United States Patent [19]

Mattes

[11] **3,886,704**

[45] * **June 3, 1975**

[54] **BUILDING SIDING UNIT WITH INTERLOCKING BACKING BOARD AND OUTER PANEL**

[75] Inventor: **Lee H. Mattes,** South Bend, Ind.

[*] Notice: The portion of the term of this patent subsequent to Dec. 25, 1990, has been disclaimed.

[73] Assignee: **Mastic Corporation,** South Bend, Ind.

[22] Filed: **Aug. 3, 1973**

[21] Appl. No.: **385,444**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 197,031, Nov. 9, 1971, Pat. No. 3,780,483.

[52] **U.S. Cl.** **52/530;** 52/546; 52/556

[51] **Int. Cl.** **E04c 2/26;** E04c 2/34

[58] **Field of Search** 52/556, 543, 544, 549, 52/522, 529, 530, 531, 542, 545, 546

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Primary Examiner—Frank L. Abbott
Assistant Examiner—Leslie A. Braun
Attorney, Agent, or Firm—Oltsch & Knoblock

[57] **ABSTRACT**

A siding unit for a building or like structure which includes an outer panel and a backing board. The outer panel of the siding unit includes a hook-shaped longitudinal edge portion which is adapted to interlock with the siding unit in the adjacent siding course. The outer panel also includes a rearwardly extending inturned hook part at its opposite longitudinal edge portion which is fitted over and interlocks with a lip formed in the longitudinal marginal portion of the backing board secured to the structure and located at the back of the outer panel.

2 Claims, 6 Drawing Figures

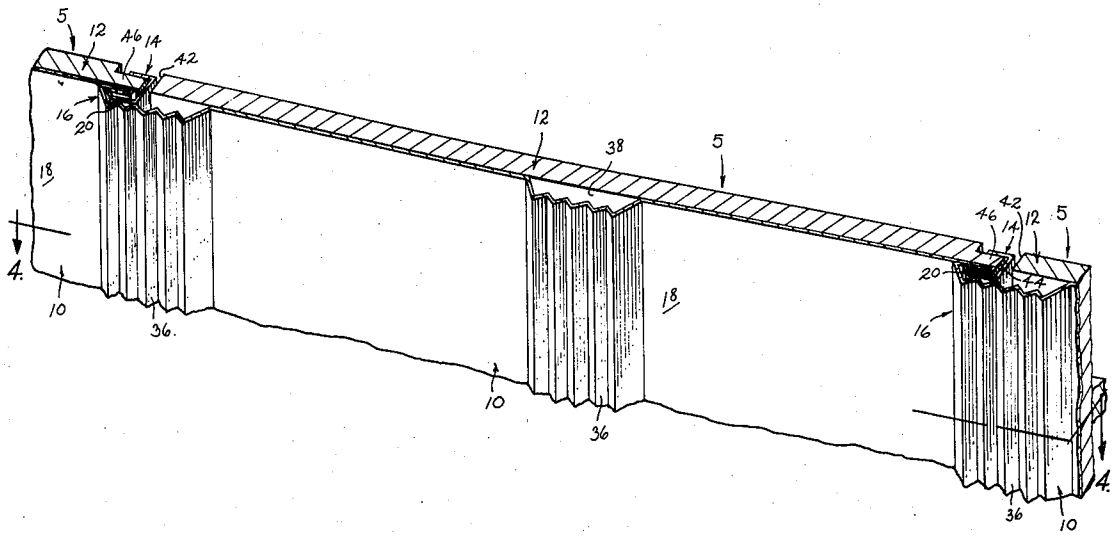


Fig. 1

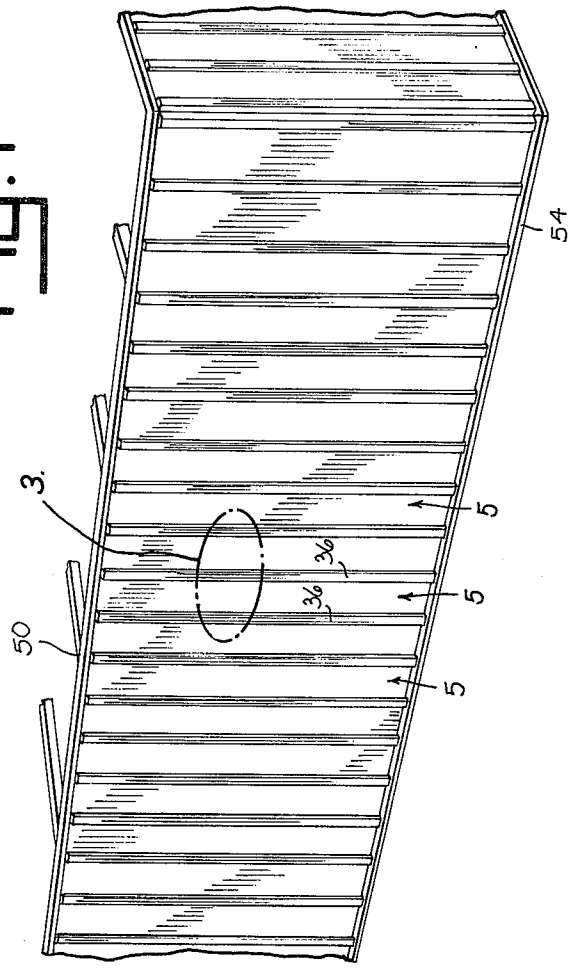

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Fig. 2

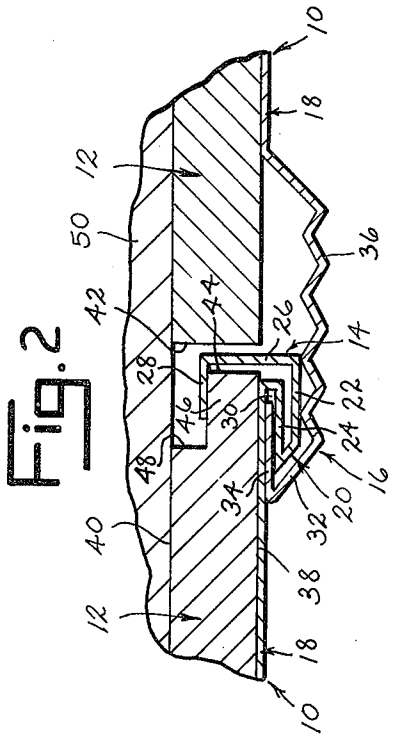

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Fig. 3

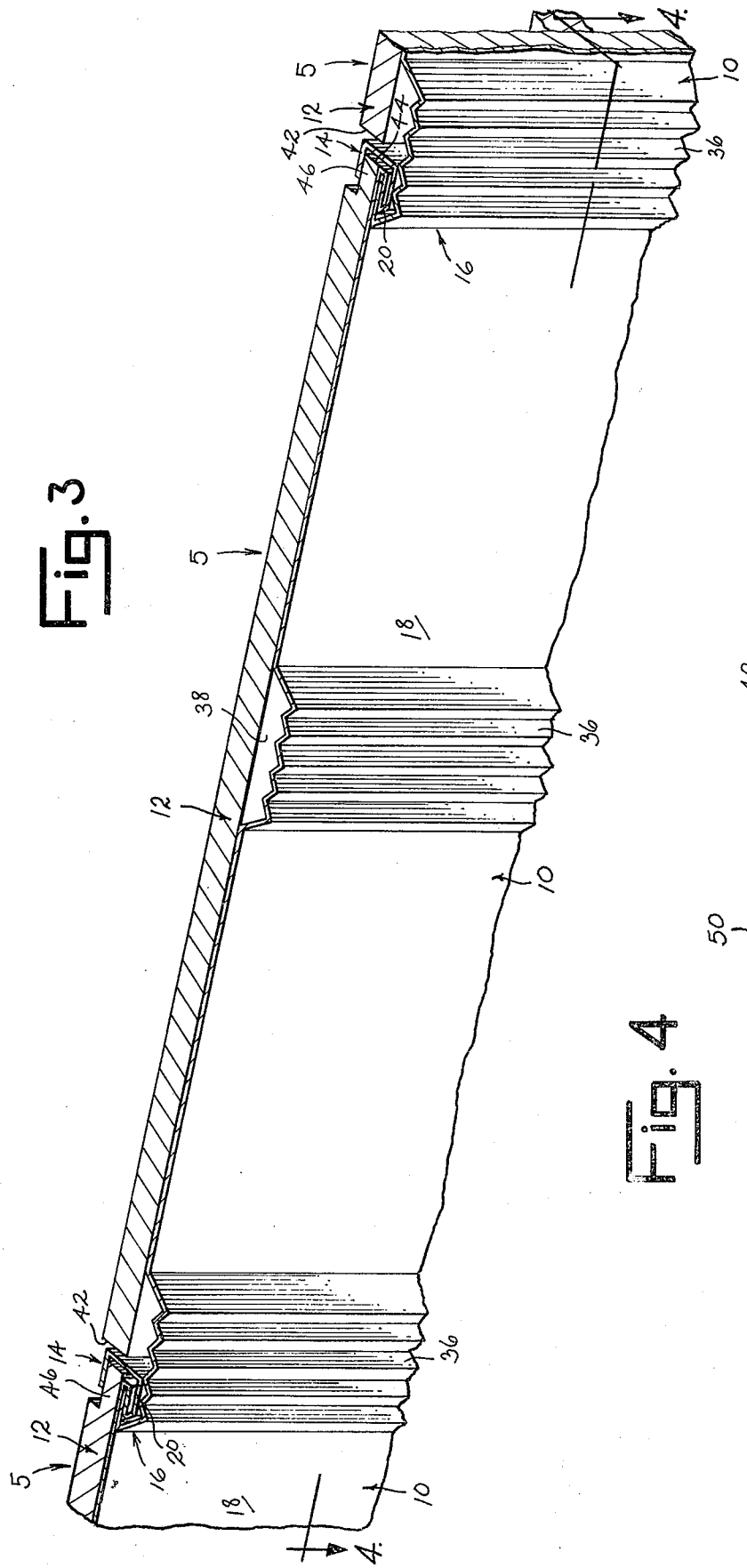
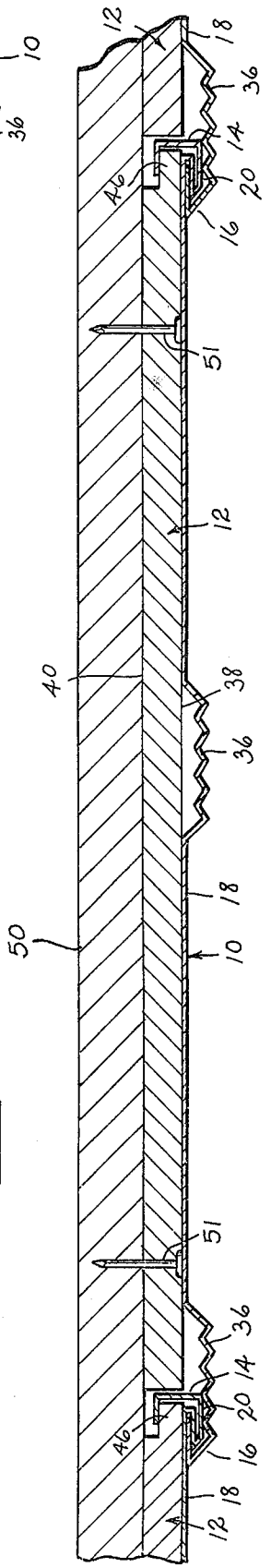


Fig. 4



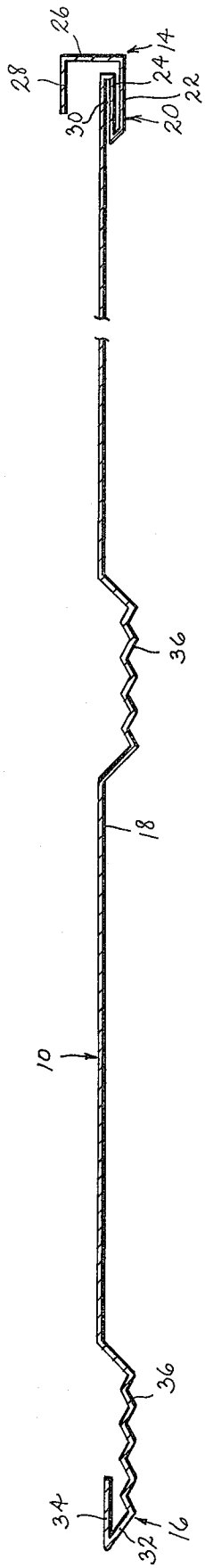


Fig. 5

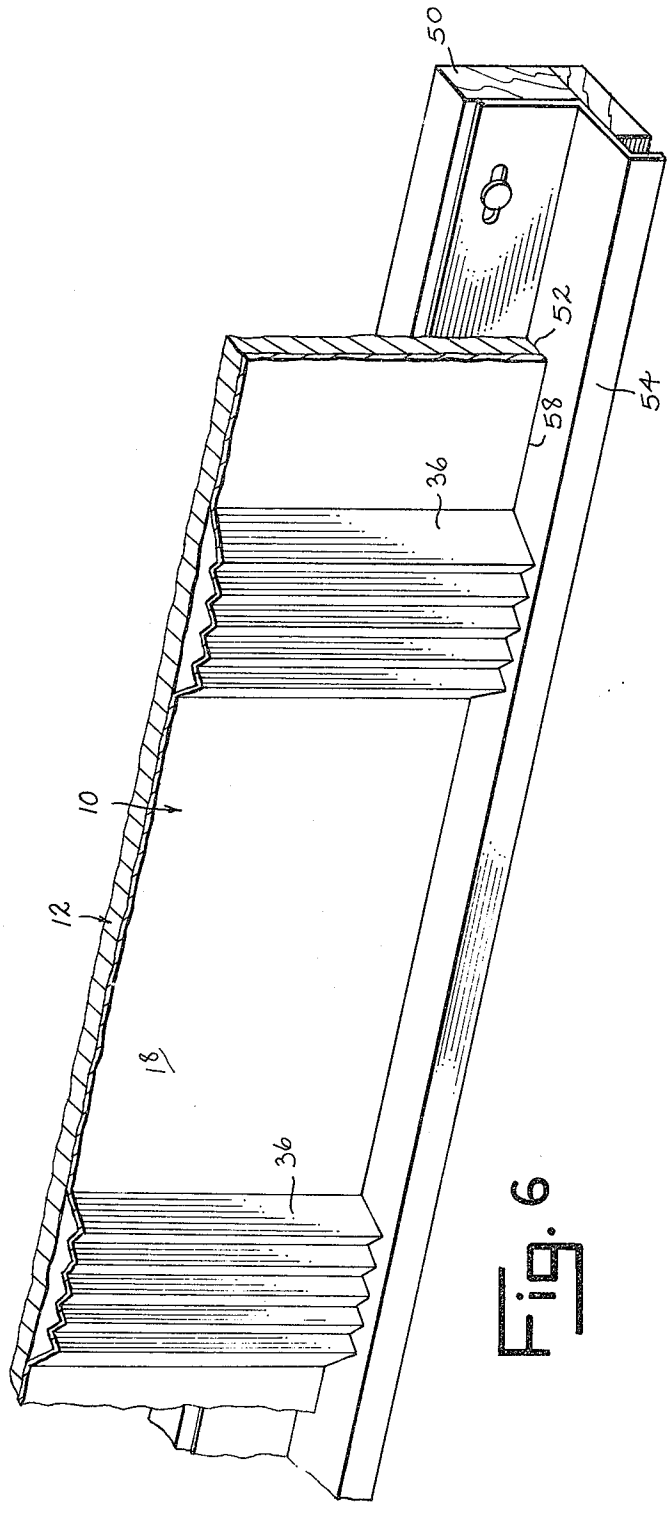


Fig. 6

BUILDING SIDING UNIT WITH INTERLOCKING BACKING BOARD AND OUTER PANEL

CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of application Ser. No. 197,031, filed Nov. 9, 1971, now U.S. Pat. No. 3,780,483.

SUMMARY OF THE INVENTION

This invention relates to a siding unit for a building or like structure.

The siding unit of this invention comprises an outer panel and a backing board. The outer panel includes a longitudinal edge portion having a rearwardly extending inturned hook part. The other longitudinal edge portion of the outer panel includes a rearwardly extending inturned lip. The backing board has a longitudinal marginal portion which is of a reduced thickness to define a lip. The backing board is secured against the building structure with its other longitudinal marginal portion near or in contact with the outer panel of the siding unit in the adjacent siding course. The outer panel of the siding unit is interlocked at its other longitudinal edge portion with the outer panel of the siding unit in the adjacent siding course and is swung rearwardly against the backing board with the hook part of the panel being snapped over and interlocked with the lip of the backing board.

Accordingly, it is an object of this invention to provide a siding unit for a building or like structure which can be applied in a simple and rapid manner.

It is another object of this invention to provide a building siding unit comprising an outer panel and a backing board in which only the backing board is fixedly secured to the underlying building structure.

Another object of this invention is to provide building siding units in which only the backing boards of the units are secured to the structure and the outer panels of the units are slidable relative to their respective backing boards and to each other.

Other objects of this invention will become apparent upon a reading of the invention's description.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a fragmentary perspective view of the building siding units of this invention shown applied in a vertical orientation to a building structure.

FIG. **2** is a detailed fragmentary view in sectional form showing the interlocking relationship of the outer panels and backing boards of the building siding units of this invention.

FIG. **3** is a fragmentary sectional view of that portion of the siding units of FIG. **1** encircled by broken line **3**.

FIG. **4** is a sectional view taken along line **4—4** of FIG. **3**.

FIG. **5** is a cross sectional view of an outer panel of the building siding units of this invention.

FIG. **6** is a fragmentary perspective view of a building siding unit abutting a horizontal retainer strip secured to the building structure.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The preferred embodiment illustrated is not intended to be exhaustive or to limit the invention to the precise form disclosed. It is chosen and described in order to best explain the principles of the invention and its application and practical use to thereby enable others skilled in the art to best utilize the invention.

Each siding unit **5** includes an outer panel **10** and a cooperating backing board **12.** Outer panel **10** may be formed by extrusion or from sheet blanks which are shaped by a series of progressive bending or forming dies and may be of a plastic composition, such as polyvinylchloride, or a metallic composition, such as aluminum. Backing board **12** is preferably formed of a rigid material, such as insulative fiberboard or a honey-comb light weight plastic.

Each outer panel **10** includes spaced longitudinal or side edge portions **14** and **16** and a face portion **18** extending between the longitudinal edge portions. Face portion **18** includes an integral retainer part **20** which extends along longitudinal edge portion **14.** Retainer part **20** preferably includes a forwardly projecting inturned double-fold extension having an outer run **22** and a spaced inner run **24.** A web **26** extends rearwardly from the upper edge of outer run **22** and terminates in an inturned lip **28** which is rearwardly spaced from face portion **18.** Inner run **24** of retainer part **20** in conjunction with face portion **18** defines an inverted channel **30.** Web **26** and lip **28** in conjunction with face portion **18** form a hook means. In other constructions of outer panel **10,** retainer part runs **22** and **24** could be in the form of a clip, such as that shown in FIG. **3** of U.S. Pat. No. 3,485,004.

Longitudinal edge portion **16** of each outer panel **10** includes a web **32** which may be angled and which terminates in an inturned lip **34** which generally parallels the plane of face portion **18.** Lip **34** of each outer panel **10** is adapted to be inserted into the retainer part channel **30** of an outer panel **10** of a siding unit in the adjacent siding course. Web **32** preferably extends forwardly of the general plane of face portion **18** and may be integrally connected to the face portion by means of an offset **36.** One or more additional offsets **36** may be formed in face portion **18** between edge portions **14** and **16** thereof.

Backing board **12** has a front face **38,** a rear face **40,** a side edge **42** and a side edge **44** which preferably parallels side edge **42.** Rear face **40** of each backing board terminates spacedly from side edge **44** to define a lip portion **46.** Lip portion **46** is separated from rear face **40** of each backing board by a shoulder **48.**

To attach the siding units of this invention to building structure **50,** a backing board **12** is first positioned against the structure in a vertical orientation with its lower end edge **52** resting upon a ledge or retainer bracket **54** which has been secured to the building structure **50** and which extends horizontally relative to the structure. Nails **51** or similar securement means are then driven through the backing board **12** and into building structure **50** to anchor the backing board to the structure. An outer panel **10** is then grasped and slid laterally until lip **34** thereof is received within channel **30** of the siding unit in the adjacent siding course. Panel **10** is then swung rearwardly against the underlying secured backing board **12** with lip **28** of the panel hook means at longitudinal edge portion **14** of the panel being flexed outwardly and snapped downwardly over lip portion **46** of the backing board, thus interlocking the panel with the underlying backing board and the panel **10** of the adjacent siding course. Lower edge **58** of each panel **10** when interlocked with its underlying backing board and outer panel in the adjacent

siding course will rest upon retainer bracket **54** as shown in FIG. **6.** With lip **28** of the outer panel **10** located between lip portion **46** of the backing board and building structure **50**, the outer panel can be released as it will remain positioned against the backing board. Another backing board **12** can now be grasped and positioned against building structure **50** with its lower edge **52** resting upon retainer bracket **54** and with its side edge **42** overlapping in contact with or in close proximity to, as illustrated in FIG. **2,** web **26** of the previously positioned outer panel **10** in the new adjacent siding course. The sequence of securing this last mentioned backing board **12** to the building structure **50** and attaching another panel **10** to the backing board is repeated as above described until siding of the structure is completed.

The width of web **26** and lip **28** of each outer panel **10** in relationship to the thickness of lip portion **46** and the depth of shoulder **48** as measured from side edge **44** of each backing board **12** is so related, as more fully described in my application Ser. No. 197,031, filed Nov. 9, 1971, incorporated herein by reference, that the interlocking arrangement between the outer panel and backing board as aforedescribed can be accomplished with face portion **18** of each outer panel **10** preferably being positioned flatly against front face **38** of its underlying backing board. As can be seen from the drawings and the above description, only the backing boards **12** of the siding units are nailed to building structure **50.** This permits the outer panels **10** of the siding units which are slidably interlocked together to expand and contract during use without buckling or distortion. Additionally, each of the outer panels of the siding units is positioned and held against the building structure by its underlying backing board.

It is to be understood that the invention is not to be limited to the details herein given, but may be modified within the scope of the appended claims.

What I claim is:

1. A siding unit for a building or like structure comprising an outer panel and a backing board, said outer panel including spaced longitudinal edge portions and a face portion extending between said edge portions, one of said edge portion including a web extending rearwardly of said face portion and terminating in an inturned lip spaced from said face portion to define hook means, retainer means extending along said one edge portion, the other of said edge portion extending rearwardly and terminating in an inturned lip, said retainer means receiving in slidable interlocking cooperating the lip of said other edge portion of an outer panel in the adjacent siding course, said backing board having spaced side edges and front and rear faces extending between said side edges, the rear face of said backing board terminating spacedly from one of said side edges to define a lip portion of reduced thickness at said one side edge, said backing board having its rear face positioned against said structure with the other of its side edges extending adjacently along and lapping the web of said one edge portion of an outer panel in another adjacent siding course and having its front face located in substantially the same plane as the front face of the backing board in said another adjacent siding course, the lip portion of said first mentioned backing board being spaced from said structure, means securing said first mentioned backing board only to said structure, said first mentioned backing board lapping the outer panel in said another adjacent siding course only at its said web, said first mentioned outer panel having the lip of its other edge portion interlocking with the retainer means of the outer panel in said another adjacent siding course, the hook means of said first mentioned outer panel being fitted over and behind the lip portion of said first mentioned backing board with the web of said first mentioned outer panel overlying the one side edge of said first mentioned backing board, whereby said first mentioned outer panel is retained in position against said structure by the outer panel in said another adjacent siding course and said first mentioned backing board, said outer panels having lower end edges, a horizontally extending retainer bracket, means securing said retainer bracket to said structure, said outer panels abutting said retainer bracket at said end edges.

2. The siding unit of claim **1** wherein said backing boards have lower end edges, said backing boards abutting said retainer bracket at their said end edges.

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