edge 20. It will be seen that the right hand bevel 38 runs along the rear outer corner of the front half-lap flange 34.

From Fig. 5 it will be seen that the lower half-lap flange 26 on each board is adapted to overlap the upper half-lap flange 24 on the board below, when the boards are applied as siding or roofing. This manner of application slants the boards slightly, as seen in vertical section, so as to promote the shedding of rain and moisture.

As indicated in Fig. 4, the front half-lap flange 34 on each board is adapted to overlap the rear flange 32 on the adjacent board. Thus, at the vertical joints, the boards are substantially flush with each other.

As shown in Fig. 2, the cover sheet 14 has rearwardly folded portions 42 and 44 along the upper and lower edges 16 and 18. These portions 42 and 44 are folded back around the half-lap flanges 24 and 26, to assist in securing the cover sheet 14 to the board 12. It will be understood that asphalt or other cement may be applied between the cover sheet 14 and the front surface of the board 12 to make a firm, smooth bond.

The rearwardly folded portions 42 and 44 provide laterally projecting lips 46 and 48, which are adapted to be received in the grooves 28 or 30 in the adjacent boards, as shown to best advantage in Fig. 5. The interlocking engagement between the lips 46 and 48 and the grooves 28 and 30 seals out wind and moisture to a large extent, and helps to hold the horizontal edges of adjacent boards together.

In the form shown in Figs. 1–5, the lips 46 and 48 take the form of double-folded portions of the cover sheet 14, extending laterally as flanges which are flush with the front of the cover sheet. Thus, each double-folded lip 46 or 48 has a front portion 50 which is a continuation of the cover sheet 14, and a rear portion 52 which joins with the rearwardly folded portion 42 or 44.

Along the end edges 20 and 22, the cover sheet 14 is also formed with rearwardly folded portions 54 and 56. It will be seen that the left-hand portion 54 is folded into the groove 40 along the chamfer 36, as indicated at 58. Similarly, the right-hand portion 56 is folded around the chamfer 38 which extends along the right-hand flange

34, as indicated at 60. This arrangement also assists in securing the cover sheet 14 to the board 12.

From Fig. 3, it will be seen that the right-hand rearwardly folded portion 56 is also formed with a lip or flange 62, which is illustrated as being double-folded, in the manner of the lips 46 and 48. When the boards are applied as roofing or siding, the end lip 62 on each board is adapted to overlap the front of the adjacent board, as shown to best advantage in Fig. 4. The lip 62 will flex slightly, and will compress the underlying portion of the adjacent board, so that the boards will be substantially flush with each other along the vertical joints.

The underlying board is secured by concealed nails 66 which are driven through the upper half flange of the board; the nails are covered by the lower half flange of the overlying board. In addition to the concealed holding device of the lower part of the overlying board, a firm support for the overlapping board may be secured by furring strip 70 to be held by nails 68, which also spaces the lower edge of the board outwardly by giving the board a slight pitch.

As shown in Fig. 5, the upper lip 46 on each board is adapted to be received in the lower groove 30 in the board above. The lower lip 48 forms an efficient drip edge, adapted to shed moisture.

Fig. 6 illustrates the construction of a modified board 72 which is the same as the board 10, except that the upper and lower lips 46 and 48 are replaced with generally chisel-edged lips 74 and 76. These lips 74 and 76 are formed by folding the cover sheet 14a rearwardly around chisel-shaped edge portions 78 and 80 on the half-lap flanges 24a and 26a. The rearwardly folded portions of the cover sheet 14a are designated 42a and 44a. It will be seen that each chisel-shaped edge portion 78 or 80 has a bevelled or angled outer end surface 82 which faces laterally and rearwardly.

The lip 74 at the upper edge of each board 72 is adapted to be engaged with the groove 30 at the lower edge of the board above. The lower lip 76 forms an efficient drip edge.

Thus, the illustrated boards effectively exclude rain and wind at both the horizontal and vertical joints, without any need for joint strips or the like. The boards may be applied by simple nailing operations.

Accordingly, the boards provide low cost siding or roofing material which is extremely easy to apply. The applied product is highly serviceable and very attractive in appearance.

Various other modifications, alternative constructions and equivalents may be employed without departing from the true spirit and scope of the invention, as exemplified in the foregoing description, and defined in the following claims.

I claim:

1. In a building board, the combination comprising a generally rectangular base board having first and second half-lap flanges projecting from the opposite ends thereof, said first half-lap flange being at the front side of said board while said second half-lap flange is at the rear side of said board so that the ends of adjacent boards in an assemblage of such boards may be overlapped, said board having third and fourth half-lap flanges projecting therefrom along the upper and lower edges thereof, both of said third and fourth half-lap flanges being at the front of said board, said board hav-

ing channels in the upper and lower edges thereof immediately behind said third and fourth half-lap flanges, a metal sheet substantially covering the front side of said board with adhesive between said metal sheet and said board, said metal sheet having first and second flanges thereon folded back around the ends of said board, said first flange being folded back around said first half-lap portion, said board having a groove in one end thereof immediately in front of said second half-lap flange, said second flange on said sheet being folded back into said additional groove, said first flange on said sheet being formed into a double folded lip adjacent the front of said board and projecting beyond said first half-lap flange for overlapping the metal sheet on an adjacent board in an assemblage of such boards, third and fourth flanges on said sheet folded back around said third and fourth half-lap flanges on said board, each of said third and fourth flanges on said sheet having an additional double folded lip adjacent the front of said board and projecting edgewise beyond the corresponding half-lap flange for reception in one of the channels in an adjacent board, said board being adapted to be assembled with other boards with the lower half-lap flange of one board overlapping the upper half-lap flange of the board below, and with the upper edge lip on the board below interlocking with the lower edge channel on the board above.

2. In a building board, the combination comprising a generally rectangular base board having end and side edges thereon, a surface sheet substantially covering the front side of said base board, said base board having half-lap flanges thereon along said side edges at the front of said base board, said base board having grooves in said side edges behind said half-lap flanges, said sheet having side edge flanges thereon folded back around said half-lap flanges, said side edge flanges having projecting lip portions adjacent the front of said board for reception in the grooves in adjacent boards, said lip portions being in the form of double folded elements of said sheet projecting edgewise beyond said half-lap flanges at the front of said board.

3. In a building board, the combination comprising a generally rectangular base board having end and side edges thereon, a surface sheet substantially covering the front side of said base board, said base board having half-lap flanges thereon along said side edges at the front of said base board, said base board having grooves in said side edges behind said half-lap flanges, said sheet having side edge flanges thereon folded back around said half-lap flanges, said side edge flanges having projecting lip portions adjacent the front of said board for reception in the grooves in adjacent boards, said half-lap flanges on said base board having angular edge portions tapering toward the front and outwardly to chisel-like edges, said flanges on said sheet being folded back around said tapered edge portions of said half-lap flanges, the portions of said flanges on said sheet folded around said chisel-like edges constituting said lip portions.

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