This invention relates to building siding, and more particularly to overlap shake siding which is applied in the form of relatively heavy panels, but which is intended to simulate shingles.

The general object of the present invention is to improve overlap shake siding of the specified character. In a common and popular size, the panels are about forty four inches long, eleven inches wide, and 5/8 inch thick. The edges are rabbeded at the back to a depth of 1/4 inch, leaving a thickness of approximately 3/16 inch. A panel is applied with its lower rabbed edge overlying the upper edge of the next lower panel, and thus the apparent thickness of the simulated shingle, as exposed at the lower edge of the upper panel, is approximately 3/16 inch. This thickness is sometimes called the "butt thickness."

It is considered desirable to simulate a heavy shingle, that is, to increase the butt thickness. The primary object of the present invention is to provide a very substantial increase, say 3/8 inch or more, in the apparent butt thickness, without requiring an actual increase in the board thickness; without reducing the depth of the rabbed; without introducing extra filler strips between the overlapped boards; without increasing the cost of manufacture of the panel; and without increasing the labor and consequent cost of applying the panels to a building wall.

To accomplish the foregoing objects, and other more specific objects which will hereinafter appear, my invention resides in the overlap shake siding panel, and the elements thereof, as are more particularly described in the following specification. The specification is accompanied by a drawing in which:

FIG. 1 is a fragmentary vertical section showing the relation between overlapped panels made in accordance with my invention;

FIG. 2 is a similar fragmentary section showing a different form of the invention;

FIG. 3 is a fragmentary front view drawn to a small scale and showing the relation of overlapped panels on a building wall;

FIG. 4 is a fragmentary view of panels simulating a different kind of shingle;

FIG. 5 is a schematic view explanatory of another step in the manufacture of the panel shown in FIG. 1;

FIG. 6 is a schematic view explanatory of another step in the manufacture of the panel shown in FIG. 1;

FIG. 7 is a schematic view explanatory of a step in the manufacture of the panel shown in FIG. 2; and

FIG. 8 is a fragmentary view looking in the direction of the arrows 8-8 in FIG. 3.

Reverting to the drawing, and more particularly to FIG. 1, the lower edge of an upper siding panel 12, is shown overlapped against the upper edge of a lower panel 14. Both panels are nailed in conventional fashion to a building wall 18. The panels are alike, that is, the lower edge of panel 12 is as shown for panel 14, and the upper edge of panel 12 is as shown for panel 14. The panels have a rabbed edge as shown at 16, to define the overlap when applying the panels to a building wall 18.

The panels are conventional in comprising a composition or fiberboard base 20 characterized by good heat insulating properties, and further coated with a waterproofing moisture binding substance, typically asphalt, as shown at 22. Usually, and preferably, the board 20 is impregnated with asphalt, apart from the coating at 22. The latter is surfaced with mineral granules, sometimes called "grit," is indicated at 24. In the prior practice, the panel has an overall thickness of about 3/8 inch, and the rabbed 16 has a depth of 3/4 inch, thus leaving an exposed edge at 26 with a thickness of about 3/16 inch.

In accordance with the present invention, however, the front face of the panel has an indent ed channel 28 extending parallel to the upper edge, and spaced a little below the upper edge. The formation of this channel serves to displace material and to raise a ridge 30 at the upper edge of the channel, and this ridge is nearer the upper edge 32 of the panel than the width of the rabbed 16, so that the rabbed of upper panel 12 rests on the raised ridge 30 of lower panel 14. In preferred form the upper edge 34 of channel 28 is so spaced from the upper edge 32 of the panel, relative to the width of the rabbed 16, that the lower edge 26 of the upper panel 12 is flush with the lower edge of the ridge 30, and also with the upper edge lower edge 34 of the channel 28.

In the particular case shown, the rabbed 16 is 1/2 inch wide, and the upper edge of channel 34 is located 1/2" from the upper edge 32 of the panel. In any case, with this arrangement, the apparent thickness of the shingles (or the so-called butt thickness) is made up of the parts 26, 30 and 34, and adds up to 1/2 inch or more, instead of 3/16 inch. The channel 28 is indented to a depth of 3/16 to 3/8 inch, and the ridge 30 rises at least 3/16 inch and ordinarily, somewhat more than that.

The channel 28 is preferably indented by a narrow roller as schematically shown at 45 in FIG. 5, beneath which a panel 40 is being run. Of course, when the channel 42 is first indented, two ridges 43 and 44 are formed at the edges of channel 42. However, one step in the treatment of the panel is to run it under a roller which helps level and control its final thickness, and this roller is so disposed as to flatten the ridge 43 without affecting the ridge 44. This is schematically indicated in FIG. 6, in which panel 40, having channel 42 and ridge 44, is being run beneath a finishing roller 46. The latter is disposed with its edge 48 over the channel 42, so that it will flatten the ridge at the lower side of the channel, without however flattening the ridge 44.

Referring now to FIG. 2 of the drawing, there show overlapping panels 50 and 52. These differ in two respects. The first is in providing a sloping channel 54 instead of a rectangular channel. To form such a channel, the roller which produces the channel is preferably frusto conical instead of cylindrical. This is illustrated in FIG. 7 in which a panel 56 is channeled by running it beneath frusto conical roller 58, thereby producing a ridge 60 at one side of the channel, without producing any significant amount of corresponding ridge at the other side of the channel.

Reverting again to FIG. 2, the ridge 60 corresponds to the ridge 30 in FIG. 1, and is similarly located, that is, the upper edge 62 of channel 54 is preferably spaced from the top edge 64 of panel 52. An amount substantially equal to the width of the rabbed 66 in a typical case, this spacing and width may be 1/8. The depth of the channel at 62 may be 3/16 to 1/4 inch, and ridge 60 has a height of 3/16 inch or more. The butt thickness is then made up of the lower edge 68 of panel 58, and the ridge 60 and the channel 62, making a total of 1/2 inch or more instead of 3/16 inch.

Another difference in panels 50 and 52, compared to panels 12 and 14 in FIG. 1, is that there is a rabbed 66 at the lower edge only. The upper edge 64 has no rabbed, thereby differing from the panel shown at 16, in which the upper edge has a rabbed 70 (which ordinarily is in dimension to the rabbed 16 at the lower edge).
It will be understood that these elements are interchangeable, that is, the triangular channel of FIG. 2 may be used on a panel having both edges rabbeted, as in FIG. 1, and conversely the rectangular channel of FIG. 1 may be used on a panel having only its bottom edge rabbeted, as shown in FIG. 2.

The ends of the panels may be rabbeted in accordance with present conventional practice. There are mitering or reverse rabibted, that is, if the back is rabbeted at the left end, as shown in FIG. 8 for panel 72, the front is rabbeted at the right end, thus permitting panels to be fitted with a flush fit at the ends as shown in broken lines for the next adjacent panel. In applying the panels to a wall, the overlapped ends of one pair are preferably offset or staggered relative to another pair, and this is shown in FIG. 3, in which a lower panel 72 is overlapped at its upper edge by a next panel 74, which is applied with its end 76 offset sidewardly from the end 78 of panel 72. Similarly, the next higher panel 80 overlaps the panel 74, but its end 82 is offset still further to the right. The channeling of these panels is indicated at 84, 86 and 88.

In the example shown in FIG. 3, the simulated shingles are marked by closely adjacent vertical lines, some of which are deeper than others. However, the invention is applicable to overlapping panels simulating different kinds of shingles, and in another example a rabbeted wood surface. Here again the panel 90 is overlapped by panel 92, which in turn is overlapped by panel 94, and each of the panels has a channel 96, 98 and 100 to provide desired increased butt thickness. The panels have rather widely spaced lines to simulate separate shingles, and these shingles have wavy lines to simulate a wood surface. The ends of the panels are not shown in FIG. 4, but it will be understood that here again the ends preferably have reverse or matting rabbets for a flush fit, and that the end joints are preferably located in stopped or sidewardly displaced relationship.

It is believed that the construction, method of manufacture, and method of applying my improved overlap shake siding panel, as well as the advantages thereof, will be apparent from the foregoing detailed description. It will also be apparent that while I have shown and described my invention in several preferred forms, changes may be made in the structures shown, without departing from the scope of the invention as sought to be defined in the following claims.

I claim:

1. A building siding panel simulating thick shingles, said panel being rectangular with a rabbeted bottom edge for overlap, said panel comprising a composition base board coated with a waterproofing adhesive substance, and the latter being surfaced with mineral granules, the front face of said panel having an indented channel extending parallel to the upper edge a little below the upper edge and a ridge of displaced material at the upper edge of the channel, said ridge being nearer the upper edge of the panel than the width of the bottom rabbet, and being raised relative to the main front surface of the panel, whereby the rabbet of an upper panel will rest on the ridge of a lower panel in order to increase the apparent thickness of the shingles.

2. A building siding panel simulating thick shingles, said panel being rectangular with a rabbeted bottom edge for overlap, said panel comprising a composition base board coated with a waterproofing adhesive substance, and the latter being surfaced with mineral granules, the front face of said panel having an indented channel extending parallel to the upper edge a little below the upper edge and a ridge of displaced material at the upper edge of the channel, and being raised relative to the main front surface of the panel, the upper edge of the channel being so spaced from the upper edge of the board relative to the width of the bottom rabbet that the rabbet of an upper panel will rest on the ridge of a lower panel in order to increase the apparent thickness of the shingles.

3. A building siding panel simulating thick shingles, said panel being rectangular with a rabbeted bottom edge for overlap, and with rabbeted end edges for a flush butt fit at the ends, said panel comprising a composition base board impregnated and heavily coated with asphalt, and the latter being surfaced with mineral granules, the front face of said panel having an indented channel extending parallel to the upper edge a little below the upper edge and a ridge of displaced material at the upper edge of the channel, said ridge being nearer the upper edge of the panel than the width of the bottom rabbet, and being raised relative to the main front surface of the panel, whereby the rabbet of an upper panel will rest on the ridge of a lower panel in order to increase the apparent thickness of the shingles.

4. A building siding panel simulating thick shingles, said panel being rectangular with rabbeted top and bottom edges for overlap, and with rabbeted end edges for a flush butt fit at the ends, said panel comprising a composition base board impregnated and heavily coated with asphalt, and the latter being surfaced with mineral granules, the front face of said panel having an indented channel extending parallel to the upper edge a little below the upper edge and a ridge of displaced material at the upper edge of the channel, said ridge being nearer the upper edge of the panel than the width of the bottom rabbet, and being raised relative to the main front surface of the panel, whereby the rabbet of an upper panel will rest on the ridge of a lower panel in order to increase the apparent thickness of the shingles.

5. A building siding panel as defined in claim 1 in which the channel is approximately triangular in cross-section, with the deep edge of the channel at the top.

6. A building siding panel as defined in claim 2 in which the channel is approximately triangular in cross-section, with the deep edge of the channel at the top.

7. A building siding panel as defined in claim 3 in which the channel is approximately triangular in cross-section, with the deep edge of the channel at the top.

8. A building siding panel as defined in claim 4 in which the channel is approximately triangular in cross-section, with the deep edge of the channel at the top.

9. A building siding panel as defined in claim 1 in which the channel is approximately rectangular in cross-section.

10. A building siding panel as defined in claim 2 in which the channel is approximately rectangular in cross-section.

11. A building siding panel as defined in claim 3 in which the channel is approximately rectangular in cross-section, and in which the lower edge of the channel is devoid of a raised ridge such as that existing along the upper edge of the channel.

12. A building siding panel as defined in claim 4 in which the channel is approximately rectangular in cross-section, and in which the lower edge of the channel is devoid of a raised ridge such as that existing along the upper edge of the channel.

13. An exterior building wall covered with a plurality of siding panels as defined in claim 1 in which the ends of the panels are offset or staggered, and in which the lower rabbeted edge of each upper panel overlies the adjacent raised ridge of each lower panel.

14. An exterior building wall covered with a plurality of siding panels as defined in claim 2 in which the ends of the panels are offset or staggered, and in which the lower rabbeted edge of each upper panel overlies the adjacent raised ridge of each lower panel with the lower edge of the upper panel substantially flush with the lower edge of the ridge.
the apparent thickness of the lower edge of the upper panel is increased by both the height of the ridge and the depth of the channel.

15. An exterior building wall covered with a plurality of siding panels as defined in claim 3 in which the ends of the panels are offset or staggered, and in which the lower rabbeted edge of each upper panel overlies the adjacent raised ridge of each lower panel.

16. An exterior building wall covered with a plurality of siding panels as defined in claim 4 in which the ends of the panels are offset or staggered, and in which the lower rabbeted edge of each upper panel overlies the adjacent raised ridge of each lower panel with the lower edge of the upper panel substantially flush with the lower edge of the ridge and the upper edge of the channel, whereby the apparent thickness of the lower edge of the upper panel is increased by both the height of the ridge and the depth of the channel.

17. A building siding panel simulating thick shingles, said panel being rectangular with a rabbeted bottom edge for overlap, the front face of said panel having an indented channel extending parallel to the upper edge a little below the upper edge and a ridge of displaced material at the upper edge of the channel, said ridge being nearer the upper edge of the panel than the width of the bottom rabbet, and being raised relative to the main front surface of the panel, whereby the rabbet of an upper panel will rest on the ridge of a lower panel in order to increase the apparent thickness of the shingles.

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