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(54) MOLDING KITS AND METHODS OF **INSTALLATION THEREOF**

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(57) ABSTRACT

A kit for crown moldings includes crown moldings, corner moldings, joint covers, clips, and corner stems. The clips and corner stems may be secured along the walls (e.g., a room) of a structure at its ceiling. The crown moldings and joint covers may be friction fit with the clips, and the corner moldings may be friction fit with the corner stems. The crown moldings, corner moldings, and joint covers may be constructed of a polymer, such as polyurethane. The crown moldings, corner moldings, and joint covers may be secured without any direct nail, screw, or glue attachment and do not require coping cuts to install.









FIG. 1A



FIG. 1C



FIG. 1D



18



12

14





FIG. 2B





16

FIG. 2D

FIG. 2C



FIG. 2E





10~~











FIG. 8

MOLDING KITS AND METHODS OF INSTALLATION THEREOF

TECHNICAL FIELD

[0001] The present disclosure relates to architectural moldings. More specifically, the disclosure is directed towards crown molding systems, or kits, and methods of installation thereof. In particular, the disclosure is directed towards a kit for installing crown molding to a structure, such as around the top of walls of a residential room, having one or more interior corners. The kit comprises one or more crown moldings, one or more corner moldings, one or more joint covers, a plurality of clips, clip fastener elements, a stem body, and a corner stem fastener element.

BACKGROUND OF INVENTION

[0002] Architectural crown moldings are a highly desirable and sought feature of structures, particularly residential homes. Traditionally, crown moldings have been constructed of wood or plaster, which are expensive and time consuming to install. Indeed, homeowners are often not able to install wood or plaster crown moldings themselves and require skilled laborers to perform such tasks. Moreover, installation of traditional crown moldings often requires two or more installers, especially given the length of the crown molding and the room height at which they are installed.

[0003] Complications associated with the installation of traditional crown molding include requiring coping cuts for coped joints (e.g., for crown moldings meeting at interior corners of intersecting walls). In the coping cut, a crown molding piece must be miter cut and then coped to match the profile of the intersecting crown molding piece. Similarly, long runs of crown molding must be joined by complicated scarf cuts. In addition, wall studs must be located for nailing the crown molding to the walls. Crown molding joints and nail divots must also be caulked, and installed crown molding must be painted. This complicated installation process prevents many from installing new crown moldings. Thus, a need exists for an easy and convenient crown molding system to install crown molding to a structure.

BRIEF SUMMARY

[0004] In one aspect, a kit for installing crown molding to a structure having one or more interior corners is disclosed. The structure may include an intersection of one or more walls and a ceiling of an interior room. The kit includes one or more crown moldings each including an elongated body. The kit includes one or more corner moldings each configured to be cooperatively received in one of the interior corners of the structure. The kit includes one or more joint covers.

[0005] The kit includes a plurality of clips. Each of the plurality of clips includes a clip body including an arm extending outwardly and a leg extending downwardly from the arm, a clip tab disposed on each of the arm and the leg, the clip tab configured to cooperatively engage and secure the one or more joint covers or the elongated body of one of the plurality of crown moldings, and a clip fastener element to secure the plurality of clips to the structure.

[0006] The kit includes one or more corner stems. Each corner stem includes a stem body configured to be cooperatively received in the interior corner of the structure, one or more stem tabs disposed on the corner stem, the one or more

stem tabs configured to cooperatively engage and secure one or the one or more corner moldings, and a corner stem fastener element to secure each of the one or more corner stems with each of the one or more interior corners.

[0007] The plurality of clips may include a clip fastener element to secure the clips with the structure. The clip fastener element may include an aperture configured to receive a nail or a screw disposed in the clip body. The corner stem may include a corner stem fastener element comprising an aperture configured to receive a nail or a screw or disposed in the clip body.

[0008] In another aspect, a method of installing crown molding to a structure having one or more interior corners is disclosed. The method includes securing a plurality of clips with the structure. Each of the clips includes a clip body including an arm extending outwardly and a leg extending downwardly from the arm and a clip tab disposed on each of the arm and the leg.

[0009] The method includes securing one or more corner stems configured to be cooperatively received in one or more interior corners to the one or more interior corners. The method includes securing two or more crown moldings with the secured plurality of clips.

[0010] The method includes positioning a joint cover between the two or more crown moldings and securing the positioned joint cover with one of the plurality of clips. The clips or corner stems may be secured by fastening (e.g., nailing or screwing) the clips or stems to the structure.

BRIEF DESCRIPTION OF DRAWINGS

[0011] It should be noted that identical features in different drawings are shown with the same reference numeral.

[0012] FIGS. 1A-1E show one embodiment of a kit.

[0013] FIGS. 2A-2E show another embodiment of a kit.

[0014] FIGS. 3A-3E show yet another embodiment of a kit.

[0015] FIGS. **4**A-**4**E show still another embodiment of a kit.

[0016] FIG. **5** shows a corner stem according to an embodiment of a kit.

[0017] FIG. **6** shows a corner stem, crown molding, and clips according to an embodiment of a kit.

[0018] FIG. **7** shows a joint cover and crown moldings according to an embodiment of a kit.

 $[0019]\,$ FIG. 8 shows a corner molding according to an embodiment of a kit.

DETAILED DESCRIPTION

[0020] Reference now will be made in detail to the embodiments of the present disclosure. It will be apparent to those of ordinary skill in the art that various modifications and variations can be made to the teachings of the present disclosure without departing from the scope of the disclosure. For instance, features illustrated or described as part of one embodiment can be used with another embodiment to yield a further embodiment.

[0021] Thus, it is intended that the present disclosure covers such modifications and variations as come within the scope of the appended claims and their equivalents. Other objects, features, and aspects of the present disclosure are disclosed in or are apparent from the following description. It is to be understood by one of ordinary skill in the art that the present disclosure is a description of exemplary embodi-

ments only and is not intended as limiting the broader aspects of the present disclosure.

[0022] For the sake of clarity, not all reference numerals are necessarily present in each drawing Figure. In addition, positional terms such as "upper," "lower," "side," "top," "bottom," "vertical," "horizontal," etc. refer to the kit when in the orientation shown in the drawings. The skilled artisan will recognize that the kit can assume different orientations when in use.

[0023] Kits and methods for installing crown molding have been developed. The kits and methods are intended to enable the easy and convenient installation of crown molding on a structure (e.g., at the intersection, or junction, of one or more walls and a ceiling). In addition to enabling easy installation, the kits and methods also enable attractive and paintable crown molding to be installed in a structure without visible nail holes or complicated molding cuts.

[0024] Referring now to the kit 10 of FIGS. 1A-8, a kit 10 includes one or more crown moldings 12 each including an elongated body 14. The elongated body 14 may comprise a face 16. The face 16 may include surface ornamentation 18, such as various designs, ledges, indentations, leaves, florets, etc. The crown moldings 12 may have a cross-sectional profile 20, as shown in FIG. 1A. The cross-sectional profile 20 may be the cross-sectional profile 20 of the crown molding at a lateral end (not shown) of the crown molding 12.

[0025] The kit 10 may include one or more corner moldings 22. The corner molding 22 may include an orthogonal profile 24 that forms an interior corner, such as shown in FIGS. 1C, 2C, 3C, and 4C. Alternatively, the corner molding 22 may include an orthogonal profile that forms an outside corner, such as shown in FIG. 8. Many rooms of a structure include one or more interior corners and outside corners. The corner moldings 22 having a profile that forms an interior corner or an outside corner enable crown molding to conveniently and attractively be installed around interior corners and outside corners, respectively, of the structure. The kit may include any number of corner moldings 22 (e.g., one, two, three, four, five, six, or more) having an interior corner profile and/or any number of corner moldings 22 (e.g., one, two, three, four, five, six, or more) having an outside corner.

[0026] The corner molding 22 may include wall surfaces 26 that face inwardly toward the wall of the structure. The wall surfaces 26 may include complementary inner surface 32 having a profile configured to cooperatively receive, or fit with, the profile 20 of the crown molding 12. When two crown moldings 12 are installed generally orthogonal to one another (i.e., around an interior corner or an outside corner), the corner molding 22 may fit over the two generally orthogonal crown moldings 12, thereby eliminating any visual gap created by the two generally orthogonal crown moldings 12. Advantageously, this enables the orthogonal crown moldings 12 to be imprecisely cut for installation, avoiding the need for exact measuring and corresponding cutting. Moreover, the cooperative fit of the corner moldings 22 and the crown moldings 12 also avoids the need for coping the crown moldings 12, as is typically required with traditional crown molding installation.

[0027] The corner molding 22 may include an engagement feature 28 for secure engagement (e.g., by a friction fit) of the corner molding 22 with a corresponding stem tab 56 of a corner stem 30 (FIGS. 5 and 6) configured to be fastened

to an interior corner of the structure. The engagement feature 28 may include orthogonally disposed stops 29 to assist in placement and positioning of the corner molding 22, as the stops 29 abut the corner of the walls of the structure. The corner molding 22 may include the complementary inner surface 32 shaped to be cooperatively disposed over the crown molding 12. In particular, the complementary inner surface 32 may be dimensioned, or shaped, such that it fits over the surface ornamentation 18 of the orthogonal crown moldings 12, thus attractively covering an open corner seam of orthogonal crown moldings 12. Advantageously, the corner molding 22 also allows for imprecise cuts to be made to the length of the crown moldings 12, as the corner molding 22 overlaps with crown moldings 12 when secured in position. The corner molding 22 may comprise surface ornamentation that is the same, different from, or coordinating with the surface ornamentation 18 of the crown moldings 12.

[0028] The kit 10 may comprise one or more joint covers 34. The joint covers 34 may be configured to be received by a clip 36, such as by a friction fit. The clips 36 and the crown moldings 12 may also be configured such that the clips 36 can securely receive the crown moldings 12, such as by a friction fit with tabs 40, thereby securing the crown moldings 12 with the structure. The clips 36 may be fastened directly to the structure by a clip fastener element 41 (FIGS. 6 and 7), such as by screws, nails, or adhesive. The clips 36 may comprise a clip body 38 having an L-shaped profile, with a tab 40 disposed at each of an arm 42 and a leg 44 of the body 38. The tabs 40 are configured to cooperatively engage and secure the one or more joint covers 34 and the elongated body 14 of the crown moldings 12.

[0029] The joint cover 34 may cover an open seam between two laterally extending crown moldings 12. Advantageously, the joint cover 34 allows for imprecise cuts to be made to the length of the crown moldings 12, as the joint cover 34 overlaps with crown moldings 12 when secured in position. The joint cover 34 may comprise surface ornamentation that is the same, different from, or coordinating with the surface ornamentation 18 of the crown moldings 12.

[0030] The kit 10 may include one or more corner stems 30, as shown in FIGS. 5 and 6. Each corner stem 30 may include a stem body 48 configured to be cooperatively received in an interior corner of the structure. The corner stems 30 may include the one or more stem tabs 56 disposed in an orthogonal position on the stem body 48, the stem tabs 56 configured to form a friction fit with the corner molding 22 to secure the corner molding 22. The corner stems 30 may include a corner stem fastener element 46 (such as a screw, nail, or adhesive) to secure each of the one or more corner stems 30 with each of the one or more interior corners of the structure. The corner stem fastener elements 46 may be disposed in, for example, a pair of orthogonal extensions 52 that extend from the stem body 48.

[0031] In examples of clip fastener element 41 and corner stem fastener element 46 using a nail, or screw, the fastener elements 41, 46 may include an aperture 54 through which the nail, or screw, can be disposed to secure the respective clip 36 or corner stem 30, to the structure.

[0032] The crown moldings 12, joint cover 34, and corner moldings 22 may be constructed of one or more non-metal or non-wood materials, such as a polymer. In some embodiments, the crown moldings 12, joint cover 34, and corner moldings 22 are constructed of polyurethane. The crown

moldings **12**, joint cover **34**, and corner moldings **22** may be paintable. Each of these components may be integrally formed so as to minimize potentially unsightly seams.

[0033] A method of installing crown molding 12 to a structure having one or more interior corners is disclosed. The method includes securing the plurality of clips 36 with the structure (e.g., spaced along a junction of a wall and ceiling of a room) with fastener element 41. For example, the clips 36 may be secured by screwing a screw or nailing a nail through the aperture 54. The method may include positioning and securing the one or more corner stems 30 in the interior corners of the structure by corner stem fastener element 46 (e.g., screwing or nailing the corner stems 30 with each of the interior corners).

[0034] The method may include measuring, or estimating (by eye or rough measurement), the length of the crown moldings **12** needed to be disposed along the junction of the wall(s) and ceiling. The method may include cutting the crown moldings **12** to a predetermined length based on the measuring or estimating.

[0035] The crown moldings 12 may be secured by friction fit (e.g., snapped) with the secured clips 36 such that the elongated body 14 of the crown molding 12 is disposed along the junction of the wall and ceiling. A space, or gap, having no crown molding 12 may be positioned between adjacent or orthogonal crown moldings 12, with the gap having one of the clips 36 disposed therein between adjacent crown moldings 12 or one of the corner stems 30 between orthogonal crown moldings 12.

[0036] The joint cover 34 may be positioned over the gap between adjacent crown moldings 12 and secured with the clip 36 disposed within the gap by, for example, friction fitting the joint cover 34 with the clip 36. The crown moldings 12, corner molding 22, and joint cover 34 may be secured to the structure without nails, screws, or adhesive directly attaching the crown moldings 12, corner molding 22, and joint cover 34 with the structure.

[0037] When secured, the corner molding 22 may overlap with two orthogonal crown moldings 12. The corner molding 22 may, when looking from within the structure, cover the entire orthogonal gap and overlap with the crown moldings 12. When secured, the joint cover 34 may overlap with two adjacent, or proximate, crown moldings 12 that extend along the same direction. The joint cover 34 may, when looking from within the structure, cover the entire gap and overlap with the crown moldings 12.

[0038] The method may include painting the crown moldings 12, joint cover 34, and/or corner moldings 22 before securing them to the corresponding clips 36 or corner stems 30. The number of components in the kit 10 may be varied depending on the size and configuration of the structure (i.e., number of walls, length of walls, number of corners, size of room, etc.).

[0039] Although embodiments of the disclosure have been described using specific terms, devices, and methods, such description is for illustrative purposes only. The words are words of description rather than of limitation. It is to be understood that changes and variations may be made by those of ordinary skill in the art without departing from the spirit or scope of the present disclosure, which is set forth in the following claims. It is further noted that any range provided herein provides support and a basis for any subset

within that range. Further embodiments of the disclosure contain combinations, or exclusions, of different embodiments described herein.

[0040] Thus, although there have been described particular embodiments of the present invention of a new and useful kit for crown molding, it is not intended that such references be construed as limitations upon the scope of this invention except as set forth in the following claims.

What is claimed is:

1. A kit for installing crown molding to a structure having one or more interior corners, the kit comprising:

- one or more crown moldings each including an elongated body;
- one or more corner moldings each configured to be cooperatively received in an interior corner of a structure;

one or more joint covers;

- a plurality of clips each including:
 - a clip body including an arm extending outwardly and a leg extending downwardly from the arm,
 - a clip tab disposed on each of the arm and the leg, the clip tab configured to cooperatively engage and secure the one or more joint covers or the elongated body of one of the one or more crown moldings, and
 - a clip fastener element to secure the plurality of clips to the structure; and
- one or more corner stems, each corner stem including:
 - a stem body configured to be cooperatively received in the interior corner of the structure,
 - one or more stem tabs disposed on the corner stem, the one or more stem tabs configured to cooperatively engage and secure one or the one or more corner moldings, and
 - a corner stem fastener element to secure each of the one or more corner stems with each of the one or more interior corners.

2. The kit of claim 1, wherein the corner stem fastener element comprises an aperture disposed in the stem body, the aperture configured to receive a nail or a screw.

3. The kit of claim **1**, wherein the clip fastener element comprises an aperture disposed in the clip body, the aperture configured to receive a nail or a screw.

4. The kit of claim 1, wherein the structure comprises an intersection of one or more walls and a ceiling of an interior room.

5. The kit of claim 1, wherein the one or more crown moldings are constructed of a polymer.

6. The kit of claim 1, wherein the one or more crown moldings are constructed of polyurethane.

7. The kit of claim 1, wherein each of the one or more crown moldings comprises surface ornamentation, and wherein each of the one or more corner moldings comprises an inner surface having a profile complementary to the surface ornamentation.

8. A method of installing crown molding to a structure having one or more interior corners, comprising:

- securing a plurality of clips with the structure, each clip including:
 - a clip body including an arm extending outwardly and a leg extending downwardly from the arm, and
 - a clip tab disposed on each of the arm and the leg;
- securing one or more corner stems configured to be cooperatively received in one or more interior corners to the one or more interior corners;

securing two or more crown moldings with the secured plurality of clips;

positioning a joint cover between the two or more crown moldings; and

securing the positioned joint cover with one of the plurality of clips.

9. The method of claim 8, wherein the securing of the plurality of clips with the structure comprises nailing or screwing the plurality of clips to the structure.

10. The method of claim 8, wherein the securing of the one or more corner stems with the one or more interior corners comprises nailing or screwing the one or more corner stems with the one or more interior corners.

11. The method of claim **8**, wherein the two or more crown moldings are constructed of a polymer.

12. The method of claim **8**, wherein the two or more crown moldings are constructed of polyurethane.

13. The method of claim 8, wherein the securing of the two or more crown moldings comprises friction fitting the two or more crown moldings with the plurality of clips.

14. The method of claim 8, further comprising securing a corner molding with the one or more corner stems.

15. The method of claim **14**, wherein the two or more crown moldings, corner molding, and joint cover are secured to the structure without nails, screws, or adhesive directly attaching the two or more crown moldings, corner molding, and joint cover with the structure.

 $\mathbf{16}$. The method of claim $\mathbf{15}$, wherein the two or more crown moldings and joint cover are secured with the clips by friction fit, and wherein the corner molding and one or more corner stems are secured by a friction fit.

17. The method of claim 14, wherein the securing of the corner molding comprises friction fitting the corner molding with the one or more corner stems.

18. The method of claim **14**, wherein the corner molding overlaps with two orthogonal crown moldings.

19. The method of claim **8**, wherein the secured joint cover overlaps with the two or more crown moldings.

20. The method of claim **19**, wherein the two or more crown moldings are adjacent.

21. The method of claim **8**, wherein the two or more crown moldings and joint cover are secured to the structure without nails, screws, or adhesive directly attaching the two or more crown moldings and joint cover with the structure.

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