(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
16 February 2006 (16.02.2006)

PCT

(10) International Publication Number
WO 2006/017582 A3

(51) International Patent Classification:
E04B 2/00 (2006.01) *E04C 1/39* (2006.01)
E04C 1/00 (2006.01)

(21) International Application Number:
PCT/US2005/027575

(22) International Filing Date: 2 August 2005 (02.08.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/912,707 5 August 2004 (05.08.2004) US

(71) Applicant *(for all designated States except US)*: **NAILITE INTERNATIONAL INC.** [US/US]; 1111 Northwest 165th Street, Miami, Florida 33169-5819 (US).

(72) Inventor; and
(75) Inventor/Applicant *(for US only)*: **PERRY, John** [US/US]; 640 SE 13th Street, Dania Beach, Florida 33004 (US).

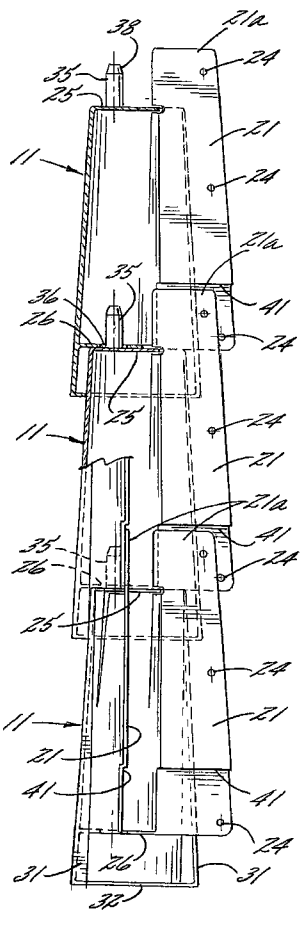
(74) Agent: **SCHLEMMER, Dennis, R.**; Leydig, Voit & Mayer, Ltd., Two Prudential Plaza, Suite 4900, 180 N. Stetson Ave., Chicago, Illinois 60601-6780 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: ROOF AND WALL COVERING WITH IMPROVED CORNER CONSTRUCTION



(57) Abstract: A wall covering for a pair of wall surfaces that form a corner. The wall covering includes (1) plurality of wall panels each having a plurality of horizontal tiers of simulated building elements and (2) a plurality of corner moldings each having a single tier of building elements. The corner moldings each have mounting flanges and an interlock and alignment pin that facilitate adjustable positioning of the corner molding with a selected tier of building elements of an adjacent wall panel. The corner molding mounting flanges and building elements further define relatively deep wall panel receiving pockets for positively retaining the side of an adjacent wall panel and forming a water barrier.

WO 2006/017582 A3

European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*
— *with amended claims*

(88) Date of publication of the international search report: 25 January 2007

Date of publication of the amended claims: 15 March 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

AMENDED CLAIMS

received by the International Bureau on 14 December 2006 (14.12.2006)

10

1. A one piece corner molding for a wall covering mountable on two wall surfaces that form a corner having a longitudinally-extending apex and which includes a plurality of laterally adjacent wall panels each formed with a plurality of horizontal tiers of simulated building elements,

said corner molding comprising a single tier of building elements having a pair of building elements disposed at an angle to each other corresponding substantially to the angle of the wall surfaces that define a corner upon which the corner molding is mountable, a pair of mounting flanges disposed at an angle to each other in underlying relation to the pair of simulated building elements for adjustable positioning in a longitudinal direction parallel to the apex of the corner defined by the wall surfaces and relative to a previously-mounted identical corner molding,

said corner molding simulated building elements each having a lower peripheral portion positionable in overlying relation to the building elements of a previously-mounted corner molding,

a longitudinally-extending interlock pin on an underside of the corner molding and adjacent one longitudinal end of the simulated building elements of the corner molding,

said corner molding being formed with an interlock pin receiving aperture on an underside of the corner molding and adjacent an opposite longitudinal end of the corner molding for engagement by an interlock pin of an identical longitudinally-adjacent corner molding of the wall covering, and

said pin receiving aperture being disposed a greater difference from its adjacent longitudinal end of the corner molding than the longitudinal length of said interlock pin such that the interlock pin can be adjustably positioned within the pin receiving aperture of a longitudinally-adjacent corner molding along the length of the pin while the lower peripheral portion of the building elements of the corner molding remain in overlying relation to the building elements of a previously-mounted corner molding.

2. The corner molding of claim 1 in which said mounting flanges have a longitudinally-extended portion at one end that extends longitudinally beyond one longitudinal end of the simulated building elements of the corner molding, and said peripheral portions of the simulated building elements of the corner molding extend beyond an opposite longitudinal end of the mounting flanges.

3. The corner molding of claim 2 in which said extended flange portions and interlock pin extend beyond a common longitudinal end of the corner molding and, said extended flange portions extend a greater longitudinal distance beyond the corner molding building elements than said interlock pin.

4. The corner molding of claim 3 in which said building element extended portions extend longitudinally beyond the mounting flanges a distance greater than the distance said interlock pin extends longitudinally beyond the building elements.

5. The corner molding of claim 1 in which said corner molding building elements and mounting flanges define a pair of longitudinally extending laterally opening recesses each for receiving and positively retaining a side end of a laterally adjacent wall panel.

6. The corner molding of claim 5 in which said recesses each extend laterally beneath the respective building element a distance corresponding to at least one-third the lateral width of the corner molding.

7. The corner molding of claim 2 in which said interlock pin and extended mounting flange portions are disposed adjacent an upper end of the corner molding and said pin receiving aperture is disposed adjacent a lower end of the corner molding.

8. The corner molding of claim 1 in which said interlock pin has a tapered terminal end portion.

9. The corner molding of claim 1 in which said mounting flanges each have a locating rib protruding into the panel receiving recess for locating the side of a wall panel in predetermined position within the recess.

10. The corner molding of claim 1 in which said mounting flanges extend from a pair of longitudinal flanges extending inwardly from an underside of the building elements.

11. The corner molding of claim 10 including transverse flanges mounted adjacent opposite ends of said longitudinal flanges, said interlock pin being mounted in outwardly extending relation to one of said transverse flanges and said interlock pin receiving aperture being formed in the other of said transverse flanges.

12. The corner molding of claim 2 in which the extended portions of said mounting flanges are separated by a space that defines a breathing opening between the corner molding and the wall surfaces upon which the corner molding is mounted.

13. A corner molding for a wall covering mountable on two wall surfaces that form a corner and which includes a plurality of laterally adjacent wall panels each formed with a plurality of horizontal tiers of simulated building elements,

said corner molding comprising a single tier of building elements having a pair of building elements disposed at an angle to each other corresponding substantially to the angle of the wall surfaces that define a corner upon which the corner molding is mountable,

a pair of mounting flanges disposed at an angle to each other in underlying relation to the pair of simulated building elements and extending substantially the longitudinal length of the building elements for mounting on the wall surfaces,

at least one longitudinal support flange disposed between said building elements and mounting flange and extending substantially the longitudinal length of the said building elements,

said corner molding building elements, at least one longitudinal support flange, and mounting flanges defining a pair of laterally-opening pockets substantially closed on three longitudinal sides by said building elements, at least one longitudinal support flange, and mounting flanges each for receiving and positively retaining an end of a laterally adjacent wall panel,

at least one longitudinally extending interlock pin disposed in underlying relation to the building elements of the corner molding, and

said corner molding being formed with an interlock pin receiving aperture for receiving the interlock pin of a longitudinally adjacent corner molding for permitting interlocking adjustable positioning of the corner molding on the wall surfaces relative to a longitudinally adjacent corner molding and a selected tier of building elements of a laterally adjacent wall panel.

14. The corner molding of claim 13 in which said pockets each extend laterally beneath the respective building element a distance corresponding to at least one-third the lateral width of the corner molding.

15. The corner molding of claim 13 in which said interlock pin is disposed at an upper end of the corner molding and said pin receiving aperture is disposed adjacent a lower end of the corner molding.

16. The corner molding of claim 14 including transverse flanges extending between said building elements and mounting panels adjacent opposite ends of the corner molding, said interlock pin extending outwardly from one of said transverse flanges and the other of said transverse flanges being formed with said interlock pin receiving aperture.

17. A wall covering for a pair of wall surfaces that form a corner having a longitudinally-extending apex comprising a plurality of wall panels each having a plurality of horizontal tiers of simulated building elements, said wall panels being mounted in partially overlapping relation to each other to cover the wall surface,

a plurality of corner moldings for laterally joining the wall panels at the corner,

said corner molding comprising a single tier of building elements having a pair of building elements disposed at an angle to each other corresponding substantially to the angle of the wall surfaces that define a corner upon which the corner molding is mountable,

said corner moldings each having a pair of mounting flanges disposed at an angle to each other in underlying relation to the pair of simulated building elements for adjustable positioning in a longitudinal direction parallel to the apex of the corner defined by the wall surfaces and relative to a previously-mounted corner molding of the wall covering,

said corner molding simulated building elements each having a lower peripheral portion positionable in overlying relation to the building elements of an underlying previously-mounted corner molding,

said corner moldings each having a longitudinally-extending interlock pin on an underside and adjacent one longitudinal end of the simulated building element of the corner molding,

said corner molding each being formed with an interlock pin receiving aperture on an underside of the corner molding and adjacent an opposite longitudinal end of the corner molding for engagement by the interlock pin of a longitudinally-adjacent corner molding of the wall covering, and

said interlock pin of one corner molding being adjustably positionable within the pin receiving aperture of a longitudinally adjacent corner molding along its longitudinal length for permitting interlocking adjustable positioning of the corner molding on the wall surfaces relative to a longitudinally-adjacent corner molding and into aligned relation to a selected tier of building elements of a laterally adjacent wall panel while the lower peripheral portions of the building elements of the corner molding remain in overlying relation to the building elements of a previously-mounted corner molding.

18. The wall covering of claim 17 in which the mounting flanges of each corner molding have a longitudinally-extended portion at one end that extends beyond one longitudinal end of the simulated building elements of the corner molding, and the peripheral portions of the simulated building elements of the corner molding extend beyond an opposite lateral end of the mounting flanges.

19. The wall covering of claim 18 in which said extended portions of the mounting flanges of each corner molding are disposed in underlying relation to the mounting flange of a longitudinally adjacent corner molding.

20. The wall covering of claim 18 in which said extended flange portions of each corner molding extend a greater longitudinal distance beyond the corner molding building elements than said interlock pin.

21. The wall covering of claim 18 in which said corner molding building elements and mounting flanges of each corner molding define a pair of longitudinally extending laterally opening recesses each for receiving and positively retaining a side end of a laterally adjacent wall panel.

22. The wall covering of claim 18 in which said interlock pin and extended mounting flange portions of each corner molding are disposed at a common longitudinal end of the corner molding.

23. The wall covering of claim 18 in which said mounting flange extended portions of each corner molding have a locating rib protruding into the panel receiving recess for locating the side end of a wall panel in predetermined position within the recess.

24. A wall covering for a pair of wall surfaces that form a corner comprising a plurality of wall panels each having a plurality of horizontal tiers of simulated building elements, said wall panels being mounted in partially overlapping relation to each other to cover the wall surface,

a plurality of corner moldings for laterally joining the wall panels at the corner, said corner molding each comprising a single tier of building elements having a pair of building elements disposed at an angle to each other corresponding substantially to the angle of the wall surfaces that define a corner upon which the corner molding is mountable,

said corner moldings each having a pair of mounting flanges disposed at an angle to each other in underlying relation to the pair of simulated building elements and extending substantially the longitudinal length of the building elements for mounting on the wall surfaces,

said corner molding each having at least one longitudinal support flange disposed between said building elements and mounting flanges and extending substantially the longitudinal length of the said building elements,

said corner molding building elements, at least one longitudinal support flange, and mounting flanges of each corner molding defining a pair of laterally-opening pockets substantially closed on three longitudinal sides by said building elements, at least one longitudinal support flange, and mounting flanges for receiving and positively retaining a side end of a laterally adjacent wall panel,

said corner moldings each having at least one interlock pin extending beyond one longitudinal end of the simulated building elements of the corner molding, and

said corner moldings each being formed with an interlock pin receiving aperture for receiving the interlock pin of a longitudinally adjacent corner molding for permitting interlocking adjustable positioning of the corner molding on the wall surfaces relative to an adjacent corner molding and into aligned relation to a selected tier of building elements of a laterally adjacent wall panel.

25. The wall covering of claim 24 in which said pockets of each corner molding extend laterally beneath a respective building element a distance corresponding to at least one-third the lateral width of the corner molding.

26. The wall covering of claim 24 in which said interlock pin of each corner molding is disposed at an upper end of the corner molding and said pin receiving aperture is disposed adjacent a lower end of the corner molding.