United States Patent [19]

Martin

[11] **3,841,050**

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[54] **METHOD OF FABRICATING, SHIPPING AND INSTALLING A BUILDING EXTERIOR, PANEL CLOSURE**

[75] Inventor: **Otis M. Martin,** San Jose, Calif.

[73] Assignee: **Ditz-Crane,** San Francisco, Calif.

[22] Filed: **Mar. 20, 1972**

[21] Appl. No.: **236,259**

Related U.S. Application Data

[63] Continuation of Ser. No. 51,922, July 2, 1970, abandoned.

[52] **U.S. Cl.** **52/745,** 52/555, 206/323

[51] **Int. Cl.** **E04c 2/10,** E04c 2/40

[58] **Field of Search** ..... 52/314, 409, 518, 521, 52/535, 540, 541, 554, 555, 557, 94, 127, 23; 52/741, 745; 206/46 LM, 46 AM, 46 BK, DIG. 46/16, 20, 21, 30

[56] **References Cited**

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2,232,786	2/1941	Kendall	52/557 X
2,384,686	9/1945	Kraus	52/540
3,440,777	4/1969	Martin	52/94
3,546,843	12/1970	Luebs	52/557 X

Primary Examiner—Henry C. Sutherland

Attorney, Agent, or Firm—Flehr, Hohbach, Test, Albritton & Herbert

[57] **ABSTRACT**

A method of and prefabricated panel for the construction of a building exterior in which one or more layers of a plurality of facing material is secured to a sheathing with a blank space on each end thereof. At one end of the sheathing is a full blank space and at the other end of the sheathing is a partial blank space. The full blank space is equal to the width of a facing material and the partial blank space is equal to one-half the width of a facing material. A plurality of such panels are placed end to end to form a building exterior with the full blank space of one sheathing adjacent to the partial blank space of the adjacent sheathing. A facing material substantially equal to the partial blank space, which may be temporarily secured to either one of the panels, is fixedly secured to the sheathing of one panel in the full blank space and adjacent to a facing material on the said one panel adjoining the full blank space. Another facing material, which also may be secured temporarily to either one of the panels, is fixedly secured to the sheathings of both adjacent panels over the contiguous ends thereof to occupy the remaining two partial blank spaces.

1 Claim, 7 Drawing Figures

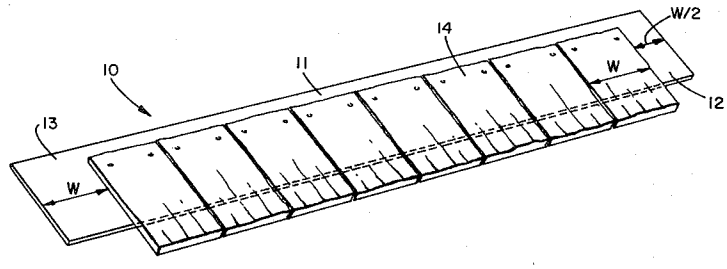


FIG. 1

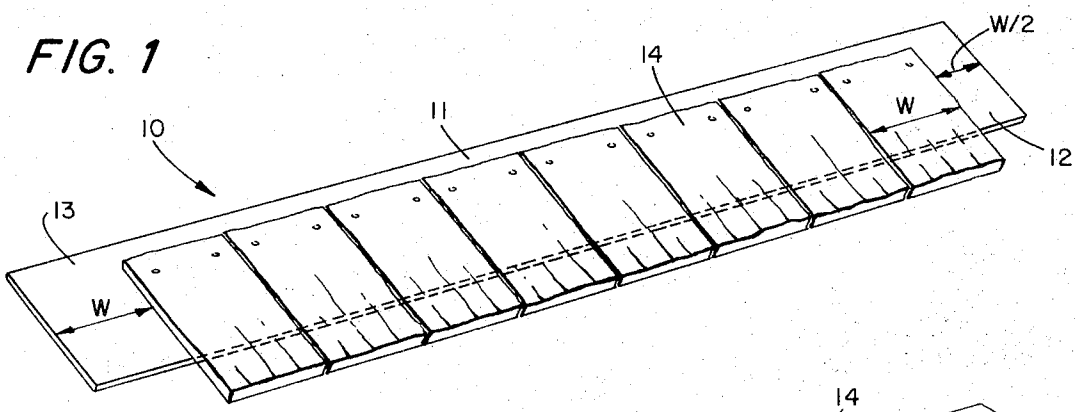


FIG. 2

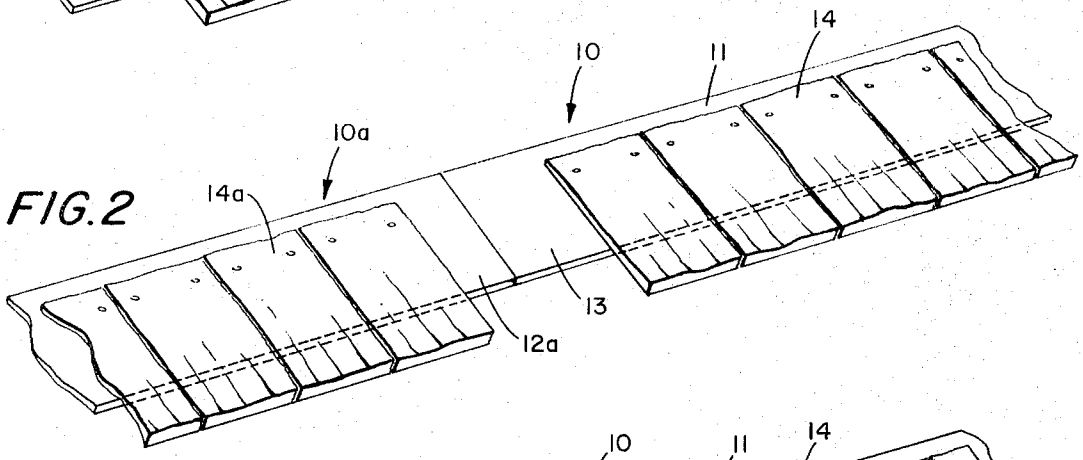
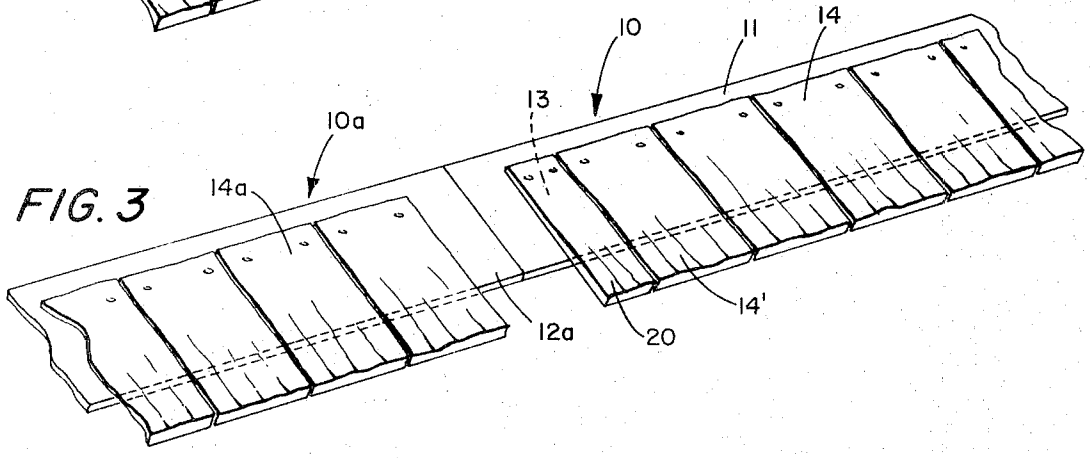


FIG. 3



INVENTOR
OTIS M. MARTIN

BY

ATTORNEY

FIG. 4

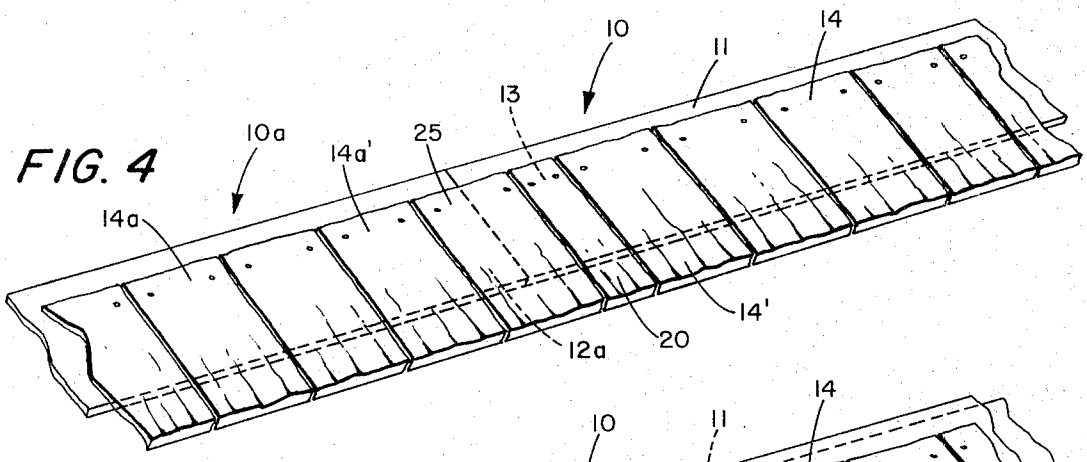


FIG. 5

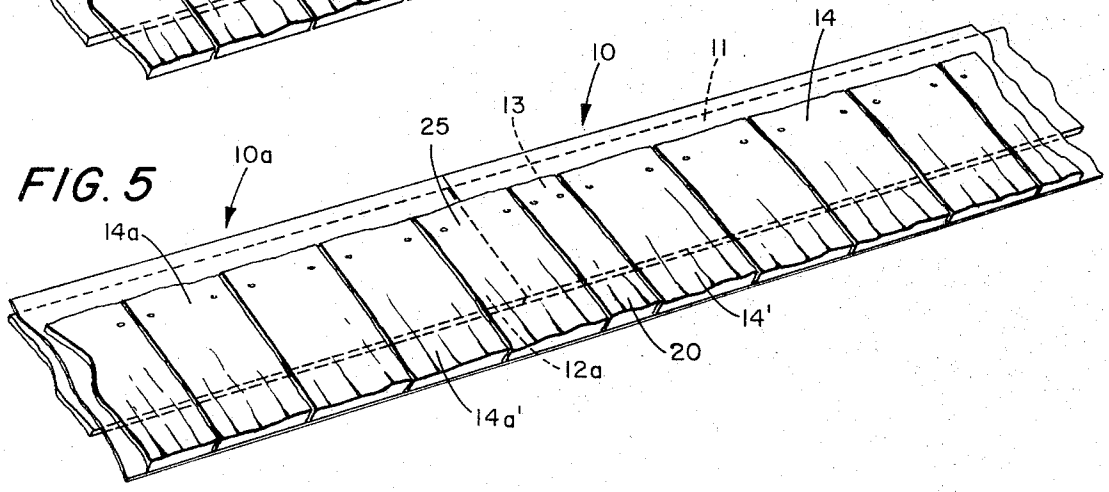
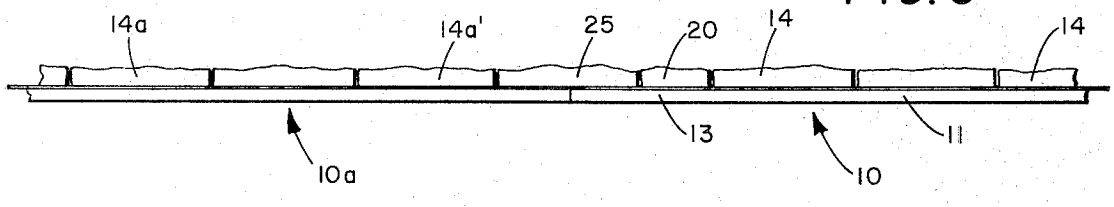


FIG. 6



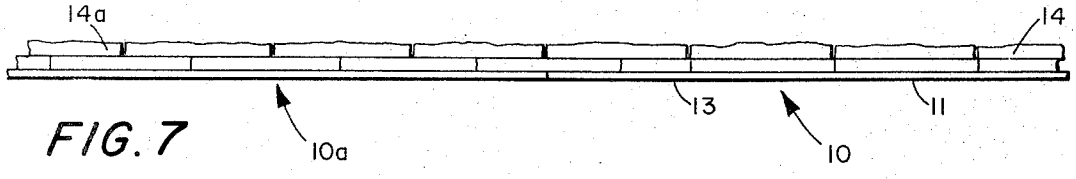


FIG. 7

INVENTOR.
OTIS M. MARTIN
Jack M. Wiseman

BY

ATTORNEY

METHOD OF FABRICATING, SHIPPING AND INSTALLING A BUILDING EXTERIOR, PANEL CLOSURE

This is a continuation, of application Ser. No. 51,922 filed July 2, 1970 and now abandoned.

BACKGROUND OF THE INVENTION

The present invention relates in general to the construction of the exterior of a building and more particularly to a method of and a prefabricated panel for the construction of a building exterior.

In the construction of a building exterior employing preassembled panels of a sheathing with layers of facing material fixed to the sheathing, there has heretofore been three basic arrangements for the joining of contiguous ends of adjacent panels. The most common arrangement for joining the contiguous ends of adjacent panels was an overlap arrangement in which the sheathing projects beyond the layers of facing material at one end of a panel and at the other end of the panel the layers of facing material project beyond the sheathing. The contiguous ends of adjacent panels were brought together to form a joint. Another arrangement for joining the contiguous ends of adjacent panels was an interlock arrangement in which the sheathing and the layers of facing material were staggered vertically at each end of the panel and complementary contiguous ends of adjacent panels were brought together in a mating, interlocking arrangement. Lastly, there was an arrangement disclosed in the U.S. Pat. to O. M. Martin, No. 3,440,777, issued on Apr. 29, 1969, for "Shake Strip Assembly For Roofing Or Siding," which appears to be an improvement over the overlapping and interlocking arrangement.

The above described arrangements with particular reference to the interlocking and overlapping arrangement require rather precise vertical or horizontal alignment. As a consequence thereof, the installation of the panels are not only more time consuming but also there is a waste of building material. The projecting ends of the facing material of the panels used in the just-referred-to arrangements tend to be easily damaged.

SUMMARY OF THE INVENTION

A method of and prefabricated panel for the construction of the exterior of a building in which a panel comprises one or more layers of a plurality of facing material fixedly secured to a sheathing with a full blank space at one end of the sheathing and a partial blank space at the other end of the sheathing.

A plurality of such panels are disposed end to end with a partial blank space of one sheathing adjacent a full blank space of another sheathing, and such panels are joined together by fixedly securing a partial facing material in a full blank space on one of the sheathings adjacent to a facing material on said one sheathing adjoining said full blank space and a full facing material is fixedly secured to said sheathings over the contiguous ends thereof to occupy the remaining two partial blank spaces.

Through the closure arrangement of the present invention for joining adjacent ends of panels to construct a building exterior, the assembling of the panels is facilitated for shipping and packaging. In addition, the installation of the panels has been simplified to not only reduce the time required to make the installation, but also the material required has been reduced. Greater

flexibility has been achieved by obviating the need for precise alignment either vertically or horizontally without sacrificing strength or water repelling capability. Further, damage to the ends of the facing material has been reduced. Lastly, the panels can be cut at the location of installation without sacrificing the desired properties attained from comparable premanufactured panel ends.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a panel of the present invention.

FIG. **2** is a perspective view of adjacent panels of the present invention disposed end-to-end.

FIG. **3** is a perspective view of adjacent panels of the present invention disposed end-to-end with a partial facing material occupying a portion of a full blank space.

FIG. **4** is a perspective view of adjacent panels of the present invention joined end-to-end according to the present invention.

FIG. **5** is a perspective view of adjacent panels of the present invention joined end-to-end according to the present invention with a sheet of waterproof membrane disposed between the sheathing and layer of facing material.

FIG. **6** is a side view of the joined end-to-end panels shown in FIG. **5.**

FIG. **7** is a side view of joined end-to-end panels embodying the present invention and shown with a plurality of layers of facing material.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Illustrated in FIG. **1** is a panel **10** of the present invention which comprises a conventional sheathing or base strip **11.** In the exemplary embodiment, the sheathing **11** may be of plywood. When desired, it may be treated for weatherproofing, waterproofing or the like. At one end of the sheathing **11** is a partial blank space **12** and at the other end of the sheathing **11** is a full blank space **13.** Fixed to the sheathing **11** is a plurality or a layer of facing material **14.** In the exemplary embodiment, the facing material **14** is disposed in substantially abutting relation in a side-by-side manner. The facing material **14** may be any suitable surfacing material such as shakes, shingles, tile, composition asbestos, veneer, peeler strip or the like. In the preferred embodiment, the width of the partial blank space **12** is one-half of the width of any unit of the facing material **14,** and the width of the full blank space **13** is equal to the width of any unit of the facing material **14.**

For constructing an exterior of a building according to the present invention, a plurality of adjacent panels similar to panel **10** are secured to the rafters or the like end-to-end in contiguous relation (FIG. **2**). Since the panels are similar in construction and function like parts of the panel adjacent to the panel **10** will be designated with the same reference numeral but with the suffix *a*. For joining the panels **10** and **10***a*, a unit of facing material **20** (FIG. **3**) with a width substantially equal to one-half the width of the full blank space **13** is fixedly secured to the sheathing **11** in the full blank space **13** but adjacent to the unit **14'** of the facing material **14** in a side-by-side substantially abutting relation thereto. Thus, one-half of the full blank space **13** is exposed, which is the portion thereof adjacent the end of

the sheathing **11**. The unit of facing material **20** may be attached to the sheathing **11***a* in a temporary removable manner before being fixedly secured in the manner above-described.

In addition to the foregoing, a unit of facing material **25** (FIG. **4**) with a width substantially equal to the width of the full blank space **13** is fixedly secured to the sheathings **11** and **11***a* over the substantially abutting, contiguous ends thereof to form a joined closure ends for the panels **10** and **10***a*. In so doing, the unit of facing material **25** occupies the partial blank space **12***a* and the previously exposed one-half of the full blank space **13** to be in substantially abutting side-by-side relation with the unit of facing material **12** and a unit of facing material **14***a'* fixed to the sheathing **11***a*. The unit of facing material may be attached to the sheathing **11** in a temporary, removable manner before being fixedly secured in the manner aforesaid. The joint of the joined end-to-end panels provide a structurally sound exterior with a waterproof seal between the joined ends of the panels.

In FIGS. **5** and **6** is illustrated a modification of the joined end-to-end panels **10** and **10***a* shown in FIG. **4**. The modified panels of FIGS. **5** and **6** are similar to the panels described in FIG. **4** with the difference that a membrane or a sheet of weatherproof or waterproof material is disposed between the sheathing and the plurality of facing material fixed to the sheathing. In those instances in which the sheathing is treated for weatherproofing or waterproofing such as by a glue, plastic-coating or the like, the membrane may be optionally omitted.

FIG. **7** is a further modification of the joined end-to-end panels **10** and **10***a* in that the facing material **14** and **14***a* constitutes more than one layer of facing material. Optionally, a membrane of waterproof material can be applied between the sheathing and the facing material fixed to the sheathing.

I claim:

1. In a building construction method making use of a plurality of elongated panels assembled together to form a building exterior, the steps of: fixedly and permanently securing units of facing material to one side of sheathing or base strips, distributing the facing units along the length of the base strips whereby at one first end of each panel the facing units are spaced from the end of the sheathing strip a distance approximately equal to the full width of a normal facing unit, and whereby at the other second end of the panel the facing material is spaced from the corresponding end of the base strip a distance approximately equal to one-half of the width of a normal facing unit, temporarily and removably securing a normal full width facing unit to the base strip adjacent the first end thereof, temporarily and removably securing a one-half width facing unit to the base strip adjacent the second end thereof, thereafter abutting two panels end to end so that the first end of the sheathing of one panel abuts the second end of the sheathing of the other panel, removing the temporarily and removably secured full width unit of facing material adjacent the first end of the one panel sheathing, removing the one half width unit of facing material temporarily and removably secured to the sheathing of the one panel adjacent the second end thereof and fixedly and permanently securing the thus removed one half width unit of facing material adjacent the units of facing material fixedly secured to the sheathing of the one panel near the first end thereof so that the one half width unit of facing material is spaced from the first end by a distance equal to approximately one half of the width of a unit of facing material, removing the one half width unit of facing material temporarily and removably secured to the second end of the other panel sheathing, and fixedly and permanently securing the full width unit of facing material which was removed from the first end of the one panel sheathing to the first end of the sheathing of the one panel and to the second end of the sheathing of the other panel whereby the full width unit of facing material overlies the abutment of the sheathing of the first and second panels.

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