

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SIMPSON STRONG-TIE COMPANY INC.
Petitioner

v.

COLUMBIA INSURANCE COMPANY
Patent Owner

Case PGR2024-00050
Patent No. 11,920,339

**PATENT OWNER'S CONTINGENT MOTION TO
AMEND UNDER 37 C.F.R. § 42.221**

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EXHIBIT LIST

Exhibit No.	Description
2001	Declaration of Richard Kaczkowski
2002	Curriculum Vitae of Richard Kaczkowski
2003	U.S. Patent No. 11,142,902
2004	U.S. Patent No. 11,225,787
2005	U.S. Publication No. 2021/0396000
2006	U.S. Publication No. 2022/0243455
2007	DGT/DGHT Fire Wall Hangers
2008	“Mass Timber and Wood Framing,” Architectural Record Magazine, McGraw Hill Construction, November 2012, pp. 165-169
2009	Top Flange Hangers LBV/BA/B/HB
2010	Merriam-Webster’s Collegiate Dictionary – Definition of Bound
2011	New Oxford American Dictionary – Definition of Bound
2012	U.S. Patent No. 11,065,667
2013	U.S. Publication No. 2019/0136520
2014	U.S. Patent No. 4,560,301
2015	U.S. Patent No. 6,112,495
2016	Simpson Strong-Tie: New Fire Wall Hangers Optimized for Power Nailers
2017	Simpson Strong-Tie: DGHT Top-Flange Fire Wall Hanger
2018	Simpson Strong-Tie: DGT Top-Flange Fire Wall Hanger

2019	Simpson Strong Tie Co., Inc. Design No. SST/WPCF 120-01 Fire Resistant Joist Hanger DG Series Fire Wall Hanger
2020	Simpson Strong-Tie: Your Go-To, Load-Rated Fire Wall Hanger
2021	Simpson Strong-Tie: Allowable Loads for the DG and DGH hanger installed on walls over wood structural panel sheathing
2022	Simpson Strong-Tie: DGH Fire Wall Hanger Now Available Skewed or with Offset Top Flange
2023	Simpson Strong-Tie: DG/DGB/DGH Fire Wall Hangers
2024	Merriam-Webster's Collegiate Dictionary – Definition of Outwardly
2025	New Oxford American Dictionary – Definition of Outward
2026	U.S. Publication No. 2002/0104279
2027	U.S. Patent No. 11,560,707
2028	U.S. Publication No. 2002/0148191
2029	U.S. Publication No. 2013/0133284
2030	Merriam-Webster's Collegiate Dictionary – Definition of Close
2031	New Oxford American Dictionary – Definition of Close
2032	Merriam-Webster's Collegiate Dictionary – Definition of Conform
2033	New Oxford American Dictionary – Definition of Conformance
2034	U.S. Patent No. 9,938,709
2035	U.S. Patent No. 5,237,613
2036	U.S. Patent No. 6,135,687
2037	Transcript of the May 25, 2022 Deposition of Mr. Fennel

2038	2012 International Building Code – Table 721.1(2)
2039	Fire Ratings of Masonry Walls
2040	Fire and Concrete Structures
2041	Fire Protection Safety with Concrete
2042	2012 International Building Code: Definition of “Fire Wall”
2043	Structural Design for Fire Safety
2044	Press Releases – MiTek Residential Construction Industry
2045	MiTek Releases FWH Fire Wall Hanger, A New USP Structural Connector Product
2046	USP Structural Connectors 2015-2016 Product Catalog
2047	Wood-Frame House Construction
2050	Second Declaration of Richard Kaczowski
2051	Declaration of Paul Tucker
2052	Declaration of Tom Irtmer
2053	Declaration of Andrea Baranyk
2054	Expert Report of Michael Alley
2055	Declaration of Dwight J. Duncan, CFA
2056	Declaration of Matt Church
2057	Declaration of Joe Dunkle
2058	Declaration of Ryan Holmes
2059	Declaration of Michael Nelson
2060	Declaration of Chris Horwitz
2061	May 14, 2025 Deposition of William Andrew Fennell

2062	May 25, 2022 Deposition of William Andrew Fennell
2063	October 5, 2022 Deposition of William Andrew Fennell
2064	January 28, 2025 Deposition of Sam Hensen
2065	March 17, 2025 Deposition of Sam Hensen
2066	January 29, 2025 Deposition of Bryan Wert
2067	April 16, 2025 Deposition of Bryan Wert
2068	January 27, 2025 Deposition of Roger Dankel
2069	January 22, 2025 Deposition of Steven Brekke
2070	January 31, 2025 Deposition of Mark Rolf
2071	January 23, 2025 Deposition of Kristi Campbell
2072	January 24, 2025 Deposition of Mike Nelson
2073	Declaration of W. Andrew Fennell in Support of Petitioner's Reply to Patent Owner's Response and Petitioner's Opposition to Patent Owner's Contingent Motion to Amend (PGR2021-00109)
2074	Declaration of Sam Hensen in Support of Opposition to Motion for Preliminary Injunction
2075	Expert Report of Kenneth S. Serwin, PH.D.
2076	Expert Report of Nathan Hoffmann, PE
2077	U.S. Patent No. 537,504
2078	U.S. Patent No. 3,885,363
2079	U.S. Patent No. 6,230,466
2080	U.S. Patent No. 9,790,684
2081	U.S. Publication No. 2012/0285020

2082	U.S. Publication No. 2013/0047539
2083	File History of U.S. Application No. 18/492,460
2084	New Oxford American Dictionary – Definition of Open
2085	Merriam-Webster’s Collegiate Dictionary – Definition of Opening
2086	Simpson Design File for Gypsum Board Cantilever Hanger
2087	Simpson Emails Re: DHU vs. USP’s FHW (1/2)
2088	Simpson Emails Re: USP Gypsum Hanger (1/4)
2089	Simpson Emails Re: USP Gypsum Hanger (2/4)
2090	MiTek Emails Re: FWH
2091	USP: FWH Fire Wall Hanger Testing
2092	Simpson Emails Re: USP Gypsum Hanger (3/4)
2093	MiTek Emails Re: Cantilevered Hanger (Highly Confidential – Prosecution Bar)
2094	Simpson Emails Re: Status of DHU/DHUTF
2095	Simpson Emails Re: New DHT Drywall Hanger – Forecast Estimate
2096	Simpson Emails Re: Fire Rated Hanger
2097	Simpson Emails Re: Group Field Trial in Baltimore
2098	Simpson Emails Re: USP FWH
2099	Simpson Emails Re: Firewall Hanger (1/2)
2100	Simpson Emails Re: USP Fire Wall Hangers FWH Series
2101	Simpson Emails Re: DGF/DGHF and DGBF

2102	Simpson Emails Re: Fire Wall Hangers
2103	Simpson Emails Re: DU – DHU – DHUTF Challenge
2104	Simpson Emails Re: FWH USP (1/4)
2105	Simpson Emails Re: DHU
2106	Simpson Emails Re: USP FWH Hanger Talking Points
2107	Simpson Emails Re: FWH USP (2/4)
2108	Simpson Emails Re: Drywall Hanger
2109	Simpson Emails Re: Mitek FWH Meeting
2110	Simpson Emails Re: DHU vs. USP’s FWH (2/2)
2111	Simpson Emails Re: Confidential Drywall Hanger
2112	Simpson Emails Re: Hanger Team Meeting Minutes
2113	Photograph of Initial Simpson FWH and MiTek FWH
2114	Simpson Emails Re: Baltimore Summary / Patent Meeting
2115	July 21, 2017 Simpson Hanger Team Minutes
2116	Simpson Emails Re: DGH/DGB Firewall Hanger is Now Available (1/2)
2117	Simpson Emails Re: DGH/DGB Firewall Hanger is Now Available (2/2)
2118	MiTek Emails Re: USP FWH Fire Wall Hanger
2119	MiTek Emails Re: FWH Fire Wall Hanger for 2 Hour Envelope
2120	MiTek Emails Re: Fire Wall Hanger – UFP
2121	MiTek Emails Re: Fire Wall Hanger
2122	MiTek Emails Re: Question? FWH Series – Fire Wall Hangers

2123	MiTek Emails Re: FWH3518
2124	Simpson Emails Re: New Fire Wall Hanger
2125	MiTek Emails Re: Standard Pricing – Reliable- Los Angeles Apts – Laurence Hovenier 1-27-15.xlsx
2126	Simpson Emails Re: Rumbings
2127	Simpson Emails Re: Top Flange Hanger Over 2 Layers of Gypsum Board
2128	Simpson Emails Re: B/HB Style Hanger for Wall with 2-Layers of Gyp
2129	Simpson Emails Re: FWH USP (3/4)
2130	Simpson Emails Re: FWH USP (4/4)
2131	Technical Bulletin: FWH Series Fire Wall Hangers
2132	Fire Wall Hangers FWH Series
2133	DG/DGB/DGH Product Literature: Your Go-To, Load-Rated Fire Wall Hanger
2134	DGF/DGHF/DGBF Product Literature: Your Go-To, Load-Rated Fire Wall Hanger
2135	DGT/DGHT Fire Wall Hanger
2136	Simpson Emails Re: DHU/DHUTF
2137	Simpson Emails Re: Firewall Hanger (2/2)
2138	Simpson Cantilever Drywall Hanger Testing
2139	Mitek Emails Re: Revised Firewall Hanger Sales Sheet – Correction to Narrower Width Allowable Loads
2140	Simpson Emails Re: MiTek USP FWH Fire Wall Hanger
2141	Simpson Emails Re: USP Gypsum Hanger (4/4)

2142	Curriculum Vitae of Paul Tucker
2143	April 15, 2025 Deposition of William Andrew Fennell
2144	2012 International Building Code: Chapters 6 and 7
2145	2000 International Building Code
2146	FW Hangers Top Mount
2147	1994 Timber Construction Manual
2148	DU-DHU-DHUTF Drywall Hangers
2149	1967 Uniform Building Code
2150	Performance Standard for Wood-Based Structural-Use Panels
2151	April 17, 2025 Deposition of Kenneth Serwin
2152	The Evolution of Engineered Wood I-Joists
2153	Performance Standard Considerations for I-Joists Used in Residential Floor Construction
2154	Fire Rated Systems
2155	ICC-ES Evaluation Report: ESR-3444
2156	ICC-ES Evaluation Report: ESR-4464
2157	ASTM E814
2158	FWH Fire Wall Hanger Installation Instructions
2159	Simpson Emails Re: USP – FWH Fire Wall Hanger
2160	File History of U.S. Application No. 17/235,349
2161	File History of U.S. Application No. 16/433,799
2162	File History of U.S. Application No. 16/225,517
2163	File History of U.S. Application No. 15/675,409

2164	File History of U.S. Application No. 14/555,049
2165	Simpson Emails Re: Do You Have a Match for This?

I. INTRODUCTION

Patent Owner Columbia Insurance Co. (“Columbia”) submits this Contingent Motion to Amend (“Motion”) under 37 C.F.R. § 42.221. This Motion is filed with Patent Owner’s Response, which responds to the Petitioner Simpson Strong-Tie Co. Inc.’s (“Simpson”) Petition and the Board’s Institution Decision. If, after considering Columbia’s briefing, the Board finds any of issued claims unpatentable, Columbia respectfully requests the Board consider this Motion.

II. COLUMBIA REQUESTS PRELIMINARY GUIDANCE FROM THE BOARD ON IT’S MOTION TO AMEND

Per 37 CFR 42.221(e), Columbia respectfully requests preliminary guidance from the Board on this Motion.

III. LEGAL STANDARDS FOR AMENDING CLAIMS

This Motion must be granted if the Board finds: (1) a reasonable number of substitute claims is proposed; (2) the substitute claims do not enlarge the claim scope or introduce new matter; and (3) the substitute claims are not shown by a preponderance of the evidence to be unpatentable. *See* Memorandum re: Guidance on Motions to Amend in view of *Aqua Products* (Nov. 21, 2017) at p. 2; 35 U.S.C. § 326(d); 37 C.F.R. § 42.221(a). It is Simpson’s burden to show the proposed substitute claims are unpatentable. 37 C.F.R. § 42.221(d)(2).

IV. CLAIM LISTING

Pursuant to 37 C.F.R. § 42.221(b), attached Appendix A includes a claim listing indicating the changes made to the issued claims of U.S. Patent No. 11,920,339 (“the ‘339 patent”). The number of substitute claims is reasonable because there are 20 substitute claims, which less than the 31 challenged claims. 35 U.S.C. § 326(d)(1)(B); 37 C.F.R. § 42.221(a)(3).

V. SCOPE OF THE SUBSTITUTE CLAIMS

The proposed substitute claims comply with 35 U.S.C. § 326(d)(3) and 37 C.F.R. § 42.221(a)(2)(ii) because the substitute claims do not enlarge the scope of the patented claims in any respect. The amendments only add elements to the patented claims that narrow their scope. For instance, substitute independent claim 32 (replacing claim 1) contains all of the elements of claim 1 and also adds new elements. Substitute dependent claims 33-41, 43, and 44 depend from claim 32 and, thus, further narrow the scope of claim 32 and contain all of claim 32’s narrowing elements. Limitations deleted in claims 34 and 35 are incorporated in earlier claims from which claims 34 and 35 depend from, and thus claims 34 and 35 still include these limitations by virtue of being dependent claims.

Substitute claims 42, 45, and 46 (replacing claims 18, 25, and 26) are amended to be independent and include all the elements of claim 1 (and some additional new elements). Claims 18, 25, and 26 all depended directly from claim

1. Thus, substitute claims 42, 45, and 46 do not enlarge the scope of the claims.

Substitute independent claim 47 (replacing claim 27) contains all of the elements of claim 27, except “part of the extension portion” is replaced with “an extension flange of the extension portion.” This narrows the scope by specifying the specific component of the extension portion “received in the opening,” instead of any general part of the extension portion. Claim 47 also includes other narrowing elements. Substitute dependent claims 48-51 depend from claim 47 and, thus, further narrow the scope of claim 47 and contain all of claim 47’s narrowing elements. Limitations deleted in claims 49 and 50 are incorporated in earlier claims from which claims 49 and 50 depend from, and thus claims 49 and 50 still include these limitations by virtue of being dependent claims.

VI. WRITTEN DESCRIPTION SUPPORT

Each of the proposed substitute claims 32-54 have written description support in U.S. Patent Application Nos. 18/112,843 (EX1002 (file history) at 37-108, hereinafter “the ‘843 Application”), 17/235,349 (EX2160 (filed application) at 14-85, hereinafter “the ‘349 Application”), 16/433,799 (EX2161 (filed application) at 35-106, hereinafter “the ‘799 Application”), 16/225,517 (EX2162 (filed application) at 20-90, hereinafter “the ‘517 Application”), and 15/675,409 (EX2163 (filed application) at 25-94, hereinafter “the ‘409 Application”),

14/555,049 (EX2164 (filed application) at 19-88, hereinafter “the ‘049 Application”) (collectively, “the Applications”).

The following charts identify the written description support for each substitute claim in relation to the ‘843 Application, identified by paragraph number(s) and/or figure number(s). All the Applications are identical except for the “Summary” and “Claim” sections. The slight differences between the Applications results in some differences in paragraph numbering for paragraphs otherwise containing identical content. Therefore, when support is identified by paragraph number for the ‘843 Application, the identical paragraph number in the ‘349, ‘799, and ‘517 Applications provides identical support, and the paragraph number in the respective ‘409 and ‘049 Applications that is two units less than the ‘843 Application’s paragraph number provides identical support.

Additionally, the figures are identical between the Applications.¹ Thus, the figures of the ‘843 Application identified for support in the following charts apply to the same figures in all the Applications.

¹ For clarity purposes only, the charts cite paragraphs and figures providing written description support for the orthogonal hanger embodiment. This is not a concession by Columbia. Columbia submits at least some of the substitute claims read on and are supported by the non-orthogonal hanger embodiment.

Claims and limitations with similar or identical support are grouped together. The cites in the follow charts are not exhaustive.

A. Claims 32, and 47 and Limitations 42.P-42.c.3, 45.P-45.c.3, and 46.P-46.c.3

Ref. ID ²	'843 Application
32.P/42.P/ 45.P/46.P/ 47.P	¶55: “fire-resistive wall assembly” ¶70: “hangers 26 can be installed on the wall 28 before the sheathing 34 is mounted on the wall” Figs. 1 and 10
32.a.1/42.a.1/ 45.a.1/46.a.1/47.a.1	¶70: “hangers 26 can be installed on the wall 28” Figs. 1 and 10
32.a.2/42.a.2/ 45.a.2/46.a.2/47.a.2	¶[55]: “wall 28 includes a top [] plate 30 and ... studs 32” Figs. 1 and 10
32.a.3/ 42.a.3/ 45.a.3/ 46.a.3/ 47.a.3	¶56: “hanger 26 includes a channel-shaped portion 38, an extension portion 40, and a connection portion 42. The channel-shaped portion 38 is configured to receive the floor truss 12.” ¶65: “the connection portion ... includes ... connector tabs 74 The connector tabs 74 ... attach the truss hanger 26 to the wall.” ¶58: “the extension portion 40 includes two extension flanges 60 Each flange 60 extends ... from [a] back panel 48” ¶59: “back flange 66 extends from each of the extension flanges 60.” ¶60: “the fire retardant sheathing 34 extends into each sheathing channel 68 and is secured between the back panels 48 and the back flanges 66.”

² Appendix A identifies the claim limitation corresponding to each reference identifier (“Ref. ID”).

	Fig. 1, 2, and 10
32.a.4/ 42.a.4/ 45.a.4/ 46.a.4/ 47.a.4	¶65: “the connection portion ... includes ... connector tabs 74 The connector tabs 74 ... attach the truss hanger 26 to the wall.” ¶66: “The channel 52 that receives an end portion of the truss 12 is spaced to the interior of the wall 28 nails 78 connecting the connector tabs 74 to the upper surface of the top plate 30.” Figs. 1, 10, and 13
32.b.1/42.b.1/ 45.b.1/46.b.1/ 47.b.1	¶62: “cutting the slot 72 in the sheathing 34” ¶69: “a top edge of the fire retardant sheathing” Figs. 9 and 10A (annotated below)
32.b.2/42.b.2/ 45.b.2/46.b.2/ 47.b.2	¶56: “interior face 50 of the fire retardant sheathing 34” ¶70: “hanger 26 extend through the slot 72 of the sheathing” Figs. 10 and 11 (annotated below)
32.b.3/ 42.b.3/ 45.b.3/ 46.b.3/ 47.b.3	¶62: “the guide slot 98 includes a wide, rectangular portion 98a ... to ease insertion of a cutting tool into the guide slot.” ¶64: “a cutting tool ... is inserted into the guide slot 98 to cut a slot 72 in the sheathing” ¶69: “a top edge of the fire retardant sheathing” ¶70: “moving the sheathing upward ... so that the extension flanges 60 of the hanger 26 extend through the slot 72 of the sheathing” Figs. 9, 10A (annotated below), and 16
32.b.4/42.b.4/ 45.b.4/46.b.4/ 47.b.4	¶56: “interior face 50 of the fire retardant sheathing 34” ¶69: “a top edge of the fire retardant sheathing” Figs. 10A (annotated below) and 11 (annotated below)
32.c.1/ 42.c.1/ 45.c.1/ 46.c.1/ 47.c.1	¶55: “wall 28 includes ... studs 32” ¶68: “cutting the slot 72 in the fire retardant sheathing 34 (either before or after the sheathing is mounted on the wall)” ¶70: “hangers 26 can be installed on the wall 28 before the sheathing

	34 is mounted on the wall.” Figs. 1, 10, 10A (annotated below), and 11 (annotated below)
32.c.2/ 42.c.2/ 45.c.2/ 46.c.2/ 47.c.2	¶59: “Each sheathing channel 68 is configured to receive a portion of the fire retardant sheathing 34 to secure the sheathing between the hanger 26 and the wall 28.” ¶70: “the sheathing 34 can be mounted on the wall 28 by moving the sheathing upward into place so that ... the sheathing is positioned in the sheathing channels 68 between the back flanges 66 and the back panels 48.” Figs. 1 and 10
32.c.3/ 42.c.3/ 45.c.3/ 46.c.3/ 47.c.3	¶7: “An extension portion is configured to be disposed at least partially in the sheathing.” ¶60: “the extension flanges 60 extend through a slot 72 in the fire retardant sheathing 34” ¶60: “the edge of the slot 72” ¶70: “the sheathing 34 can be mounted on the wall 28 by moving the sheathing upward into place so that the extension flanges 60 of the hanger 26 extend through the slot 72 of the sheathing” Figs. 1, 9 (annotated below), 10, 10A (annotated below), and 13A

B. Claims 33, 36, 48, and 49 and Limitations 44.b-44.d

Ref. ID	‘843 Application
33.a.1/ 48.a.1	¶59: “the back flanges 66 engage the wall 28 ..., which ... is a vertical face of the top plate 30” ¶70: “hanger 26 is positioned against the wall 28 such that the back flanges 66 engage the wall” Figs. 1, 10, and 11 (annotated below)
33.a.2/	¶59: “Each back flange 66 extends generally perpendicular from the

48.a.2	extension flange 60” Figs. 7 and 8
33.a.3/ 48.a.3	¶65: “the connection portion of the hanger includes a pair of connector tabs 74 The connector tabs 74 are configured to engage an upper surface of the top plate 30 of the wall 28” ¶70: “hanger 26 is positioned against the wall 28 such that ... the connector tabs 74 engage the top plate 30” Figs. 1, 10, 10A (annotated below), and 11 (annotated below)
33.b/49.a	¶70: “the sheathing 34 can be mounted on the wall 28 by moving the sheathing upward into place so that ... the sheathing is positioned in the sheathing channels 68 between the back flanges 66 and the back panels 48.” Figs. 1, 2 (annotated below), 10, and 11
36.a/49.b	¶55: “Fire retardant sheathing 34 is mounted on both sides of the wall 28” ¶70: “the sheathing 34 can be mounted on the wall 28 by moving the sheathing upward into place” Figs. 1, 10, 10A (annotated below), and 11 (annotated below)
36.b/ 48.b	¶58: “At a bottom edge, each flange 60 includes a driving point 62.” ¶70: “the sheathing 34 can be mounted on the wall 28 by moving the sheathing upward into place so that the extension flanges 60 of the hanger 26 extend through the slot 72 of the sheathing” Figs. 1-3, 4 (annotated below), 5 (annotated below), 9, 10, and 12
44.b/ 48.c	¶84: “The cavities in the wall were filled with mineral wool insulation.”
44.c/ 48.d	¶55: “Fire retardant sheathing 34 is mounted on both sides of the wall 28 ... the fire retardant sheathing is gypsum board, such as two layers of $\frac{5}{8}$ ” gypsum board mounted on each side of the wall 28”

	¶84: “a wall assembly including 2x6 wood studs, 24” on center, with two layers of 5/8” Type X gypsum attached to each side.” Figs. 1, 10, and 11
44.d/ 48.e	¶55: “a 2-hour fire-resistive wall assembly” ¶84: “testing was performed per ASTM E814 which subjected the specimen to the time/temperature curve prescribed in ASTM E119 for a period of two hours As a result of this testing, ... the penetration of the truss hanger through the gypsum board will not reduce the fire resistive rating of the 2 hour fire resistive assembly.”

C. Claims 34, 41, and 43 and Limitations 42.d.1, 42.g, 46.f, 50.a, 50.c, and 51.a

Ref. ID	‘843 Application
34.a/41/ 42.d.1/ 42.g/ 43/46.f/ 51.a	¶55: “hangers 26 extend through a narrow slot in the fire retardant sheathing 34 to maintain the integrity and fire retardant characteristics of the fire separation wall” ¶58: “the extension portion 40 includes two extension flanges 60 configured to extend through the fire retardant sheathing 34” ¶70: “the sheathing 34 can be mounted on the wall 28 by moving the sheathing upward into place so that the extension flanges 60 of the hanger 26 extend through the slot 72 of the sheathing” ¶83: “hanger 26, 126 permits a floor truss 12 to be secured to a wall 28 through fire retardant sheathing 34 with minimal interruption to the sheathing. Installation of the truss hanger minimally disrupts the continuity of the sheathing and therefore does not reduce the fire resistive rating of a fire rated assembly. The extension flanges 60, 160 extend through the fire retardant sheathing 34 so that the sheathing is interrupted only by the slot 72 required to receive the

	flanges.” Figs. 1, 10, 11, and 13A
34.b/50.a	¶67: “hanger 26 ... can be formed as one piece from a metal blank 80 that is stamped from a sheet metal roll and bent into shape” Figs. 2 and 15
34.c/50.c	¶58: “the extension portion 40 includes two extension flanges 60 Each flange 60 extends from one of the back panels 48. ... Each flange 60 extends generally perpendicular from the corresponding back panel 48” ¶59: “Each back flange 66 extends generally perpendicular from the extension flange 60” ¶67: “hanger 26 ... can be formed as one piece from a metal blank 80 that is stamped from a sheet metal roll and bent into shape” Figs. 2, 4 (annotated below), 5 (annotated below), 7 (annotated below), 8, and 15

D. Claim 35 and Limitations 45.d.4, 45.d.5, 50.b, and 50.d

Ref. ID	‘843 Application
35.a/ 50.b/ 45.d.4	¶56: “The channel-shaped portion 38 includes a ... base 44 and a pair of side panels 46 extending upward from the base.” ¶57: “The bottom chord 16 ... engages and rests upon (i.e., is supported by) the base 44.” Figs. 1, 2 (annotated below), 4 (annotated below), 5 (annotated below), and 12
35.b	¶67: “hanger 26 ... can be formed as one piece from a metal blank 80 that is stamped from a sheet metal roll and bent into shape” Figs. 2 (annotated below) and 15
35.c/ 45.d.5	¶56: “The channel-shaped portion 38 includes a ... base 44 and a pair of side panels 46 extending upward from the base.”

	Figs. 2, 4, and 5
35.d/50.d	¶56: “Each back panel 48 is generally perpendicular to ... the base” ¶58: “the extension portion 40 includes two extension flanges 60 ... Each flange 60 extends generally perpendicular from the corresponding back panel 48 and generally parallel to the side panels” ¶67: “hanger 26 ... can be formed as one piece from a metal blank 80 that is stamped from a sheet metal roll and bent into shape” Figs. 2, 4 (annotated below), and 5 (annotated below)

E. Claim 37

Ref. ID	‘843 Application
37.a	¶[55]: “wall 28 includes a top [] plate 30 and ... studs 32 Fire retardant sheathing 34 is mounted on both sides of the wall 28” Figs. 1, 10, 10A, 11 (annotated below), and 13 (annotated below)
37.b	¶44: “hanger 26 ... can be formed as one piece from a metal blank 80 that is stamped from a sheet metal roll and bent into shape. In one embodiment, the truss hanger 26 is stamped from 12-14 gauge steel” Figs. 2 and 15

F. Claim 38

Ref. ID	‘843 Application
38.a	¶56: “The channel-shaped portion 38 includes a ... base 44.” ¶57: “The bottom chord 16 ... engages and rests upon (i.e., is supported by) the base 44.” ¶70: “the truss hangers 26 can be installed on the wall 28 before the sheathing 34 This ... allow[s] the building to be completely framed and roofed before requiring the sheathing 34 to be installed.

	... The truss hanger 26 is positioned against the wall 28 Then, a truss 12 is positioned in the truss channel 52 of the hanger 26. ... Subsequently, the sheathing 34 can be mounted on the wall 28” Figs. 1, 2A (annotated below), 12, and 14
38.b	¶56: “A back panel 48 extends from each of the side panels 46” ¶57: “The end member 20 of the floor truss is positioned against the back panels 48” ¶70: “Subsequently, the sheathing 34 can be mounted on the wall 28 by moving the sheathing upward into place so that ... the sheathing is positioned ... between the back flanges 66 and the back panels 48.” Figs. 1, 2A, 12, and 14.
38.c	¶57: “The end member 20 of the floor truss is positioned against the back panels 48” ¶70: “Subsequently, the sheathing 34 can be mounted on the wall 28 by moving the sheathing upward into place so that ... the sheathing is positioned ... between the back flanges 66 and the back panels 48.” Figs. 1, 12, and 14.

G. Claims 39 and 40

Ref. ID	‘843 Application
39.a/40.a	¶55: “As illustrated, the top plate 30 is formed by two 2x4’s in stacked relation. ... In one embodiment, the fire retardant sheathing is gypsum board, such as two layers of 5/8” gypsum board mounted on each side of the wall 28 as illustrated” ¶60: “the slot has an area less than or equal to 6 square inches” ¶68: “The slot ... is about 10 inches long.” Figs. 9, 12, and 14A

39.b	¶58: “the extension portion 40 includes two extension flanges 60 ... Each flange 60 extends generally perpendicular from the corresponding back panel 48” ¶59: “Each back flange 66 extends generally perpendicular from the extension flange 60” ¶67: “hanger 26 ... can be formed as one piece from a metal blank 80 that is stamped from a sheet metal roll and bent into shape” Figs. 2, 4, 5, 7 (annotated below), and 8
40.b	¶55: “As illustrated, the top plate 30 is formed by two 2x4’s in stacked relation. ... In one embodiment, the fire retardant sheathing is gypsum board, such as two layers of 5/8” gypsum board mounted on each side of the wall 28 as illustrated” ¶56: “The base 44, side panels 46, and back panels 48 form a channel 52 configured to receive the floor truss 12.” ¶60: “the slot has an area less than or equal to 6 square inches” ¶68: “The slot ... is about 10 inches long.” Figs. 9 and 12

H. Limitations 42.d.2-42.f, 45.d.1, 45.d.3, 45.d.7, 45.e and 46.d.1-46.e

Ref. ID	‘843 Application
42.d.2/ 45.d.3 46.d.2	¶58: “the extension portion 40 includes two extension flanges 60 configured to extend through the fire retardant sheathing 34. Each flange 60 extends from one of the back panels 48. The flanges 60 are positioned in opposed, face-to-face relation” ¶59: “A back flange 66 extends from each of the extension flanges.” Figs. 2, 7, and 8
42.d.3/ 45.d.7	¶58: “the extension portion 40 includes two extension flanges 60 configured to extend through the fire retardant sheathing 34. ... The

46.d.3	flanges 60 are positioned in opposed, face-to-face relation” Figs. 2 (annotated below) and 7 (annotated below)
42.d.4/ 46.d.4	¶58: “the extension portion 40 includes two extension flanges 60 ... The flanges 60 are positioned in opposed, face-to-face relation” Figs. 2, 7 (annotated below), and 8
42.e.1/ 45.d.1/ 46.d.1	¶56: “hanger 26 includes a channel-shaped portion 38, an extension portion 40, and a connection portion 42” ¶67: “hanger 26 ... can be formed as one piece from a metal blank 80 that is stamped from a sheet metal roll and bent into shape. In one embodiment, the truss hanger 26 is stamped from 12-14 gauge steel” PGR2019-00063 Paper 52: Final Written Decision, pg. 101 (P.T.A.B. Mar. 11, 2021) (holding “the ‘517 and benefit applications adequately support the term ‘rigidly fixed’”) Figs. 1, 2, and 15
42.e.2/ 46.d.5	¶59: “Each back flange 66 extends generally perpendicular from the extension flange 60” ¶65: “the connection portion ... includes ... connector tabs 74 Each connector tab 74 extends generally perpendicular from one of the back flanges.” Figs. 2 (annotated below), 4, 5, 7 (annotated below), and 8
42.f/ 46.e/ 45.e	¶59: “the back flanges 66 engage the wall 28 ..., which ... is a vertical face of the top plate 30” ¶65: “the connection portion of the hanger includes a pair of connector tabs 74 The connector tabs 74 are configured to engage an upper surface of the top plate 30 of the wall 28” ¶70: “hanger 26 is positioned against the wall 28 such that the back flanges 66 engage the wall and the connector tabs 74 engage the top plate 30”

	Figs. 1, 10, 10A (annotated below), and 11 (annotated below)
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I. Limitations 44.a.1-44.a.3

Ref. ID	‘843 Application
44.a.1	¶55: “the fire retardant sheathing is gypsum board, such as two layers of 5/8” gypsum board mounted on each side of the wall 28” ¶84: “a wall assembly including 2x6 wood studs, 24” on center, with two layers of 5/8” Type X gypsum attached to each side.” Figs. 1, 10, and 10A
44.a.2	¶84: “two layers of 5/8” Type X gypsum” Figs. 1, 10, and 10A
44.a.3	¶84: “two layers of 5/8” Type X gypsum” Figs. 1, 10, and 10A (annotated below)

J. Limitations 45.d.2 and 45.d.6

Ref. ID	‘843 Application
45.d.2	¶59: “the back flanges 66 engage the wall 28 ..., which ... is a vertical face of the top plate 30” ¶65: “the connection portion ... includes ... connector tabs 74 Each connector tab 74 extends ... from one of the back flanges” Figs. 2 (annotated below), 4, 5, 7, and 8
45.d.6	¶56: “a pair of side panels 46” ¶60: “the fire retardant sheathing 34 extends into each sheathing channel 68 and is secured between the back panels 48 and the back flanges 66.” Figs. 2 (annotated below) and 7 (annotated below)

K. Limitation 50.e

Ref. ID	‘843 Application
50.e	¶58: “the extension portion 40 includes two extension flanges 60 ...

	Each flange 60 extends generally perpendicular from the corresponding back panel 48” ¶67: “hanger 26 ... can be formed as one piece from a metal blank 80 that is stamped from a sheet metal roll and bent into shape” Figs. 2, 4 (annotated below), and 5 (annotated below)
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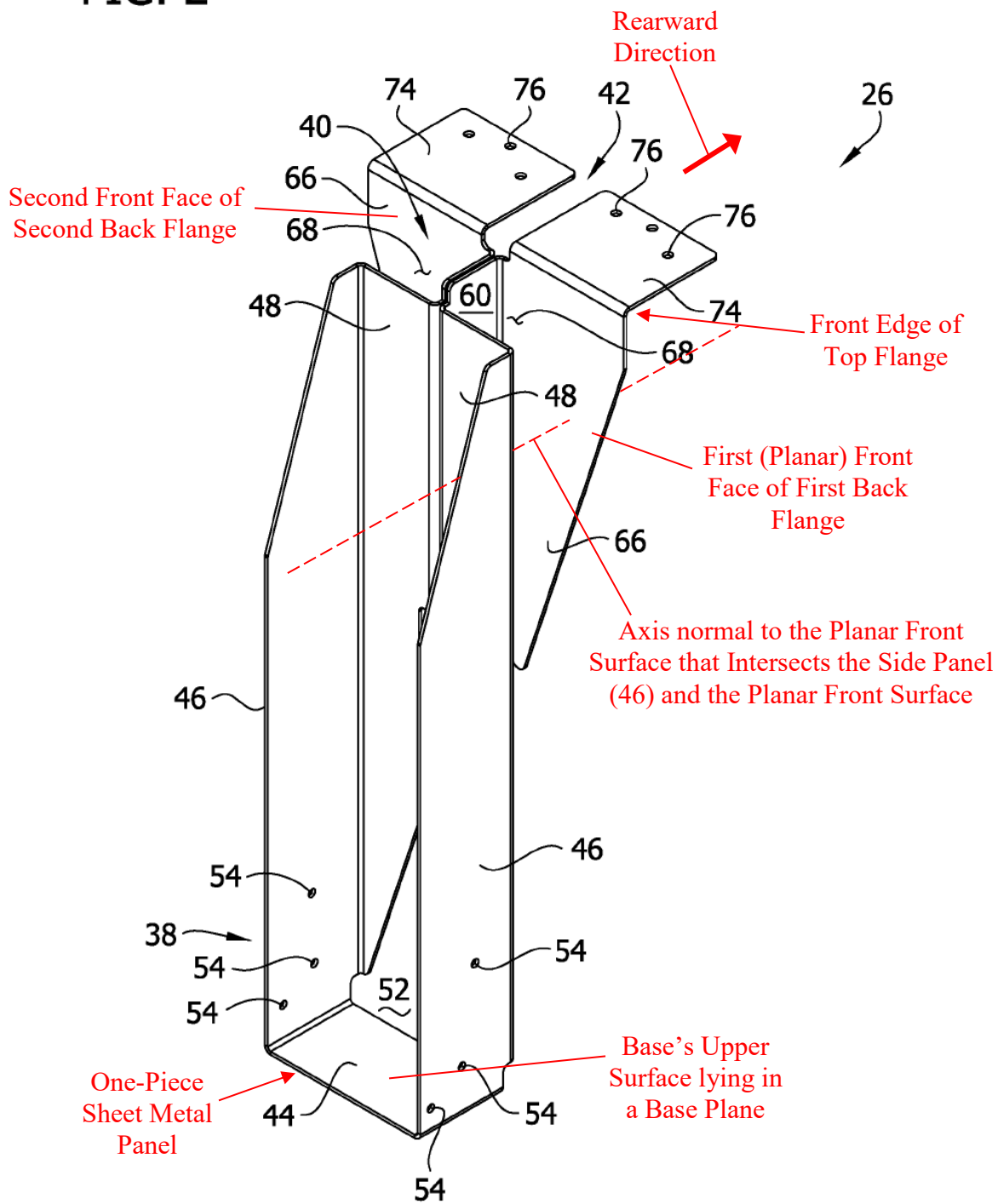
L. Limitation 51.b

Ref. ID	‘843 Application
51.b	¶58: “the extension portion 40 includes two extension flanges 60” ¶67: “hanger 26 ... can be formed as one piece from a metal blank 80 that is stamped from a sheet metal roll and bent into shape” ¶55: “hangers 26 extend through a narrow slot in the fire retardant sheathing 34 to maintain the integrity and fire retardant characteristics of the fire separation wall” ¶83: “hanger 26, 126 permits a floor truss 12 to be secured to a wall 28 through fire retardant sheathing 34 with minimal interruption to the sheathing. Installation of the truss hanger minimally disrupts the continuity of the sheathing and therefore does not reduce the fire resistive rating of a fire rated assembly. The extension flanges 60, 160 extend through the fire retardant sheathing 34 so that the sheathing is interrupted only by the slot 72 required to receive the flanges.” Figs. 4 and 5

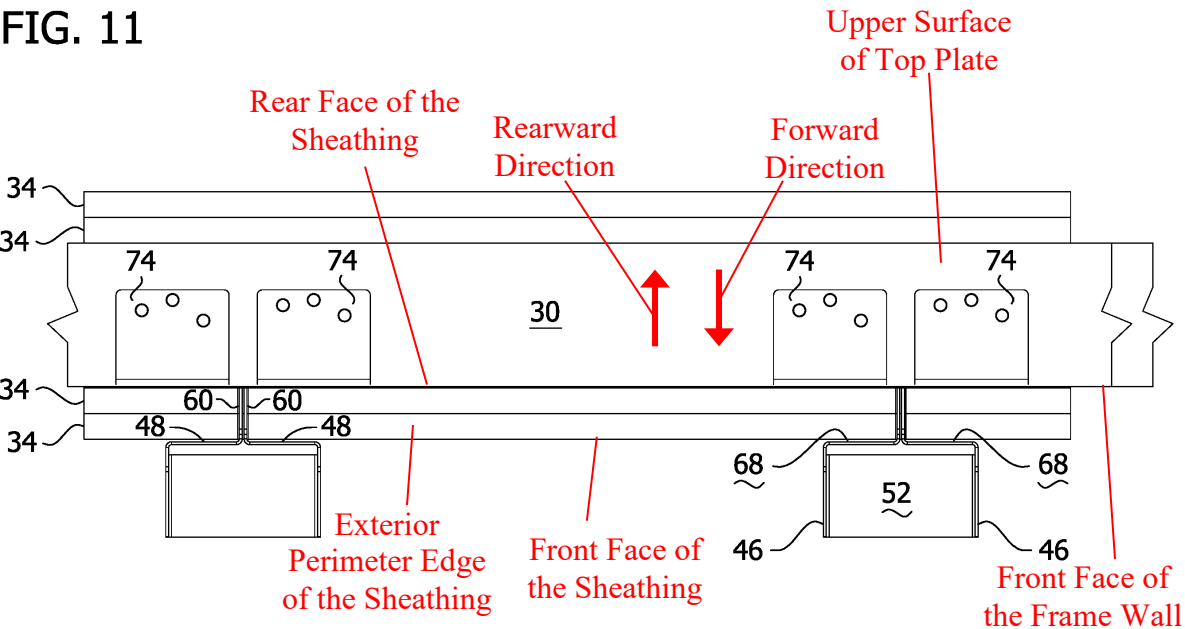
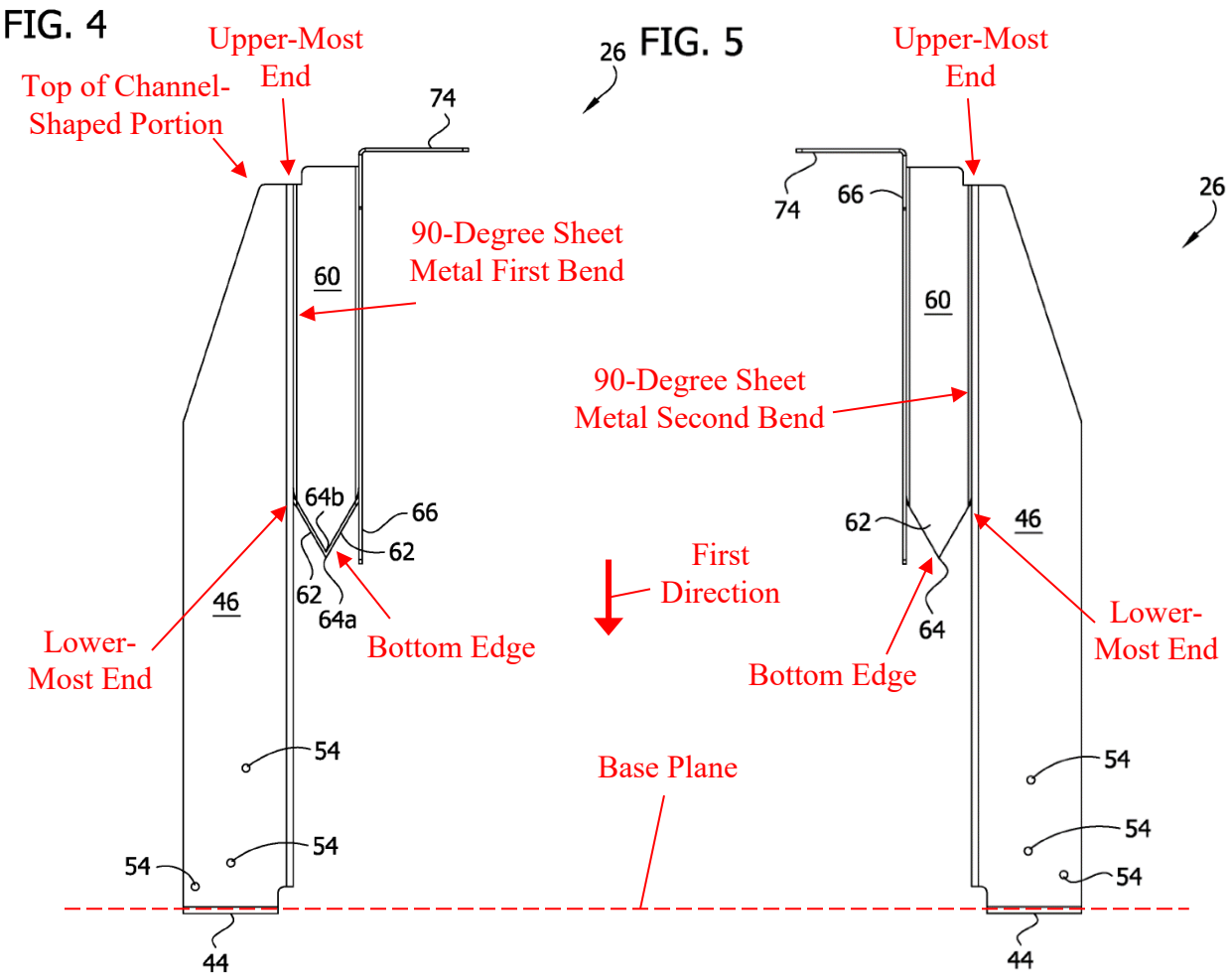
M. Annotated Figures

For the claim limitations indicated in the charts above, the following annotated figures provide additional written description support:

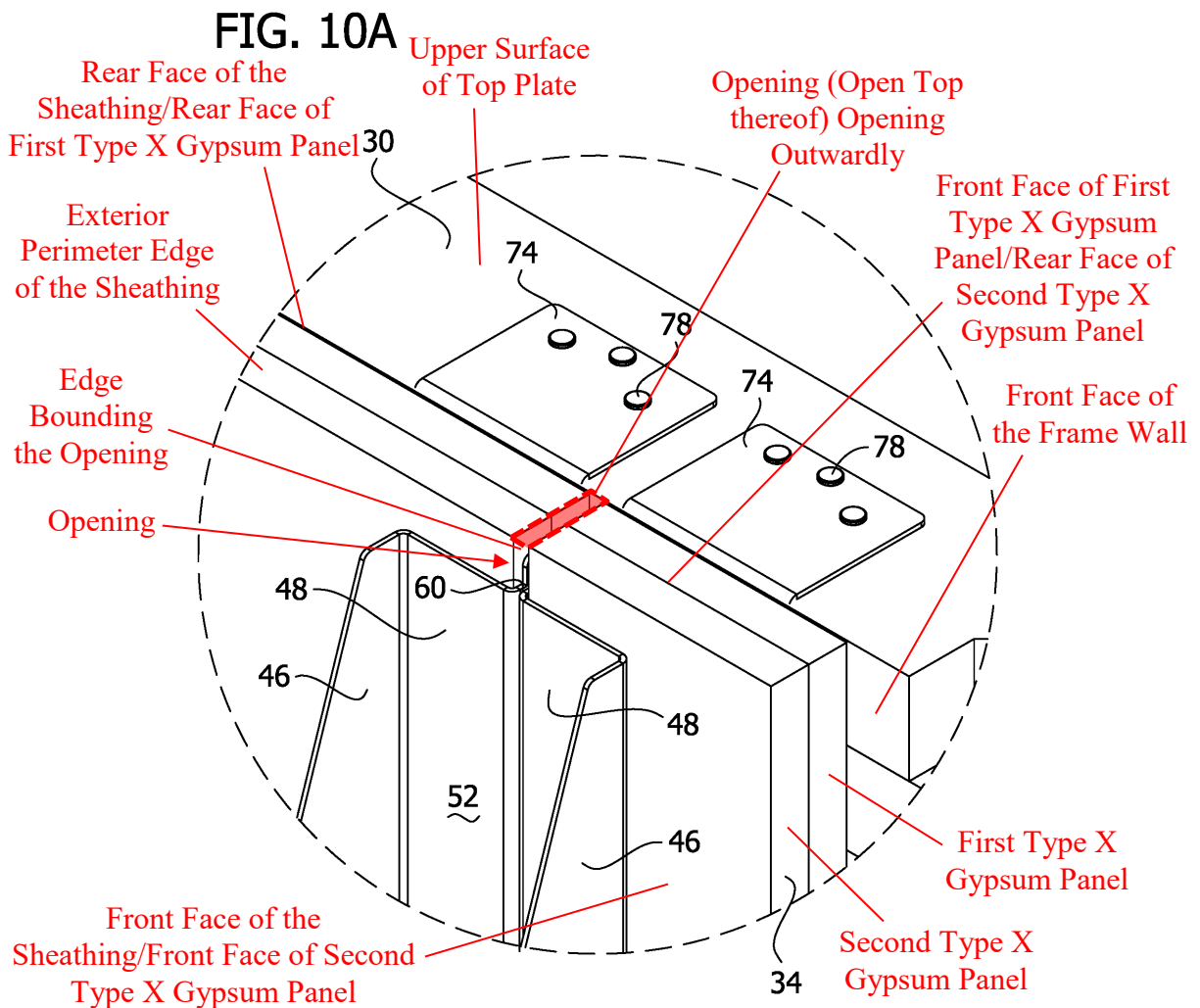
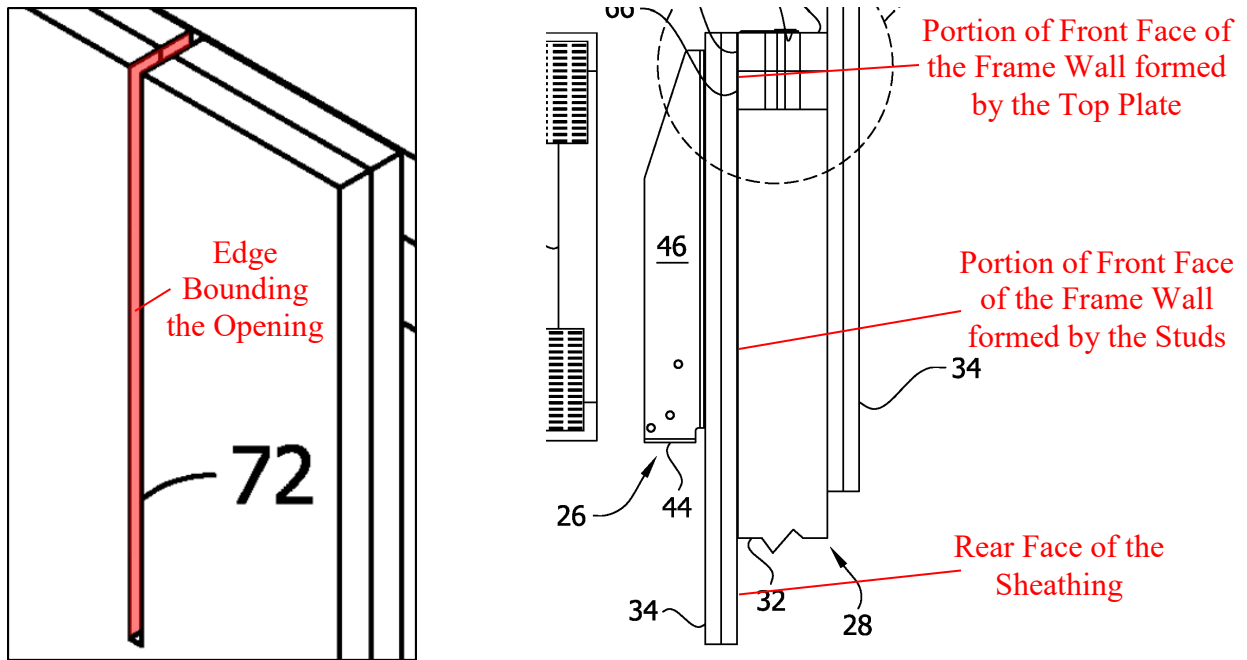
FIG. 2



EX1001: Fig. 2 (annotated)



EX1001: Figs. 4, 5, and 11 (annotated).



EX1001: Figs. 9 and 13 (enlarged, annotated), Fig. 10A (annotated)

N. Bottom Edge (Claims 36 and 48)

Written description support is provided in Figs. 4 and 5 (annotated above), which show the bottom edge of each extension flange (60) is exposed and free of direct attachment to any other component for insertion into the opening (72) in the fire retardant sheathing (34). With further reference to Figs. 9 and 10, it is apparent that when “the sheathing 34 [is] mounted on the wall 28 by moving the sheathing *upward* into place” (‘843 Application: ¶70) the bottom edge of the extension flange (60a) (which is at the very bottom of the extension portion (40)) is the first part of the fire wall hanger that moves into the opening (72) via the open top.

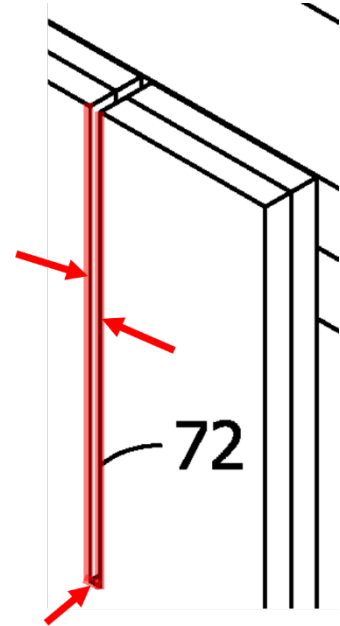
VII. THE PROPOSED SUBSTITUTE CLAIMS ARE PATENTABLE

As required under 37 C.F.R. § 42.221(a)(2)(i), the substitute claims 32-51 address Simpson’s indefiniteness and obviousness grounds.

A. Indefiniteness (Ground 2)

Substitute independent claims 32, 42, and 45-47 each recite “the exterior perimeter edge [of the fire retardant sheathing] extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing” to further define the “[exterior] edge” of the fire retardant sheathing the opening is cut into.

This additional description further³ precludes the Board’s interpretation from the Institution Decision “as referring to opening from the exterior edges of the front face of the fire retardant sheathing.” ID: 42. As shown in annotated Fig. 9 (right), these edges (highlighted red) of the front face are only *at* the front face, they do not extend from the front face to the rear face of the fire retardant sheathing. EX1001: Fig. 9 (annotated, enlarged). In addition, these edges (highlighted red) are not “an exterior *perimeter* edge of the fire retardant sheathing” because they do not form the perimeter of the fire retardant sheathing.



B. Obviousness (Grounds 3-11)

The substitute claims recite several differences from the prior art applied in the Petition, some of which are pointed out below. Consolidated Trial Practice Guide November 2019, pg. 69 (“[a]lthough not required, patent owners may offer arguments regarding patentability of any proposed substitute claim”).

1. Substitute Claims 33, 48, and 49

Substitute claims 33 and 48 recites “a first back flange” and “a second back flange.” As shown by Simpson’s annotated figures, Cullen and Robinson each

³ “opening outwardly” is definite, as explain in Patent Owner’s Response.

only have one back flange (each shaded blue by Simpson). Pet: 34-35, 119-120.

Cullen and Robinson do not have a second back flange.

Substitute claim 33 also includes the subject matter of issued claim 4 and substitute claim 49 includes the subject matter of issued claim 30. Issued claims 4 and 30 are not being challenged by Simpson as being invalid based on Yamaguchi.

Further, substitute claims 33 and 49 each recite “a first[/second] front face of the first[/second] back flange.” For the same reasons as substitute claims 32 and 48, Cullen and Robinson do not have a second front face.

2. Substitute Claim 45

Substitute claim 45 is based on issued claim 25, which is not being challenged by Simpson as being invalid based on Yamaguchi.

Substitute claim 45 recites “the back flange extending from a front edge of the top flange.” Robinson’s purported “back flange” does not extend from a *front edge* of a top flange.

Claim 45 also recites “the axis spaced apart in the second direction from the inner face of the first planar extension plate.” Cullen does not have this feature.

3. Substitute Claims 34 and 50

Substitute claims 34 and 50 each recite “the fire wall hanger is formed as one-piece of sheet metal.” “Formed as one piece of sheet metal” means “shaped or

molded as a single, unitary piece of [sheet metal].”⁴ PGR2019-00063 Paper 52: Final Written Decision, pgs. 78-80. The configuration of Robinson prevents Robinson’s hanger from being “formed as one-piece of sheet metal.” In Robinson, the dividing wall (136) cannot be bent (shaped or molded) from the same piece of sheet metal that would form the second surface (122) because the dividing wall abuts the second surface—with the second surface extending both above and below the dividing wall. By imagining the bending of a piece of sheet metal, it becomes clear the same portion of sheet metal cannot form these two separate and distinct hanger components (dividing wall (136) and second surface (122)).

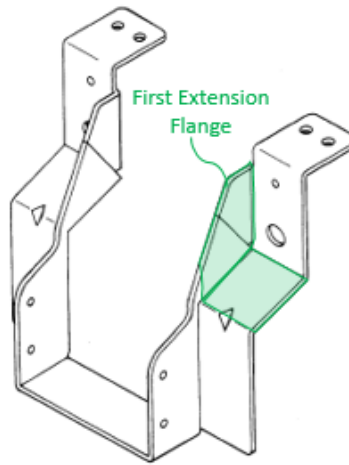
Substitute claims 34 and 50 also each recite a “90-degree sheet metal bend formed by the [first] extension flange and the channel-shaped portion.” Cullen and Robinson do not have this feature.

4. Substitute Claims 36 and 48

Substitute claims 36 and 48 recite “an exposed bottom edge of the extension flange ... is a first part of the extension flange to move into the opening in the fire retardant sheathing, the bottom edge being free of direct attachment to any other

⁴ Columbia has substituted “sheet metal” for “material” in the construction previously determined by the Board to capture the amendment’s recitation of “sheet metal” as the specific type of material being used.

component.” Neither Yamaguchi nor Robinson have this feature. Robinson’s diving wall (136) has a bottom face, not a bottom edge. Likewise, Yamaguchi’s purposed extension flange (annotated green by Simpson (Pet: 95)) has a bottom face, not a bottom edge, and/or any purposed bottom edge of Yamaguchi’s extension flange is not exposed and/or free of direct attachment to any other component.



VIII. CONCLUSION

For these reasons, Columbia respectfully requests the Board find substitute claim(s) 32-51 patentable if corresponding original claims 1-31 are unpatentable.

Dated: May 27, 2025

Respectfully submitted,

/Kurt F. James/

Kurt F. James, Reg. No. 33,716

Counsel for Patent Owner

CERTIFICATE OF SERVICE

Under 37 C.F.R. § 42.6(e), the undersigned certifies that on May 27, 2025, a copy of the foregoing PATENT OWNER'S CONTINGENT MOTION TO AMEND UNDER 37 C.F.R. § 42.221, along with the supporting exhibits and Appendix A, were served via email on the following:

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**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
REQUIREMENTS UNDER 37 C.F.R. § 42.24**

Under 37 C.F.R. § 42.24(d), the undersigned certifies that this Patent Owner's Motion to Amend complies with the page limit of § 42.24(a)(vi) because it contains no more than 25 pages.

This paper also complies with the typeface requirements of 37 C.F.R. § 42.6(a)(2)(ii) and the type style requirements of 37 C.F.R. § 42.6(a)(2)(iii) and (iv).

Dated: May 27, 2025

Respectfully submitted,

/Kurt F. James/
Kurt F. James, Reg. No. 33,716
Counsel for Patent Owner

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SIMPSON STRONG-TIE COMPANY INC.
Petitioner

v.

COLUMBIA INSURANCE COMPANY
Patent Owner

Case PGR2024-00050
Patent No. 11,920,339

APPENDIX A

PATENT OWNER'S CONTINGENT MOTION TO AMEND

Provided below is a listing of which claims in the '339 Patent the 20
proposed substitute claims replace:

<u>Substitute Patent Claim</u>	<u>Replaced '339 Patent Claim</u>
32	1
33	2
34	3
35	4
36	5
37	6
38	8
39	9
40	10
41	15
42	18
43	19
44	24
45	25
46	26
47	27
48	28
49	29
50	30
51	31

I. PROPOSED SUBSTITUTE CLAIMS – MARKED UP

Additions to the claims are underlined and deletions to the claims are stricken-through or double bracketed.

Claim Listing:

Claim 32 (replaces claim 1): A method of constructing a fire-resistive wall assembly, the method comprising:

mounting a fire wall hanger on a frame wall, the frame wall including a top plate and a plurality of studs extending down from the top plate, and the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection portion, said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall;

cutting an opening into an exterior perimeter edge of fire retardant sheathing, the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and opening outwardly from the exterior perimeter edge of the fire retardant sheathing, the

exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing; and

after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the front face of the fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:

inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and

moving the fire retardant sheathing relative to the fire wall hanger mounted on the frame wall so that an edge of the fire retardant sheathing bounding the opening moves alongside the extension portion and the fire wall hanger extends through the opening in the fire retardant sheathing.

Claim 33 (replaces claim 2): The method of claim [[1]] 32, wherein said step of mounting the fire wall hanger includes:

engaging a front face of the frame wall with a first back flange of the connection portion of the fire wall hanger;

engaging the front face of the frame wall with a second back flange of the connection portion of the fire wall hanger, the second back flange being spaced apart from the first back flange; and

engaging an upper surface of the top plate with a top flange of the connection portion of the fire wall hanger; and

wherein said step of inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall includes positioning the fire retardant sheathing over and in front of a first front face of the first back flange of the connection portion of the fire wall hanger and over and in front of a second front face of the second back flange of the connection portion of the fire wall hanger.

Claim 34 (replaces claim 3): The method of claim ~~[[2]]~~ 33, ~~wherein the step of mounting the fire wall hanger further includes engaging an upper surface of the top plate with a top flange of the connection portion of the fire wall hanger~~ wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing so that a first extension flange and a second extension flange of the extension portion of the fire wall hanger extend through the fire retardant sheathing, wherein the fire wall hanger is formed as one-piece of sheet metal, the first extension flange being directly connected to the

channel-shaped portion by a single generally 90-degree sheet metal first bend formed by the first extension flange and the channel-shaped portion, the second extension flange being directly connected to the channel-shaped portion by a single generally 90-degree sheet metal second bend formed by the second extension flange and the channel-shaped portion.

Claim 35 (replaces claim 4): The method of claim ~~[[3]]~~ 34, ~~wherein said step of inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall includes positioning the fire retardant sheathing over and in front of a front face of the back flange of the connection portion of the fire wall hanger~~ wherein the channel-shaped portion includes a base arranged to receive an end portion of the structural component thereon to support the structural component, the base having an upper surface arranged to contact the structural component, the upper surface lying in a base plane, the base comprising a one-piece sheet metal panel, the one-piece sheet metal panel forming the upper surface, the channel-shaped portion including first and second side panels extending from the one-piece sheet metal panel in an upward direction, wherein the first and second bends each have an upper-most end and a lower-most end, the first bend extending from the upper-most end of the first bend to the lower-most end of the first bend in a first direction, the first direction being perpendicular to the base

plane, the second bend extending from the upper-most end of the second bend to the lower-most end of the second bend in the first direction.

Claim 36 (replaces claim 5): The method of claim [[4]] 35, wherein said step of installing the fire retardant sheathing includes placing the rear face of the fire retardant sheathing against the front face of the frame wall, wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes moving the fire retardant sheathing upward relative to the fire wall hanger so that an exposed bottom edge of the second extension flange is a first part of the fire wall hanger to move into the opening in the fire retardant sheathing, the bottom edge being free of direct attachment to any other component.

Claim 37 (replaces claim 6): The method of claim [[5]] 36, wherein said step of placing the rear face of the fire retardant sheathing against the front face of the frame wall includes engaging the rear face of the fire retardant sheathing with the top plate and the plurality of studs, the top plate and the plurality of studs forming the front face of the frame wall, wherein the fire wall hanger is free of welding.

Claim 38 (replaces claim 8): The method of claim [[1]] 32, further comprising positioning the structural component on an upper surface of a base of

the channel-shaped portion of the fire wall hanger before said step of installing the fire retardant sheathing, said step of positioning the structural component including engaging the structural component with a stop of the fire wall hanger to space an end of the structural component from the frame wall to permit the fire retardant sheathing to be received between the end of the structural component and the frame wall, and wherein said step of inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall includes inserting the fire retardant sheathing between the end of the structural component and the frame wall.

Claim 39 (replaces claim 9): The method of claim [[1]] 32, wherein said step of cutting the opening into the exterior perimeter edge of the fire retardant sheathing includes cutting the opening to have an area less than an area of an end of the structural component facing toward the fame wall, the area of the opening being taken at and parallel to the front face of the fire retardant sheathing, wherein the extension portion includes first and second planar extension plates, the first and second planar extension plates each include opposite first and second ends, the first end of the first planar extension plate being connected to the channel-shaped portion by a first bend, the second end of the first planar extension plate being connected to the connection portion by a second bend, the first end of the second

planar extension plate being connected to the channel-shaped portion by a third bend, and the second end of the second planar extension plate being connected to the connection portion by a fourth bend.

Claim 40 (replaces claim 10): The method of claim [[9]] 35, wherein said step of cutting the opening into the exterior perimeter edge of the fire retardant sheathing includes cutting the opening to have:

an area less than an area of an end of the structural component facing toward the fame wall, the area of the opening being taken at and parallel to the front face of the fire retardant sheathing;

a height less than a height of a channel of the channel-shaped portion of the fire wall hanger, the channel configured to receive the structural component; and

a width less than a width of the channel of the channel-shaped portion of the fire wall hanger.

Claim 41 (replaces claim 15): The method of claim [[1]] 35, wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing so that [[a]] first and second extension ~~flange~~ flanges of the extension portion of the fire wall hanger extends through the opening in the fire retardant sheathing.

Claim 42 (replaces claim 18): The A method of ~~claim 1~~ constructing a fire-resistive wall assembly, the method comprising:

mounting a fire wall hanger on a frame wall, the frame wall including a top plate and a plurality of studs extending down from the top plate, and the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection portion, said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall;

cutting an opening into an exterior perimeter edge of fire retardant sheathing, the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and opening outwardly from the exterior perimeter edge of the fire retardant sheathing, the exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing; and

after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing

the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the front face of the fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:

inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and

moving the fire retardant sheathing relative to the fire wall hanger mounted on the frame wall so that an edge of the fire retardant sheathing bounding the opening moves alongside the extension portion and the fire wall hanger extends through the opening in the fire retardant sheathing;

wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing relative to the extension portion of the fire wall hanger so that only the extension portion of the fire wall hanger extends through the fire retardant sheathing, the extension portion including first and second planar extension plates, the first and second planar extension plates being parallel to one another, each of the first and second planar extension plates including an inner face and an outer face, the inner faces of the first and second planar extension plates facing one another, the inner face of the first planar extension plate facing in a first direction toward the inner face of the second planar extension plate and the outer face of the first planar extension plate

facing in a second direction that is opposite the first direction, the inner face of the first planar extension plate lying in an inner face plane;

wherein the connection portion and the channel-shaped portion are rigidly fixed with respect to one another, and wherein the connection portion includes a back flange and a top flange, the top flange extending from an edge of the back flange, the back flange extending from an edge of the first planar extension plate in the second direction, the back flange and the top flange being entirely disposed outward, in the second direction, of the inner face plane;

wherein said step of mounting the fire wall hanger includes engaging a front face of the top plate with the back flange of the connection portion of the fire wall hanger and includes engaging an upper surface of the top plate with the top flange of the connection portion of the fire wall hanger; and

wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing relative to the extension portion of the fire wall hanger so that the first planar extension plate of the extension portion of the fire wall hanger is disposed in the opening in the fire retardant sheathing.

Claim 43 (replaces claim 19): The method of claim [[1]] 35, wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes

positioning the fire retardant sheathing relative to the extension portion of the fire wall hanger so that only first and second extension flanges of the extension portion of the fire wall hanger extend through the fire retardant sheathing.

Claim 44 (replaces claim 24): The method of claim [[1]] 32, wherein said step of installing the fire retardant sheathing comprises positioning first and second Type X gypsum panels of the fire retardant sheathing, the first and second Type X gypsum panels each being 5/8-inch-thick, the first Type X gypsum panel having a front face and an opposite rear face, the second Type X gypsum panel having a front face and an opposite rear face, the rear face of the first Type X gypsum panel forming the rear face of the fire retardant sheathing and the front face of the second Type X gypsum panel forming a front face of the fire retardant sheathing, the rear face of the second Type X panel being in contact with the front face of the first Type X gypsum panel, wherein the method further comprises:

filling the frame wall with mineral wool insulation; and

installing additional fire retardant sheathing with respect to the frame wall so that the frame wall is disposed between the fire retardant sheathing and the additional fire retardant sheathing;

wherein the constructed fire-resistive wall assembly has a 2-hour fire resistance rating as determined per ASTM E814 and ASTM E119.

Claim 45 (replaces claim 25): The A method of ~~claim 4~~ constructing a fire-resistive wall assembly, the method comprising:

mounting a fire wall hanger on a frame wall, the frame wall including a top plate and a plurality of studs extending down from the top plate, and the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection portion, said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall;

cutting an opening into an exterior perimeter edge of fire retardant sheathing, the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and opening outwardly from the exterior perimeter edge of the fire retardant sheathing, the exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing; and

after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing

the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the front face of the fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:

inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and

moving the fire retardant sheathing relative to the fire wall hanger mounted on the frame wall so that an edge of the fire retardant sheathing bounding the opening moves alongside the extension portion and the fire wall hanger extends through the opening in the fire retardant sheathing;

wherein the connection portion and the channel-shaped portion are rigidly fixed with respect to one another, wherein the connection portion includes a back flange and a top flange, the back flange extending from [[an]] a front edge of the top flange, the top flange extending rearward from the front edge of the top flange, the back flange having a planar front surface, wherein the extension portion includes first and second planar extension plates extending from the channel-shaped portion to the connection portion, the first and second planar extension plates being parallel to one another, and wherein the channel-shaped portion of the fire wall hanger includes a base configured to receive an end portion of the structural component thereon to support the structural component, the channel-

shaped portion of the fire wall hanger including a side panel extending upward from the base of the channel-shaped portion, the side panel being spaced apart from the planar front surface of the back flange of the connection portion along an axis that is normal to the planar front surface of the back flange of the connection portion, the axis intersecting the side panel of the channel-shaped portion and the planar front surface of the back flange of the connection portion, each of the first and second planar extension plates including an inner face and an outer face, the inner faces of the first and second planar extension plates facing one another, the inner face of the first planar extension plate facing in a first direction toward the inner face of the second planar extension plate and the outer face of the first planar extension plate facing in a second direction that is opposite the first direction, the axis being spaced apart in the second direction from the inner face of the first planar extension plate; and

wherein said step of mounting the fire wall hanger includes engaging a front face of the top plate with the back flange of the connection portion of the fire wall hanger and includes engaging an upper surface of the top plate with the top flange of the connection portion of the fire wall hanger.

Claim 46 (replaces claim 26): ~~The~~ A method of claim 1 constructing a fire-resistive wall assembly, the method comprising:

mounting a fire wall hanger on a frame wall, the frame wall including a top plate and a plurality of studs extending down from the top plate, and the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection portion, said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall;

cutting an opening into an exterior perimeter edge of fire retardant sheathing, the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and opening outwardly from the exterior perimeter edge of the fire retardant sheathing, the exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing; and

after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the

front face of the fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:

inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and

moving the fire retardant sheathing relative to the fire wall hanger mounted on the frame wall so that an edge of the fire retardant sheathing bounding the opening moves alongside the extension portion and the fire wall hanger extends through the opening in the fire retardant sheathing;

wherein the connection portion and the channel-shaped portion are rigidly fixed with respect to one another, wherein the extension portion of the fire wall hanger includes first and second planar extension plates, the first and second planar extension plates being parallel to one another, each of the first and second planar extension plates including an inner face and an outer face, the inner faces of the first and second planar extension plates facing one another, the inner face of the first planar extension plate facing in a first direction toward the inner face of the second planar extension plate and the outer face of the first planar extension plate facing in a second direction that is opposite the first direction, the inner face of the first planar extension plate lying in an inner face plane, and wherein the connection portion includes a back flange and a top flange, the top flange extending from an edge of the back flange, the back flange extending from an edge of the first planar

extension plate in the second direction, the back flange and the top flange being entirely disposed outward, in the second direction, of the inner face plane;

wherein said step of mounting the fire wall hanger includes engaging a front face of the top plate with the back flange of the connection portion of the fire wall hanger and includes engaging an upper surface of the top plate with the top flange of the connection portion of the fire wall hanger; and

wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing relative to the extension portion of the fire wall hanger so that only the first and second planar extension plates of the extension portion of the fire wall hanger extend through the opening in the fire retardant sheathing.

Claim 47 (replaces claim 27): A method of constructing a fire-resistive wall assembly, the method comprising:

mounting a fire wall hanger on a frame wall, the frame wall including a top plate and a plurality of studs extending down from the top plate, and the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection

portion, said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall;

cutting an opening into an exterior perimeter edge of fire retardant sheathing, the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and having an open top opening outwardly from the exterior perimeter edge of the fire retardant sheathing, the exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing; and

after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the front face of the fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:

inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and

arranging the fire retardant sheathing relative to the fire wall hanger so that the fire wall hanger extends through the opening in the fire retardant

sheathing and ~~part~~ an extension flange of the extension portion of the fire wall hanger is received in the opening in the fire retardant sheathing.

Claim 48 (replaces claim 28): The method of claim ~~[[27]]~~ 47, wherein said step of mounting the fire wall hanger includes:

engaging a front face of the frame wall with a first back flange of the connection portion of the fire wall hanger;

engaging the front face of the frame wall with a second back flange of the connection portion of the fire wall hanger, the second back flange being spaced apart from the first back flange; and

engaging an upper surface of the top plate with a top flange of the connection portion of the fire wall hanger; and

wherein said step of arranging the fire retardant sheathing relative to the fire wall hanger includes moving the fire retardant sheathing upward relative to the fire wall hanger so that ~~said part~~ an exposed bottom edge of the extension flange of the extension portion is a first part of the fire wall hanger to move ~~moves~~ into the opening in the fire retardant sheathing via the open top of the opening in the fire retardant sheathing, the bottom edge being free of direct attachment to any other component; and

wherein the method further comprises:

filling the frame wall with mineral wool insulation; and
installing additional fire retardant sheathing with respect to the frame
wall so that the frame wall is disposed between the fire retardant sheathing and the
additional fire retardant sheathing; and
wherein the constructed fire-resistive wall assembly has a 2-hour fire
resistance rating as determined per ASTM E814 and ASTM E119.

Claim 49 (replaces claim 29): The method of claim ~~[[28]]~~ 48, ~~wherein said~~
~~step of mounting the fire wall hanger includes:~~

~~engaging a front face of the frame wall with a back flange of the connection~~
~~portion of the fire wall hanger; and~~

~~engaging an upper surface of the top plate with a top flange of the~~
~~connection portion of the fire wall hanger~~

wherein said step of inserting the fire retardant sheathing between the
channel-shaped portion of the fire wall hanger and the frame wall includes
positioning the fire retardant sheathing against a first front face of the first back
flange of the connection portion of the fire wall hanger and against a second front
face of the second back flange of the connection portion of the fire wall hanger,
and wherein said step of installing the fire retardant sheathing includes placing the
rear face of the fire retardant sheathing against the front face of the frame wall.

Claim 50 (replaces claim 30): The method of claim ~~[[29]]~~ 49, ~~wherein said step of inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall includes positioning the fire retardant sheathing against a front face of the back flange of the connection portion of the fire wall hanger, and wherein said step of installing the fire retardant sheathing includes placing the rear face of the fire retardant sheathing against the front face of the frame wall~~

wherein the fire wall hanger is formed as one-piece of sheet metal, wherein the channel-shaped portion includes a base arranged to receive an end portion of the structural component thereon to support the structural component, the base having an upper surface arranged to contact the structural component, the upper surface lying in a base plane, the extension flange being directly connected to the channel-shaped portion by a generally 90-degree sheet metal bend formed by the extension flange and the channel-shaped portion, the generally 90-degree sheet metal bend having an upper-most end and a lower-most end, the generally 90-degree sheet metal bend extending from the upper-most end to the lower-most end in a first direction, the first direction being perpendicular to the base plane, the upper-most end of generally 90-degree sheet metal bend being at a top of the channel-shaped portion.

Claim 51 (replaces claim 31): The method of claim [[30]] 50, wherein the extension flange is a first extension flange, wherein said step of arranging the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing so that [[a]] the first extension flange of the extension portion of the fire wall hanger extends through the opening in the fire retardant sheathing and a second extension flange of the extension portion of the fire wall hanger extends through the fire retardant sheathing, wherein the first and second extension flanges are each free of any openings.

II. PROPOSED SUBSTITUTE CLAIMS – CLEAN with IDENTIFIERS

The following claim listing shows a clean version of the substitute claims with reference identifiers (“Ref. ID”) corresponding to claim limitations.

Claim Listing:

Ref. ID	Claim Limitation
32.P	A method of constructing a fire-resistive wall assembly, the method comprising:
32.a.1	mounting a fire wall hanger on a frame wall,
32.a.2	the frame wall including a top plate and a plurality of studs extending down from the top plate, and
32.a.3	the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection portion,
32.a.4	said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall,
32.b.1	cutting an opening into an exterior perimeter edge of fire retardant sheathing,
32.b.2	the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and
32.b.3	[the opening] ... opening outwardly from the exterior perimeter edge of the fire retardant sheathing,
32.b.4	the exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing; and
32.c.1	after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the front face of the fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:

32.c.2	inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and
32.c.3	moving the fire retardant sheathing relative to the fire wall hanger mounted on the frame wall so that an edge of the fire retardant sheathing bounding the opening moves alongside the extension portion and the fire wall hanger extends through the opening in the fire retardant sheathing.
33.a.1	The method of claim 32, wherein said step of mounting the fire wall hanger includes: engaging a front face of the frame wall with a first back flange of the connection portion of the fire wall hanger; engaging the front face of the frame wall with a second back flange of the connection portion of the fire wall hanger,
33.a.2	the second back flange being spaced apart from the first back flange; and
33.a.3	engaging an upper surface of the top plate with a top flange of the connection portion of the fire wall hanger; and
33.b	wherein said step of inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall includes positioning the fire retardant sheathing over and in front of a first front face of the first back flange of the connection portion of the fire wall hanger and over and in front of a second front face of the second back flange of the connection portion of the fire wall hanger.
34.a	The method of claim 33, wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing so that a first extension flange and a second extension flange of the extension portion of the fire wall hanger extend through the fire retardant sheathing,
34.b	wherein the fire wall hanger is formed as one-piece of sheet metal,
34.c	the first extension flange being directly connected to the channel-shaped portion by a single generally 90-degree sheet metal first bend formed by the first extension flange and the channel-shaped portion, the second extension flange being directly connected to the channel-shaped portion by a single generally 90-degree sheet metal second bend formed by the second extension flange and the channel-shaped portion.
35.a	The method of claim 34, wherein the channel-shaped portion includes a base arranged to receive an end portion of the structural component thereon to support the structural component, the base having an upper

	surface arranged to contact the structural component, the upper surface lying in a base plane,
35.b	the base comprising a one-piece sheet metal panel, the one-piece sheet metal panel forming the upper surface,
35.c	the channel-shaped portion including first and second side panels extending from the one-piece sheet metal panel in an upward direction,
35.d	wherein the first and second bends each have an upper-most end and a lower-most end, the first bend extending from the upper-most end of the first bend to the lower-most end of the first bend in a first direction, the first direction being perpendicular to the base plane, the second bend extending from the upper-most end of the second bend to the lower-most end of the second bend in the first direction.
36.a	The method of claim 35, wherein said step of installing the fire retardant sheathing includes placing the rear face of the fire retardant sheathing against the front face of the frame wall,
36.b	wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes moving the fire retardant sheathing upward relative to the fire wall hanger so that an exposed bottom edge of the second extension flange is a first part of the fire wall hanger to move into the opening in the fire retardant sheathing, the bottom edge being free of direct attachment to any other component.
37.a	The method of claim 36, wherein said step of placing the rear face of the fire retardant sheathing against the front face of the frame wall includes engaging the rear face of the fire retardant sheathing with the top plate and the plurality of studs, the top plate and the plurality of studs forming the front face of the frame wall,
37.b	wherein the fire wall hanger is free of welding.
38.a	The method of claim 32, further comprising positioning the structural component on an upper surface of a base of the channel-shaped portion of the fire wall hanger before said step of installing the fire retardant sheathing,
38.b	said step of positioning the structural component including engaging the structural component with a stop of the fire wall hanger to space an end of the structural component from the frame wall to permit the fire retardant sheathing to be received between the end of the structural component and the frame wall, and
38.c	wherein said step of inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall

	includes inserting the fire retardant sheathing between the end of the structural component and the frame wall.
39.a	The method of claim 32, wherein said step of cutting the opening into the exterior perimeter edge of the fire retardant sheathing includes cutting the opening to have an area less than an area of an end of the structural component facing toward the fame wall, the area of the opening being taken at and parallel to the front face of the fire retardant sheathing,
39.b	wherein the extension portion includes first and second planar extension plates, the first and second planar extension plates each include opposite first and second ends, the first end of the first planar extension plate being connected to the channel-shaped portion by a first bend, the second end of the first planar extension plate being connected to the connection portion by a second bend, the first end of the second planar extension plate being connected to the channel-shaped portion by a third bend, and the second end of the second planar extension plate being connected to the connection portion by a fourth bend.
40.a	The method of claim 35, wherein said step of cutting the opening into the exterior perimeter edge of the fire retardant sheathing includes cutting the opening to have: an area less than an area of an end of the structural component facing toward the fame wall, the area of the opening being taken at and parallel to the front face of the fire retardant sheathing;
40.b	a height less than a height of a channel of the channel-shaped portion of the fire wall hanger, the channel configured to receive the structural component; and a width less than a width of the channel of the channel-shaped portion of the fire wall hanger.
41	The method of claim 35, wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing so that first and second extension flanges of the extension portion of the fire wall hanger extends through the opening in the fire retardant sheathing.
42.P	A method of constructing a fire-resistive wall assembly, the method comprising:
42.a.1	mounting a fire wall hanger on a frame wall,
42.a.2	the frame wall including a top plate and a plurality of studs extending down from the top plate, and

42.a.3	the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection portion,
42.a.4	said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall;
42.b.1	cutting an opening into an exterior perimeter edge of fire retardant sheathing,
42.b.2	the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and
42.b.3	[the opening] ... opening outwardly from the exterior perimeter edge of the fire retardant sheathing,
42.b.4	the exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing; and
42.c.1	after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the front face of the fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:
42.c.2	inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and
42.c.3	moving the fire retardant sheathing relative to the fire wall hanger mounted on the frame wall so that an edge of the fire retardant sheathing bounding the opening moves alongside the extension portion and the fire wall hanger extends through the opening in the fire retardant sheathing;
42.d.1	wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing relative to the extension portion of the fire wall hanger so that only the extension portion of the fire wall hanger extends through the fire retardant sheathing,
42.d.2	the extension portion including first and second planar extension plates, the first and second planar extension plates being parallel to one another,

42.d.3	each of the first and second planar extension plates including an inner face and an outer face, the inner faces of the first and second planar extension plates facing one another, the inner face of the first planar extension plate facing in a first direction toward the inner face of the second planar extension plate and the outer face of the first planar extension plate facing in a second direction that is opposite the first direction,
42.d.4	the inner face of the first planar extension plate lying in an inner face plane;
42.e.1	wherein the connection portion and the channel-shaped portion are rigidly fixed with respect to one another, and
42.e.2	wherein the connection portion includes a back flange and a top flange, the top flange extending from an edge of the back flange, the back flange extending from an edge of the first planar extension plate in the second direction, the back flange and the top flange being entirely disposed outward, in the second direction, of the inner face plane;
42.f	wherein said step of mounting the fire wall hanger includes engaging a front face of the top plate with the back flange of the connection portion of the fire wall hanger and includes engaging an upper surface of the top plate with the top flange of the connection portion of the fire wall hanger; and
42.g	wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing relative to the extension portion of the fire wall hanger so that the first planar extension plate of the extension portion of the fire wall hanger is disposed in the opening in the fire retardant sheathing.
43	The method of claim 35, wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing relative to the extension portion of the fire wall hanger so that only first and second extension flanges of the extension portion of the fire wall hanger extend through the fire retardant sheathing.
44.a.1	The method of claim 32, wherein said step of installing the fire retardant sheathing comprises positioning first and second Type X gypsum panels of the fire retardant sheathing,
44.a.2	the first and second Type X gypsum panels each being 5/8-inch-thick,
44.a.3	the first Type X gypsum panel having a front face and an opposite rear face, the second Type X gypsum panel having a front face and an

	opposite rear face, the rear face of the first Type X gypsum panel forming the rear face of the fire retardant sheathing and the front face of the second Type X gypsum panel forming a front face of the fire retardant sheathing, the rear face of the second Type X panel being in contact with the front face of the first Type X gypsum panel,
44.b	wherein the method further comprises: filling the frame wall with mineral wool insulation; and
44.c	installing additional fire retardant sheathing with respect to the frame wall so that the frame wall is disposed between the fire retardant sheathing and the additional fire retardant sheathing;
44.d	wherein the constructed fire-resistive wall assembly has a 2-hour fire resistance rating as determined per ASTM E814 and ASTM E119.
45.P	A method of constructing a fire-resistive wall assembly, the method comprising:
45.a.1	mounting a fire wall hanger on a frame wall,
45.a.2	the frame wall including a top plate and a plurality of studs extending down from the top plate, and
45.a.3	the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection portion,
45.a.4	said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall;
45.b.1	cutting an opening into an exterior perimeter edge of fire retardant sheathing,
45.b.2	the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and
45.b.3	[the opening] ... opening outwardly from the exterior perimeter edge of the fire retardant sheathing,
45.b.4	the exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing; and
45.c.1	after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the front face of the

	fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:
45.c.2	inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and
45.c.3	moving the fire retardant sheathing relative to the fire wall hanger mounted on the frame wall so that an edge of the fire retardant sheathing bounding the opening moves alongside the extension portion and the fire wall hanger extends through the opening in the fire retardant sheathing;
45.d.1	wherein the connection portion and the channel-shaped portion are rigidly fixed with respect to one another,
45.d.2	wherein the connection portion includes a back flange and a top flange, the back flange extending from a front edge of the top flange, the top flange extending rearward from the front edge of the top flange, the back flange having a planar front surface,
45.d.3	wherein the extension portion includes first and second planar extension plates extending from the channel-shaped portion to the connection portion, the first and second planar extension plates being parallel to one another, and
45.d.4	wherein the channel-shaped portion of the fire wall hanger includes a base configured to receive an end portion of the structural component thereon to support the structural component,
45.d.5	the channel-shaped portion of the fire wall hanger including a side panel extending upward from the base of the channel-shaped portion,
45.d.6	the side panel being spaced apart from the planar front surface of the back flange of the connection portion along an axis that is normal to the planar front surface of the back flange of the connection portion, the axis intersecting the side panel of the channel-shaped portion and the planar front surface of the back flange of the connection portion,
45.d.7	each of the first and second planar extension plates including an inner face and an outer face, the inner faces of the first and second planar extension plates facing one another, the inner face of the first planar extension plate facing in a first direction toward the inner face of the second planar extension plate and the outer face of the first planar extension plate facing in a second direction that is opposite the first direction, the axis being spaced apart in the second direction from the inner face of the first planar extension plate; and
45.e	wherein said step of mounting the fire wall hanger includes engaging a front face of the top plate with the back flange of the connection

	portion of the fire wall hanger and includes engaging an upper surface of the top plate with the top flange of the connection portion of the fire wall hanger.
46.P	A method of constructing a fire-resistive wall assembly, the method comprising:
46.a.1	mounting a fire wall hanger on a frame wall,
46.a.2	the frame wall including a top plate and a plurality of studs extending down from the top plate, and
46.a.3	the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection portion,
46.a.4	said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall;
46.b.1	cutting an opening into an exterior perimeter edge of fire retardant sheathing,
46.b.2	the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and
46.b.3	[the opening] ... opening outwardly from the exterior perimeter edge of the fire retardant sheathing,
46.b.4	the exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing; and
46.c.1	after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the front face of the fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:
46.c.2	inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and
46.c.3	moving the fire retardant sheathing relative to the fire wall hanger mounted on the frame wall so that an edge of the fire retardant sheathing bounding the opening moves alongside the extension portion and the fire wall hanger extends through the opening in the fire retardant sheathing;

46.d.1	wherein the connection portion and the channel-shaped portion are rigidly fixed with respect to one another,
46.d.2	wherein the extension portion of the fire wall hanger includes first and second planar extension plates, the first and second planar extension plates being parallel to one another,
46.d.3	each of the first and second planar extension plates including an inner face and an outer face, the inner faces of the first and second planar extension plates facing one another, the inner face of the first planar extension plate facing in a first direction toward the inner face of the second planar extension plate and the outer face of the first planar extension plate facing in a second direction that is opposite the first direction,
46.d.4	the inner face of the first planar extension plate lying in an inner face plane, and
46.d.5	wherein the connection portion includes a back flange and a top flange, the top flange extending from an edge of the back flange, the back flange extending from an edge of the first planar extension plate in the second direction, the back flange and the top flange being entirely disposed outward, in the second direction, of the inner face plane;
46.e	wherein said step of mounting the fire wall hanger includes engaging a front face of the top plate with the back flange of the connection portion of the fire wall hanger and includes engaging an upper surface of the top plate with the top flange of the connection portion of the fire wall hanger; and
46.f	wherein said step of moving the fire retardant sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing relative to the extension portion of the fire wall hanger so that only the first and second planar extension plates of the extension portion of the fire wall hanger extend through the opening in the fire retardant sheathing.
47.P	A method of constructing a fire-resistive wall assembly, the method comprising:
47.a.1	mounting a fire wall hanger on a frame wall,
47.a.2	the frame wall including a top plate and a plurality of studs extending down from the top plate, and
47.a.3	the fire wall hanger including a channel-shaped portion sized and shaped to receive a structural component, a connection portion configured for attachment to the frame wall and an extension portion

	interconnecting the channel-shaped portion and the connection portion and spacing the channel-shaped portion from the connection portion,
47.a.4	said step of mounting the fire wall hanger includes securing the connection portion of the fire wall hanger to the top plate of the frame wall so that the channel-shaped portion is spaced from the frame wall;
47.b.1	cutting an opening into an exterior perimeter edge of fire retardant sheathing,
47.b.2	the opening extending through a front face of the fire retardant sheathing and through a rear face of the fire retardant sheathing and
47.b.3	[the opening] ... having an open top opening outwardly from the exterior perimeter edge of the fire retardant sheathing,
47.b.4	the exterior perimeter edge extending from the front face of the fire retardant sheathing to the rear face of the fire retardant sheathing;
47.c.1	after mounting the fire wall hanger on the frame wall and after cutting the opening into the exterior perimeter edge of the fire retardant sheathing, installing the fire retardant sheathing with respect to the frame wall so the rear face of the fire retardant sheathing faces rearward toward the studs of the frame wall and the front face of the fire retardant sheathing faces forward away from the studs of the frame wall, said step of installing the fire retardant sheathing includes:
47.c.2	inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall; and
47.c.3	arranging the fire retardant sheathing relative to the fire wall hanger so that the fire wall hanger extends through the opening in the fire retardant sheathing and an extension flange of the extension portion of the fire wall hanger is received in the opening in the fire retardant sheathing.
48.a.1	The method of claim 47, wherein said step of mounting the fire wall hanger includes: engaging a front face of the frame wall with a first back flange of the connection portion of the fire wall hanger; engaging the front face of the frame wall with a second back flange of the connection portion of the fire wall hanger,
48.a.2	the second back flange being spaced apart from the first back flange; and
48.a.3	engaging an upper surface of the top plate with a top flange of the connection portion of the fire wall hanger; and
48.b	wherein said step of arranging the fire retardant sheathing relative to the fire wall hanger includes moving the fire retardant sheathing upward relative to the fire wall hanger so that an exposed bottom edge

	of the extension flange of the extension portion is a first part of the fire wall hanger to move into the opening in the fire retardant sheathing via the open top of the opening in the fire retardant sheathing, the bottom edge being free of direct attachment to any other component; and
48.c	wherein the method further comprises: filling the frame wall with mineral wool insulation; and
48.d	installing additional fire retardant sheathing with respect to the frame wall so that the frame wall is disposed between the fire retardant sheathing and the additional fire retardant sheathing; and
48.e	wherein the constructed fire-resistive wall assembly has a 2-hour fire resistance rating as determined per ASTM E814 and ASTM E119.
49.a	The method of claim 48, wherein said step of inserting the fire retardant sheathing between the channel-shaped portion of the fire wall hanger and the frame wall includes positioning the fire retardant sheathing against a first front face of the first back flange of the connection portion of the fire wall hanger and against a second front face of the second back flange of the connection portion of the fire wall hanger, and
49.b	wherein said step of installing the fire retardant sheathing includes placing the rear face of the fire retardant sheathing against the front face of the frame wall.
50.a	The method of claim 49, wherein the fire wall hanger is formed as one-piece of sheet metal,
50.b	wherein the channel-shaped portion includes a base arranged to receive an end portion of the structural component thereon to support the structural component, the base having an upper surface arranged to contact the structural component, the upper surface lying in a base plane,
50.c	the extension flange being directly connected to the channel-shaped portion by a generally 90-degree sheet metal bend formed by the extension flange and the channel-shaped portion,
50.d	the generally 90-degree sheet metal bend having an upper-most end and a lower-most end, the generally 90-degree sheet metal bend extending from the upper-most end to the lower-most end in a first direction, the first direction being perpendicular to the base plane,
50.e	the upper-most end of generally 90-degree sheet metal bend being at a top of the channel-shaped portion.
51.a	The method of claim 50, wherein the extension flange is a first extension flange, wherein said step of arranging the fire retardant

	sheathing relative to the fire wall hanger includes positioning the fire retardant sheathing so that the first extension flange of the extension portion of the fire wall hanger extends through the opening in the fire retardant sheathing and a second extension flange of the extension portion of the fire wall hanger extends through the fire retardant sheathing,
51.b	wherein the first and second extension flanges are each free of any openings.