

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
U.S. Patent No. 11,920,339

**DECLARATION OF SAM HENSEN IN SUPPORT OF
PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE**

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Simpson Strong-Tie Company EX1047
Simpson v. Columbia
PGR2024-00050

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LIST OF MATERIALS CONSIDERED

Exhibit No.	Description
1005	U.S. Patent No. 9,394,680 to Bundy et al. (“Bundy”)
1012	“Technical Bulletin: Top Flange Joist Hangers Installed on Walls Over Wood Structural Patent Sheathing or Drywall”, Simpson Strong-Tie Company, Inc., published August 2013.
1019	WoodWorks, Four-story Wood-frame Structure over Podium Slab (2010) (“WoodWorks”).
1031	“Mass Timber and Wood Framing,” Architectural Record Magazine, McGraw Hill Construction, November 2012, pp. 165-169 (“ArchRecord”)
1078	U.S. Patent No. 8,789,341 to Shepard
1079	Simpson Photos of Prototype Joist Hangers (PROTECTIVE ORDER MATERIAL – ATTORNEYS’ EYES ONLY)
1080	Simpson Email: forwarding IIC Complaint (PROTECTIVE ORDER MATERIAL – ATTORNEYS’ EYES ONLY)
1081	U.S. Gypsum Company, “Pre Dry-In construction: The Evolution of Construction Starts From Within,” White Paper (2014)

I, Sam Hensen, do hereby declare as follows:

I. INTRODUCTION

1. I am Senior Vice President of the Northwest Region for Simpson Strong-Tie Company Inc. I have personal knowledge of the facts set forth herein and would and could competently testify thereto.

2. I am currently a licensed civil engineer in the state of California and have been since 2008. I began my career in 2000 at Simpson as a Research and Development Engineer, testing products in our laboratory in Southern California. I began managing the Engineering Department in the Southeast region based in McKinney, Texas in 2005. Beginning in 2014, I oversaw the connector and lateral system product lines for North America. In 2023, I became Senior Vice President of the Northwest Region. In that role, I oversee the entire Northwest Region as to sales, human resources, finance, manufacturing, and operations.

3. I have also been acting as a representative of Simpson in connection with a patent infringement action filed by Columbia Insurance Company (“Columbia”) and MiTek Inc. (“MiTek”) in federal court in the Northern District of California relating to U.S. Patent No. 10,316,510, which is a related patent to the U.S. Patent No. 11,920,339, and in the course of providing testimony in that action I have had occasion to investigate further—through review of documents

and communications with other former and current Simpson employees—many of the issues relevant to both that action and this proceeding.

4. Based on my training and experience summarized above, I have a deep understanding of structural connectors, particularly Simpson connectors, as well as the development of the particular hangers and methods of construction utilizing those hangers at issue here.

II. BACKGROUND REGARDING TWO-HOUR FIRE-RESISTIVE WOOD-FRAMED WALL ASSEMBLIES

5. The International Building Code or “IBC” is the model building code in the United States. The IBC is not controlling but, as far as I am aware, the local building codes of all jurisdictions in the United States are based, with occasional variances, on the IBC. The IBC was first introduced in 2000, and new versions have been introduced every three years. When new versions of the IBC are introduced, it frequently takes a year or more for local jurisdictions to adopt the new version.

6. The IBC classifies construction types based on fire resistance, allowing for structures of different height and occupancy levels based on the “type.” Traditionally, Type III construction was primarily done with concrete and steel, permitting the development of taller buildings with high occupancy ratings. Wood construction traditionally fell into Type V construction and was limited in height and occupancy. Type III construction typically includes what is referred to

as “multifamily” construction. Multifamily construction includes midrise apartments, condominiums, and mixed-use structures with commercial space on the ground floor and apartments or condominiums above.

7. In the mid-to-late 2000s, the wood industry—including organizations such as WoodWorks and the American Wood Council—made efforts to expand the use of wood in Type III construction in order to place wood construction on equal footing with concrete and steel in the construction of multifamily structures. These efforts included, among other things, (a) advocating for modifications to the IBC to allow taller wood structures with higher occupancy levels; (b) lobbying and working with municipalities to adopt the changes in the IBC related to the use of wood in Type III construction in local building codes; and (c) educating and encouraging those in the industry, including architects, structural engineers, contractors, and developers, regarding the use of wood in Type III construction through workshops and seminars throughout the United States. Wood construction also had a competitive advantage as it is typically at least one-third less expensive than concrete and steel construction. *See, e.g.*, EX1019 and EX1031.

8. The code changes, new technologies, and evolving construction practices that allowed for the use of wood, a combustible material, in Type III construction—which, as discussed above, had previously been dominated by concrete and steel, non-combustible materials—included use of fire-resistant

chemically treated (“FRT”) lumber, use of specialized fire sprinklers, the use of two layers of 5/8-inch gypsum board—also known as “gyp board,” “drywall,” or “sheetrock”—on load-bearing walls and the interior face of exterior walls, and increased and/or clarified instructions in the IBC regarding certain construction techniques pertaining to fire resistance, such as the size of allowable penetrations in drywall and the permitted use of materials to achieve fire resistivity. Although the use of two layers of 5/8-inch drywall in the construction of two-hour fire-resistive wall assemblies had been around for some time—and had been included in the original 2000 IBC—this construction practice became more necessary, and thus prevalent, with the use of wood in Type III construction.

9. The changes described above also influenced construction methods. Traditionally, wood-framed buildings had been built with “platform” framing, where walls were erected first, followed by floor systems built on top. However, the need to maintain the continuity of the two layers of drywall along the wall assembly led many designers and builders to adopt alternative construction methods, such as “semi-balloon” framing, which allowed for the use of hangers to attach floor assemblies to wall assemblies without penetration of the exterior wall building envelope.

III. EARLY METHODS OF CONSTRUCTING TWO-HOUR FIRE-RESISTIVE WOOD-FRAMED WALL ASSEMBLIES

10. The efforts by the wood industry to advocate for and promote the use of wood in Type III multifamily structures were ultimately successful. While there were some early adopters, there was a lot of skepticism in the industry regarding the use of wood in Type III structures, in part fueled by the concrete and steel industries, and it took quite some time before there was a significant increase in wood-framed multifamily projects. It is also worth noting that the project cycle for large multifamily projects is quite long, and even when the advocacy and education work and related code and practice changes had been in place for some time, it was still a long time before architects and structural engineers began to specify a method of constructing two-hour fire-resistive wall assemblies in wood-framed multifamily structures and even longer before contractors began to build such assemblies and purchase products for such assemblies.

11. In the late 2000s and early 2010s, Simpson began to become aware of multifamily building projects utilizing wood in Type III construction rather than only concrete and steel.

12. The typical and normal method of constructing wood-framed floor and wall assemblies in Type V construction—such as single-family homes and low-rise buildings—consisted of completing framing, including the installation of hangers connecting the floor assembly to the wall assembly, as well as all the

mechanical, electrical, and plumbing systems, before drywall was installed on the walls and ceilings.

13. Some early adopters of wood in Type III construction utilized the traditional method and sequence described above to construct a two-hour fire resistive wall assembly. They would install standard Simpson hangers, cut a large notch in the drywall, and then slide the drywall up around the joist or truss after it was installed on the wall. There were numerous hangers in Simpson's 2013 Wood Construction Connectors Catalog, and earlier catalogs that could be used in this manner.

14. Simpson had also been promoting for some time the use of its standard top-mount hangers, such as the LBV and ITS hangers, for use in the construction of one-hour fire-resistive wall assemblies, which were required in Type V wood-framed structures. These hangers were installed over one sheet of drywall (as opposed to the two sheets of drywall required for two-hour fire-resistive assemblies required in Type III construction). Simpson published a technical bulletin regarding this method of construction. *See* EX1012.

15. WoodWorks, the wood industry organization discussed above, also promoted using a Simpson LBV top-mount hanger over one sheet of drywall (as described above for a one-hour fire-resistive assembly) in the ceiling cavity/floor assembly and then installing two sheets of drywall on the wall below the ceiling

cavity/floor assembly and two sheets of drywall on the ceiling in order to meet code requirements for Type III wood-framed structures. *See, e.g.*, the “Option A” figure on the left at the bottom of page 6 of EX1031.

16. Another method that I am aware of that was used to construct a two-hour fire-resistive wood-framed wall assembly utilized a standard hanger installed on a ledger consisting of fire-resistive material, such as FRT wood. The two sheets of drywall would then be installed up to the bottom of the ledger.

17. Yet another method I am aware of to construct a two-hour fire-resistive wood-framed wall assembly did not utilize hangers at all. Instead, in a method known as platform framing, the floor assembly was attached directly on top of the wall assembly so that the truss or joist sat on top of the wall assembly and the sheets of drywall were installed on the wall and ceiling.

18. One of the earliest inquiries that I am aware of from a customer at Simpson regarding the use of a hanger that could be used in constructing a two-hour fire-resistive wall assembly came from Mark Shephard of Shephard Crane and Associates in late 2009. Shephard Crane and Associates was utilizing a construction method in early multifamily wood-framed construction that was a modified version of the typical platform framing method (described above) in which the double top chord of a truss was attached to the wall assembly and the bottom chord of the truss was cut short so that drywall could be installed between

the truss and the wall assembly. Shephard Crane's construction method is described in U.S. Patent No. 8,789,341 (EX1078). A depiction of this method can be seen in the "Option B" figure on the right at the bottom of page 6 of EX1031. According to the description of the method described in EX1078, one of the benefits of the method is that framing could be completed before the installation of drywall. Mr. Shepherd needed a hanger that could be used in certain applications to connect the truss to another structural member such as a wood beam. I modified one of our existing products, the HUTF hanger, to be able to fit the double top chord of Shepherd Crane and Associate's concept. Simpson advertised this particular HUTF43 model in our 2013 catalog and continues to advertise it in current publications of this catalog. Simpson also published a flyer or technical bulletin that provided information and installation instructions on that product prior to the release of the 2013 catalog. To the best of my knowledge this was the first time Simpson was asked to provide a connector that could be used in that type of construction.

19. All of the examples described above are prior art that existed before 2013.

IV. DEVELOPMENT OF THE FIRST HANGER SPECIFICALLY DESIGNED FOR FIRE-RESISTIVE WALLS

20. Simpson was aware of—and to some degree participated in—the efforts by the wood industry to promote the use of wood in Type III construction.

As more and more multifamily projects were launched with wood-framed construction, Simpson began to receive inquiries from customers for a hanger specifically designed for use in two-hour fire-resistive wood-framed wall assemblies.

21. Simpson introduced the DU/DHU/DHUTF product series (the “DU Hangers”) in December 2013. As discussed above, Simpson hangers were often used in the construction of fire-resistive wall assemblies prior to the release of the DU Hangers, but the DU Hangers were the first hanger on the market that was specifically marketed to be used in the construction of two-hour fire-resistive wood-framed wall assemblies. The DU Hangers are the commercial embodiment of, and claim the protection of, U.S. Patent No. 9,394,680 (“Bundy,” EX1005).

22. Simpson started developing the DU at the request of customers to provide a product that could attach floor joists to a two-hour fire resistive wood-framed wall. Simpson began research and development of such a hanger solution in late 2011. [REDACTED]

[REDACTED]

[REDACTED]

23. While I am not aware of the research and development process of MiTek’s FWH hanger (the purported commercial embodiment of Columbia’s family of patents related to the ’339 Patent) I am aware that MiTek released the

FWH to the market in 2014 a few months after the DU Hangers were released, and that Columbia originally filed for patent protection in December 2013, a few weeks after Simpson filed its application that resulted in the Bundy patent. In my opinion, this time frame would indicate that MiTek was receiving similar inquiries for a specifically designed hanger for a two-hour fire resistive wood-framed walls around the same time that Simpson was receiving such inquiries.

24. The research and development process of the product that was ultimately released as the DU series was led by Tom Evans. Mr. Evans was the Simpson product manager for hangers at the time. Mr. Evans is a civil engineer who had experience designing and developing structural connectors. A variety of engineers worked on the project with Mr. Evans. These engineers included Greg Bundy, who was a Branch Engineering Manager in the Northeast Branch based in Columbus, Ohio, who had worked on some early versions of a hanger to be used with two sheets of drywall, and Dustin Muhn, who was a more junior engineer assigned to work with Mr. Evans.

25. I was also, to some degree, involved in and generally aware of the development process for the DU series as the Branch Engineering Manager for the Southeast Branch based in McKinney, Texas. I have also communicated with Mr. Evans about the development process and reviewed documentation related to

research, development, and testing of the various concepts that Simpson was considering.

26.

[REDACTED]

[REDACTED]

[REDACTED]. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]. [REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

27.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] . [REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED] . [REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

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[REDACTED]

[REDACTED]

28. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

29. Another aspect that factored into Simpson's decision to go forward with the DU-type hanger was the fact that, [REDACTED]

[REDACTED]

[REDACTED], the DU-type design only required the purchase and installation of a single product.

30. Finally, another key aspect in Simpson's decision was the fact that Simpson had indications that the change in sequence that the DU Hangers required—requiring drywall to be installed before the hanger was installed rather than the typical sequence of only installing drywall when all the framing was complete—would be acceptable to customers.

31. Simpson conducted field tests in which it asked participants about their preference for a hanger that installed before or after drywall. The results were inconclusive, with approximately half of respondents preferring the normal sequence and half preferring the drywall-first approach, but the results certainly

did not indicate widespread disapproval of the method of installing the DU-type product.

32. Simpson was also aware of a recent (at the time) trend in the commercial and multifamily sectors known as “pre-rocking” or “top-down” construction. Pre-rocking consists of installing a strip of drywall—or two layers of drywall if a two-hour fire wall was required—at the top of a wall prior to the completion of framing, in particular prior to the installation of the mechanical, electrical, and plumbing systems. The drywall that is installed during pre-rocking is often but not always mold- and water-resistant gypsum panels. EX1081 is a white paper published by the United States Gypsum Company in 2014.

33. Moreover, multifamily jobs were often very large and Simpson understood that multiple contractors, including framers and drywall installers, were often on the job at the same time. Thus, the idea of pre-rocking or installing all of the drywall before installing the DU Hangers appeared to be something that designers and builders of multifamily projects would be receptive to.

34. Based on all the factors discussed above, and particularly the low cost and positive customer feedback, Simpson decided to proceed with and launch the DU Hangers.

35. The DU Hangers were successful from the start and have remained successful. Simpson continues to sell the DU Hangers to this day and sales have

continued to increase over time. However, while some multifamily customers adopted the sequence of installing the DU Hangers after installation of the drywall, especially given the trend at that time toward pre-rocking, many customers did seem to prefer a hanger that could be installed according to the standard sequence of completing all framing before installing drywall.

V. DEVELOPMENT OF A SIMPSON HANGER SPECIFICALLY DESIGNED FOR FIRE-RESISTIVE WALLS THAT COULD BE INSTALLED BEFORE THE DRYWALL

36. After the release of the DU Hangers, some Simpson customers began to request a product that, like the DU Hangers, could connect a floor assembly to a two-hour fire-resistive wood-framed wall assembly but that, unlike the DU Hangers, could be installed before the drywall.

37. In the Summer of 2014, shortly after the launch of the DU Hangers, I became the Vice President and General Manager of Connectors and Lateral Systems, overseeing all of Simpson's structural connectors, including all hanger products. In this role, I oversaw the development of a hanger specifically designed for two-hour fire-resistive walls that could be installed before the drywall.

38. The research and development process for this new before-the-drywall hanger was once again led by Mr. Evans as the Product Manager for hangers. I was also more closely involved in this process than I had been with the development of the DU Hangers, given my new role in the company.

39. Simpson was aware that MiTek (through its related entity, Columbia) was applying for patent protection for its FWH product. Simpson monitored Columbia's patent application and made sure to not infringe any of the claims that Columbia was seeking. In particular, Simpson was careful to not pursue a product that had a "fin plate," that is, extension flanges in opposed face-to-face relation that directly engaged each other, allowing for a narrow slot to be cut in the drywall that the extension flanges could extend through.

40. Simpson launched the DG product on July 31, 2017, and followed soon after with the "heavy" versions of the series, the DGB and DGH (collectively, the "DG Hangers").

VI. COMMERCIAL SUCCESS OF THE METHOD CLAIMED IN THE '339 PATENT

41. I do not have access to any sales information pertaining to MiTek's FWH, which I understand to be the purported commercial embodiment of the hanger claimed as part of the method claimed in the '339 Patent. Nevertheless, it is my general understanding, based on communicating directly with customers and communicating with other Simpson employees that communicated directly with customers, that the FWH has been commercially successful and that this success was largely based on the fact that the FWH allowed customers to install the hanger before installing the drywall, including due to the small size of the slot needed to fit the drywall around the FWH hanger. As also discussed above, I do not believe

that there was anything innovative or novel about a method of installing the drywall after installing the hanger and other framing, especially since, as described above, the method of installing drywall after the framing is complete was and is the typical method of installing drywall.

VII. LONG-FELT-BUT-UNMET NEED FOR THE METHOD CLAIMED IN THE '339 PATENT

42. There was not a long-felt unmet need in the industry for the construction method claimed in the '339 Patent. As described above, even though it may have been theoretically possible to construct a two-hour fire-resistive wood-framed wall assembly with a hanger in the 2000s, it was not until the late 2000s, with the advocacy and education efforts of the wood industry, that Type III structures really began to be built with wood with any frequency. And even then, it was not until the early 2010s that such construction really began to take off and a commercial need arose for a hanger specifically designed to be used to construct a two-hour fire-resistive wood-framed wall assembly. Simpson's DU Hangers and MiTek's FWH Hangers promptly filled that need in 2014.

VIII. CUSTOMER RECEPTION OF THE METHOD CLAIMED IN THE '339 PATENT

43. As discussed above, I believe, based on my understanding gained from communicating directly with customers and communicating with other Simpson employees that communicated directly with customers, that the FWH was

well received by those that used it because it allowed them to install the drywall after they installed the framing while simplifying the installation of the drywall via a simple slot in the drywall. As also discussed above, I do not believe that there was anything innovative or novel about the method of installing the drywall after installing the hanger and other framing.

44. I am not aware of any industry awards for structural connectors, let alone any award received for the construction method claimed in the '339 Patent.

IX. UNEXPECTED RESULTS ACHIEVED BY THE METHOD CLAIMED IN THE '339 PATENT

45. I do not think that there were any unexpected results achieved by the construction method claimed in the '339 Patent. There is nothing unexpected about the hanger that is claimed as part of the method claimed in the '339 Patent and nothing unexpected about the results of installing that hanger prior to installing drywall, as claimed in the '339 Patent, especially since, as described above, the method of installing drywall after the framing is complete was and is the typical method of installing a hanger with drywall.

X. FAILURE OF OTHERS TO ACHIEVE THE METHOD CLAIMED IN THE '339 PATENT

46. I am not aware of anyone trying but failing to achieve the construction method claimed in the '339 Patent.

47. I would be surprised by any such failure since, in my opinion, Columbia's hanger was something that was easy to identify. A hanger that creates a gap between the end of the joist and the wall, such that drywall could be installed between the hanger and the wall, requires a structural element between the connection portion of the hanger and the channel-shaped portion of the hanger. And the best way to do that is with steel vertically rather than horizontally. To me that is a pretty obvious solution. In fact, Simpson had used vertical elements in similar ways with hangers it had designed prior to 2013. For example, Simpson's S/JCT Steel-Joist Hanger and CJTZ Concealed Joist Tie both employ a long vertical element to extend from the connection portion and attach to the joist in a way that does not require a base. Furthermore, installing a hanger with such a vertical extension element prior to installing drywall, as claimed in the '339 Patent, is likewise obvious, especially since, as described above, the method of installing drywall after the framing is complete was and is the typical method of installing a hanger with drywall.

48. I am aware of arguments by Columbia that the fact that Simpson first released the DU Hangers, which were designed to be installed after the drywall, indicates that Simpson either never considered or failed to achieve the method claimed in the '339 Patent, particularly the claimed sequence of installing the hanger before the drywall. There was no such failure by Simpson to consider or

achieve the idea of a hanger specifically designed for a two-hour fire-resistive wood-framed wall assembly that could be installed before the drywall. As described above, Simpson researched and developed hanger concepts that could be installed before the drywall but opted to pursue the DU Hanger solution because that solution was much more cost-effective than any solution that could be installed before the drywall and Simpson believed that customers designing and building multifamily projects were gravitating to and would continue to gravitate to construction practices that favored the DU Hangers. Simpson's testing of hanger options that could be installed before the drywall were not failures; rather, Simpson did not invest its scarce resources of engineering time and money into further developing and refining these options because it had a solution it believed in: the concept that became the DU Hangers.

49. The fact that Simpson decided to release the DG (and later versions) after releasing the DU likewise does not indicate that the DU was a failure or that Simpson failed in its process of designing a hanger to connect a floor assembly with two-hour fire-resistive wood-framed wall assembly. It happens, as it did with the DU Hangers, that Simpson releases a product that is successful but that Simpson decides, for various customer-focused reasons, to iterate and release a new and different product to address the same need. For example, Simpson originally released its Strong-Wall *wood* shearwall. The product sold very well but

many secondary contractors, such as plumbers or electricians, failed to distinguish the wood shearwall from the standard wood-framed wall assembly and cut holes in the shearwall, degrading its performance. To address this recurring issue, Simpson released, approximately five years later a Strong-Wall steel shearwall that was easily distinguished from the wood-framed wall. Simpson continues to sell both products to this day. Another example is the HPAHD22 and PAHD42. These straps that were embedded in concrete to connect the foundation to the wood frame performed well and were very cost-efficient, but customers had trouble installing them properly according to Simpson's instructions. So Simpson released the STHD product, which cost more than the earlier products, but was easier for customers to install properly.

50. Finally, the fact that Simpson was able to design and release the Simpson DG (and later versions) in our typical 18-24 month time frame, or less, indicates that applying our resources to develop a solution was not very difficult to achieve.

XI. SKEPTICISM REGARDING THE METHOD CLAIMED IN THE '339 PATENT

51. I do not think there was any skepticism about whether the FWH product would have worked.

52. In my understanding, skepticism means skepticism whether the product would, in fact, allow for the method of installation claimed in the '339

Patent, namely the method of installing the two sheets of drywall between channel-shaped portion of the hanger and wall after the hanger had already been installed without degrading the fire resistance of the wall assembly.

53. Simpson certainly had some questions about the initial load values that MiTek was publishing for the FWH hangers, and about the testing that MiTek had conducted to achieve those published loads, especially since MiTek had published differing values in different documents released around the same time and photographs of MiTek's load testing appeared to be outside the scope of the testing standards. But Simpson was not skeptical about the ability to install the FWH according to the claimed method. *See* EX1080.

XII. COPYING THE METHOD CLAIMED IN THE '339 PATENT

54. I am aware of arguments by Columbia that Simpson copied MiTek's claimed method and/or the MiTek FWH product in developing the DG and DGF Hangers. This was not the case at all. After the release of the DU Hangers, Simpson did decide to also offer a solution to our customers that allowed the hanger to be installed before the drywall, which sequence MiTek's FWH allowed for (indeed, there were only two drywall installation options—before the hanger or after the hanger). But the DG and DGF Hangers were very different than the MiTek product. Not only did the Simpson hangers look different than the FWH hangers, particularly in terms of the extension portions and stops of the hangers,

but these differences resulted in different installation methods, particularly in the way that the drywall had to be cut in order to be installed between the channel-shaped portion of the hangers and the wall assembly. Moreover, as described above, Simpson took specific steps to ensure that it was not infringing Columbia's existing patent or patent applications.

XIII. RESPONSE TO SPECIFIC ARGUMENTS MADE BY PATENT OWNER

55. I am aware of some arguments by Columbia alleging that certain municipalities changed their building code to only allow use of MiTek's FWH product, or a product with the FWH's particular attributes, in the construction of two-hour fire-resistive wall assemblies. First of all, I am not aware of any municipal building code only allowing MiTek's FWH product and not Simpson's DU product. Building codes generally do not identify proprietary products, let alone allow or disallow certain proprietary products. I recall hearing that, when the DU hangers and FWH hangers were first on the market, building inspectors in certain municipalities expressed a preference for the fact that the FWH hangers had a fire rating and the DU Hangers did not. But that misunderstanding only lasted for a short period of time, as the DU Hangers did not need a fire rating in the way that the FWH did because there was no penetration in the unbacked drywall (an area of the wall where structural framing occurs behind the drywall). Moreover, Simpson

ultimately applied for and received a fire rating for the DU Hangers due to questions from customers, even though it was not necessary.

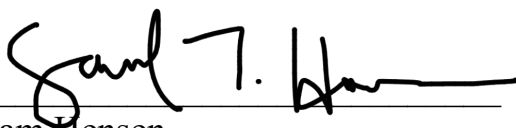
56. I am aware of some arguments by Columbia that Simpson and others in the industry avoided making any penetrations in the drywall when designing a hanger to be used in the construction of two-hour fire-resistive wood-framed wall assembly and that this indicates that the FWH, which did require a slot cut in the drywall, was innovative. I disagree. It is true that Simpson's design of the DU Hangers avoided making penetrations in the drywall (other than the two fasteners that were installed through the drywall into the top plate), but Simpson opted for the DU design with minimal penetrations not because it was unaware of the ability to cut drywall or skeptical of a design that required such cuts. Rather, as discussed in detail above, Simpson was focused on bringing to market an easy-to-install, cost-effective hanger that took advantage of the presumably growing trend of pre-rocking, and a hanger that did not require fire testing because it did not require penetrations in the drywall fulfilled that requirement.

XIV. CONCLUSION

In signing this Declaration, I recognize that this Declaration will be filed as evidence in a post-grant review before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the case and that cross-examination will take place within the United States. If cross-examination is required, I will appear for cross-examination within the United States during the time allotted.

I hereby declare that all statements made herein are true to the best of my knowledge and that all opinions expressed herein are my own; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed on this 15th day of August 2025 at Stockton, California.



Sam Hensen