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3,120,082

SIDING

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2 Sheets-Sheet 1

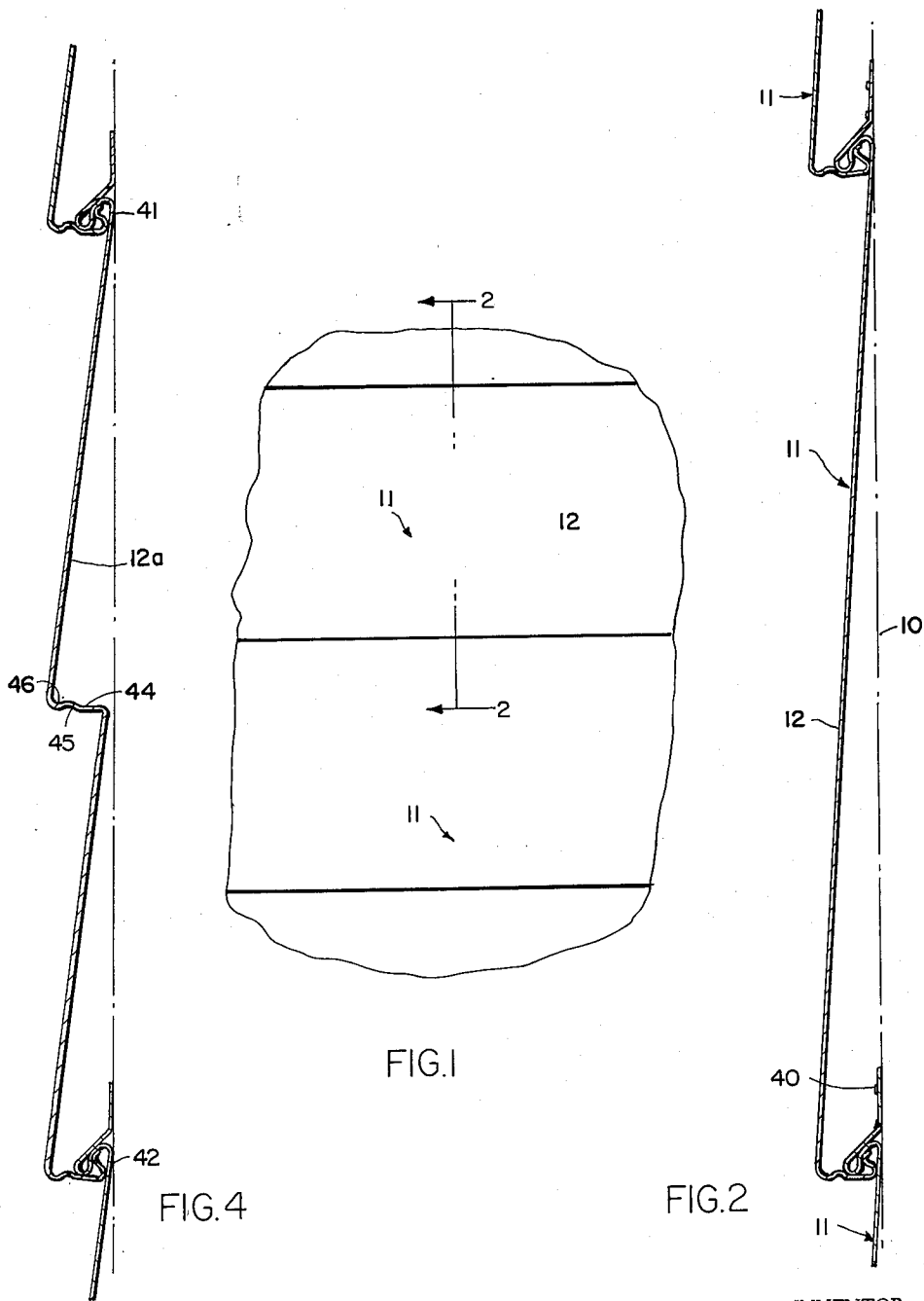


FIG.1

FIG.2

FIG.4

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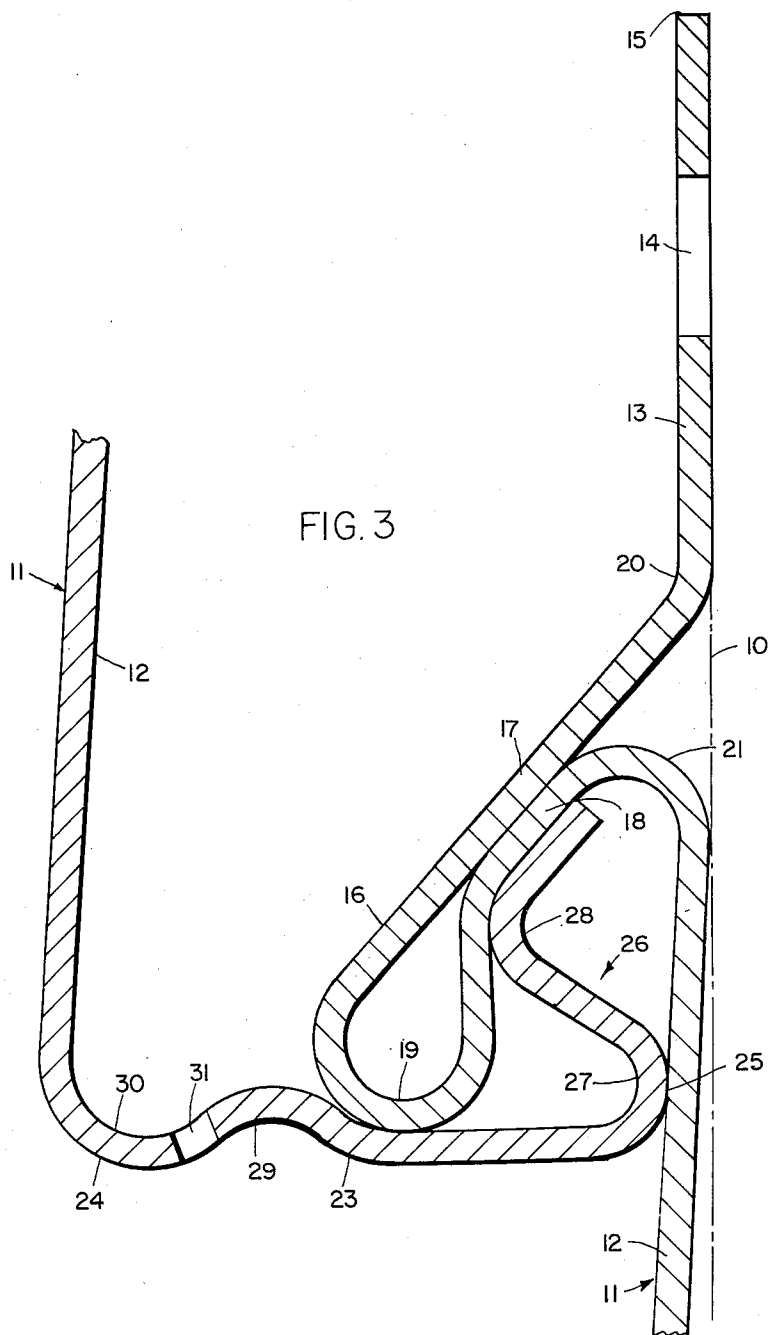
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The present invention relates to siding for wall covering constructions and more particularly to interlocking metallic panels or weather boards which when assembled in horizontally disposed partially overlapped relation form the outermost wall surface of residential or commercial buildings of various types.

Metallic sidings which have been used as outer wall constructions are often made with a slight bow or buckle. When such siding is used in a wall construction, the wall may have an unsightly waviness or "oil-can" effect. Interlocks for adjacent panels in such constructions are also usually either too loose or too tight. When too loose the supporting structure is often damaged from the weather conditions, and when too tight the panels are difficult to install. In addition, in these earlier structures, water may collect and remain between the applied panels or siding and the interior walls of the house. The surfaces of these panels or sidings are also easily stained or marred by water-carried dirt which gathers at the butt of adjacent parallel sidings, and which runs unimpeded down and across the outer faces of adjacent panels. Further, the panels presently used must be made of relatively heavy gauge metal to maintain their shape.

The present invention overcomes such defects by providing an improved and more rigid design which is not likely to buckle or have an "oil-can" effect. This siding permits water to drain easily from between the siding and interior walls of the house or building. Channel means are provided which prevent water and dirt from gathering at the butt of adjacent panels and which act as barriers to prevent water from running downwardly across adjacent sidings. These channel means guide or gather the water and dirt in a concealed margin so that it will not stain or streak the siding surface. These channel means also rigidify the entire construction and minimize "oil-can" effects.

There is also provided an improved siding interlock which is self-adjusting for optimum engaging tension. This interlock also functions as means for waterproofing and for rigidly securing the panels in a fixed position against the internal wall.

This present invention has a plurality of identical interlockable siding constructions, each having a panel with a skirt at its upper edge for securing the siding to the internal wall. A pair of integral downwardly and forwardly flared flanges contiguous with and intermediate the skirt and upper edge of the panel form a locking element. This locking element may interengage and form a watertight seal with an inwardly extending flange and a lip contiguous with the lower edge of the next adjacent panel.

A pair of adjacent reverse bends extending longitudinally of and adjacent the forward edge of the inwardly extending flange, form adjacent channels with one channel open upwardly and the other channel open downwardly. The upwardly open channel collects water within the siding as for example from leaks and condensation and has weep holes which pass water to the outer channel. The outer channel forms a concealed water barrier preventing water and collected dirt from running down to the next panel. Water collecting in this downwardly open channel normally remains there until it evaporates or drops free to the ground, thereby preventing dirt carried by the water from streaking the face of the panels.

These and other objects and advantages of the present

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invention will be more clearly understood when considered in conjunction with the accompanying drawings, in which:

FIG. 1 is a fragmentary plan view of a plurality of interlocked panels;

5 FIG. 2 is a cross sectional view taken substantially along the line 2-2 of FIG. 1;

FIG. 3 is an enlarged detail of an interlocked portion of adjacent panels illustrated in FIG. 2; and

10 FIG. 4 is a cross sectional elevation of a modification of the invention.

Referring to the drawings, each siding is formed of a suitable metal such as aluminum rolled and/or bent into the configuration hereafter described. These elongated sidings may be secured longitudinally to the inner wall of a building indicated in FIG. 2 at 10. The individual sidings generally referred to at 11 are secured adjacent one another with their upper and lower edges interlocked. Each siding is formed of an integral piece of rolled or bent metal having cross sectional configurations illustrated in FIGS. 2 and 3. The sidings have a panel 12 which extends the length of the siding. An upwardly flared skirt 13 having a plurality of longitudinally aligned spaced nail holes 14 near one edge thereof is adapted to abut and be secured to the wall 10. The skirt 13 forms the upper edge 15 of the siding and is integrally connected with the panel 12 by a locking element generally indicated at 16. The locking element in turn is formed of a pair of downwardly and forwardly flared flanges 17 and 18, integral with one another in an enlarged loop 19 contiguous with the lower edges of the downwardly and forwardly flared flanges 17 and 18. The upper edge of the flange 17 is contiguous with the lower edge 20 of skirt 13. The upper edge or portion of flange 18 is contiguous with the upper edge of the panel 12 in an arcuate sector 21.

The lower edge of the panel is contiguous with an inwardly extending flange 23 which has its forward edge 24 contiguous with the lower edge of panel 12 in an arcuate sector. The rear edge 25 of flange 23 terminates just short of the plane in which skirt 13 lies and which is coincident with line 10 as illustrated in FIG. 3. An upwardly extending lip generally illustrated at 26 is integral with the rear edge 25. The upwardly extending lip 26 is formed with a pair of reverse bends comprising the lower bend 27 and upper bend 28. The upper bend 28 conforms in contour and dimension with a portion of enlarged loop 19 at the junction of the loop 19 and the main portion of the flange 18. When adjacent sidings 11 are interlocked, the upper bend 28 of one engages the upper portion of loop 19 of the other in a snug fit as illustrated best in FIG. 3.

Formed in the inwardly extending flange 23 and extending longitudinally thereof, are a pair of contiguous reverse inner and outer bends 29 and 30 forming respectively downwardly and upwardly open channels. A plurality of longitudinally aligned weep holes 31 project through the flange 23 at the juncture of the channels 29 and 30. Outer channel 30 is adjacent to the lower edge of panel 12. Inner channel 29, when adjacent sidings are interlocked, tangentially engages the lowermost portion of loop 19.

When adjacent sidings 11 are secured to a wall 10, the upper edge of one siding is secured to the wall by nails 40 passing through the nail holes 14. The next higher panel is then secured to the wall in a similar manner after its inwardly extending flange is engaged with the next lowest panel. In this interengagement the inwardly extending flange 23 is brought up into engagement with the lower portion of loop 19 and reverse bend 28 is brought into engagement with the upper portion of loop 19. Bend 27 engages the upper portion of the lower panel 12, all as illustrated in FIG. 3. In this arrangement variations

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in stress are accommodated by the bearing-like interengagement of loop 19 and the inner surface of flange 23 as well as the interengagement of panel 12 and bend 27 and bend 28 and loop 19. Each of these interengagements are such as to permit a sliding relation which compensates for various stresses and strains.

Channels 29 and 30 not only serve to collect and guide water from the interior of the siding and from the face of the upper panels 12, but also rigidify the face of panel 12 and prevent "oil-can" effects. Water collecting on the inside of panel 12 will gather in channel 30 and pass from it through the weep holes 31 onto channel 29. Channel 29 will retain this water by surface tension and prevent it from flowing over and streaking down the next lower channel. This collected water either drops free to the ground or eventually evaporates, leaving the dirt collected from the interior and from the face of the next uppermost panel in channel 29 so that it will not readily be seen.

In FIG. 4 there is illustrated a modification of the invention in which the interlocking arrangements generally illustrated at 41 and 42, are the same as illustrated in FIG. 2. In this arrangement, however, the panel 12a may be formed with a shoulder 44 intermediate its sides and running longitudinally of the panel. This shoulder 44 is formed with reverse bends 45 and 46 corresponding to bends 29 and 30, and are provided with weep holes in a similar fashion. This modification functions similar to the siding illustrated in the preferred embodiment.

What is claimed is:

1. A metallic siding for building constructions comprising an elongated panel, a skirt longitudinally coextensive with said panel, a locking element formed of a pair of downwardly and forwardly flared flanges integral with one another in an enlarged loop formed at the lower edges thereof with the upper edge of one of said flanges contiguous with the lower edge of said skirt and the upper edge of said other flange contiguous with the upper edge of said panel, an inwardly extending flange having its forward edge contiguous with the lower edge of said panel and its rear edge lying approximately in the plane of said skirt whereby when said skirt and rear edge are arranged parallel to a wall said panel will be inclined downwardly away from said wall, said inwardly extending flange formed with a pair of adjacent longitudinally extending continuous reverse bends adjacent said forward edge forming an upwardly open outer channel and a downwardly open inner channel, means forming weep holes through said inwardly extending flange substantially at the junction of said channels whereby water may flow from said

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inner to said outer channel, and an upwardly extending lip continuous with said rear edge and formed with longitudinally extending upper and lower reverse bends, said upper reverse bend having a portion conforming in contour to the junction of said loop and said other flange whereby a pair of said siding may be interlocked by the engagement of said junction of one siding and said upper reverse bend of another siding, the loop of said one siding sized and positioned to engage the rearward portion of said inner channel of an identical siding when in said interlocked position whereby strains and stresses in said interlocked siding may be compensated.

2. A metallic siding for building constructions comprising an elongated panel, means at the upper and lower edges of said panel forming mechanical interlocking elements for interengagement with similarly constructed siding, said panel having an inwardly extending flange at its lower edge, reverse inner and outer bends forming inner downwardly open and outer upwardly open channels in said flange and extending longitudinally thereof, said outer channel formed at the lower edge of said panel and open upwardly, said inner channel tangential with said outer channel, an upwardly extending lip integral with the rear edge of said inwardly extending flange with at least one bend formed therein, a locking element formed of a pair of downwardly and forwardly flared flanges integral with one another in an enlarged loop formed at the lower edges thereof, with said enlarged loop and one of said downwardly and forwardly flared flanges of said locking element sized and positioned to engage respectively said inner downwardly open channel and respectively said one bend of an upwardly extending lip of a similarly formed panel, and with said lip of said similarly formed panel also engaging said panel at the upper portion thereof.

References Cited in the file of this patent

UNITED STATES PATENTS

2,642,968	Roush et al. -----	June 23, 1953
2,766,861	Abramson -----	Oct. 16, 1956
3,001,332	Wilder -----	Sept. 28, 1961

OTHER REFERENCES

AlSCO pamphlet, published by AlSCO, Inc., Akron, Ohio, October 1957. (Copy in 50-200.)