



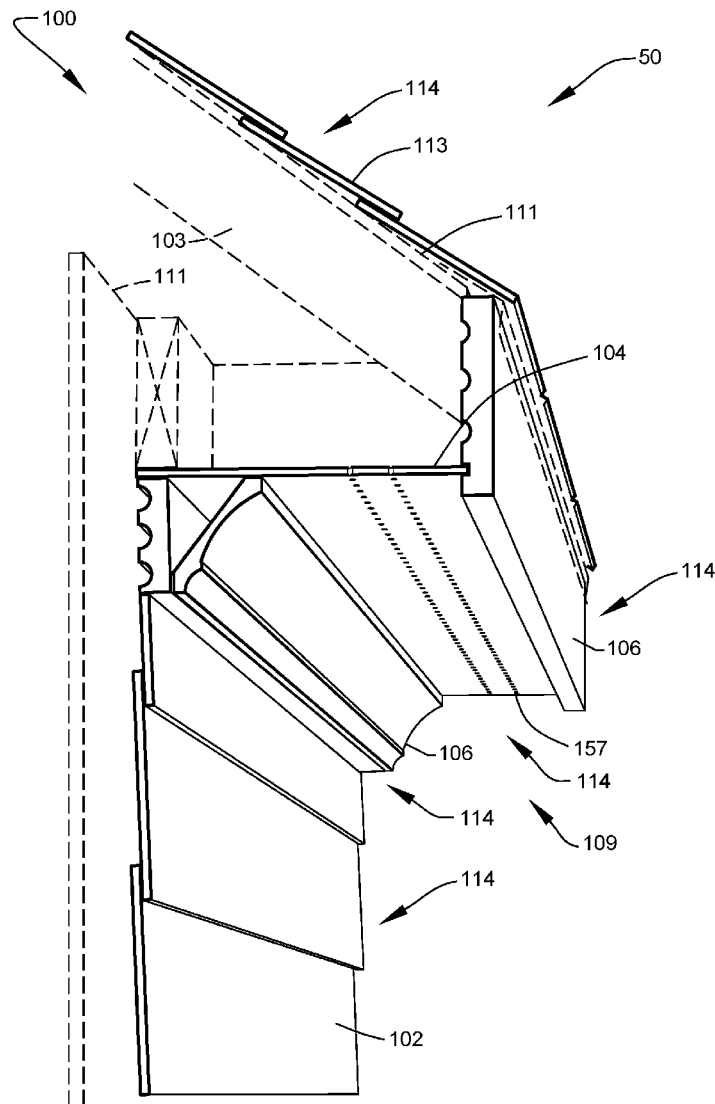
US 20190186146A1

(19) **United States**(12) **Patent Application Publication**
Savchyshyn(10) **Pub. No.: US 2019/0186146 A1**(43) **Pub. Date: Jun. 20, 2019**(54) **EXTERIOR FINISH SYSTEM AND METHOD**(71) Applicant: **Vitaliy Savchyshyn**, Coquitlam (CA)(72) Inventor: **Vitaliy Savchyshyn**, Coquitlam (CA)(21) Appl. No.: **15/588,403**(22) Filed: **May 5, 2017****Publication Classification**(51) **Int. Cl.***E04D 13/158* (2006.01)*E04D 13/152* (2006.01)*E04D 13/17* (2006.01)(52) **U.S. Cl.**CPC *E04D 13/158* (2013.01); *E04D 13/178*
(2013.01); *E04D 13/152* (2013.01)

(57)

ABSTRACT**EXTERIOR FINISH SYSTEM AND METHOD**

An exterior finish system usable in building construction, the system generally comprises at least one wall-sheathing element configured to sheath exterior surfaces of a built structure, the at least one wall-sheathing element constructed of at least one carbon-fiber composite; at least one soffit covering element configured to cover soffit areas of the built structure, the at least one soffit covering element constructed of the at least one carbon-fiber composite; and at least one trim element configured to trim the at least one wall-sheathing element and the at least one soffit covering element, the at least one trim element constructed of the at least one carbon-fiber composite. A kit and method is also disclosed.



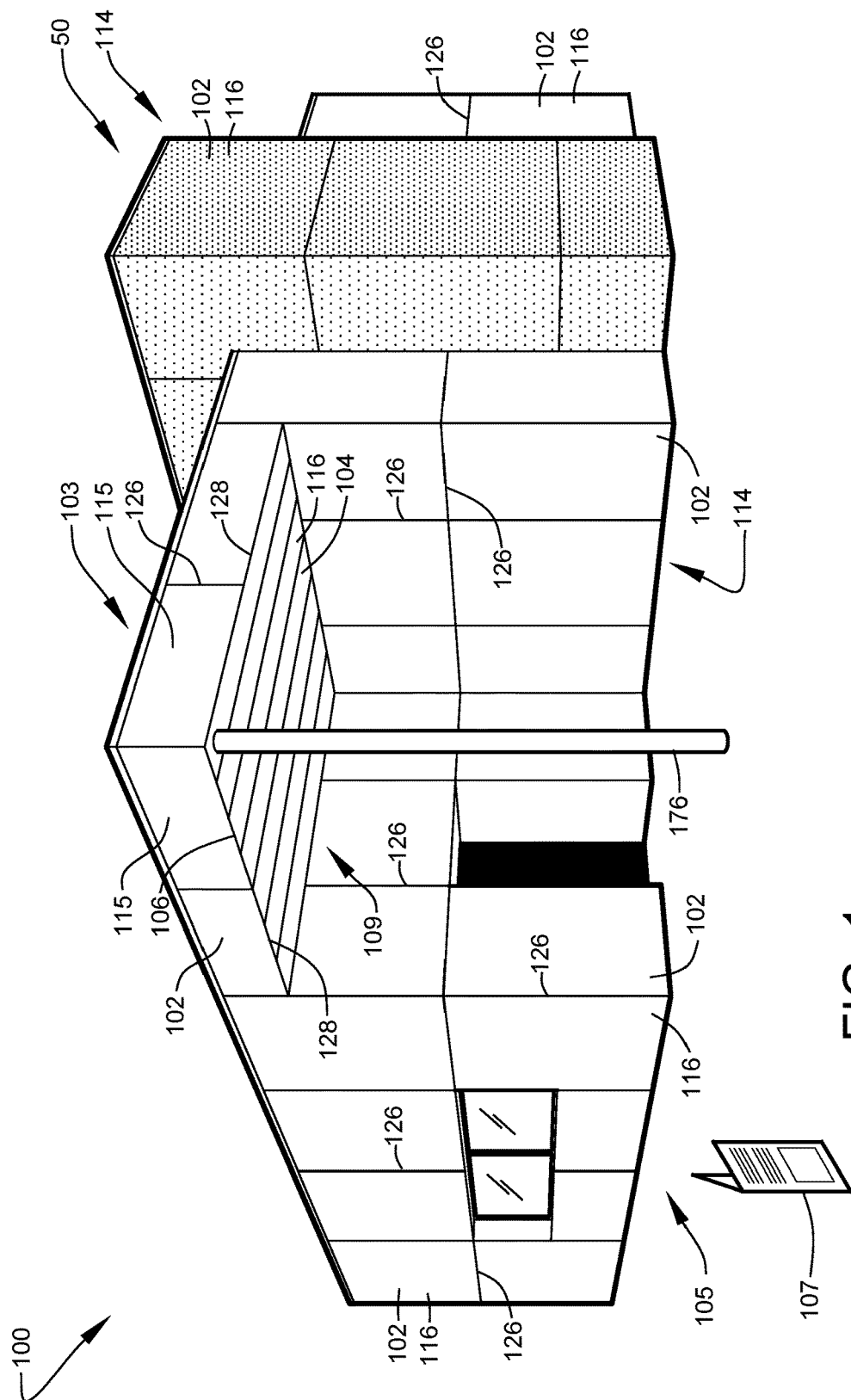


FIG. 1

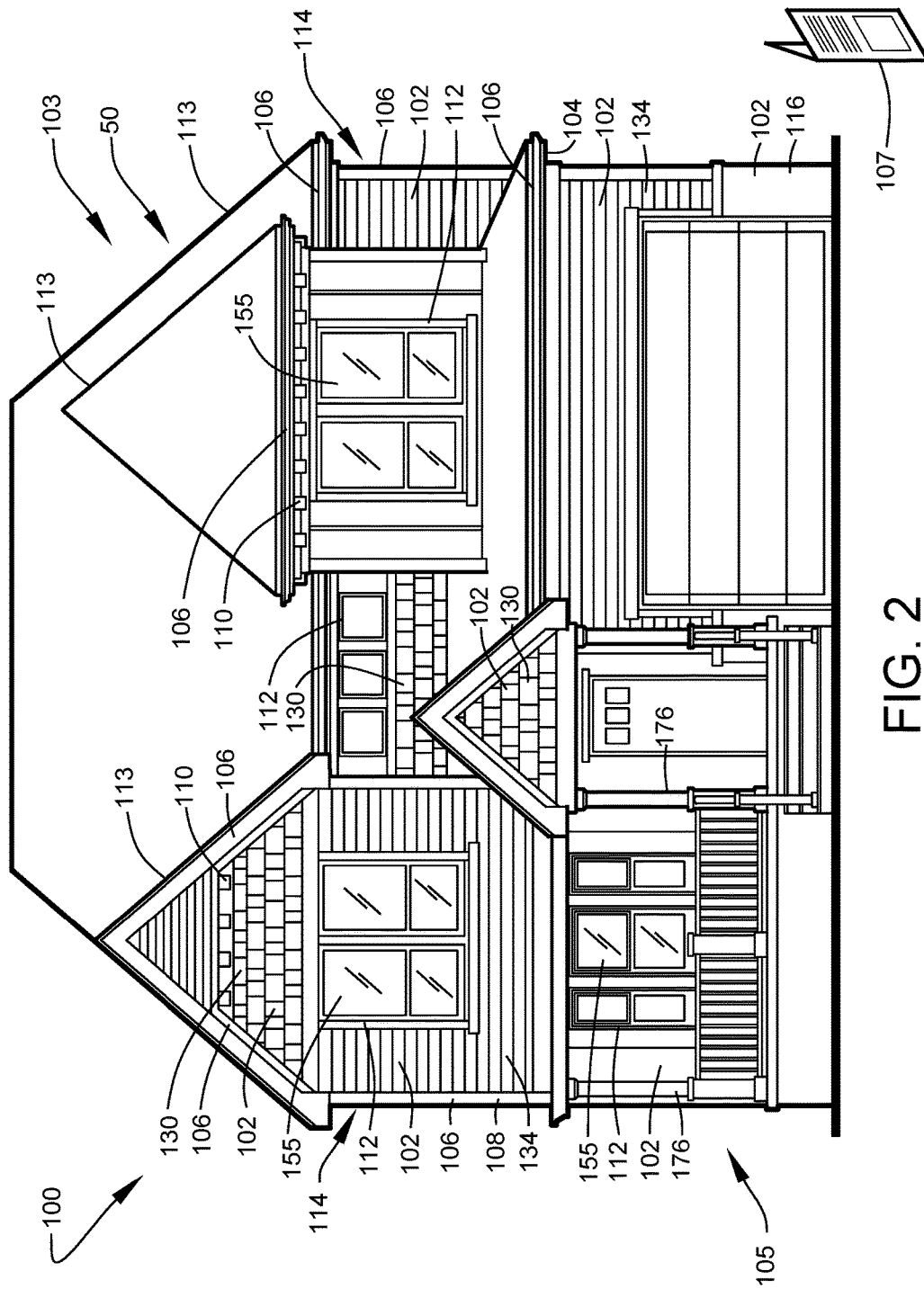


FIG. 2

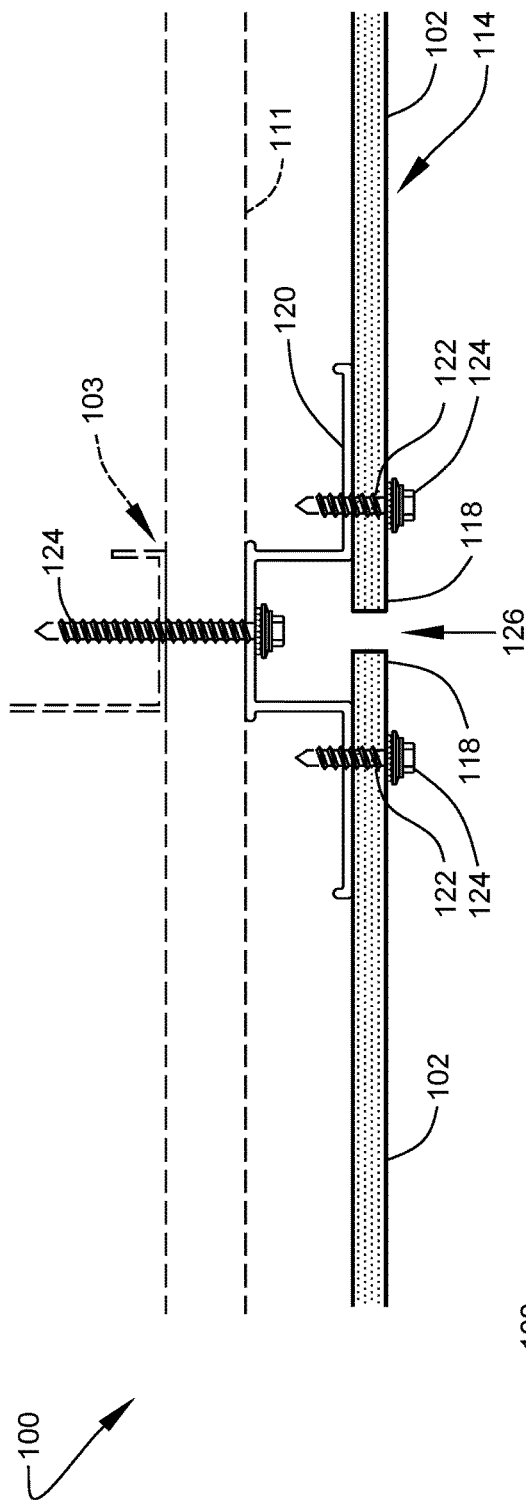


FIG. 3

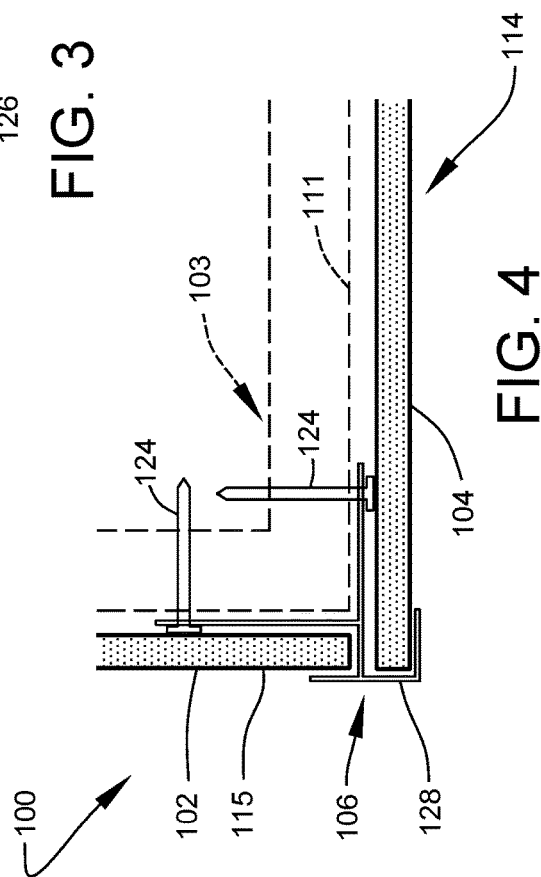


FIG. 4

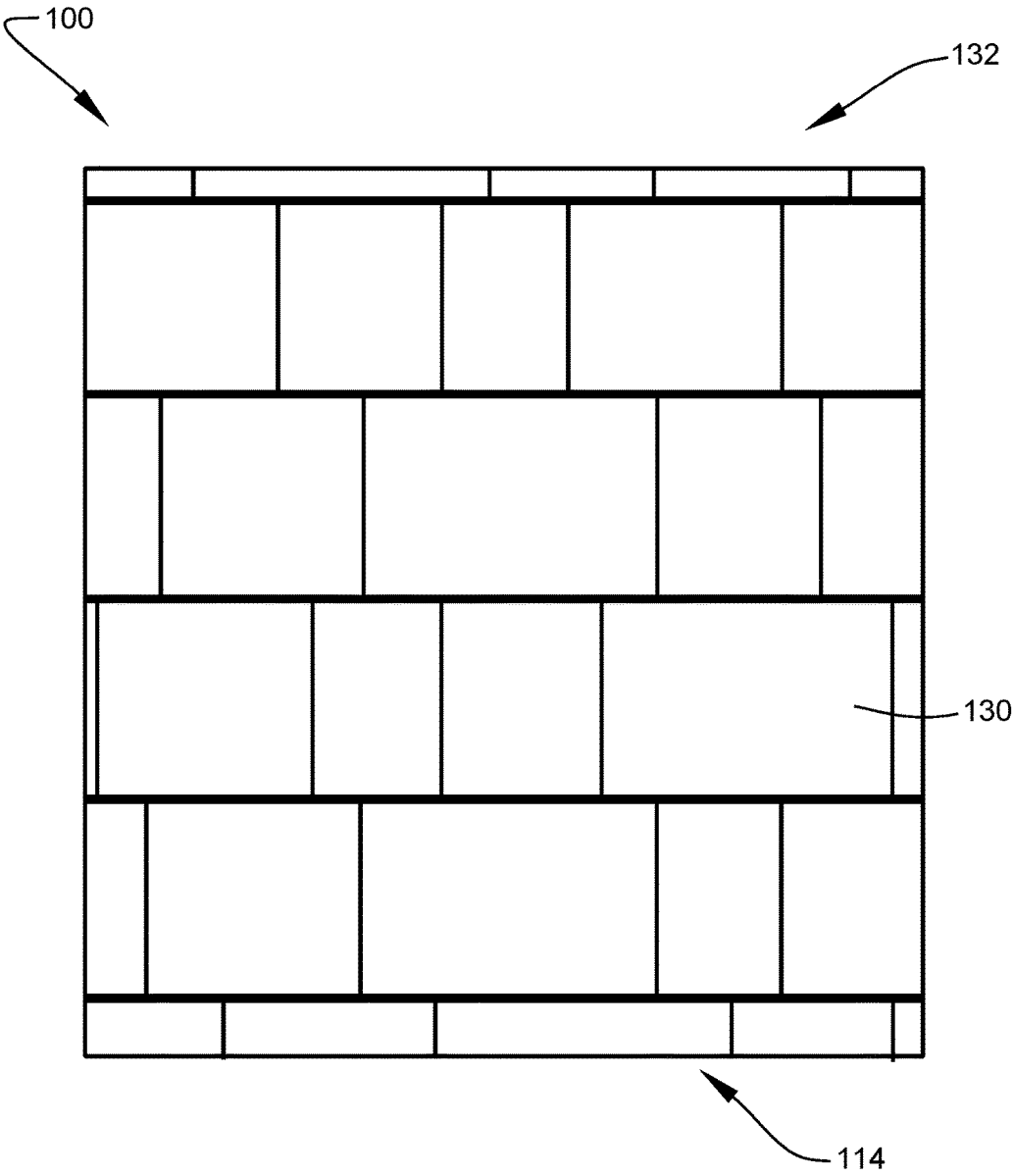


FIG. 5

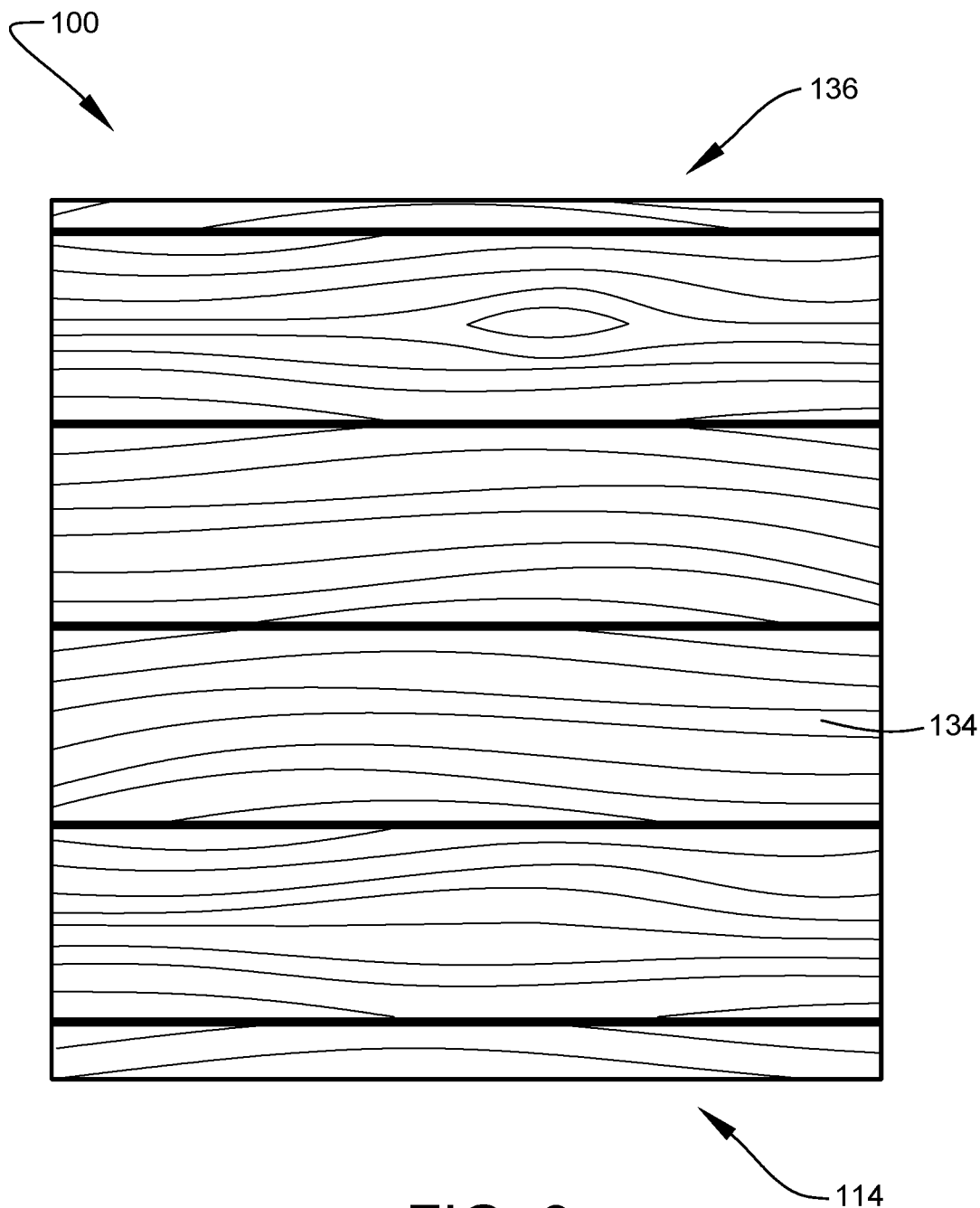


FIG. 6

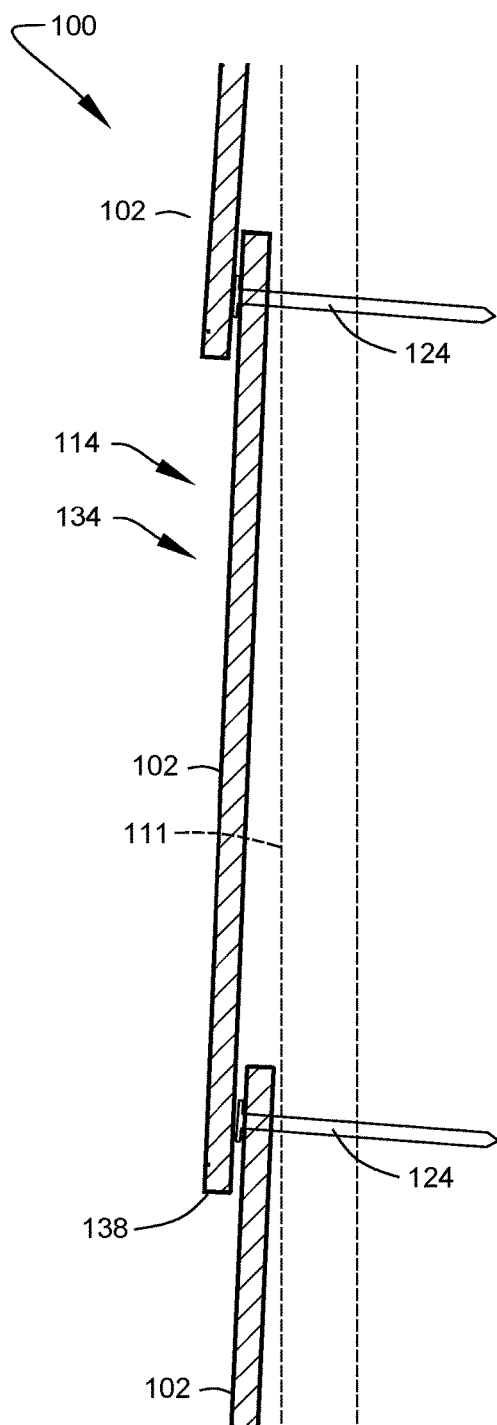


FIG. 7

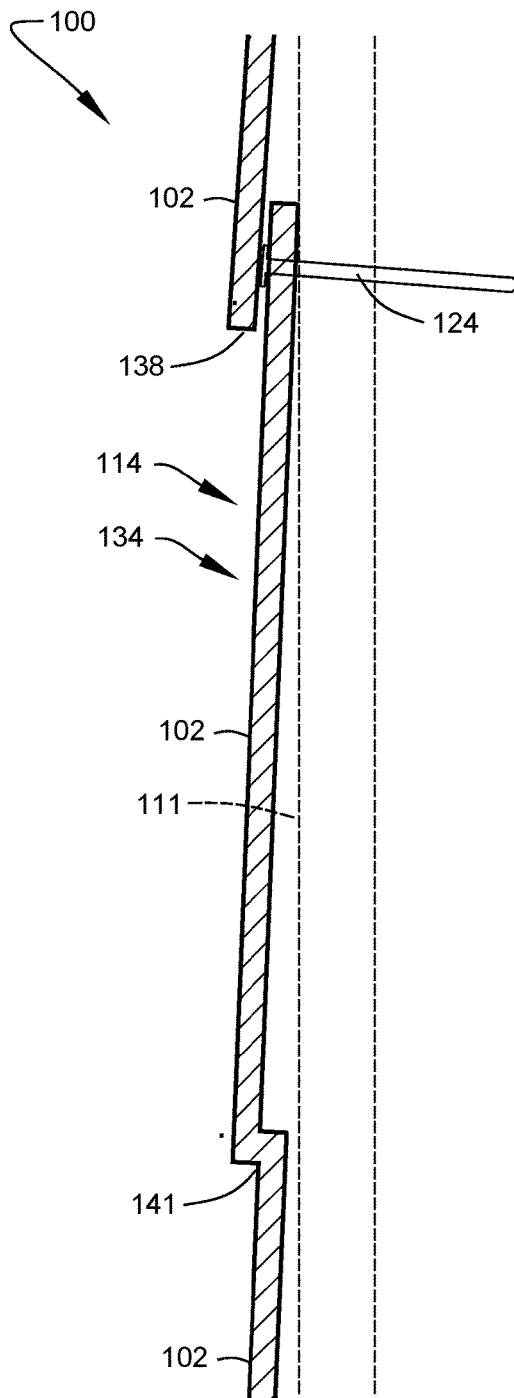


FIG. 8

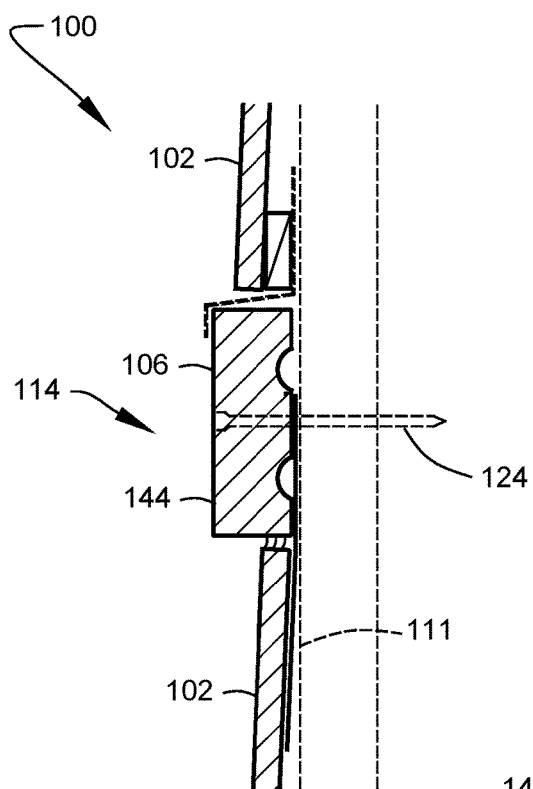


FIG. 9

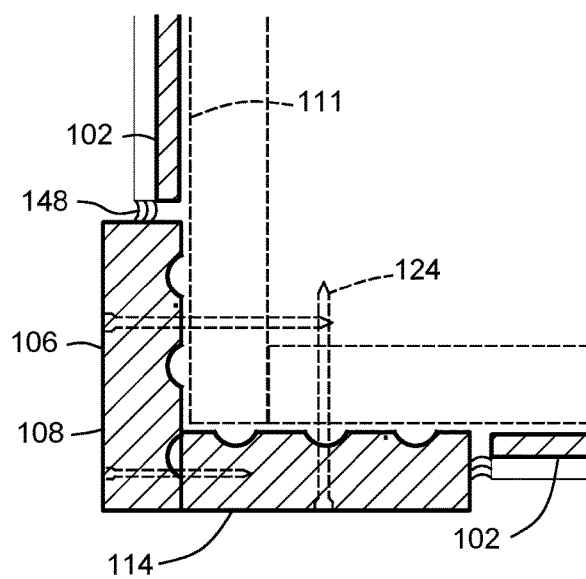


FIG. 11

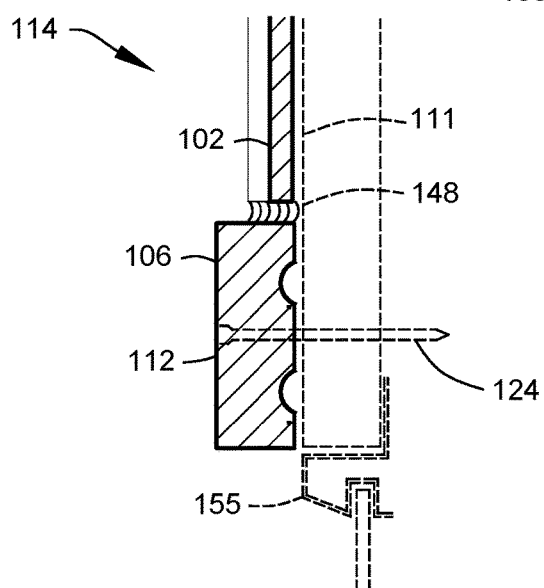


FIG. 10

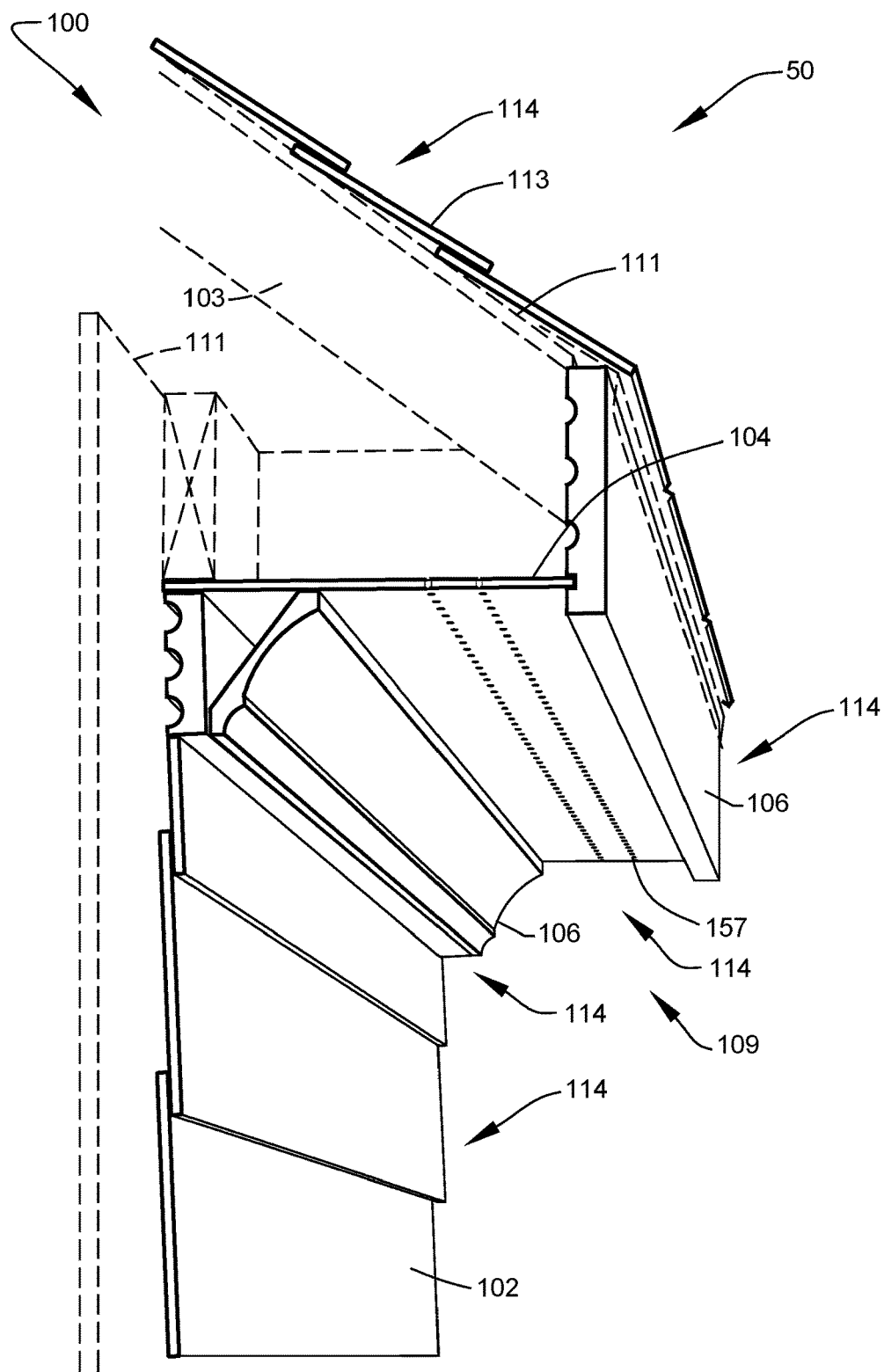


FIG. 12

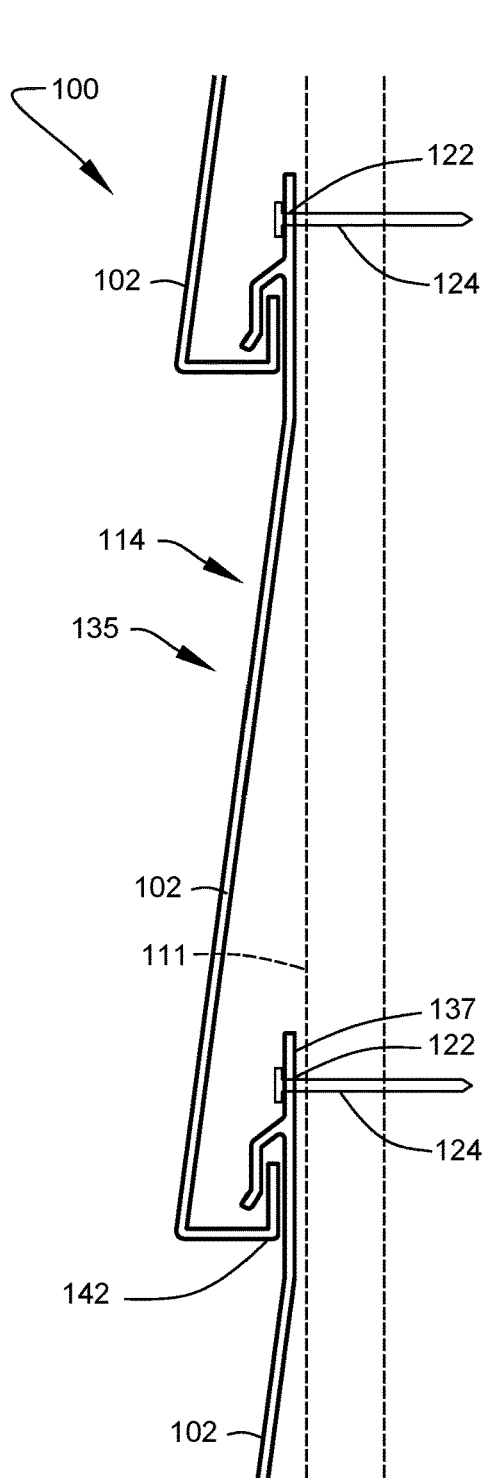


FIG. 13

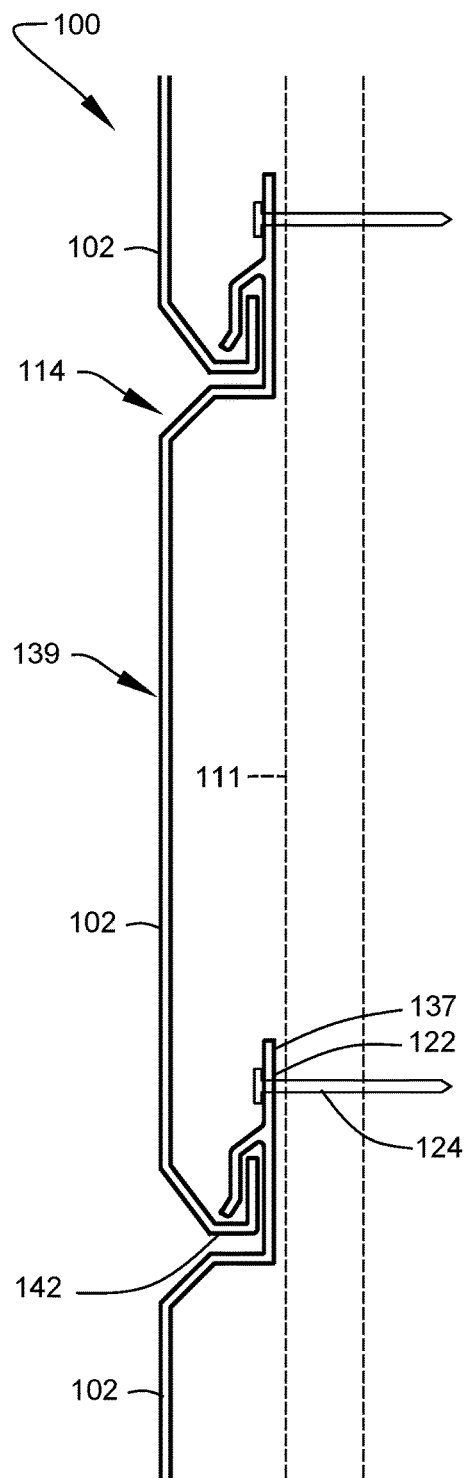


FIG. 14

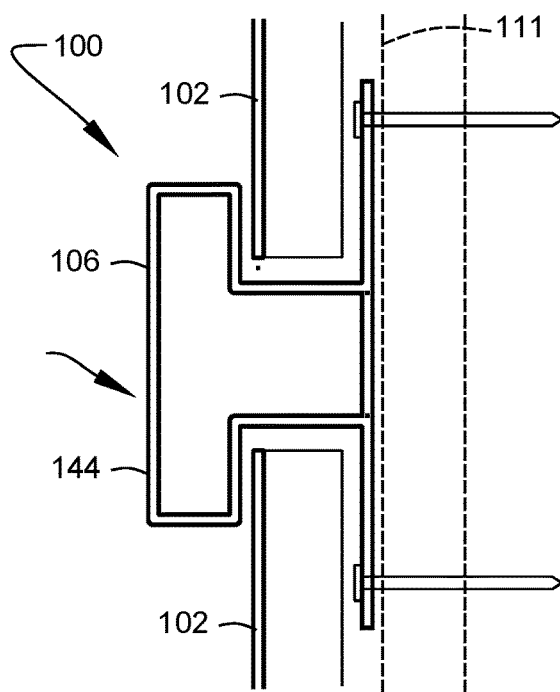


FIG. 15

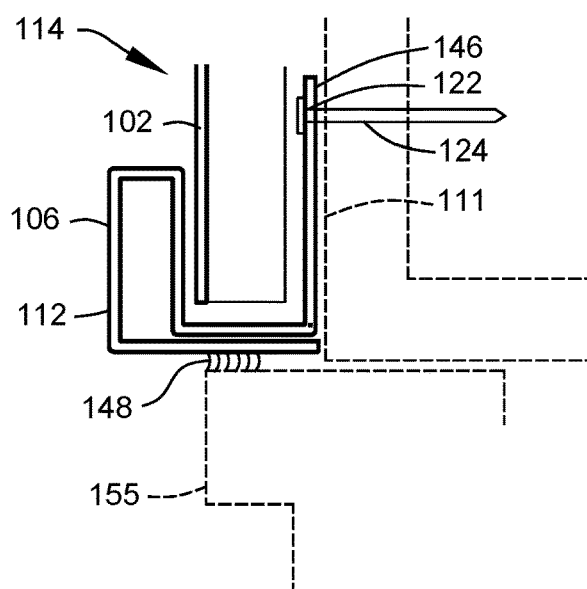


FIG. 16

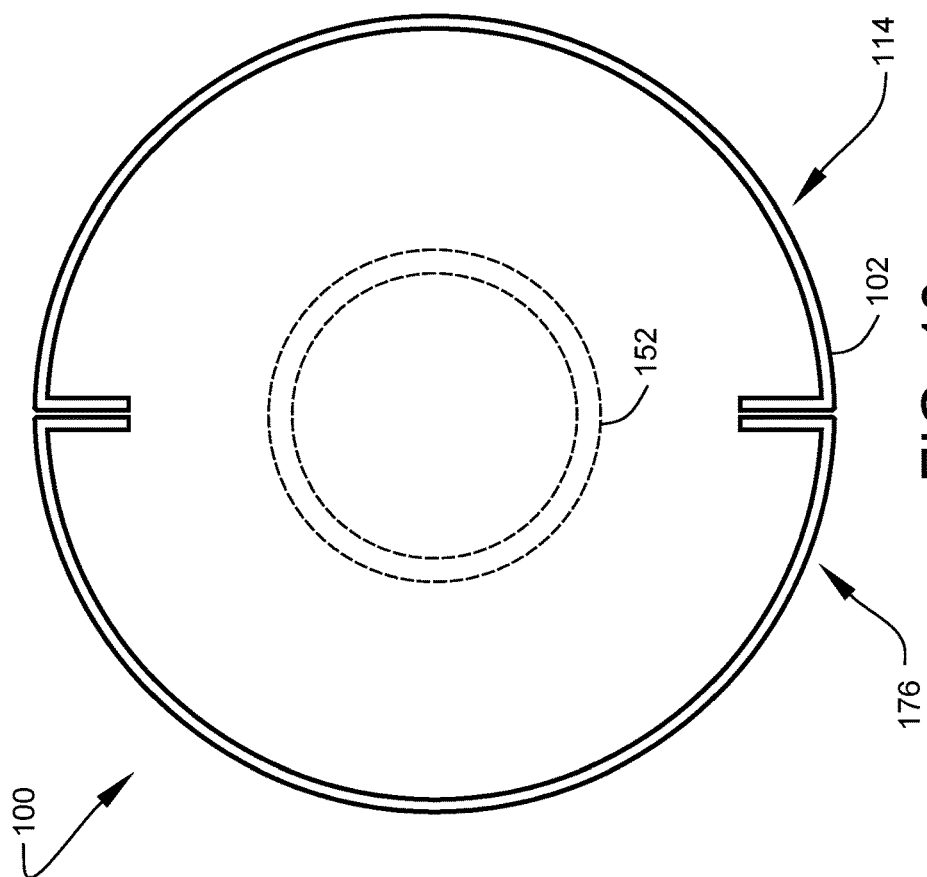


FIG. 18

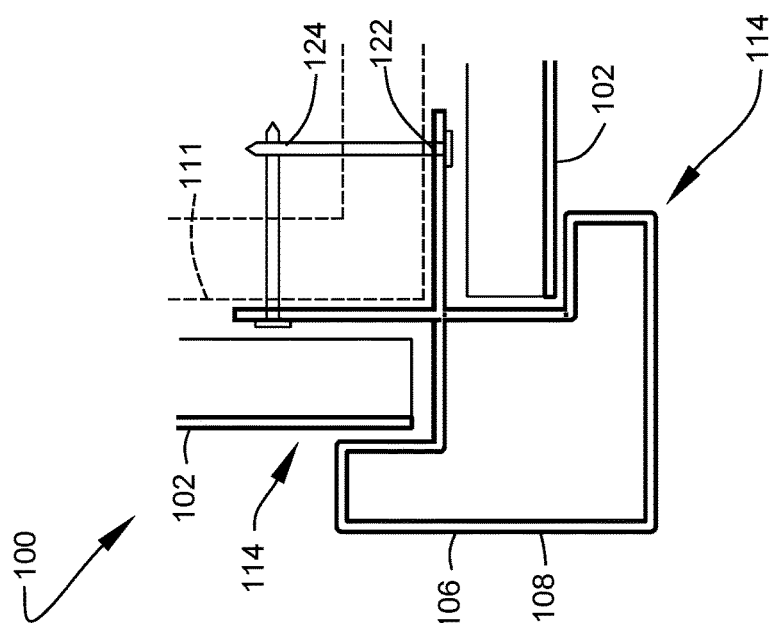


FIG. 17

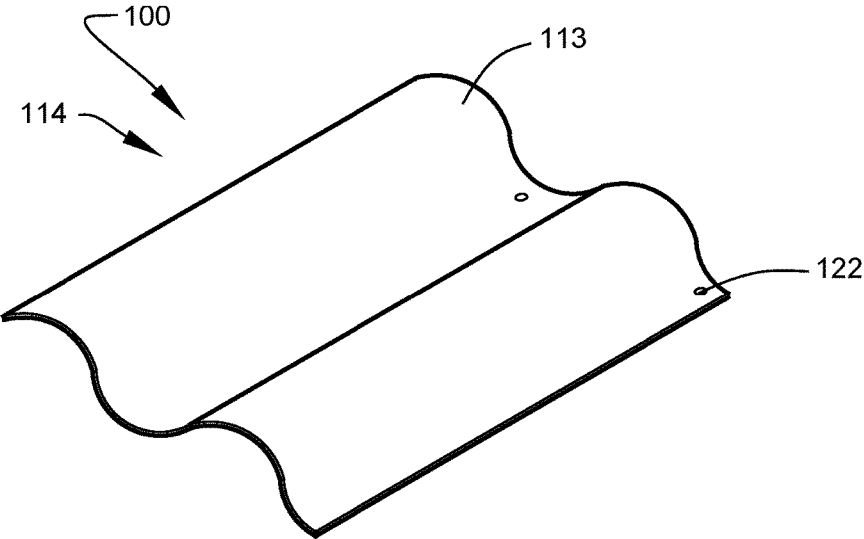
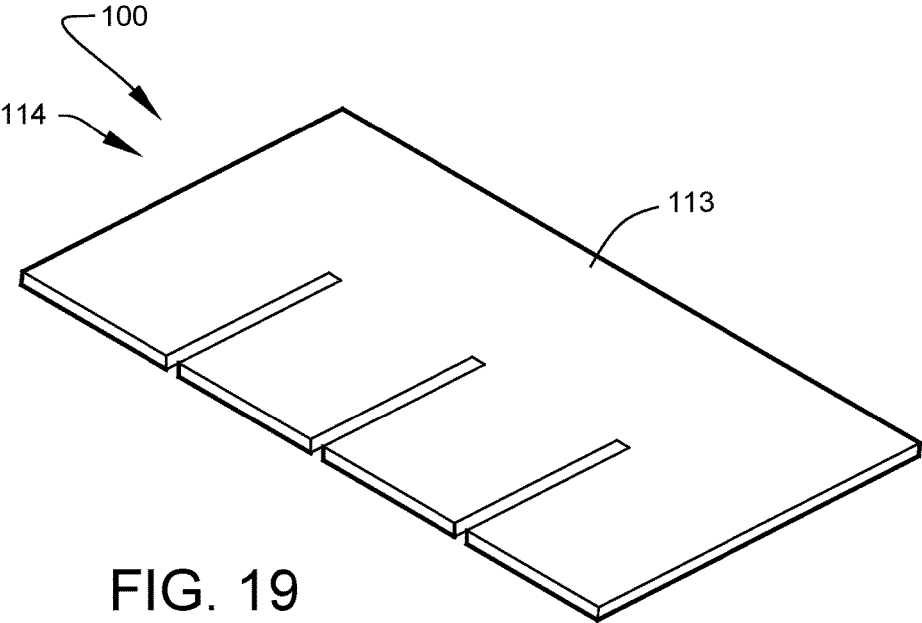


FIG. 20

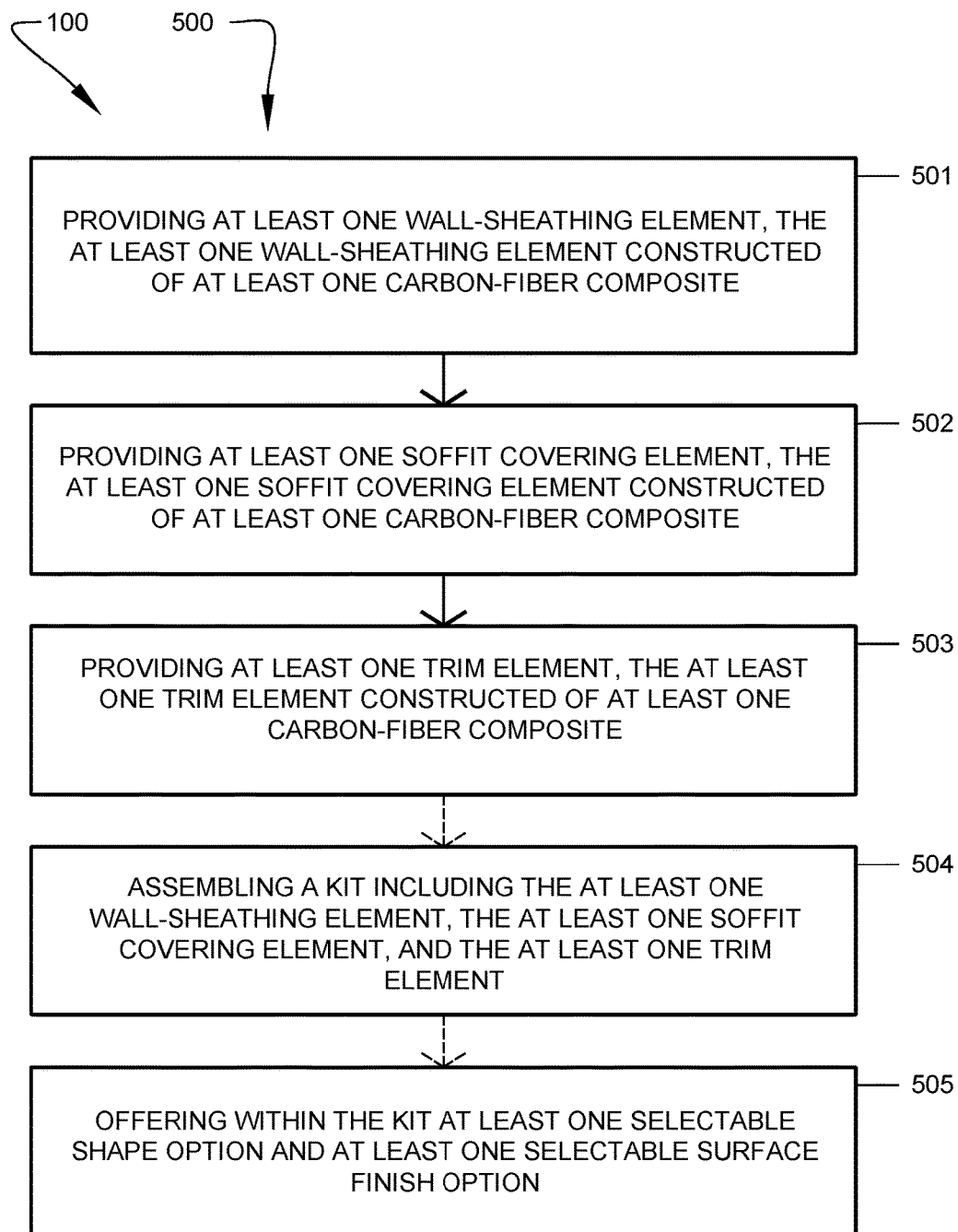


FIG. 21

EXTERIOR FINISH SYSTEM AND METHOD

BACKGROUND OF THE INVENTION

[0001] [1] The following includes information that may be useful in understanding the present disclosure. It is not an admission that any of the information provided herein is prior art nor material to the presently described or claimed inventions, nor that any publication or document that is specifically or implicitly referenced is prior art.

TECHNICAL FIELD [2] The present invention relates generally to the field of building materials and structural elements of existing art and more specifically relates to building elements of relatively thin form for the construction of parts of buildings, e.g. sheet materials, slabs, or panels.

RELATED ART [3] Reducing the weight of construction materials can allow reductions to the weight and cost of building foundation walls, footings, and structural framing needed to support. This enables the owner to reduce construction costs and accelerate schedules. Lightweight construction materials are easy to store and transport, thereby reducing their environmental footprint. Accordingly, there exists an ever-increasing need for improved building materials and methods of construction that increase durability and construction efficiency.

[0002] [4] U.S. Pat. Publication No. **2007/0078191** to Guhde et al. relates to a foamed reinforced composite siding product. The described foamed reinforced composite siding product includes a composition for forming a reinforced composite siding product and a composite siding product formed by an extrusion process utilizing the composition is provided. The mixed resin formulation utilized to form the composite siding product includes a polymeric resin, a filler, a processing aid, at least one lubricant, and a thermal stabilizer. In a preferred embodiment, the polymer resin is polyvinyl chloride and the filler is talc. The mixed resin formulation may be extruded with a reinforcement material in a screw extrusion process to form a composite siding product. One or more reinforcing fibers may be utilized in the extrusion process. The reinforcement fibers may be present in the final product in an amount up to **25%** by weight of the final product. In at least one preferred embodiment, the reinforcement fibers are glass fibers. A weatherable cap may be co-extruded to form the final reinforced, foamed composite siding product.

SUMMARY OF THE INVENTION

[0003] [5] In view of the foregoing disadvantages inherent in the known building elements of relatively thin form for the construction of parts of buildings, e.g. sheet materials, slabs, or panels art, the present disclosure provides a novel exterior finish system and method. The general purpose of the present disclosure, which will be described subsequently in greater detail, is to provide an exterior finish system and method.

[0004] [6] In accordance with a preferred embodiment hereof, this invention provides an exterior finish system usable in building construction, the system including: at least one wall- sheathing element configured to sheath exterior surfaces of a built structure, wherein the at least one

wall-sheathing element is constructed of at least one carbon-fiber composite; fiber reinforced structural member with cap at least one soffit covering element configured to cover soffit areas of the built structure, wherein the at least one soffit covering element is constructed of the at least one carbon-fiber composite.

[0005] [7] In addition, it provides at least one trim element configured to trim the at least one wall-sheathing element and the at least one soffit covering element, wherein the at least one trim element is constructed of the at least one carbon-fiber composite. Moreover, it provides at least one roof-sheathing element configured to sheath exterior roof surfaces of the built structure, the at least one roof-sheathing element constructed of at least one carbon-fiber composite.

[0006] [8] Furthermore, it provides such an exterior finish system wherein the at least one wall- sheathing element includes planar panels. Additionally, it provides such an exterior finish system wherein the at least one wall-sheathing element includes shingles configured to form a shingle pattern when sheathing the exterior surfaces of the built structure. Also, it provides such an exterior finish system wherein the at least one wall-sheathing element includes at least one interlocking peripheral edge configured to interlock with another one of the at least one wall- sheathing elements.

[0007] [9] Moreover, it provides such an exterior finish system wherein the at least one wall- sheathing element includes at least one lapping peripheral edge configured to overlap another one of the at least one wall-sheathing elements. And, it provides such an exterior finish system wherein the at least one wall-sheathing element includes at least one abutting peripheral edge configured to abut with another one of the at least one wall-sheathing elements. Further, it provides such an exterior finish system wherein the at least one wall-sheathing element includes a smooth surface finish. Even further, it provides such an exterior finish system wherein the at least one wall-sheathing element includes a textured surface finish. Moreover, it provides such an exterior finish system wherein the at least one wall-sheathing element includes an integral color.

[0008] [10] Additionally, it provides such an exterior finish system wherein the at least one wall- sheathing element includes a surface-applied color. Also, it provides such an exterior finish system wherein the at least one trim element includes at least one corner trim. In addition, it provides such an exterior finish system wherein the at least one trim element includes at least one transition trim. And, it provides such an exterior finish system wherein the at least one trim element includes at least one dental block. Further, it provides such an exterior finish system wherein the at least one trim element includes at least one wall-opening trim.

[0009] [11] Even further, it provides such an exterior finish system wherein the at least one wall- sheathing element includes sheathing for posts. Additionally, it provides such an exterior finish system wherein the at least one wall-sheathing element and the at least one soffit covering element each include at least one aperture adapted to receive a fastener usable to fasten at least one wall-sheathing element and the at least one soffit covering element to the exterior surfaces of the built structure. Even further, it provides such an exterior finish system, further including set of instructions; and wherein the exterior finish system is arranged as a kit.

[0010] [12] In accordance with another preferred embodiment hereof, this invention provides a method of providing an exterior finish system usable in building construction, the method including the steps of; providing at least one wall-sheathing element configured to sheath exterior surfaces of a built structure, the at least one wall-sheathing element constructed of at least one carbon-fiber composite; providing at least one soffit covering element configured to cover soffit areas of the built structure, the at least one soffit covering element constructed of at least one carbon-fiber composite; providing at least one trim element configured to trim the at least one wall-sheathing element and the at least one soffit covering element; and assembling a kit including the at least one wall-sheathing element, the at least one soffit covering element, and the at least one trim element. Even further, it provides such a method further including the step of offering within the kit at least one selectable shape option and at least one selectable surface finish option.

[0011] [13] For purposes of summarizing the invention, certain aspects, advantages, and novel features of the invention have been described herein. It is to be understood that not necessarily all such advantages may be achieved in accordance with any one particular embodiment of the invention. Thus, the invention may be embodied or carried out in a manner that achieves or optimizes one advantage or group of advantages as taught herein without necessarily achieving other advantages as may be taught or suggested herein. The features of the invention which are believed to be novel are particularly pointed out and distinctly claimed in the concluding portion of the specification. These and other features, aspects, and advantages of the present invention will become better understood with reference to the following drawings and detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] [14] The figures which accompany the written portion of this specification illustrate embodiments and methods of use for the present disclosure, an exterior finish system and method, constructed and operative according to the teachings of the present disclosure.

[0013] [15] FIG. 1 is a perspective view of a built structure using the exterior finish system, according to an embodiment of the disclosure. [16] FIG. 2 is a front elevation view of another built structure using the exterior finish system of FIG. 1, according to additional embodiments of the present disclosure.

[0014] [17] FIG. 3 is a diagrammatic sectional view of a wall-sheathing element of the exterior finish system of FIG. 1, according to an embodiment of the present disclosure.

[0015] [18] FIG. 4 is a diagrammatic sectional view of a soffit covering element of the exterior finish system of FIG. 1, according to an embodiment of the present disclosure.

[0016] [19] FIG. 5 is a front elevation view of the exterior finish system configured and arranged as shingles installed in a shingle pattern, according to an embodiment of the present disclosure.

[0017] [20] FIG. 6 is a front elevation view of the exterior finish system configured and arranged as horizontal lap-style siding, according to an embodiment of the present disclosure.

[0018] [21] FIG. 7 is a diagrammatic sectional view of the exterior finish system configured and arranged as horizontal lap-style siding, according to an embodiment of the present disclosure.

[0019] [22] FIG. 8 is a diagrammatic sectional view of the exterior finish system configured and arranged as an alternate horizontal lap-style siding, according to another embodiment of the present disclosure.

[0020] [23] FIG. 9 is a diagrammatic sectional view of the exterior finish system configured and arranged as a transition trim element, according to an embodiment of the present disclosure. [24] FIG. 10 is a diagrammatic sectional view of the exterior finish system configured and arranged as a wall-opening trim element, according to an embodiment of the present disclosure.

[0021] [25] FIG. 11 is a diagrammatic sectional view of the exterior finish system configured and arranged as a corner trim element, according to an embodiment of the present disclosure.

[0022] [26] FIG. 12 is a diagrammatic sectional view depicting the exterior finish system during another example 'in-use' condition.

[0023] [27] FIG. 13 is a diagrammatic sectional view of the exterior finish system configured and arranged as interlocking horizontal lap-style siding, according to an embodiment of the present disclosure.

[0024] [28] FIG. 14 is a diagrammatic sectional view of the exterior finish system configured and arranged as another interlocking horizontal lap-style siding, according to an embodiment of the present disclosure.

[0025] [29] FIG. 15 is a diagrammatic sectional view of the exterior finish system configured and arranged as a transition trim element, according to an embodiment of the present disclosure.

[0026] [30] FIG. 16 is a diagrammatic sectional view of the exterior finish system configured and arranged as a wall-opening trim element, according to an embodiment of the present disclosure. [31] FIG. 17 is a diagrammatic sectional view of the exterior finish system configured and arranged as a corner trim element, according to an embodiment of the present disclosure.

[0027] [32] FIG. 18 is a diagrammatic sectional view of the exterior finish system configured and arranged as a post cover, according to an embodiment of the present disclosure.

[0028] [33] FIG. 21 is a flow diagram illustrating a method of providing an exterior finish system usable in building construction, according to an embodiment of the present disclosure.

[0029] [34] The various embodiments of the present invention will hereinafter be described in conjunction with the appended drawings, wherein like designations denote like elements.

DETAILED DESCRIPTION

[0030] [35] As discussed above, embodiments of the present disclosure relate to building elements of relatively thin form for the construction of parts of buildings, e.g. sheet materials, slabs, or panels; and more particularly to an exterior finish system and method that is beneficial in providing a versatile exterior finish system usable in building construction.

[0031] [36] Generally, this exterior finish system can be used as exterior siding. It can have different profiles, colors, sizes and textures. Embodiments of the system are strong, light, and modern looking. System components can be installed in a manner similar to conventional siding products with nails or screws. It also will be very light to take all the extra weight off the building on which the system is

installed. The system components are strong and have a modern look. [37] Referring now more specifically to the drawings by numerals of reference, there is shown in FIGS. 1-21, various views of an exterior finish system 100.

[0032] [38] FIG. 1 is a perspective view of a built structure 103 using the exterior finish system 100, according to an embodiment of the disclosure. FIG. 2 is a front elevation view of a second built structure 103 using the exterior finish system 100 of FIG. 1, according to additional embodiments of the present disclosure. FIG. 1 and FIG. 2 show the exterior finish system 100 during 'in-use' conditions 50. Here, the exterior finish system 100 may be beneficial in providing a versatile exterior finish system usable in building construction.

[0033] [39] As illustrated, the exterior finish system 100 may include wall-sheathing elements 102 configured to sheath exterior surfaces of the built structure 103. The exterior finish system 100 may also include a soffit covering element 104 configured to cover soffit areas 109 of the built structure 103. In addition, the exterior finish system 100 may include at least one trim element 106. The trim element 106 may be used to trim the wall-sheathing element 102 and soffit covering element 104. The trim elements 106 may include corner trim elements 108, dental blocks 110, wall-opening trim elements 112, and the like. The exterior finish system 100 may also include roof-sheathing elements 113, as shown in FIG. 2.

[0034] [40] A key feature of the presently-disclosed system is that the wall-sheathing elements 102, the soffit covering elements 104, and the trim elements 106 may be constructed of at least one carbon-fiber composite 114. Components of the exterior finish system 100 formed from the carbon-fiber composite 114 are strong, impact resistant, corrosion resistant, and lighter in weight than traditional products. The lightweight carbon-fiber composite 114 material may allow significant reductions to the weight and cost of the foundation, footings, and structural framing of buildings and built structures. This enables the owner to reduce overall construction costs and accelerate schedules. Because carbon-fiber composite 114 can be fabricated into virtually any shape, reductions in weight can be provided without sacrificing the durability or the architectural aesthetic of the building. [41] The carbon-fiber composite 114 may consist of at least two parts: a binding matrix and a reinforcement component. In the embodiments of the present disclosure, the reinforcement component is at least one carbon fiber, which provides enhanced strength. The matrix portion may be one or more polymer resins, which is used to bind the reinforcements together. The binding polymer may be a thermoset resin such as epoxy, polyester, vinyl ester, nylon, etc. To modify the structural properties of the composite or to reduce cost, the carbon-fiber composite 114 may contain other fibers, such as ultra-high-molecular-weight polyethylene (UHMWPE) or glass fibers. The properties of the composite may also be modified by introducing additives to the binding matrix (the resin). For example, cement materials, silica, non-structural fillers, colorants, etc. may be added to the binding matrix.

[0035] [42] The components of the exterior finish system 100 may be provided with an integral color by mixing or blending the binding matrix with a pigment and/or dye, or by other well-known methods. Alternately, wall-sheathing elements 102 may be provided with a surface-applied color by

coating the exposed surfaces with a pigment and/or dye, or by other well-known methods.

[0036] [43] In specific reference to FIG. 1 and FIG. 2, the exterior finish system 100 can be manufactured to reproduce the look and feel of traditional wood siding, architectural precast, and a wide variety of other natural and synthetic materials at a fraction of the weight of the original materials. In specific reference to FIG. 1, the wall-sheathing elements 102 of exterior finish system 100 may be constructed as planar panels 116. The planar panels 116 may be formed as square or rectangular panels with expressed joints, as generally shown in FIG. 3. The surface of the sheets may have a flat and smooth finish. Alternately, the surface of the sheets may include a selected texture, as further described below.

[0037] [44] FIG. 3 is a diagrammatic sectional view of a joint condition of the wall-sheathing element of the exterior finish system of FIG. 1, according to an embodiment of the present disclosure. The wall-sheathing elements 102 may include a set of abutting peripheral edges 118 configured to abut with another one of the wall-sheathing elements 102, as shown. The system may further include a set of mounting accessories 120 used to fasten the panels to the built structure 103, as shown. In addition, the wall-sheathing element 102 may include pre-formed apertures 122 adapted to receive a fastener 124 usable to fasten at least one wall-sheathing element 102 to the exterior surfaces 111 of the built structure 103. In an alternate version, the accessories 120 may be bonded to the rear surface of the wall-sheathing element 102 to allow the visible fasteners to be omitted. The wall-sheathing and soffit elements may have a thickness of about 3/8 inch (9.5 millimeters); however, the material thickness may vary depending on the application.

[0038] [45] Varying the size of the panels and spacing of the joints 126 allows a variety of looks to be created, such as, for example, horizontal bands, vertical stripes, geometric patterns, etc. Upon reading this specification, it should be appreciated that, under appropriate circumstances, considering such issues as user preferences, design preference, structural requirements, marketing preferences, cost, available materials, technological advances, etc., other panel arrangements such as, for example, other surface textures, digital printing, curved panels, perforated panels, other mounting accessories, shapes other than rectangular or square, etc., may be sufficient.

[0039] [46] FIG. 4 is a diagrammatic sectional view of a soffit covering element 104 of the exterior finish system of FIG. 1, according to an embodiment of the present disclosure. The soffit covering element 104 is configured to form a barrier surface on the underside of the roof in the soffit areas 109 that extend beyond the exterior walls (see FIG. 1). The soffit covering elements 104 may also be used to cover the underside of arches, stairways and balconies. The soffit covering element 104 may terminate at trim element 106, which may include a corner transition accessory 128 used to transition the soffit covering element 104 to a vertical fascia 115, or other exterior finish element.

[0040] [47] FIG. 5 is a front elevation view of the exterior finish system 100 configured and arranged as shingles 130, according to an embodiment of the present disclosure. The shingles 130 are configured to form a shingle pattern 132 when sheathing the exterior surfaces 111 of the built structure 103 (see also FIG. 2). The shingle pattern 132 may be formed using individual carbon-fiber shingles 130 or may be formed using elongated panels, each one having the appear-

ance of multiple shingles. The elongated panels may have an outer dimension of about 16 inches by about 48 inches (about 40.6 centimeters by 122 centimeters) and a thickness of about 3/8 inch (9.5 millimeters); however, the size and material thickness may vary depending on the application. The use of the elongated panel has been found to reduce the time needed to install the exterior finish. Some panels may include staggered edges to provide a rustic appearance, or may be straight-edged panels, as shown. Upon reading this specification, it should be appreciated that, under appropriate circumstances, considering such issues as user preferences, design preference, structural requirements, marketing preferences, cost, available materials, etc., other shingle arrangements such as, for example, rounded shapes, custom shapes, etc., may be sufficient.

[0041] [48] FIG. 6 is a front elevation view of the exterior finish system 100 configured and arranged as horizontal lap-style siding 134, according to an embodiment of the present disclosure. The horizontal lap-style siding 134 may have a smooth finish, or may be constructed with a textured finish 136, as shown. In the depiction of FIG. 6, the textured finish 136 simulates a wood-grain texture.

[0042] [49] The wall-sheathing elements 102 of the exterior finish system 100 may include a range of sectional profiles. FIG. 7 is a diagrammatic sectional view of the horizontal lap-style siding 134 of FIG. 6. The lap-style siding of FIG. 7 includes at least one lapping peripheral edge 138 configured to overlap an adjacent wall-sheathing element 102, as shown. The horizontal lap-style siding 134 (and other system elements including the soffit covering elements 104) may be secured to the exterior surfaces 111 of the built structure using fasteners 124, as shown. Fasteners 124 may be corrosion resistant, galvanized, or stainless steel. In some installations, hot-dipped galvanized nails may be used. The siding may be installed over braced wood or steel studs or directly to rigid sheathing. Water-resistive barriers (not shown) may be installed under the panels, in accordance with standard building practice and local building code requirements. The elongated panels may have a thickness of about 3/8 inch (9.5 millimeters); however, the size and material thickness may vary depending on the application.

[0043] [50] FIG. 8 is another diagrammatic sectional view of the horizontal lap-style siding 134 of FIG. 6. The lap-style siding of FIG. 8 has a similar appearance to the siding of FIG. 7, but is formed from a larger panel having one or more simulated laps 141, as shown. The use of the larger panels has been found to reduce the time needed to install the exterior finish. The lap-style siding of FIG. 8 includes at least one lapping peripheral edge 138 configured to overlap an adjacent wall-sheathing element 102, as shown. The horizontal lap-style siding 134 may be secured to the exterior surfaces 111 of the built structure using fasteners 124, as shown.

[0044] [51] FIG. 9 is a diagrammatic sectional view of the exterior finish system 100 configured and arranged as a transition trim element 144, according to an embodiment of the present disclosure. In the depicted example, the transition trim element 144 may be used to form a band board or similar horizontal transition between two areas of siding. Concealed fasteners 124, such as finish nails, may be used attach the trim elements 144 to the frame construction supporting the exterior surfaces 111. Blocking elements, flashing elements, and sealants may be installed under and

adjacent to the system components, in accordance with standard building practice and local building code requirements.

[0045] [52] FIG. 10 is a diagrammatic sectional view of the wall-opening trim element 112, of

[0046] FIG. 2, according to an embodiment of the present disclosure. The wall-opening trim element 112 may be used to finish a wall opening containing a door or window 155, as shown. The wall-opening trim element 112 may be secured to the exterior surfaces 111 of the built structure using a concealed fastener 124, such as finish nails, as shown. The installation may include the application of flashing and/or sealants 148 to provide a moisture-resistant barrier.

[0047] [53] FIG. 11 is a diagrammatic sectional view of the corner trim element 108 of FIG. 2, according to an embodiment of the present disclosure. The corner trim element 108 is designed to address end terminations of adjacent wall-sheathing elements 102, as shown. When installing corners or other vertical trim, the trim elements may be positioned on the wall and attached, as shown. It is noted that such corner trim elements 108 may include trim for both inside corners and outside corners, as shown. The corner trim elements 108 may be secured to the exterior surfaces 111 of the built structure using a concealed fastener 124, such as finish nails, as shown. The installation may include the application of flashing and/or sealants 148 to provide for thermal expansion and provide a moisture-resistant barrier. [54] FIG. 12 is a diagrammatic sectional view depicting the exterior finish system 100 during another example 'in-use' condition 50. Here, the system 100 includes wall-sheathing elements 102, soffit covering elements 104, trim elements 106, and roof-sheathing elements 113. The trim element 106 may be used to trim the wall-sheathing element 102 and soffit covering elements 104, as shown, and may include crown molding, etc. The example installation of FIG. 12 includes soffit covering elements 104 containing one or more soffit-venting features 157, as shown. FIG. 19 and FIG. 20 illustrate example roof-sheathing elements 113 of the present system. [55] FIG. 13 is a diagrammatic sectional view of the exterior finish system 100 configured and arranged as interlocking horizontal lap-style siding 135 having a thinner sectional profile, according to an alternate embodiment of the present disclosure. The shape of the interlocking horizontal lap-style siding 135 of FIG. 13 is configured to resemble a traditional siding profile, as shown. The wall-sheathing element 102 of FIG. 13 includes at least one interlocking peripheral edge 142 configured to interlock with an adjacent wall-sheathing elements 102, as shown. In addition, the wall-sheathing element 102 of FIG. 13 includes an upper nailing flange 137 containing a set of preformed apertures 122 adapted to receive a fastener 124 usable to fasten the wall-sheathing element 102 (and similar soffit covering elements 104) to the exterior surfaces of the built structure.

[0048] [56] FIG. 14 is a diagrammatic sectional view of the exterior finish system 100 configured and arranged as another interlocking horizontal lap-style siding 139, according to an embodiment of the present disclosure. The wall-sheathing element 102 of FIG. 14 is similar to the embodiment of FIG. 13 in that the present embodiment includes a thin wall and at least one interlocking peripheral edge 142 configured to interlock with an adjacent wall-sheathing elements 102, as shown. In addition, the wall-sheathing

element **102** of FIG. **14** includes an upper nailing flange **137** containing a set of preformed apertures **122** adapted to receive a fastener **124** usable to fasten the wall-sheathing element **102** to the exterior surfaces **111** of the built structure. The shape of the interlocking horizontal lap-style siding **134** of FIG. **14** is configured to resemble another traditional siding profile, and demonstrates the versatility of the system.

[0049] [57] FIG. **15** is a diagrammatic sectional view of the exterior finish system **100** configured and arranged as another transition trim element **144**, according to an alternate embodiment of the present disclosure. In the depicted example, the shape of the interlocking horizontal lap-style siding **134** is configured to resemble traditional batten siding, as shown. [58] FIG. **16** is a diagrammatic sectional view of the wall-opening trim element **112**, of

[0050] FIG. **2**, according to another embodiment of the present disclosure. The wall-opening trim element **112** may be used to finish a wall opening containing a door or window **155**, as shown. The wall-opening trim element **112** may include a nailing flange **146** containing a set of the apertures **122** adapted to receive a fastener **124** usable to fasten the wall-opening trim element **112** to the exterior surfaces **111** of the built structure. The installation may include the application of flashing and/or sealants **148** to provide a moisture-resistant barrier.

[0051] [59] FIG. **17** is a diagrammatic sectional view of the corner trim element **108** of FIG. **2**, according to an embodiment of the present disclosure. The corner trim element **108** is designed to cover end terminations of adjacent wall-sheathing elements **102**, as shown. Such preformed corner trim elements **108** may include trim for both inside corners and outside corners, as shown.

[0052] [60] FIG. **18** is a diagrammatic sectional view of a wall-sheathing element **102** configured and arranged as a post cover **176**, according to an embodiment of the present disclosure. The post cover **176** is configured to cosmetically wrap structural columns and posts **152**, as shown. Although a round cover is depicted, the post cover **176** may be supplied in alternate geometric shapes, such as, for example, square sectional profiles, oval sectional profiles, tapering shapes, etc.

[0053] [61] FIG. **19** and FIG. **20** illustrate example roof-sheathing elements **113** of the exterior finish system **100**. FIG. **19** shows a flat-shaped shingle element having a set of the apertures **122** adapted to receive fasteners usable to fasten the roof-sheathing element **113** to the built structure **103**. The shingles are configured to form one or more shingle patterns similar to the wall siding shingle pattern **132** of FIG. **5**. The shingle pattern **132** may be formed using individual shingles, or may be formed using elongated panels, each one having the appearance of multiple shingles, as shown in FIG. **19**. The elongated panels may have an outer dimension of about **16** inches by about **48** inches (about **40.6** centimeters by **122** centimeters) and a thickness of about **3/8** inch (**9.5** millimeters); however, the size and material thickness may vary depending on the application. As previously noted, the use of the elongated panels has been found to reduce the time needed to install the exterior finish system. Some panels may include staggered edges to provide a rustic appearance, or may be straight-edged panels, similar to the wall siding example of FIG. **5**. Upon reading this specification, it should be appreciated that, under appropriate circumstances, considering such issues as user preferences,

design preference, structural requirements, marketing preferences, cost, available materials, etc., other shingle arrangements such as, for example, rounded shapes, custom shapes, etc., may be sufficient.

[0054] [62] The example roof-sheathing elements **113** may be formed to resemble a customary terracotta clay or concrete tile roof, as generally shown in FIG. **20**. In addition, the roof-sheathing elements **113** may include apertures **122** adapted to receive a fastener usable to fasten the roof-sheathing elements **113** to the built structure **103**. Upon reading this specification, it should be appreciated that, under appropriate circumstances, considering such issues as user preferences, design preference, structural requirements, marketing preferences, cost, available materials, technological advances, etc., other roof-sheathing arrangements such as, for example, providing alternate shingle or tile shapes, providing flashings, fascia members, furring, starter strips, vents, moldings, drips, water-resistive barriers, trims, etc., may be sufficient. [63] According to one embodiment, the exterior finish system **100** may be arranged as a kit **105**. In particular, the kit **105** may include combinations of the above-described embodiments of exterior finish system **100** and may further include a set of instructions **107**. The instructions **107** may detail functional relationships in relation to the structure of the exterior finish system **100** such that the exterior finish system **100** can be used, maintained, or the like, in a preferred manner. Upon reading this specification, it should be appreciated that, under appropriate circumstances, considering such issues as user preferences, design preference, structural requirements, marketing preferences, cost, available materials, technological advances, etc., other kit arrangements such as, for example, including flashings, fascia members, furring, vents, shutters, starter strips, molding, f-channels, drip caps, j-channels, water-resistive barriers, soffit cove trim, trim channels, etc., may be sufficient.

[0055] [64] FIG. **21** is a flow diagram illustrating a method **500** of providing an exterior finish system usable in building construction, according to an embodiment of the present disclosure. In particular, the method **500** may include one or more components or features of the exterior finish system **100** as described above. As illustrated, the method **500** may include the steps of: step one **501**, providing at least one wall-sheathing element configured to sheath exterior surfaces of a built structure, the at least one wall-sheathing element constructed of at least one carbon-fiber composite; step two **502**, providing at least one soffit covering element configured to cover soffit areas of the built structure, the at least one soffit covering element constructed of at least one carbon-fiber composite; step three **503**, providing at least one trim element configured to trim the at least one wall-sheathing element and the at least one soffit covering element the at least one trim element constructed of at least one carbon-fiber composite; and step four **504**, assembling a kit including the at least one wall-sheathing element, the at least one soffit covering element, and the at least one trim element. Even further, it provides such a method further including the step of; step five **505**, offering within the kit at least one selectable shape option and at least one selectable surface finish option.

[0056] [65] It should be noted that steps **504** and **505** are optional steps and may not be implemented in all cases. Optional steps of method **500** are illustrated using dotted lines in FIG. **21** so as to distinguish them from the other

steps of method **500**. It should also be noted that the steps described in the method of use can be carried out in many different orders according to user preference. The use of “step of” should not be interpreted as “step for”, in the claims herein and is not intended to invoke the provisions of **35 U.S.C. § 112(f)**. It should also be noted that, under appropriate circumstances, considering such issues as design preference, user preferences, marketing preferences, cost, structural requirements, available materials, technological advances, etc., other methods for providing an exterior finish system usable in building construction, are taught herein.

[0057] [66] The embodiments of the invention described herein are exemplary and numerous modifications, variations and rearrangements can be readily envisioned to achieve substantially equivalent results, all of which are intended to be embraced within the spirit and scope of the invention. Further, the purpose of the foregoing abstract is to enable the U.S. Patent and Trademark Office and the public generally, and especially the scientist, engineers and practitioners in the art who are not familiar with patent or legal terms or phraseology, to determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application. claims what is claimed is new and desired to be protected by Letters Patent is set forth in the appended claims:

1. An exterior finish system usable in building construction, the system comprising:

at least one wall-sheathing element configured to sheath exterior surfaces of a built structure, the at least one wall-sheathing element constructed of at least one carbon-fiber composite;

at least one soffit covering element configured to cover soffit areas of the built structure, the at least one soffit covering element constructed of the at least one carbon-fiber composite; and

at least one trim element configured to trim the at least one wall-sheathing element and the at least one soffit covering element, the at least one trim element constructed of the at least one carbon-fiber composite.

2. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises planar panels.

3. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises shingles configured to form a shingle pattern when sheathing the exterior surfaces of the built structure.

4. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises at least one interlocking peripheral edge configured to interlock with another one of the at least one wall-sheathing elements.

5. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises at least one lapping peripheral edge configured to overlap another one of the at least one wall-sheathing elements.

6. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises at least one abutting peripheral edge configured to abut with another one of the at least one wall-sheathing elements.

7. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises a smooth surface finish.

8. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises a textured surface finish.

9. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises an integral color.

10. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises a surface-applied color.

11. The exterior finish system of claim 1, wherein the at least one trim element comprises at least one corner trim.

12. The exterior finish system of claim 1, wherein the at least one trim element comprises at least one transition trim.

13. The exterior finish system of claim 1, wherein the at least one trim element comprises at least one dental block.

14. The exterior finish system of claim 1, wherein the at least one trim element comprises at least one wall-opening trim.

15. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises sheathing for posts.

16. The exterior finish system of claim 1, wherein the at least one wall-sheathing element comprises at least one aperture adapted to receive a fastener usable to fasten the at least one wall-sheathing element to the exterior surfaces of the built structure.

17. An exterior finish system usable in building construction, the system comprising:

at least one wall-sheathing element configured to sheath exterior surfaces of a built structure, the at least one wall-sheathing element constructed of at least one carbon-fiber composite;

at least one soffit covering element configured to cover soffit areas of the built structure, the at least one soffit covering element constructed of the at least one carbon-fiber composite;

at least one trim element configured to trim the at least one wall-sheathing element and the at least one soffit covering element, the at least one trim element constructed of the at least one carbon-fiber composite; and

at least one roof-sheathing element configured to sheath exterior roof surfaces of the built structure, the at least one roof-sheathing element constructed of the at least one carbon-fiber composite;

wherein the at least one wall-sheathing element and the at least one soffit covering element comprise a thickness of at least about $\frac{3}{8}$ inch;

wherein the at least one trim element comprises a thickness of at least about $\frac{3}{4}$ inch;

wherein the at least one wall-sheathing element comprises at least one of planar panels and shingles configured to form a shingle pattern when sheathing the exterior surfaces of the built structure; wherein the at least one wall-sheathing element, the at least one soffit covering element, and the at least one trim element comprise at least one of a smooth surface finish and a textured surface finish; and

wherein the at least one wall-sheathing element, the at least one soffit covering element, and the at least one trim element comprise at least one of an integral color and a surface-applied color.

18. The exterior finish system of claim 17, further comprising set of instructions; and

wherein the exterior finish system is arranged as a kit.

19. A method of providing an exterior finish system usable in building construction, the method comprising the steps of:

providing at least one wall-sheathing element configured to sheath exterior surfaces of a built structure, the at least one wall-sheathing element constructed of at least one carbon-fiber composite;

providing at least one soffit covering element configured to cover soffit areas of the built structure, the at least one soffit covering element constructed of the at least one carbon-fiber composite;

providing at least one trim element configured to trim the at least one wall- sheathing element and the at least one soffit covering element the at least one trim element constructed of the at least one carbon-fiber composite; and

assembling a kit including the at least one wall-sheathing element, the at least one soffit covering element, and the at least one trim element.

20. The method of claim **19**, further comprising the step of offering within the kit at least one selectable shape option and at least one selectable surface finish option.

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