

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SKECHERS U.S.A., INC.,
Petitioner

v.

FAST IP, LLC,
Patent Owner

Case IPR2026-00342
U.S. Patent No. 11,633,006

**DECLARATION OF ROBERT ERB,
IN SUPPORT OF PATENT OWNER'S PRELIMINARY RESPONSE**

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TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	MY BACKGROUND AND QUALIFICATIONS	2
III.	LIST OF DOCUMENTS CONSIDERED	5
IV.	LEGAL UNDERSTANDING	6
	A. My Understanding of Claim Construction	6
	B. My Understanding of Anticipation	7
	C. My Understanding of Obviousness	7
	D. My Understanding of a Person Having Ordinary Skill in the Art	9
V.	PERSON OF ORDINARY SKILL IN THE ART	10
VI.	OVERVIEW OF THE STATE OF THE ART	12
VII.	OVERVIEW OF THE '006 PATENT	16
VIII.	OVERVIEW OF THE APPLIED REFERENCES	21
	A. Takahashi (EX1007)	21
	B. Shin (EX1009)	23
	C. Hongren (EX1017)	23
	D. Murray (EX1019)	24
	E. Kim (EX1021)	25
IX.	DETAILED DISCUSSION OF OPINIONS	26
	A. The Petition fails to establish that a POSITA would have been motivated to combine the asserted references or would have had a reasonable expectation of success in doing so, in any of its obviousness grounds.	26
	B. The Petition fails to show all limitations of the claim in the prior art.	32
XI.	CONCLUSION	39

I, Robert Erb, hereby declare as follows.

I. INTRODUCTION

1. I have been retained as an expert witness on behalf of Patent Owner Fast IP, LLC (“Patent Owner”) for the above-captioned *inter partes* review (“IPR”). I am being compensated for my time in connection with this IPR at my normal hourly rate. My compensation is not contingent on either my expert opinion or the outcome of this litigation. I have no other interest in this proceeding.

2. I understand that this Declaration accompanies Patent Owner’s Preliminary Response filed in this IPR involving U.S. Patent No. 11,633,006 (“the ’006 patent”) (EX1001), entitled “Rapid-Entry Having a Stabilizer and an Elastic Element.” The ’006 patent was filed on October 13, 2022, as a continuation of U.S. Application No. 16/942,335, which claims priority to U.S. Provisional Application No. 62/879,883, filed on July 29, 2019. My opinions regarding the knowledge in the art at the time of the ’006 patent are based on the July 29, 2019 priority date.

3. In preparing this Declaration, I have reviewed the ’006 patent and each of the documents cited herein, in light of general knowledge in the art before the ’006 patent’s priority date. In formulating my opinions, I have relied upon my experience, education, and knowledge in the relevant art. In formulating my opinions, I have also considered the viewpoint of a person of ordinary skill in the

art (“POSITA”) (as discussed further below in Section V) at the time of the ’006 patent’s priority date.

II. MY BACKGROUND AND QUALIFICATIONS

4. I received a Bachelor’s degree in Philosophy from the University at Buffalo in 1982 and a Juris Doctor from New York Law School in 1991.

5. From 2023 to the present, I have been the Chief Executive Officer of Triple 8 Distribution, LLC, a manufacturer and distributor of athletic and action-sport protective equipment. In this role, I oversee the company’s product strategy, operations, manufacturing, distribution, marketing, and brand-development activities. Triple 8 is a global leader in protective gear for action sports, including skateboarding, biking, roller skating, and roller derby, and its products serve consumers ranging from beginners to professional athletes. My work requires substantial familiarity with the way athletic products are designed, developed, tested, positioned, manufactured, and commercialized for real-world use by active consumers.

6. Prior to joining Triple 8, I served at adidas America beginning in 1994, initially as General Counsel and a member of the company’s Senior Management Team. I also served as Head of Sports Marketing, during which time I was a member of the Executive Management Team responsible for growing the adidas America subsidiary substantially in size. My responsibilities required me to

develop a detailed understanding of the development, positioning, commercialization, and competitive differentiation of athletic footwear products. Through my work with adidas's footwear business, I regularly interacted with personnel involved in footwear design, product development, brand management, and commercialization and became familiar with the considerations that drive athletic footwear design and development.

7. Additionally, I served in senior leadership roles with TaylorMade Golf Company and adidas Golf, including as Senior Executive of Global Marketing and later President. During that time, I was accountable for product development initiatives, research and development activities, operations, licensing, marketing, and sales. Because adidas Golf products are designed specifically for athletic performance, comfort, fit, stability, durability, and user experience, my responsibilities required me to work closely with personnel involved in the design, development, testing, and commercialization of performance footwear products.

8. I also served in senior executive leadership positions at FILA International (Sport Brands International, LLC) from 2004 to 2007, including as Chief Executive Officer, Chief Marketing Officer, and Managing Director, North America. In those roles, I was involved in product strategy, brand positioning, market expansion, and commercialization efforts relating to FILA footwear products. This experience further deepened my understanding of how footwear

companies evaluate design alternatives, consumer preferences, manufacturing constraints, product performance requirements, and market demands when developing athletic footwear.

9. From 2007 through 2023, I served in various executive leadership roles at Kranos Corporation (d/b/a Schutt Sports), including President, Chief Executive Officer, and General Counsel, and, from 2018 to 2021, Chairman and Chief Executive Officer. I also served as Chief Executive Officer and Director of Certor Sports, LLC in 2021. In these roles, I oversaw operations, manufacturing, research and development, product strategy, and commercialization activities for athletic equipment and consumer sporting-goods products. These responsibilities included supervising multidisciplinary product-development teams responsible for designing products that balance performance, comfort, safety, manufacturability, durability, and consumer usability.

10. I am also a named inventor on several U.S. patents, including U.S. Patent No. 7,073,277, entitled “Shoe Having an Inner Sole Incorporating Microspheres.” The patent relates to shoe components, including shoe sole and insole technologies, and addresses issues such as cushioning, conformability, durability, resilience, and user comfort. My work as an inventor on this project provided direct experience with the conceptual design and implementation of shoes generally, and athletic footwear specifically.

11. Through these experiences, including leadership roles at adidas, adidas Golf, and FILA, and my own work as an inventor in the same field as the '006 patent, I have developed substantial familiarity with how footwear designers identify design objectives, evaluate design tradeoffs, develop prototypes, and balance competing considerations such as comfort, fit, support, stability, manufacturability, durability, and aesthetics. I am therefore familiar with the perspective and thought process of persons working in the field of athletic footwear design and development.

12. I understand that a copy of my complete curriculum vitae has been submitted as Exhibit 2025, which includes a list of my publications, and other details regarding my expertise and qualifications.

III. LIST OF DOCUMENTS CONSIDERED

13. I have considered the following documents listed below in addition to any other documents cited in this Declaration. To the best of my knowledge, these documents are true and accurate copies of what they purport to be. An expert in the field would reasonably rely on them to formulate opinions such as those set forth in this Declaration.

Paper No.	Description
1	Petition for <i>Inter Partes</i> Review of U.S. Patent No. 11,633,006

Exhibit No.	Description
1001	U.S. Patent No. 11,633,006 (“the ’006 Patent”)
1007	English Translation of Japan Utility Model Registration No. 3212460 (“Takahashi”)
1009	U.S. Patent No. 12,029,276 (“Shin”)
1017	English Translation of China Patent Publication No. CN 109393642A (“Hongren”)
1019	U.S. Patent No. 3,693,270 (“Murray”)
1021	English Translation of Japan Utility Model Registration No. 3153220 (“Kim”)
2022	“The Ultimate Guide to Skechers Hands-Free Slip-ins®,” <i>SKECHERS</i> , accessed at https://www.skechers.com/stories/comfort-technology/what-is-skechers-hands-free-slip-ins.html (last accessed July 15, 2026)
2023	“Hands-Free Slip-ins® vs. Traditional Slip-Ons: What’s the Difference?,” <i>SKECHERS</i> , accessed at https://www.skechers.com/stories/comfort-technology/skechers-hands-free-slip-ins-vs-slip-ons.html (last accessed July 15, 2026)
2026	Ryder, S. Step by Step. Shoe Design and Development. Retrieved July 30, 2026, from https://codesigncollaborative.org/step-by-step-shoe-design/

IV. LEGAL UNDERSTANDING

A. My Understanding of Claim Construction

14. I understand that during an *inter partes* review proceeding, claims are to be construed in light of the specification as would be read by a person of ordinary skill in the relevant art at the time of the invention. I understand that claim

terms are given their plain and ordinary meaning as would be understood by a POSITA in the context of the patent's specification and prosecution history. A claim term, however, will not receive its ordinary meaning if the patentee acted as his or her own lexicographer and clearly set forth a definition of the claim term in the specification. In this case, the claim term will receive the definition set forth in the patent.

B. My Understanding of Anticipation

15. I understand that a single piece of prior art anticipates a claim if that prior art discloses each and every claim element as arranged in the claim. I further understand that, where a claim element is not explicitly disclosed in a prior art reference, the reference may only anticipate a claim if the missing claim element is necessarily present in the apparatus or is a natural result of the method disclosed, i.e., the missing claim element is "inherent." I understand that inherency may not be established by probabilities or possibilities and that the mere fact that a certain thing may result from a given set of circumstances is not sufficient.

C. My Understanding of Obviousness

16. I understand that a patent claim is invalid if the claimed invention would have been obvious to a person of ordinary skill in the art at the time of the application's priority date. I understand that this means that even if all the limitations of the claim cannot be found in a single prior-art reference that would anticipate the claim, the claim can still be invalid.

17. To obtain a patent, a claimed invention must have been, as of its priority date, nonobvious in view of the prior art in the field. I understand that a patent claim is obvious when the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.

18. I understand that to prove that prior art or a combination of prior art renders a patent claim obvious, it is necessary to: (1) identify the particular references that, singly or in combination, render the patent claim obvious; (2) specifically identify which elements of the patent claim appear in each of the asserted references; and (3) explain how the prior art references could have been combined in order to create the inventions claimed in the patent claim.

19. I also understand that when considering the obviousness of a patent claim, one should consider whether a teaching, suggestion, or motivation to combine the references exists so as to avoid impermissibly applying hindsight when considering the prior art. I understand this test should not be rigidly applied, but that the test can be important to avoiding such hindsight.

20. I understand that certain objective indicia can be important evidence as to whether a patent is obvious or nonobvious. Such indicia include: (1) commercial success of products covered by the patent claims; (2) a long-felt

need for the invention; (3) failed attempts by others to make the invention; (4) copying of the invention by others in the field; (5) unexpected results achieved by the invention as compared to the closest prior art; (6) praise of the invention by the infringer or others in the field; (7) the taking of licenses under the patent by others; (8) expressions of surprise by experts and those skilled in the art at the making of the invention; and (9) the patentee proceeded contrary to the accepted wisdom of the prior art.

21. I also understand that “obviousness” is a legal conclusion based on the underlying factual issues of the scope and content of the prior art, the differences between the claimed invention and the prior art, the level of ordinary skill in the pertinent art, and any objective indicia of non-obviousness. For that reason, I am not rendering a legal opinion on the ultimate legal question of obviousness. Rather, my testimony addresses the underlying facts and factual analysis that would support a legal conclusion of obviousness or non-obviousness, and when I use the term obvious, I am referring to the perspective of one of ordinary skill at the time of invention of the '006 patent.

D. My Understanding of a Person Having Ordinary Skill in the Art

22. I understand that a POSITA is presumed to be aware of all pertinent art, thinks along conventional wisdom in the art, and is a person of ordinary creativity.

23. I understand that the following should be considered when deciding the level of ordinary skill in the art that someone would have had at the time the claimed invention was made:

- the levels of education and experience of persons working in the field;
- the types of problems encountered in the field; and
- the sophistication of the technology.

24. My opinion below explains how a POSITA would have understood the technology described in the documents I have identified herein around the time of the '006 patent.

25. Regardless of whether I use “I” or “POSITA” during my technical analysis below, all of my statements and opinions are always to be understood to be based on how a POSITA would have understood or read a document at the time of the '006 patent.

V. PERSON OF ORDINARY SKILL IN THE ART

26. For purposes of this Declaration, I do not dispute Petitioner’s articulation of a POSITA as having a bachelor’s degree in engineering and at least a few years of experience in designing and manufacturing shoes, *or equivalent academic and work experience*. See Pet., 11 (emphasis added). I also agree that a POSITA would have at least a general understanding of construction processes and

materials used to manufacture footwear. *Id.* I have applied that definition for purposes of this Declaration.

27. I also satisfy this definition myself. While I do not have a bachelor's degree in engineering, I have equivalent academic and work experience. Specifically, I have extensive practical experience (far more than merely "a few years") in the field of designing and manufacturing shoes. Pet., 11. That experience has given me an in-depth understanding of construction processes and materials used to manufacture footwear, and I am a named inventor on patents in this field. My experience in a supervisory role for multiple footwear design projects has also given me insight into how other contributors to the footwear design process, including engineers, materials scientists, and artists collaborate and engage to find problems and solutions in the field. I have also applied this insight in forming my opinions in this Declaration on how a POSITA would understand and interpret the challenged claims and the prior art.

28. It is my opinion that the precise definition of a POSITA would not materially affect the limited analysis required for deciding institution and presented in this Declaration. If called to give further opinions in this proceeding should review be instituted, I reserve the right to reconsider Petitioner's definition of a POSITA and arrive at my own conclusion.

VI. OVERVIEW OF THE STATE OF THE ART

29. I understand that the '006 patent arises from longstanding challenges in footwear design, particularly the challenge of creating a shoe that permits hands-free entry while still providing the fit, structure, support, and retention expected of conventional footwear. The '006 patent discloses a rapid-entry shoe with a stabilizer configured to resist collapse of the rear portion of the shoe while still permitting a user to step into the shoe without using his or her hands. EX1001, Abstract. As described in the '006 patent, the disclosed footwear is intended to provide the convenience of hands-free entry while maintaining the performance and functionality of a conventional shoe.

30. Footwear development is often a collaborative process involving designers, developers, materials specialists, engineers, and manufacturing personnel. Decisions regarding fit, support, cushioning, sole geometry, upper construction, durability, manufacturability, retail objectives, and consumer expectations are typically evaluated together rather than independently. Changes to one portion of a shoe frequently affect the operation and performance of surrounding structures and often require corresponding adjustments elsewhere in the design. As a result, footwear products are generally designed as coordinated systems intended to achieve specific performance and consumer-use objectives. *See, e.g.,* EX2026.

31. The design and development of footwear must account for foot anatomy, regional anthropomorphic data, and material restrictions. In other words, footwear developed in 2019 was designed as a fully integrated system. *See, e.g.,* EX2026. The process begins with research and analysis. Then, in the ideation phase, designers create drawings exploring silhouettes, upper panel overlays, and tooling textures. Next, refined digital drawings using CAD software or vector tools showing multiple angles (lateral, medial, top, bottom, and heel views). The technical specification of the is then engineered, using what is called a “last.” A last is a foot-shaped plastic or wooden model that dictates the fit, volume, toe shape, and heel-to-toe drop of the shoe. Then the outsole tooling was determined.

32. First prototypes are sometimes built with whatever scraps or temporary materials are on hand. This is followed by further refinements and prototypes using production-intent materials. These were assigned to real humans for rigorous biomechanical and wear-testing to optimize comfort and durability.

33. The standard workflow for shoe design had been documented across historical textbooks, peer-reviewed journals, and industry design institutions. *See, e.g.,* Karl T. Ulrich & Steven D. Eppinger, *Product Design and Development* (5th ed. 2012); A. Luximon ed., *Handbook of Footwear Design and Manufacture* (2013); Wade Motawi, *How Shoes Are Made* (2014).

34. *Footwear Design* by Aki Choklat (2012) is widely considered the foundational trade manual for the modern shoe industry. Choklat dedicates an entire section to the research and design development processes, outlining how a designer transitions from a macro-trend concept into an active design brief. It breaks down the ideation phase into visual storyboarding, material sourcing maps, and collection planning before technical drawing begins. Nowhere in this institutional knowledge would a person of skill in the art be motivated to mix and match components of existing shoes, especially different kinds of shoes that serve different purposes.

35. Rather, footwear designers generally approach shoe development as the design of an integrated product in which the heel structure, sole, upper, elastic components, cushioning elements, and support features are intended to function together as part of a cohesive system. Changes to one portion of a shoe often affect the operation, comfort, fit, support, stability, durability, and manufacturability of other portions of the shoe. The '006 patent addresses these design challenges through a specific claimed combination of structural features, including a stabilizer and elastic element configured to cooperate with one another to facilitate hands-free entry while resisting collapse of the rear portion of the shoe during use.

EX1001, Abstract, claim 1.

36. For example, stabilizing structures are generally evaluated based on how they interact with surrounding portions of the shoe, including the sole, upper, cushioning structures, and heel-support architecture. A stabilizer may incorporate, cooperate with, or support a heel structure, but a stabilizer and a heel counter are not necessarily the same footwear component. In conventional footwear terminology, a heel counter is a relatively stiff component associated with the heel portion of the upper and used to maintain the upper's shape and support or contain the wearer's heel. A stabilizer is a structure whose principal identified function is to increase heel or rearfoot stability, frequently by reinforcing, supporting, anchoring, or working in conjunction with the heel counter, upper, midsole, or heel structure. Although a counter itself can contribute to stability, and a stabilizer can incorporate or be integrated into a counter, the terms do not necessarily identify the same footwear component.

37. Before the priority date of the '006 patent, footwear designers faced significant challenges in developing shoes that could be easily put on without bending over, tying laces, or using one's hands while still maintaining comfort, stability, support, and secure foot retention. Slip-on shoes had existed for many years, but such shoes frequently suffered from functional shortcomings, including inadequate heel retention, insufficient support during athletic activities, discomfort during use, or difficulty entering the shoe without manually manipulating portions

of the upper or heel structure. As a result, designers were required to balance competing design objectives, including ease of entry, fit, stability, durability, user comfort, and manufacturability.

VII. OVERVIEW OF THE '006 PATENT

38. **Overview of the System.** The '006 patent, titled “Rapid-Entry Footwear Having a Stabilizer and an Elastic Element,” describes a rapid-entry shoe configured to allow a user to step into the shoe without using hands while maintaining support, retention, and functionality during use. EX1001, Abstract. The claimed shoe includes, among other features, a stabilizer positioned at the rear portion of the shoe, a foam liner, and an elastic element that cooperate to facilitate hands-free entry while resisting collapse of the rear portion of the shoe. EX1001, Abstract, claim 1.

39. **Stabilizer Architecture.** One feature of the '006 patent is its use of a stabilizer positioned at the rear portion of the shoe. Claim 1 recites a stabilizer extending from within the sole portion and comprising both a base portion and an elevated portion. EX1001, claim 1. The claim further recites that the base portion define a closed cup portion extending completely between lateral and medial sides of the sole portion. *Id.* In my opinion, the stabilizer is not merely a rigid component positioned at the heel of the shoe. Rather, the claim describes a stabilizing structure that cooperates with surrounding portions of the shoe to

support the rear portion of the footwear while maintaining rapid-entry functionality.

40. **Resistance to Collapse.** The '006 patent describes a stabilizer that resists downward collapse of the rear portion of the shoe while still permitting hands-free entry. EX1001, Abstract, claim 1. In my opinion, this reflects a design objective that differs from simply providing a rigid heel counter. The claimed arrangement seeks to balance ease of entry with support and retention by allowing portions of the shoe to deform during entry while maintaining the structural characteristics necessary for use after the foot enters the shoe.

41. POSAs evaluate support structures based on how they cooperate with surrounding cushioning and sole structures. A support structure that functions independently of the surrounding footwear architecture generally does not provide the same degree of stability, support, or resistance to deformation as a structure specifically designed to cooperate with adjacent footwear components. A heel counter, for instance, is not just a vertical support but a component that must integrate with the cushioning layers to prevent structural failure or user injury.

42. **Foam Liner.** Another feature of the claimed invention is the requirement that the rapid-entry shoe comprise “a foam liner oriented concave toward the sole portion.” EX1001, claim 1. The '006 patent specification describes the foam liner as a strip generally oriented concave toward the sole portion.

EX1001, 7:8-10, Fig. 1C. In my opinion, the claim does not merely recite the presence of cushioning material. Rather, it recites a specific structural arrangement and orientation of the foam liner within the claimed footwear configuration.

43. The geometry and orientation of foam structures within footwear can affect comfort, stability, pressure distribution, foot positioning, and interaction with surrounding footwear components. Orienting a foam liner with a concave profile toward the sole is aimed at biomechanical alignment and pressure distribution. A POSA reading the '006 patent would understand that the claimed foam liner creates a cradle for the calcaneus (heel bone). This helps prevent the fat pad of the heel from spreading outward upon impact, which preserves the body's natural cushioning. By centering the foot within the footwear, the concave orientation reduces lateral and medial shifting, helping to prevent overpronation or supination during the gait cycle.

44. From a step-in comfort perspective, the claimed concave foam liner eliminates the gap between the foot's curved bottom and the flat top of the midsole, providing a more secure, "locked-in" feel.

45. A POSA would further understand that a flat surface creates "hot spots" where the most prominent bones (like the metatarsal heads or the heel) take the brunt of the body's weight. A concave liner increases the surface area of contact between the foot and the sole. By distributing the load across a larger area,

the '006 patent design reduces peak pressure points, which is critical for long-distance running shoes or orthopedic footwear. The claimed foam liner also acts as a mechanical spring. The concavity allows for built-in arch support that does not collapse as easily as a flat piece of foam. A POSA reading the '006 patent would understand the term “foam liner” to be referring to the depicted structure, which performs these specialized functions, as opposed to any kind or shape of lining.

46. **Elastic Element.** The '006 patent further recites an elastic element. EX1001, claim 1. The claim recites that the elastic element enables the forward portion of the rapid-entry shoe to flex and/or pivot forward relative to the sole portion during use. *Id.* In my opinion, the elastic element is not disclosed simply for cushioning or comfort purposes. Instead, it participates in the rapid-entry functionality of the shoe and operates in conjunction with other claimed structures.

47. **Cooperation of the Claimed Structures.** In my opinion, the stabilizer, foam liner, elastic element, upper, and sole portion are not disclosed as isolated features. Rather, the '006 patent specification and claims describe a footwear configuration in which these components cooperate to achieve multiple objectives simultaneously, including hands-free entry, resistance to collapse, support, comfort, and retention. The operation of each structure depends in part on its relationship with surrounding structures. This is consistent with my experience

that footwear designs are generally developed and evaluated as integrated products rather than as collections of unrelated components.

48. The interaction between these components relies on a balance of rigidity and flexibility to facilitate hands-free entry and stable wear. A POSA would understand that the stabilizer acts as a unitary structure extending from the sole toward the rear of the foot opening. It provides the “skeleton” necessary to maintain the shoe’s shape while allowing specific zones to flex during entry. The upper serves as the primary enclosure, while elastic elements provide the tension required for the rapid-entry function. The ’006 patent describes configurations where multiple elastic elements are spaced apart to dictate how the opening expands and retracts.

49. The specialized foam liner is coupled to the rear portion of the upper but spaced from the sole. It features a concave profile facing forward to cradle the heel. A POSA reading the ’006 patent would immediately see that this component is critical because rapid-entry shoes often lack traditional laces; the foam liner provides the necessary friction and anatomical fit to prevent heel slippage. But it only provides this friction if the other components of the shoe are designed to cooperate with the foam liner, such that the foot is sufficiently pressed against it and rests in the appropriate place.

VIII. OVERVIEW OF THE APPLIED REFERENCES

50. I understand that Petitioner relies on numerous references in its proposed obviousness grounds for the challenged claims of the '006 patent. Five of those references are particularly relevant to my opinions provided in this Declaration: Takahashi (EX1007), Shin (EX1009), Hongren (EX1017), Murray (EX1019), and Kim (EX1021). I provide brief overviews of these references below.

A. Takahashi (EX1007)

51. **Overview of the Footwear Design.** Takahashi is directed to a shoe that can be more easily put on without using a shoehorn and without enlarging the opening area of the shoe opening. EX1007, Abstract, ¶¶0005-0006. The disclosed shoe includes a sole, upper, stretchable portions, side portions, heel portion, and shoe opening through which a user inserts a foot into the shoe. EX1007, ¶¶0037-0048. In my understanding, Takahashi focuses on improving ease of entry into the shoe through a specific arrangement of structures located in the heel region of the footwear.

52. **Heel Guided Structure.** An important feature of Takahashi is its heel guide portion positioned at the rear of the shoe opening. EX1007, Claim 1. The reference explains that the guide portion slopes upward as it extends away from the rear edge of the shoe opening and guides the user's heel into the shoe during insertion. EX1007, ¶¶0007-0010, 0056, 0071-0075. In my opinion, Takahashi

utilizes this guide structure as part of its overall approach to facilitating entry of the foot into the shoe.

53. **Heel Curve and Retention Structure.** Takahashi further explains that the heel portion includes a heel curve that slopes inward toward the rear edge of the shoe opening and is configured to hold the wearer's heel and make it more difficult for the shoe to slip off. EX1007, ¶¶0010, 0024, 0051-0052, 0074-0075. The reference teaches that the guide portion slopes in a direction opposite to the heel curve. EX1007, ¶¶0009-0010, 0064, 0066, 0074-0075. In my understanding, Takahashi employs these structures together as part of its heel architecture, with the guide portion facilitating insertion of the foot into the shoe and the heel curve contributing to retention of the wearer's heel after the shoe has been put on.

54. **Counter and Guide-Core Construction.** Takahashi also discloses a guide core portion and counter structure positioned within the heel region of the shoe. EX1007, Claims 3-6, ¶¶0059-0068. The guide core portion maintains the shape of the guide portion while permitting deformation when a foot is inserted into the shoe. EX1007, ¶¶0063-0068, 0076-0083. Takahashi explains that these structures improve ease of entry while maintaining the desired shape of the heel portion. EX1007, ¶¶0025-0032, 0076-0083. In my opinion, these structures are intended to operate together as part of the heel-region design disclosed in the reference.

B. Shin (EX1009)

55. **Overview of the Footwear Design.** Shin is directed to footwear designed to facilitate entry of a user's foot into the shoe through the use of deformable structures positioned in the heel region. EX1009, 4:10-6:8. In my understanding, Shin focuses on permitting a user to insert a foot into the shoe while utilizing elastic structures that deform during entry and subsequently return toward their original configuration.

56. **Elastic Entry Mechanism.** An important feature of Shin is its use of an elastic member and heel support structures that cooperate during insertion of the foot into the shoe. EX1009, 4:10-6:8. The reference describes footwear in which deformation and recovery of elastic components play a role in facilitating entry of the wearer's foot into the shoe. In my opinion, the disclosed structures are presented as components of a coordinated footwear design intended to achieve the objectives identified in the reference.

C. Hongren (EX1017)

57. **Overview of the Footwear Design.** Hongren is directed to footwear that includes structural components positioned in the heel region of the shoe. EX1017, ¶¶0001-0003, 0005. The reference describes heel-support structures and associated components intended to provide support and maintain the shape of the rear portion of the shoe. EX1017, ¶¶0002-0003, 0005. In my understanding,

Hongren focuses on a particular heel-region support architecture and the interaction of those structures within the overall footwear design.

58. **Heel Support Architecture.** Hongren describes heel-counter and embedding structures located in the rear portion of the shoe. EX1017, ¶¶0005, 0022-0023. In my opinion, the disclosed structures are presented as components of a complete footwear configuration intended to function together in the manner described by the reference. The reference does not describe these structures in isolation, but rather as part of an overall footwear design directed to the objectives identified in the specification.

D. Murray (EX1019)

59. **Overview of the Footwear Design.** Murray is directed to footwear including various insert structures positioned within the shoe. EX1019, Abstract, 1:15-39. The reference discusses multiple inserts positioned in different regions of the footwear and describes their relationship to the overall shoe design. EX1019, 1:15-39. In my understanding, Murray focuses on cushioning, support, and comfort-related aspects of footwear through the use of insert structures located within the shoe. Murray further explains that its inserts are intended to permit a wearer to put on and remove the footwear without strenuous effort and without a zipper or shoe laces, while keeping the foot retained during walking or running. EX1019, 2:5-60.

60. **Insert Configuration.** Murray describes first, second, and third inserts positioned in different portions of the shoe. EX1019, 2:53-64. In my opinion, these insert structures are presented as components of the footwear design disclosed by Murray and operate in conjunction with the surrounding portions of the shoe. The reference discusses these structures in the context of the overall footwear configuration rather than as standalone elements.

E. Kim (EX1021)

61. **Overview of the Footwear Design.** Kim is directed to footwear that facilitates insertion of a user's foot through the use of structures located in the heel region of the shoe. EX1021, ¶¶0022-0025. The reference describes a heel portion, heel guide portion, and associated structures that guide the foot into the shoe during use. EX1021, ¶¶0022-0025. In my understanding, Kim focuses on directing a wearer's heel into the shoe through a specific heel-guidance arrangement positioned at the rear portion of the footwear.

62. **Heel Guidance Configuration.** Kim describes a heel guide portion associated with the heel region of the shoe and additional supporting structures located in that region. EX1021, ¶¶0022-0025. In my opinion, these structures are intended to cooperate with one another as part of the overall footwear design disclosed by Kim. The reference presents these structures as part of a complete footwear configuration directed to the objectives identified in the reference.

IX. DETAILED DISCUSSION OF OPINIONS

63. For purposes of this Declaration, I have been asked to opine on certain positions taken by Petitioner in the Petition for *inter partes* review of the '006 patent. That I omit certain claims, claim elements, or presented grounds from my analysis should not be viewed as agreement that any claims or claim elements are obvious.

64. Upon considering the materials listed above and discussed herein, based on my extensive experience and education in footwear design and development, and in view of the arguments presented in the Petition, I have formed the following opinions.

A. The Petition fails to establish that a POSITA would have been motivated to combine the asserted references or would have had a reasonable expectation of success in doing so, in any of its obviousness grounds.

65. It is my opinion that each of the prior-art references relied upon in the Petition—Takahashi (EX1007), Shin (EX1009), Hongren (EX1017), Murray (EX1019), and Kim (EX1021)—discloses a complete and unique solution to a specific problem, not a collection of interchangeable parts, and that the components disclosed in each reference are intended to function together as part of an integrated whole. *See* EX1007, ¶¶0071-0085; EX1009, 4:10-6:8; EX1017, ¶¶0022-0025; EX1019, 2:8-22 (Description of the Preferred Embodiment); EX1021, ¶¶0029-0032.

66. Based on my review, features such as a heel support, an elastic sidewall, a foam strip, or a stabilizing structure derive their function from the surrounding structures and combination of structures of the shoe in which they appear, and their shapes, relative positions, and points of contact matter. In my opinion, a skilled artisan would not take the heel support of one shoe and combine it with the resilient sidewall of a different shoe, because the shape of the heel support is designed to cooperate with every other part of that shoe, with each surface and contour playing a specific role in the overall functionality of the whole. The Petition does not address this anywhere in its motivation-to-combine showing. *See, e.g.*, Pet. 57-62, 65-68, 69-70, 74-76, 89-95.

67. For example, it is my opinion that Kim's heel structure and Shin's heel structure reflect fundamentally different entry mechanisms. Based on my review, Kim's heel guide portion 4a directs the user's heel into the shoe from the rear of the heel structure, like a shoehorn, while Shin's heel enters the shoe from the front end of the heel and slides into place through deformation of an elastic element. The Petition proposes incorporating "Shin's elastic member...into Kim's heel portion...in the same configuration taught by Shin." Pet., 90.

68. In my opinion, attaching Shin's elastic member to Kim's heel portion or heel guide portion in this way may alter the functioning of those elements by blocking the heel as it enters the shoe along the heel guide portion. The Petition

does not explain why a skilled artisan would combine these different approaches or how the resulting structure would operate.

69. Likewise, the Petition proposes “substituting Shin’s foam liner for [Kim’s] soft lining,” reasoning that doing so “would be straightforward and yield the same benefit of cushioning and secure fit.” Pet., 91. In my opinion, the Petition does not explain why a skilled artisan would expect the two structures to serve the same role once substituted, particularly where an elastic member and a foam liner perform different functions and possess different material properties. The Petition offers only the conclusory assertion that the substitution would be “straightforward,” without analysis. Pet., 91.

70. It is my opinion that this pattern—asserting that components are interchangeable without addressing how the substituted or combined structures would actually cooperate once removed from their original shoe—recurs throughout the Petition’s combination theories for Grounds 1B, 1C, 1D, 1E, 1F, 2A, and 2B. Pet., 57-62, 65-68, 69-70, 74-76, 89-95. In each instance, the Petition identifies that a component exists in a second or third reference and asserts, without more, that it “could” be incorporated into the base reference. In my opinion, the fact that a component could be relocated from one shoe to another is not the same as a skilled artisan being motivated to make that specific change and expecting it to succeed.

71. Based on my review of the prior art cited in the Petition, each reference is presented as a complete solution to its own problem, not a set of components meant to be freely rearranged.

72. A POSA would not develop a functionally unique shoe (like the rapid-entry shoe claimed in the '006 patent) by selecting isolated structures from unrelated footwear designs and recombining them. Instead, designers generally begin with a targeted performance objective and develop a coordinated footwear system in which cushioning structures, support features, elastic components, upper construction, and sole geometry are intended to function together. *See, e.g.*, EX2026.

73. In my opinion, the claimed configuration in claim 1 reflects a particular balance between resilient and rigid structures, support and flexibility, and ease of entry and secure retention, and the prior-art references strike that balance differently, using different shapes, arrangements, and structural relationships—for example, in how a heel curve retains the heel while a guide portion permits entry. *See, e.g.*, EX1001, claim 1, 7:8-10, FIG. 1C. In my opinion, the elements recited in claim 1 of the '006 patent—the foam liner, stabilizer, and elastic element—are, in the same way, features whose structure and function are linked to the surrounding design of the footwear, including how those components conform to and support the foot.

74. Substituting versions of these elements from a secondary reference into a primary reference without accounting for their differing shapes and structural roles in each of the references would, in my opinion, alter how the shoe distributes load and maintains fit, and would require additional redesign of the surrounding structure to maintain functionality—redesign that the Petition does not identify anywhere in the prior art.

75. The Petition does not identify a reason why a skilled artisan would depart from the design of any individual prior-art reference and arrive instead at the claimed combination, other than the fact that the '006 patent itself discloses how to do so.

76. In my opinion, the claimed invention is therefore not the predictable result of combining known parts as Petitioner asserts, but rather reflects a specific arrangement and shaping of those parts that is not suggested by the prior art.

77. I will note that Petitioner's own public description of the products accused of practicing the '006 patent in the co-pending litigation is consistent with my opinion that these structures must cooperate as an integrated system rather than function as freely interchangeable pieces. For example, Petitioner describes its accused Hands-Free Slip-ins® technology as using “a specially molded heel panel and an exclusive Heel Pillow™ to allow you to step into your shoes without bending down,” and describes this same system as “a revolutionary approach to

footwear design.” EX2022; *see also* EX2023. In my opinion, this description is consistent with the fact that the technology at issue depends on cooperation among structures, which the Petition’s own combination theories do not account for in any of the Grounds.

78. It is my opinion that, to the extent the prior-art teachings can be combined at all, the resulting combination would not yield the same result as claim 1 without further modification, which signifies the Petition is relying on impermissible hindsight. Based on my experience, footwear designers do not begin with existing pieces of prior designs and then look for ways to combine them; they begin with a problem to solve and design a complete solution looking forward, rather than working backward from existing designs.

79. In my opinion, the Petition does not supply a reason, apart from the hindsight of already knowing the claimed invention, why a skilled artisan would disturb the existing designs in the prior art, let alone modify them in the precise way required to arrive at claim 1 of the ’006 patent.

80. It is further my opinion that although the prior art may separately disclose elastic sides, a rigid heel cup, and foam elements, it does not disclose or suggest how or why a POSITA would have known to make the specific combination in which those components are arranged and shaped to work together as recited in claim 1.

81. In the claimed design, those elements are arranged in a specific manner that governs how the rear portion of the shoe deforms, rebounds, supports the foot, and resists collapse.

82. The Petition does not identify a prior-art teaching that would have led a skilled artisan to select those elements from among the different shoes, reposition them as claimed, and expect the resulting arrangement to preserve the functionality of the original designs.

B. The Petition fails to show all limitations of the claim in the prior art.

83. **Ground 1A (Takahashi).** It is my opinion that Takahashi does not disclose the claimed “stabilizer . . . comprising a base portion at least partially within the sole portion” (limitation 1[c]). The Petition contends that a lip on heel counter 27 sits below the sole portion, but I found no disclosure in Takahashi describing such a lip extending within the sole portion; Takahashi does not appear to discuss this structure at all. Pet., 29-30. In my opinion, the Petition asks the Board to infer a structure that Takahashi does not disclose.

84. It is also my opinion that Takahashi does not disclose the stabilizer functionality recited in limitation 1[h], which requires that the stabilizer be “configured to resist downward collapse” of the rear portion of the shoe. The Petition contends that because Takahashi's first heel counter 28 is formed from a relatively hard material, a POSITA would understand the disclosed heel structure

to resist downward collapse. Pet., 42. Based on my review, however, the Petition omits that Takahashi also explains that the second heel counter 29 is softer than the first heel counter 28 and that guide core portion 33 may be formed from a shape-memory resin that returns to its original shape after deformation. EX1007, ¶¶0067-0068. The Petition does not explain how Takahashi's soft and deformable structure is configured to resist downward collapse. Accordingly, it is my opinion that Takahashi does not disclose limitation 1[h].

85. It is also my opinion that Takahashi does not disclose the claimed "foam liner oriented concave toward the sole portion" (limitation 1[i]). Based on my review, the '006 patent describes the foam liner as a strip generally oriented concave toward the sole. EX1001, 7:8-10, FIG. 1C (element 158). The liner element identified by the Petition in Takahashi, by contrast, is a cloth-and-sponge liner extending along the sides and heel portion of the shoe. EX1007, ¶0054. In my opinion, a liner extending along the sides and heel of a shoe is a different structure than a strip oriented concave toward the sole, and the Petition does not explain why a skilled artisan would consider them the same.

86. It is also my opinion that Takahashi does not disclose the functionality recited in limitation 1[j], which requires that the elastic element enable the forward portion of the rapid-entry shoe to flex and/or pivot forward relative to the sole portion. Based on my review, the Petition appears to rely on Takahashi's side

stretchable portions as allegedly satisfying this limitation. Pet., 43-44. However, I found no disclosure in Takahashi stating that those stretchable portions enable the forward portion of the shoe to flex or pivot forward relative to the sole portion. Rather, Takahashi describes elastic or stretchable material that may deform to facilitate foot entry. EX1007, ¶54. In my opinion, local deformation of elastic material during foot entry is different from the claimed configuration, which requires an elastic element configured to enable movement of the forward portion of the shoe relative to the sole portion. The Petition identifies the presence of elastic material but does not explain how Takahashi discloses the particular functionality required by limitation 1[j]. Accordingly, it is my opinion that Takahashi does not disclose limitation 1[j].

87. **Ground 1B (Takahashi + Shin).** It is my opinion that Shin does not cure Takahashi's failure to disclose limitation 1[i]. Based on my review, Shin's elastic member 122 is compressed by the user's heel during entry and returns to its original shape afterward, which is a different function and a different material property than a foam liner. In addition, as depicted in Shin's Figure 2, the elastic element appears oriented generally parallel to the sole, not concave toward it, as the claim requires. EX1009, FIG. 2; Pet., 52.

88. **Ground 1C (Takahashi + Hongren).** It is my opinion that Hongren likewise does not cure Takahashi's failure to disclose the claimed foam liner of

limitation 1[i]; I found no structure in Hongren identified by the Petition as providing that liner or its required concave orientation toward the sole.

89. **Ground 1D (Takahashi + Shin + Hongren).** It is my opinion that the combination of Takahashi, Shin, and Hongren does not disclose limitation 1[i], which requires “a foam liner oriented concave toward the sole portion.” In Ground 1B, I explain that Shin’s elastic member 122 performs a different function than a foam liner and, as depicted in Figure 2, appears generally parallel to the sole rather than concave toward it. EX1009, FIG. 2. I found no disclosure in Hongren that supplies the claimed foam liner orientation toward the sole. Accordingly, it is my opinion that the combination of Takahashi, Shin, and Hongren does not disclose limitation 1[i].

90. It is further my opinion that the combination of Takahashi, Shin, and Hongren does not disclose limitation 1[j], which requires “the elastic element . . . configured to enable the forward portion of the rapid-entry shoe to flex and/or pivot forward relative to the sole portion.” In Ground 2A, I explain that the Petition does not identify a specific elastic structure that enables the forward portion of the shoe to flex or pivot relative to the sole portion as claimed. I found no disclosure in Shin or Hongren that supplies that missing functionality, nor does the Petition explain how the proposed combination would achieve the claimed forward flexing and/or pivoting movement relative to the sole portion. Accordingly, it is my

opinion that the combination of Takahashi, Shin, and Hongren does not disclose limitation 1[j].

91. **Ground 1E (Takahashi + Murray).** It is my opinion that Murray does not cure Takahashi's failure to disclose a stabilizer having a base portion at least partially within the sole portion, as required by limitation 1[c]. The Petition does not identify any Murray structure that supplies those missing stabilizer features or explain how the proposed combination would result in the claimed stabilizer configuration.

92. **Ground 1F (Takahashi + Hongren + Murray).** It is my opinion that the combination of Takahashi, Hongren, and Murray does not disclose limitation 1[j], which requires "the elastic element...configured to enable the forward portion of the rapid-entry shoe to flex and/or pivot forward relative to the sole portion." In Ground 2A, I explain that the Petition does not identify a specific elastic structure that enables the forward portion of the shoe to flex or pivot relative to the sole portion as claimed. I also explain in Ground 2A that the Petition relies on stretchable portions 6 and 8 without identifying which structure allegedly provides the claimed elastic-element functionality. I found no disclosure in Hongren or Murray that supplies that missing functionality. Nor does the Petition explain how the proposed three-reference combination would enable the forward portion of the shoe to flex and/or pivot forward relative to the sole portion. Accordingly, it is my

opinion that the combination of Takahashi, Hongren, and Murray does not disclose limitation 1[j].

93. **Ground 2A (Kim + Shin).** It is my opinion that Kim in view of Shin does not disclose limitation 1[i], which requires “a foam liner oriented concave toward the sole portion.” Based on my review, Kim discloses only a generic cloth liner. Shin discloses elastic member 122, which is compressed by a user's heel during entry and returns to its original shape after the foot enters the shoe. In my opinion, an elastic member that deforms and rebounds during entry is a different structure than the claimed foam liner. The Petition assumes that Shin's elastic member may simply substitute for the claimed foam liner, but does not explain why a POSITA would have regarded the two structures as equivalent. Nor does the Petition explain how Shin's elastic member satisfies the separate requirement that the liner be oriented concave toward the sole portion. As depicted in Figure 2, Shin's elastic member appears generally parallel to the sole rather than concave toward it. EX1009, Fig. 2.

94. It is also my opinion that Kim in view of Shin does not disclose limitation 1[j], which requires “the elastic element . . . configured to enable the forward portion of the rapid-entry shoe to flex and/or pivot forward relative to the sole portion.” The Petition relies on stretchable portion 8 (and separately, stretchable portion 6) for this limitation. Based on my review, only stretchable

portion 8 appears to be positioned at the forward portion of the shoe, yet the Petition does not explain how that structure enables the forward portion of the shoe to flex and/or pivot relative to the sole portion as required by the claim. The Petition does not explain whether stretchable portion 6, stretchable portion 8, or some combination of the two allegedly provides the elastic-element functionality required by limitation 1[j]. In my opinion, the Petition therefore fails to identify a specific elastic structure that enables the forward portion of the shoe to flex or pivot relative to the sole portion as claimed.

95. **Ground 2B (Kim + Hongren + Murray).** It is my opinion that neither Hongren nor Murray cures Kim's failure to disclose limitation 1[j] because the Petition still does not identify a specific elastic structure that provides the forward-flexing or forward-pivoting functionality required by limitation 1[j]. I found no disclosure in either reference that supplies the missing elastic-element configuration, nor does the Petition explain how the proposed three-reference combination would result in such a structure.

XI. CONCLUSION

In signing this Declaration, I recognize that the Declaration will be filed as evidence in an *inter partes* 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 of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed on this 29th day of July, 2026, in Manhasset, New York.



Robert Erb