

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”

U.S. Patent No. 12,458,101

Title:
Rapid-Entry Shoe

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 12,458,101**

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CLAIM LISTING

Claim Element	LIMITATION
7[pre]	A rapid-entry shoe, comprising:
7[a]	an upper comprising a flexible material; and
7[b]	a heel structure provided in a rear portion of the rapid-entry shoe, the heel structure comprising:
7[c]	a lower portion coupled to a sole of the rapid-entry shoe and extending completely around the rear portion;
7[d]	a midportion integrally formed with, and extending from, the lower portion such that the midportion and the lower portion form a single continuous piece and define abutting and non-overlapping regions, the midportion extending completely around the rear portion; and
7[e]	an upper portion extending from the midportion and extending further rearward than the midportion wherein the upper portion directs a foot into an opening of the rapid-entry shoe;
7[f]	wherein at least a portion of the rapid-entry shoe is lowered and is pivoted about an axis in response to the foot applying a pressure to the upper portion when the foot is inserted into the opening of the rapid-entry shoe; and
7[g]	wherein the flexible material is expanded in response to the foot applying the pressure to the upper portion when the foot is inserted into the opening of the rapid-entry shoe.
8	The rapid-entry shoe of claim 7, further comprising a slit provided in the upper, wherein the flexible material is provided in the slit.
9	The rapid-entry shoe of claim 7, wherein the heel structure at least partially surrounds the rear portion of the rapid-entry shoe.
10	The rapid-entry shoe of claim 7, further comprising a shoe cushioning component provided on at least a portion of the heel structure.

Claim Element	LIMITATION
11	The rapid-entry shoe of claim 7, wherein the axis is proximal to the sole of the rapid-entry shoe.
12	The rapid-entry shoe of claim 7, wherein the pressure being applied to the upper portion causes at least a portion of the heel structure to move down and back.
16[pre]	A rapid-entry shoe, comprising:
16[a]	a sole;
16[b]	an upper comprising a flexible material and defining an opening of the rapid-entry shoe;
16[c]	a heel structure disposed at a rear portion of the rapid-entry shoe and extending from the sole, the heel structure comprising:
16[d]	a first portion coupled to the sole and extending around the rear portion of the rapid-entry shoe between a medial side of the rapid-entry shoe and a lateral side of the rapid-entry shoe;
16[e]	a second portion contiguous with, and extending upward from, the first portion, wherein a transition between the first portion and the second portion defines a continuous and non-overlapping profile; and
16[f]	a third portion extending upward from the second portion and extending rearward to an extent greater than the second portion, the third portion allowing the heel structure to at least partially move downward or pivot about an axis of rotation proximal to the sole in response to a foot being inserted into the opening of the rapid-entry shoe;
16[g]	wherein the flexible material transitions from a non-expanded state to an expanded state in response to the foot being inserted into the opening of the rapid-entry shoe.
17	The rapid-entry shoe of claim 16, wherein the flexible material forms at least a portion of a topline of the rapid-entry shoe.

Claim Element	LIMITATION
18	The rapid-entry shoe of claim 16, wherein a downward force being applied to the third portion causes at least a portion of the heel structure to move down and back.

EXHIBIT LIST

EX NO.	DOCUMENT
EX1001	U.S. Patent No. 12,458,101 (the “’101 patent”)
EX1002	File History of the ’101 patent (excerpted)
EX1003	Declaration of Angus Wardlaw
EX1004	Japan Patent Application Publication No. 2004-236860
EX1005	English Translation of Japan Patent Application Publication No. 2004-236860 (“Kawase”)
EX1006	Translator Certification for Kawase
EX1007	U.S. Patent No. 3,693,270 (“Murray”).
EX1008	Korean Patent Application Publication No. 2001-0105550
EX1009	English Translation of Korean Patent Application Publication No. 2001-0105550 (“Baek”)
EX1010	Translator Certification for Baek
EX1011	Japan Utility Model Registration No. 3153220
EX1012	English Translation of Japan Utility Model Registration No. 3153220 (“Kim”)
EX1013	Translator Certification for Kim
EX1014	J. Sparkes Hall, <i>The Book of the Feet</i> (1847)
EX1015	U.S. Patent No. 287,312 (“Packard”)
EX1016	U.S. Patent No. 1,686,175 (“Read”)
EX1017	U.S. Patent No. 2,736,110 (“Hardimon”).
EX1018	William A. Rossi, <i>The Complete Footwear Dictionary</i> , KRIEGLER PUBLISHING COMPANY (2000) (excerpted)
EX1019	Search Disclosure Declaration of Aron Berger

Skechers U.S.A., Inc. (“Petitioner” or “Skechers”) respectfully requests *inter partes* review of claims 7–12 and 16–18 of U.S. Patent No. 12,458,101 (“the ’101 patent”) (Ex. 1001) pursuant to 35 U.S.C. §§ 311-19 and 37 C.F.R. §§ 42.1 *et seq.*

I. INTRODUCTION

The ’101 patent issued on November 4, 2025, and purports to claim priority to a provisional application dated November 12, 2009. It broadly-claims “a rapid-entry shoe” based on a simple, hinged heel structure. As explained below, similar rapid-entry shoes have been well known since at least the mid-nineteenth century, and even those employing hinged heel structures to facilitate rapid entry of a foot, like the ’101 patent, have been known for close to one hundred years. *See, e.g.*, EX1015-17, 1005, 1009. FAST IP, a non-practicing entity, nonetheless has asserted the ’101 patent in litigation against Skechers, which for several decades has been one of the largest shoe companies in the United States.

Elements of the broad claims of the ’101 patent, such as “an upper,” an expanding “flexible material,” and a “heel structure” that allows for “a portion of the rapid-entry shoe to be lowered and ... pivoted about an axis in response to the foot applying a pressure,” were also disclosed in 2004 Japanese patent application publication no. 2004-236860 to Suminosuke Kawase (“Kawase”) (Ground 1), which anticipates challenged claims 7-9, 11, 12, 16, and 18 of the ’101 patent. Ground 2 discusses obviousness of dependent claim 10 based on trivial modifications of

Kawase in view of Murray. Additionally, Grounds 3 and 4 provide obviousness grounds for claims 8 and 17 based on Kawase in view of Baek or Kim, respectively.

None of these references were before the Examiner during original prosecution. For these and other reasons below, the Board should institute IPR.

II. MANDATORY NOTICES

A. Notice of Real Party-In-Interest (37 C.F.R. § 42.8(b)(1))

The real party-in-interest for this Petition is Skechers U.S.A., Inc. While Petitioner does not believe or concede that any other entity qualifies as a real party-in-interest, out of an abundance of caution, Petitioner also identifies the following entities as additional real parties-in-interest solely for this Petition, who will be bound by the outcome of this IPR to the same extent as Petitioner: Beach Acquisition Bidco LLC, Beach Acquisition Midco LLC, Beach Acquisition Holdco LLC, and Beach Acquisition Co Parent LLC.

B. Notice of Related Matters (37 C.F.R. § 42.8(b)(2))

The '101 patent is asserted in the pending litigation *Hands Free Labs Licensing LLC v. Skechers U.S.A. Inc.*, Case No. 2:25-cv-00744-JRG (E.D. Tex.). To Petitioner's knowledge, there are no other pending judicial or administrative matters regarding the '101 patent. However, Petitioner has challenged other patents owned by Patent Owner, namely, U.S. Patent No. 11,633,006 in IPR2026-00342; U.S. Patent No. 11,871,811 in IPR2026-00343; U.S. Patent No. 12,274,325 in

U.S. Patent No. 12,458,101

IPR2026-00373; U.S. Patent No. 12,121,096 in IPR2026-00443; and U.S. Patent No. D1,037,641 in IPR2026-00444.

C. Designation of Lead And Back-Up Counsel (37 C.F.R. § 42.8(b)(3))

Lead Counsel: Samuel K. Lu (Reg. No. 40,707)

Backup Counsel: Benjamin Hattenbach (Reg. No. 41,820)

Backup Counsel: Ian Washburn (*pro hac vice* to be requested)

Backup Counsel: Christopher Abernethy (*pro hac vice* to be requested)

Backup Counsel: Kamran Vakili (Reg. No. 64,825)

Backup Counsel: Aron Berger (*pro hac vice* to be requested)

Contact information for Lead and Backup Counsel is as follows:

Irell & Manella LLP
1800 Avenue of the Stars, Suite 900
Los Angeles, CA 90067-4276
Telephone: (310) 277-1010
Fax: (310) 203-7199

D. Service Information (37 C.F.R. § 42.8(b)(4))

Please address all correspondence to lead counsel at the address above.

Petitioner consents to email service at: SkechersHFLIPRs@irell.com.

E. Fees

The Office is authorized to charge Deposit Account No. 09-0946 for any fees required.

F. Grounds for Standing

Petitioner certifies that the '101 patent is eligible for IPR and that Petitioner is not barred or estopped from requesting this IPR.

III. BACKGROUND

A. Overview of the '101 Patent

The '101 patent is titled “Rapid-Entry Shoe.” Ex. 1001 at 1. It is directed to a shoe that “utilize[s] various movable elements that are attached to a sole portion or other portion of the shoe and allow movement of a portion of the shoe under pressure to allow rapid entry of the user’s foot into the shoe,” *id.*, Abstract, and purports to address the challenge that, “[w]hile it is relatively easy to remove many types of shoes, it may not be so simple to put all such shoes back on again” because they “require several steps to put the shoes on, including lacing and tying the shoes, using other fasteners, or the like,” *id.*, 1:38-42.

The so-called “rapid-entry shoe” discussed in the '101 patent includes a “hinge” that provides “an axis of rotation,” a “heel loop” that the user “presses downward on,” a “lock” that “is disengaged by initial downward motion” of the heel loop, and a “flexible portion” that “allow[s] the rear portion of the shoe to move for rapid entry and removal.” *Id.*, 9:13-10-28. A side-view of a shoe embodiment that the '101 patent describes and claims, having a lock 76, heel loop 78, axis of rotation 80, and flexible portion 84, is shown below:

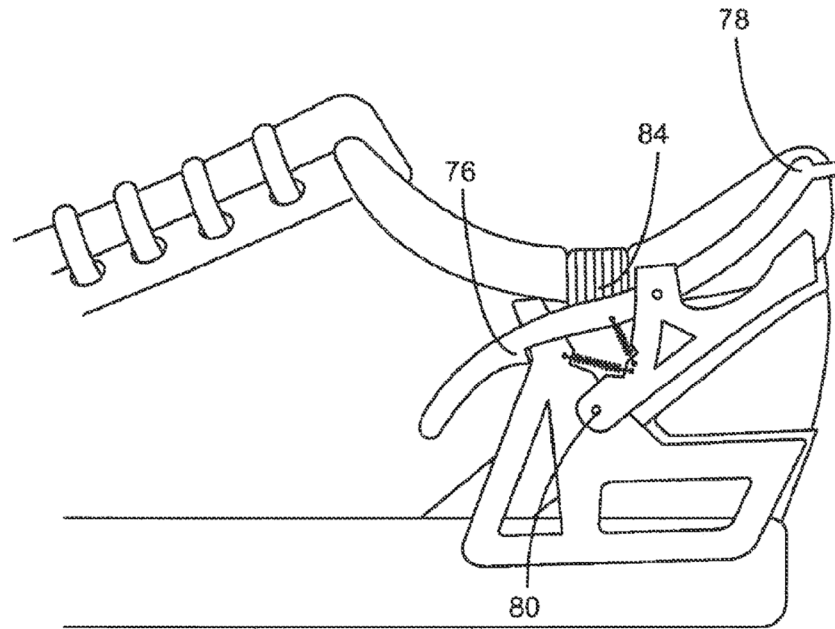


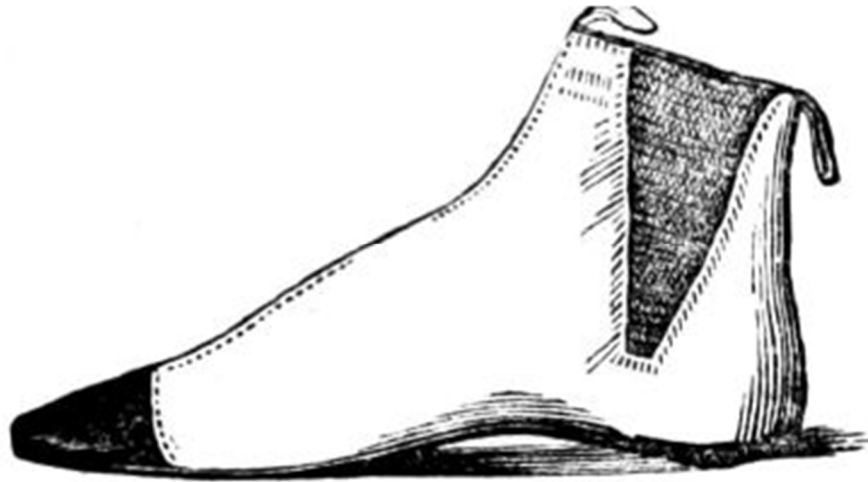
FIG. 32

Id., Fig. 32. The '101 patent states that the “the lock serves to prevent unwanted rearward (e.g. opening) of the rear portion of the shoe unless the heel loop 78 is purposely pushed downward,” and “the axis of rotation 80 is provided by a hinge,” which may include “one or more springs” that “cause the movable portion of the shoe to return to a position where the lock 76 may engage.” *Id.*, 10:1-12. The '101 patent further states that “a flexible portion 84 of the shoe is provided to allow the rear portion of the shoe to move for rapid entry and removal.” *Id.*, 10:18-20.

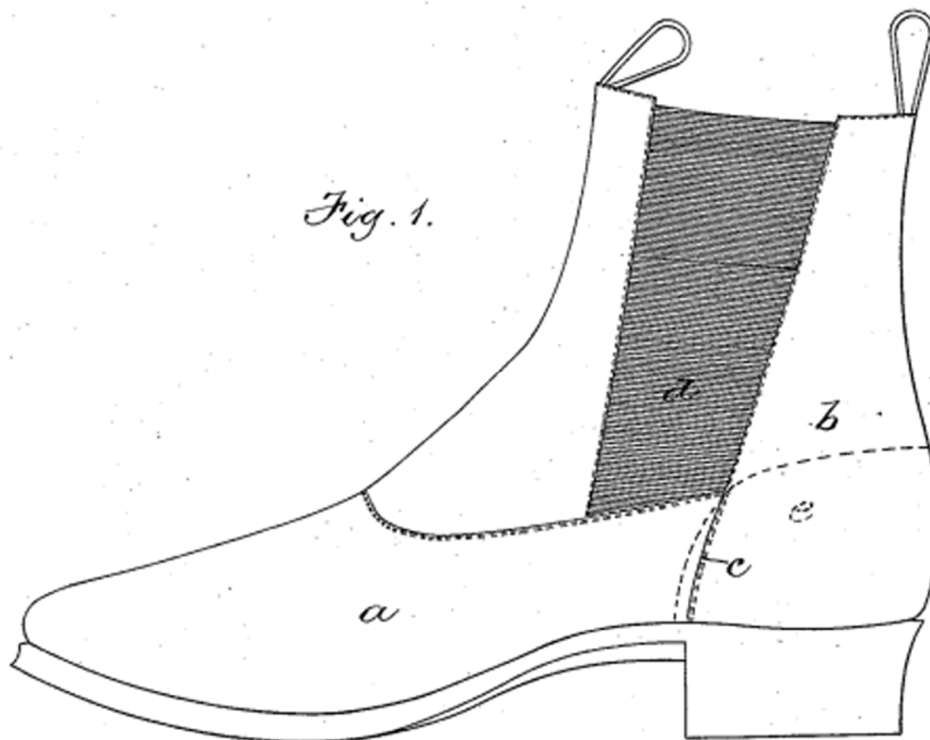
B. Brief Description of the Technology

Rapid-entry footwear had already been developed by the mid-nineteenth century. EX1003, ¶ 18. In 1847, J. Sparks Hall published his designs for an “elastic

boot,” known today as the “Chelsea boot,” which features flexible material that allows the boot to be put “on and [taken] off in an instant.” EX1014 at 136-37.

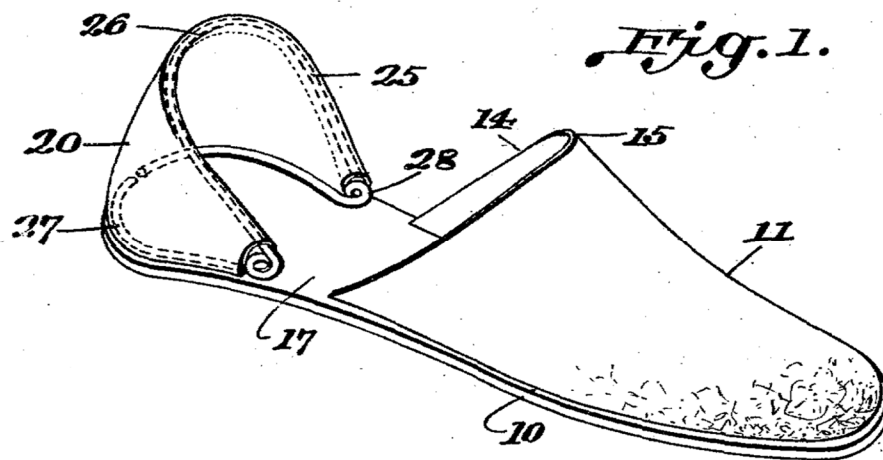


Id., 127. Flexible upper material quickly became standard in footwear construction, as described in U.S. Patent No. 287,312 (“Congress-Gaiter”), which issued in 1883.

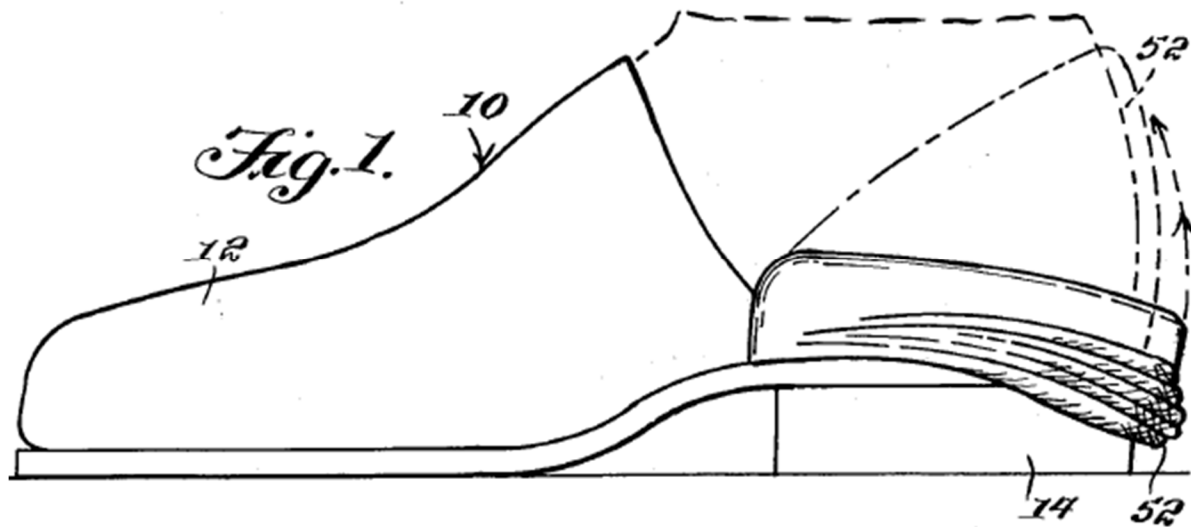


EX1015, Fig. 1; *id.*, 1:12–31 (discussing “*d* the elastic gorings”).

Similarly, footwear incorporating pivoting or hinged heel structures to facilitate rapid entry have also been well-known for decades. For example, U.S. Pat. No. 1,686,175, issued in 1928, described a “yieldable counter restorer” that “permit[s] the user to insert his foot” into footwear “with a minimum of trouble and yet with assurance of the retention on the foot of the article.” EX1016, 1:6-11. This was achieved through the use of a “spring 25” connected to the “counter 20” such that “the counter is held erect collapsibly and yieldably, so as to permit ready insertion of the foot and instant erection of the counter after the counter is freed from downward pressure.” *Id.*, 1:52-77.



Id., Fig. 1. Similarly, U.S. Pat. No. 2,736,110, issued in 1956, disclosed, among other things, “arms carried by a shoe heel to move in arcuate paths above the heel adjacent opposite sides thereof about a common axis adjacent the front of the heel” in order to “facilitate the donning or doffing of a pair of shoes without requiring the use of the hands.” EX1017, 1:27-36.



Id., Fig. 1. Thus, the core elements claimed in the '101 patent—flexible upper material and a pivoting heel structure—have been well-known in the art for decades or more.

C. Prosecution History of the '101 Patent

The application leading to the '101 patent (no. 17/989,156) received a total of five office actions, three non-final and two final, before allowance.

In a March 23, 2023 non-final office action, all pending claims 1-20 were rejected as failing to comply with the written description requirement and for being indefinite, and were also rejected for being anticipated by Owings (U.S. Pat. no. 3,146,535). EX1002 at 113-118. In its June 21, 2023 response, the applicant canceled claim 20, added new claim 21, argued adequate written description and definiteness of the claims based on Figs. 29-32 of the disclosure, and amended the

claims to recite, “a flare extending upward and back from the body portion, wherein at least a portion of the rapid-entry shoe at least partially pivots about an axis and causes the flexible material to expand in response to a downward force applied to the flare,” in order to overcome the anticipation rejection. *Id.*, 102-108.

The Office issued a final rejection on August 2, 2023, rejecting all pending claims 1-19 and 21 as lacking written description and being indefinite, and also being anticipated by Somerville (U.S. Pat. Pub. no. 2011/0016751). *Id.*, 93-99. In its October 12, 2023 response, the applicant canceled claims 6, 12 and 21, added new claims 22-24, and attempted to overcome the written description, indefiniteness, and anticipation rejections with amendments, including by adding limitations requiring a “heel structure contained within a rear portion of the upper” and “a base extending between a medial side ... and a lateral side of the rapid-entry shoe.” *Id.*, 78-85.

The Office issued another non-final office action on January 31, 2024, rejecting claims 1-5, 7-9, 17 and 23 as lacking adequate written description; claims 1-5, 7-11, 13-19 and 22-24 as being indefinite; and all pending claims 1-5, 7-11, 13-19 and 22-24 as being anticipated by Somerville. *Id.*, 69-75. Applicant’s April 29, 2024 response canceled claims 4, 5, 8, 9, 13, 14 and 17; added new claims 25-30; and attempted to overcome the written description, indefiniteness, and anticipation rejections via various amendments to the claims, including:

a heel structure contained within a rear portion of the upper, the heel structure extending from the sole and

forming a concave structure extending between a medial side of the rapid-entry shoe and a lateral side of the rapid-entry shoe and comprising: a lower portion coupled to the sole; a midportion integral with the lower portion and extending upward from the lower portion and having a midportion rearmost edge; and an uppermost portion extending upward from the midportion and having an uppermost portion rearmost edge; wherein the uppermost portion rearmost edge extends further rearward in a direction away from a front of the rapid-entry shoe than the midportion rearmost edge.

Id., 53-62.

In a June 3, 2024 final office action, the Office further rejected claims 1-3, 7, 23, 25-27 and 29 as lacking adequate written description, and of claims 1-3, 7, 10-11, 15-16, 18-19 and 22-30 as being anticipated by Somerville. *Id.*, 44-50. In its August 5, 2024 response, the applicant again sought to overcome the written description and anticipation rejections by amendment, focusing on “a lower portion coupled to the sole and extending around the rear portion of the upper between the medial side ... and the lateral side of the rapid-entry shoe.” *Id.*, 31-39.

The last non-final office action of March 26, 2025 included a rejection of claims 25, 27 and 29 as lacking adequate written description; claims 1, 7, 10, 15, 16, 18, 19 and 22-30 as being anticipated by Richter (DE 196 11 797 A1); and claims 2, 3 and 11 as being obvious over Richter in view of Somerville. *Id.*, 23-28. Applicant’s June 5, 2025 response canceled claims 25, 27 and 29, added new claims 31-35, and sought to overcome the prior art rejection by amendment. Specifically,

claim 1 was amended to recite, “a midportion integral with the lower portion and extending upward from an upper edge of the lower portion,” claim 10 was amended to recite, “a midportion integrally formed with, and extending from, the lower portion,” and claim 18 was amended to recite, “a second portion [of the heel structure] contiguous with, and extending upward from, the first portion.” *Id.*, 11-19.

The Office issued a notice of allowance on September 18, 2025, which included a further examiner’s amendment to the independent claims and did not articulate any reasons for allowance. *Id.*, 1-8.

IV. LEVEL OF ORDINARY SKILL IN THE ART

The ’101 patent relates to an article of footwear that allows for rapid entry of a foot using movable elements that are attached to a sole or other portion of a shoe. Ex. 1001, Abstract. A person of ordinary skill in the art (“POSITA”) in the field of the ’101 patent in November 2009 would have had 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. EX1003, ¶ 15. Such a person of ordinary skill would have at least a general understanding of construction processes and materials used to manufacture footwear.

This Petition does not turn on the definition of ordinary skill in the art. The challenged claims are invalid under any reasonable definition of a POSITA.

V. CLAIM CONSTRUCTION

Petitioner respectfully submits that none of the issues presented in this Petition require any claim term to be construed.

VI. CHALLENGE AND RELIEF REQUESTED

Pursuant to 37 C.F.R. § 42.22(a)(1) and §§ 42.104(b) and (b)(1), Petitioner challenges claims 7-12 and 16-18 of the '101 patent on the grounds identified below.

A. Prior Art Patents and Printed Publications

The following references to are pertinent to the grounds of unpatentability explained below:

1. Suminosuke Kawase, *Footwear Put On Without Using a Shoehorn*, Japan Patent Application Publication No. 2004-236860 (filed Feb. 6, 2003, published Aug. 26, 2004) (“**Kawase**”) (**EX1005**).
2. Brian L. Murray, *Internal Pads For Rubber Footwear*, U.S. Patent No. 3,693,270 (filed January 8, 1971; issued September 26, 1972) (“**Murray**”) (**EX1007**).
3. Rin-Seok Baek, *Footwear Easy to Put On*, Korean Patent Application Publication No. 2001-0105550 (filed May 16, 2000, published Nov. 29, 2001) (“**Baek**”) (**EX1009**).
4. Seiji Kim, *Shoe*, Japan Utility Model Registration No. 3153220 (filed June 16, 2009; issued August 27, 2009) (“**Kim**”) (**EX1012**).

Kawase, Baek, and Murray were all published more than a year prior to the claimed November 12, 2009 priority date of the '101 patent, and thus qualify as prior art under at least Pre-AIA 35 U.S.C. § 102(a) and (b).

Kim was published prior to the November 12, 2009 priority date, and thus qualifies as prior art under at least Pre-AIA 35 U.S.C. § 102(a).

B. Grounds for Challenge

Skechers requests cancellation of claims 7-12 and 16-18 of the '101 patent as unpatentable under 35 U.S.C. §§ 102 and 103. The asserted grounds are:

- **Ground 1:** Claims 7-9, 11, 12 16, and 18 are anticipated by **Kawase**;
- **Ground 2:** Claim 10 is obvious over **Kawase** in view of **Murray**;
- **Ground 3:** Claims 8 and 17 are obvious over **Kawase** in view of **Baek**;
- **Ground 4:** Claims 8 and 17 are obvious over **Kawase** in view of **Kim**.

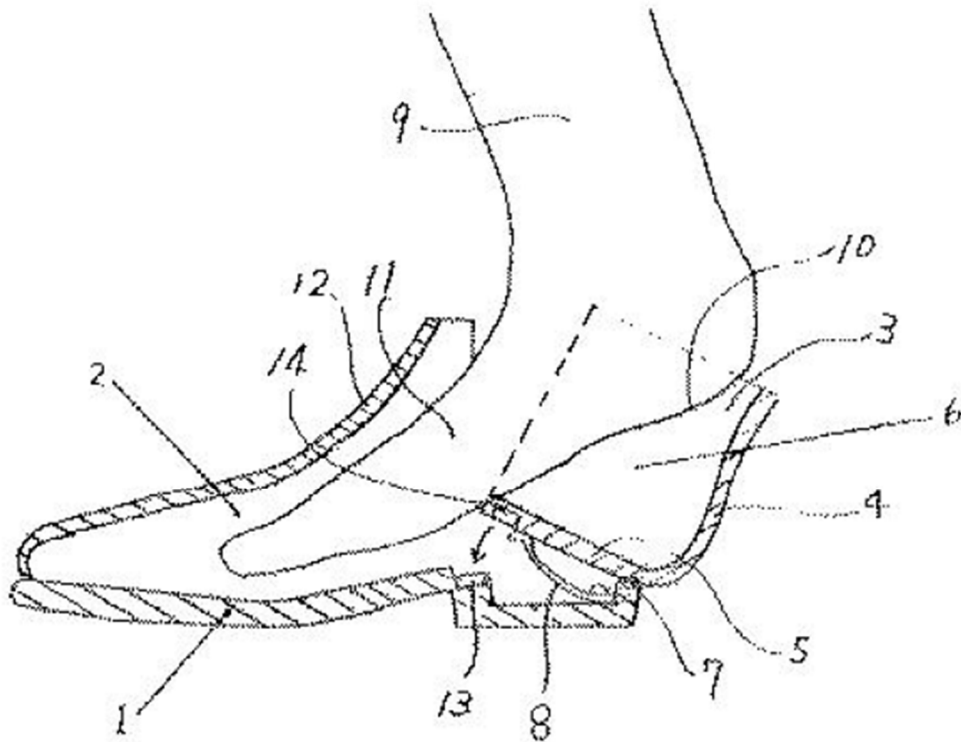
VII. GROUND 1: Claims 7-9, 11, 12, 16, & 18 Are Anticipated By Kawase

A. Overview of Kawase (EX1005)

Kawase discloses “footwear that can be put on while standing without bending, squatting, or using hands or a shoehorn, and which, once put on, secures the foot, eliminating concerns about slipping sideways or coming off while walking.” EX1005 ¶ 5. Kawase achieves this through a “heel portion” that “is pivotally supported along an axis . . . allowing rotation relative to the front securing portion of the footwear that secures the front portion of the foot to the sole.” *Id.*, ¶

6. The movable heel portion 6 is “integrally separated from the shoe at the rear end of the sole 1 of the shoe and pivotally supported along an axis 7 extending in the lateral direction at the rear end of the sole 1 of the shoe.” *Id.*, ¶ 10. “The axis 7 may take the form of a hinge or may be integrally formed from plastic or connected by leather.” *Id.*

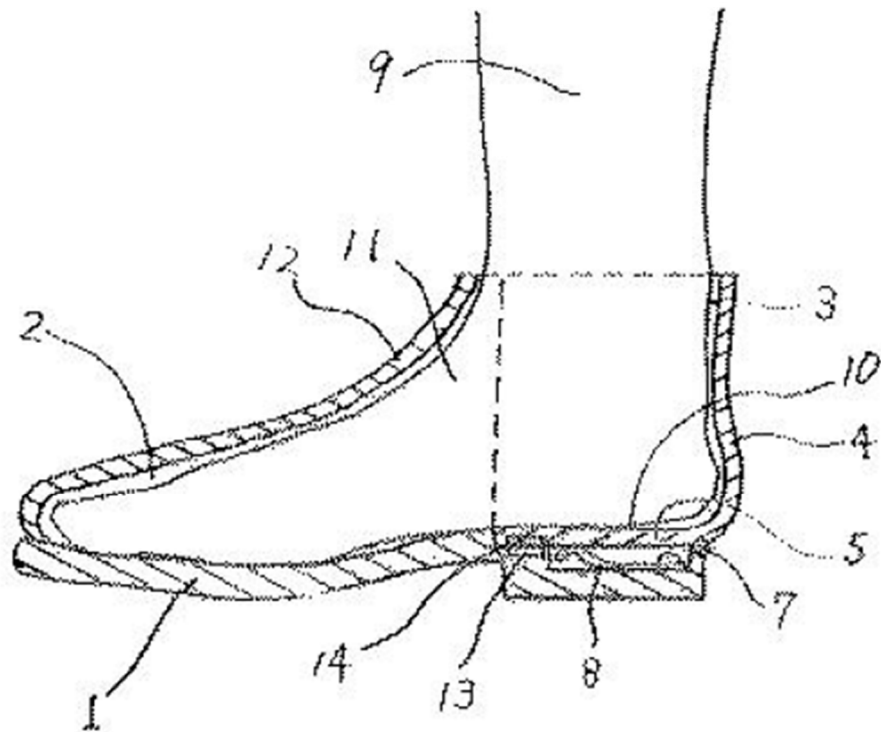
[FIG. 1]



EX1005, Fig. 1; *see also id.*, Figs. 2–4.

When a user dons the shoe, “[t]he spring 8, which is biased to lift the front portion of the sole portion 5, lifts the movable heel portion 6, causing it to open wide to the rear. This enables the foot 9 to be inserted into the shoe easily, as shown in FIG. 2, without requiring the use of a shoehorn.” *Id.*, ¶ 10.

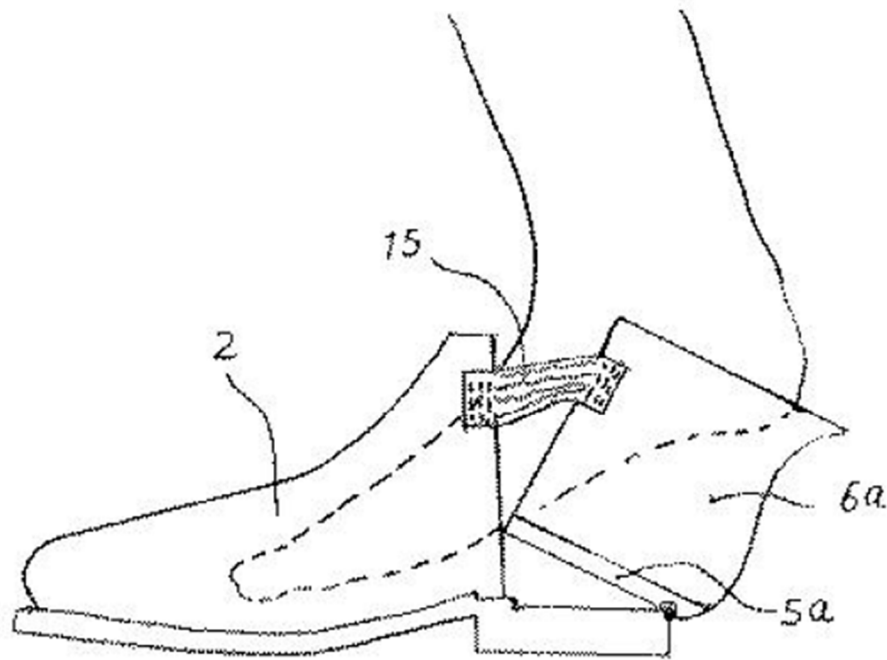
[FIG. 2]



Id., Fig. 2.

In another embodiment, shown in Figure 3 of Kawase, “the pulling direction of the spring is opposite to that of the example as shown in FIG. 1. Rubber cords 15 pull together and connect the front securing portion 2 and the movable heel portion 6a of the shoe.” *Id.*, ¶ 11. In this embodiment, “the movable heel portion is biased in a direction that presses the front section of the movable heel portion against the sole portion of the footwear,” *id.* claim 3, and the user “push[es] the movable heel portion 6a rearward when the foot is inserted,” *id.*, ¶ 11.

[FIG. 3]



Id., Fig. 3; *see also id.*, ¶ 11 (“When inserting the foot, the wearer pulls the movable heel portion 6a backward against the pulling force of the rubber cords 15 to insert the foot.”).

Kawase explains that “[b]ecause the heel portion of the footwear pivots open at the rear end of the sole portion of the footwear, putting on the footwear while standing requires no bending, squatting, or use of hands or a shoehorn.” *Id.*, ¶ 14.

As shown below, claims 7-9, 11, 12, and 16-18 are anticipated by Kawase.

B. Claim 7

- **7[pre]: “A rapid-entry shoe comprising:”**

To the extent that the preamble is deemed limiting, Kawase discloses a rapid-entry shoe. For example, Kawase states that “[a]n object of the present invention is

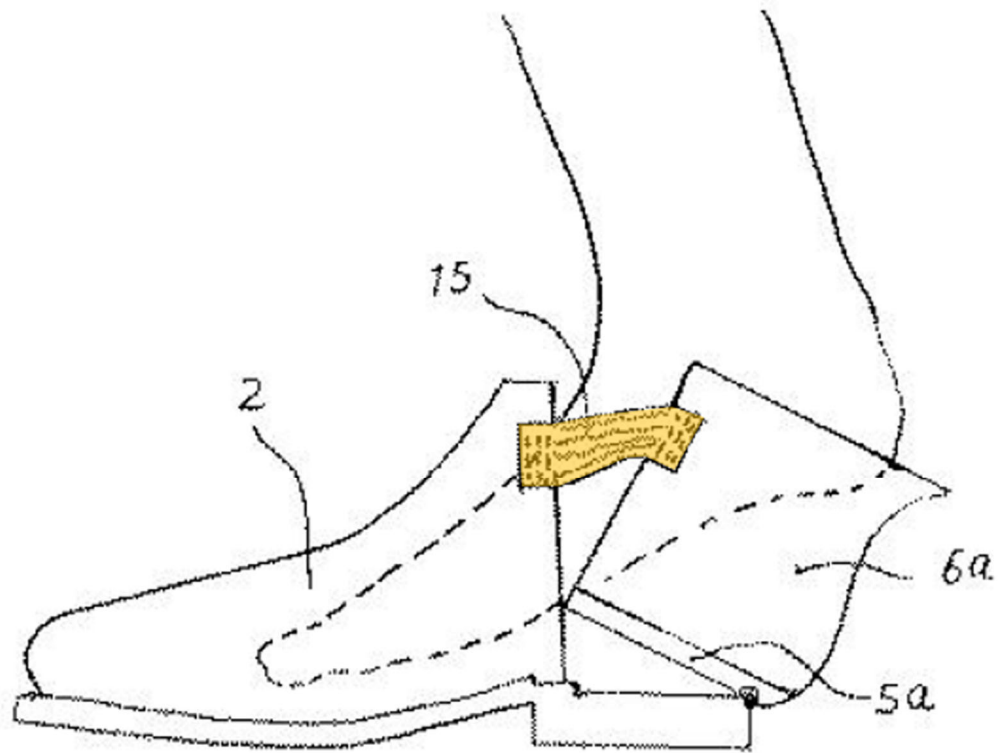
to provide footwear that can be put on while standing without bending, squatting, or using hands or a shoehorn, and which, once put on, secures the foot, eliminating concerns about slipping sideways or coming off while walking.” Kawase ¶ 5. Kawase explains that, “[b]ecause the heel portion of the footwear pivots open at the rear end of the sole portion of the footwear, putting on the footwear while standing requires no bending, squatting, or use of hands or a shoehorn.” *Id.*, ¶ 14.

- **7[a]: “an upper comprising a flexible material; and”**

Kawase discloses “an upper comprising a flexible material.” The upper in each of Kawase’s examples includes everything above the sole portion.¹ For example, in Kawase’s Fig. 3 embodiment, the upper of the rapid-entry shoe is provided with “[r]ubber cords 15” that “pull together and connect the front securing portion 2 and the movable heel portion 6a of the shoe.” Kawase ¶ 11. Figure 3 shows the rubber cords 15, highlighted by Petitioner in orange, flexing rearward as the user inserts a foot into the shoe. *Id.* (“When inserting the foot, the wearer pulls the movable heel portion 6a backward against the pulling force of the rubber cords 15 to insert the foot.”).

¹ See, e.g., EX1018 at 194 (“upper” includes “[a]ll the parts or sections (vamp, quarters, linings, etc.) above the shoe’s sole that are stitched or otherwise joined together to become a unit, and then attached to the insole and outsole.”).

[FIG. 3]

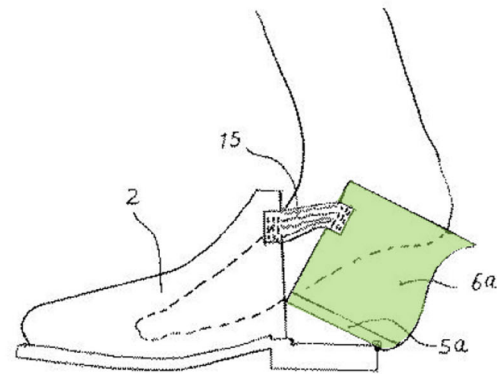
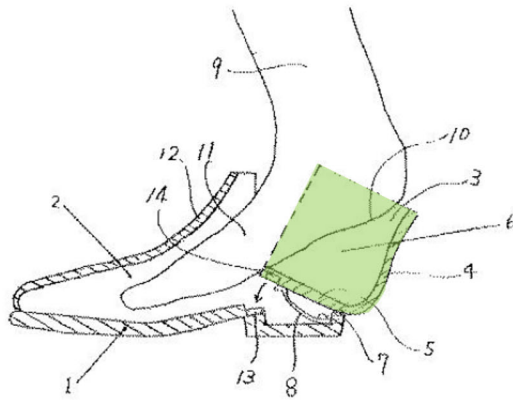


Id., Fig. 3 (highlighting added), *see also id.*, p. 4 (“FIG. 3 shows the movable heel portion being pulled in the closing direction by rubber cords as the foot attempts to enter the shoe while pushing backward.”).

- **7[b]: “a heel structure provided in a rear portion of the rapid-entry shoe, the heel structure comprising”**

Kawase discloses element 7[b]. For example, Kawase’s shoe has a “movable heel portion 6 [6a in the Fig. 3 embodiment], consisting of side portions 3, a rear portion 4, and a sole portion 5.” *Id.*, ¶¶ 10-11. As shown in Figures 1 and 3, the heel structure 6/6a, which Petitioner has highlighted in green below, is provided in a rear portion of the rapid entry shoe:

[FIG. 3]



Id. Figs. 1, 3 (highlighting added).

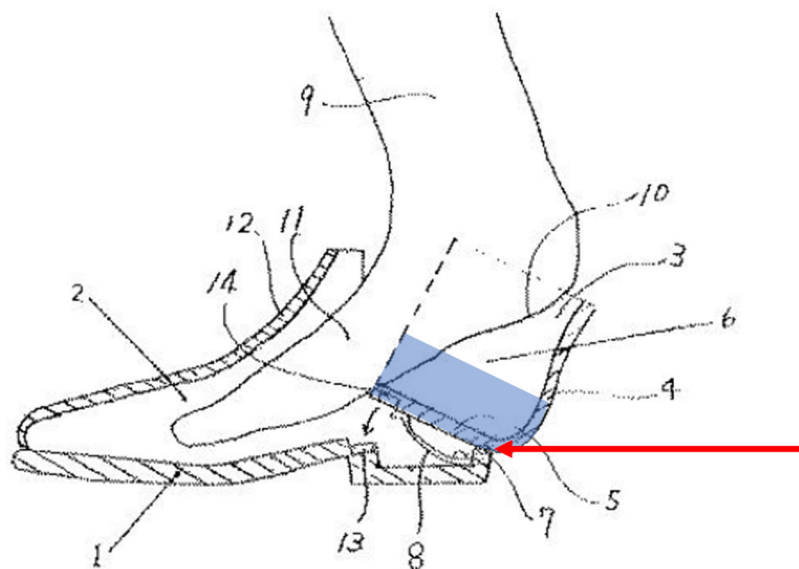
- **7[c]: “a lower portion coupled to a sole of the rapid-entry shoe and extending completely around the rear portion”**

Kawase discloses “a lower portion coupled to a sole of the rapid-entry shoe and extending completely around the rear portion.” For example, Kawase’s heel portion “makes contact with four sides of the rear portion of the foot (both lateral sides, the rear side, and the sole side),” and “is pivotally supported along an axis extending left and right at the rear end of the sole of the footwear, allowing rotation relative to the front securing portion of the footwear that secures the front portion of the foot to the sole.” *Id.*, ¶ 6; *see also id.*, claim 1 (“[F]ootwear comprising . . . side portions making contact with both sides of the rear portion of the foot, and a rear portion making contact with the rear side of the foot.”). Kawase also explains that “the movable heel portion 6 consisting of side portions 3, a rear portion 4, and a sole portion 5, is integrally separated from the shoe at the rear end of the sole 1 of the shoe and pivotally supported along an axis 7 extending in the lateral direction at the

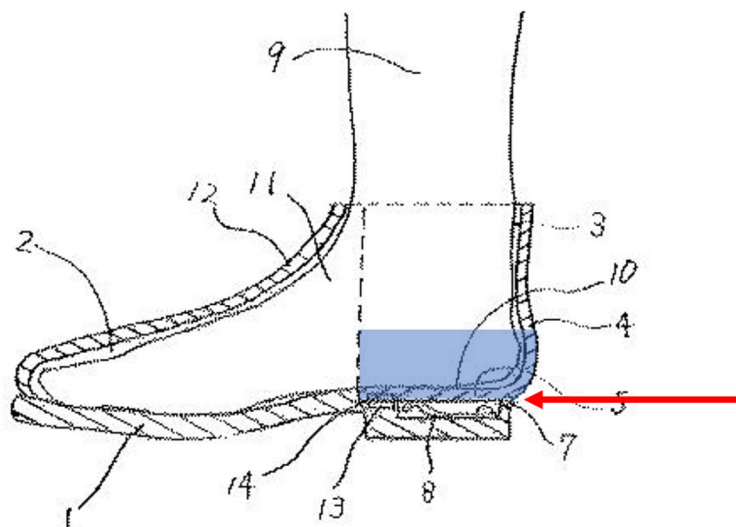
rear end of the sole 1 of the shoe.” *Id.*, ¶ 10. Kawase teaches that the movable heel portion is connected to the sole at least by the “axis 7,” which “may take the form of a hinge or may be integrally formed from plastic or connected by leather.” *Id.*

For example, in Figures 1-3, the lower portion of the heel, highlighted by Petitioner below in blue, extends completely around the rear portion, and is coupled to the sole at the axis of rotation 7 as denoted by red arrows added by Petitioner:

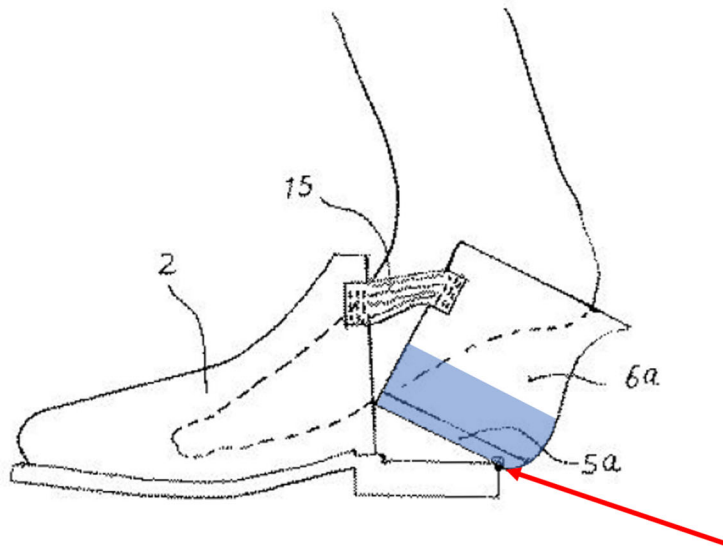
[FIG. 1]



[FIG. 2]



[FIG. 3]

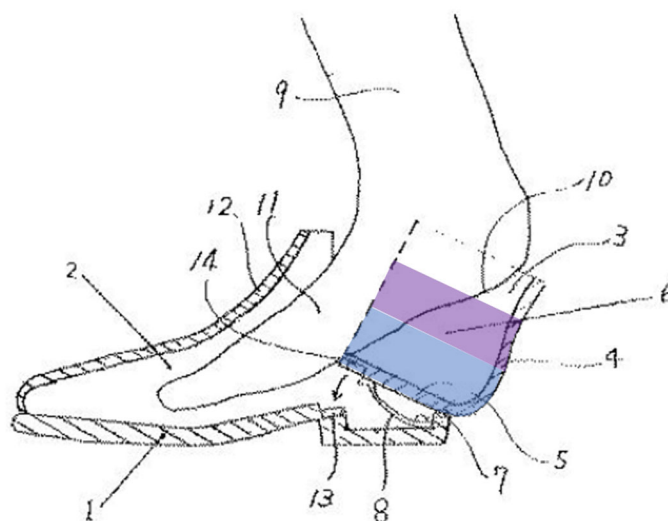


Id., Figs. 1-3 (highlighting and red arrows added); *see also* EX1003 ¶ 20.

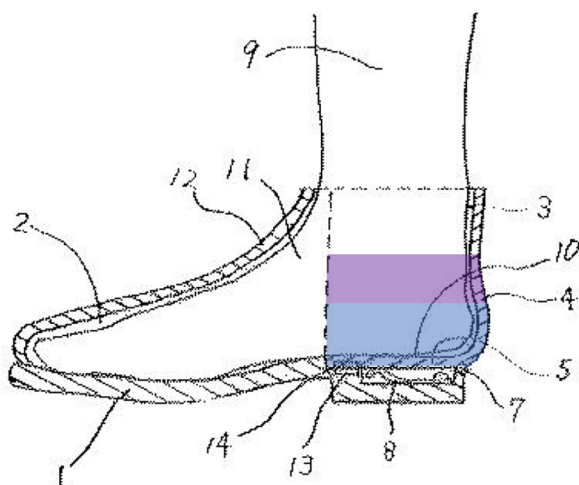
- **7[d]**: “a midportion integrally formed with, and extending from, the lower portion such that the midportion and the lower portion form a single continuous piece and define abutting and non-overlapping regions, the midportion extending completely around the rear portion; and”

Kawase discloses element 7[d]. As explained above, Kawase’s heel portion has “side portions making contact with both sides of the rear portion of the foot, and a rear portion making contact with the rear side of the foot.” Kawase, claim 1. For example, as shown in Figures 1-3, the midportion, highlighted by Petitioner in purple below, extends completely around the rear portion and extends from the lower portion as a continuous piece defining abutting and non-overlapping regions:

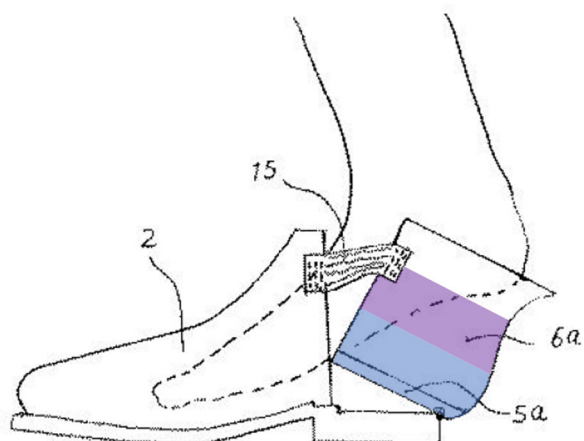
[FIG. 1]



[FIG. 2]



[FIG. 3]

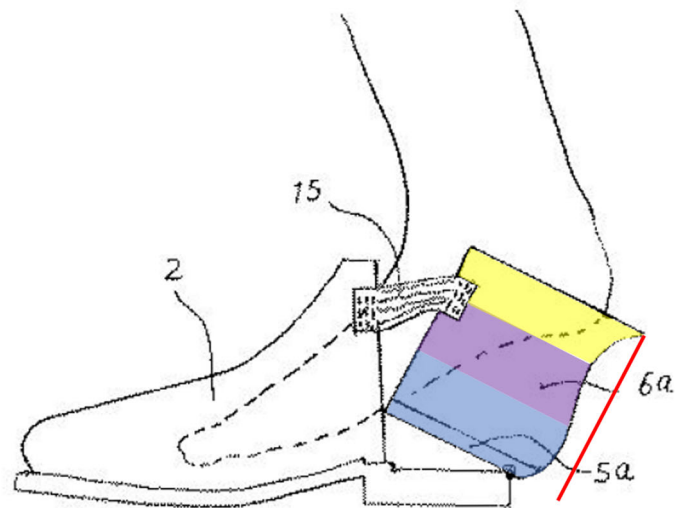


Id., Figs. 1-3 (highlighting added); *see also* EX1003 ¶ 21.

- **7[e]: “an upper portion extending from the midportion and extending further rearward than the midportion wherein the upper portion directs a foot into an opening of the rapid-entry shoe”**

Kawase discloses element 7[e]. Kawase explains that in the Figure 3 embodiment, the upper portion of the movable heel portion is shaped in order to direct the foot into the shoe opening. Kawase ¶ 11 (“[T]he heel portion 6a needs to be made somewhat sturdier to prevent crushing and needs to be shaped to push the movable heel portion 6a rearward when the foot is inserted.”); *see also id.*, pg. 4 (“FIG. 3 shows the movable heel portion being pulled in the closing direction by rubber cords as the foot attempts to enter the shoe while pushing backward.”). For example, Petitioner has annotated Figure 3 to show the upper portion, highlighted in yellow, extending further rearward than the midportion, highlighted in purple, as shown by the red line extending down from the rearward most portion of the upper portion:

[FIG. 3]

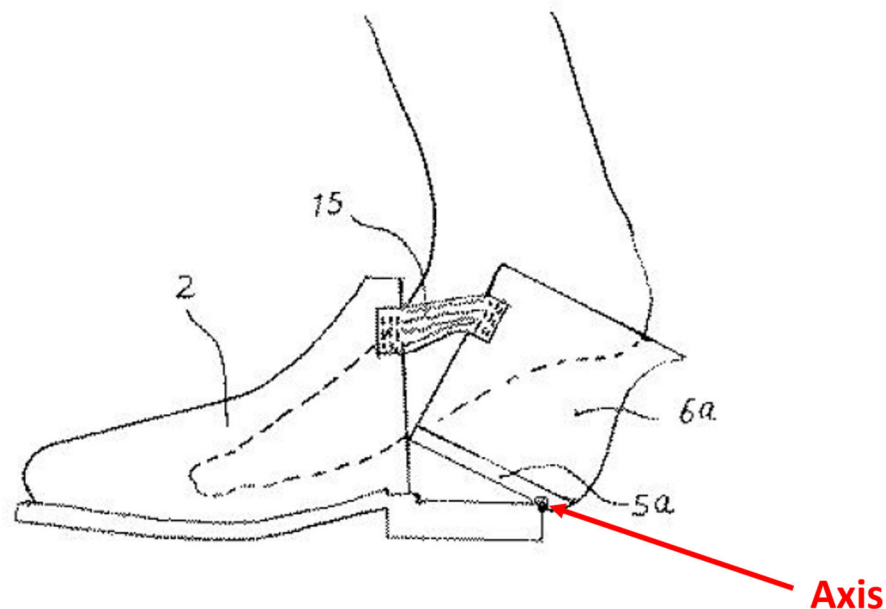


Kawase, Fig. 3 (highlighting and red line added).

- **7[f]: “wherein at least a portion of the rapid-entry shoe is lowered and is pivoted about an axis in response to the foot applying a pressure to the upper portion when the foot is inserted into the opening of the rapid-entry shoe; and”**

Kawase discloses element 7[f]. For example, Kawase explains that its rubber cords 15 “pull together and connect the front securing portion 2 and the movable heel portion 6a of the shoe.” *Id.*, ¶ 11. The user “push[es] the movable heel portion 6a rearward when the foot is inserted,” *id.*, causing the movable heel portion to be lowered and “pivot[ed] . . . along an axis extending left and right at the rear end of the sole of the footwear, allowing rotation relative to the front securing portion of the footwear that secures the front portion of the foot to the sole,” *id.*, ¶ 6. Figure 3, annotated below, shows the movable heel portion 6a being lowered and pivoted about the axis in response to a foot applying pressure to the upper portion:

[FIG. 3]

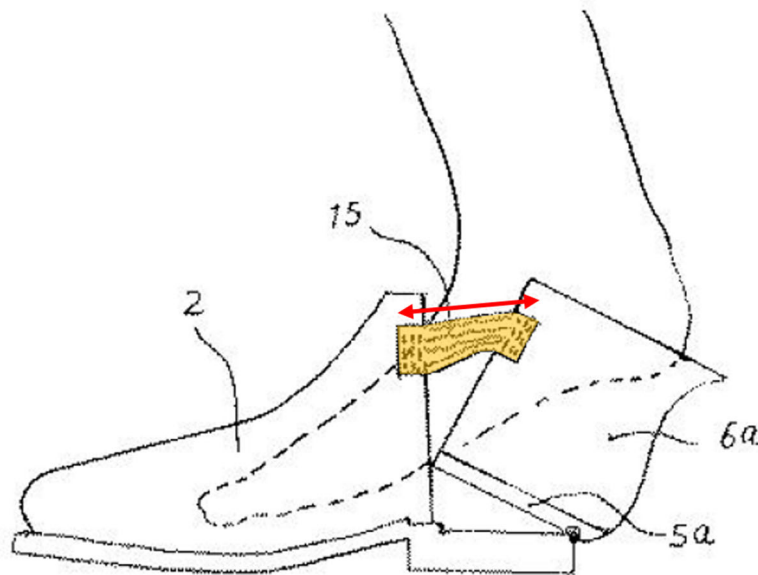


Id., Fig. 3 (arrow and annotation added).

- **7[g]: “wherein the flexible material is expanded in response to the foot applying the pressure to the upper portion when the foot is inserted into the opening of the rapid-entry shoe.”**

Kawase discloses element 7[g]. As explained above, Kawase’s Figure 3 embodiment includes “[r]ubber cords 15” that “pull together and connect the front securing portion 2 and the movable heel portion 6a of the shoe.” *Id.*, ¶ 11. Figure 3, annotated by Petitioner below, shows the rubber cords 15 (highlighted orange) expanding as the user inserts a foot and pushes the heel against the upper portion. *Id.* (“When inserting the foot, the wearer pulls the movable heel portion 6a backward against the pulling force of the rubber cords 15 to insert the foot.”).

[FIG. 3]



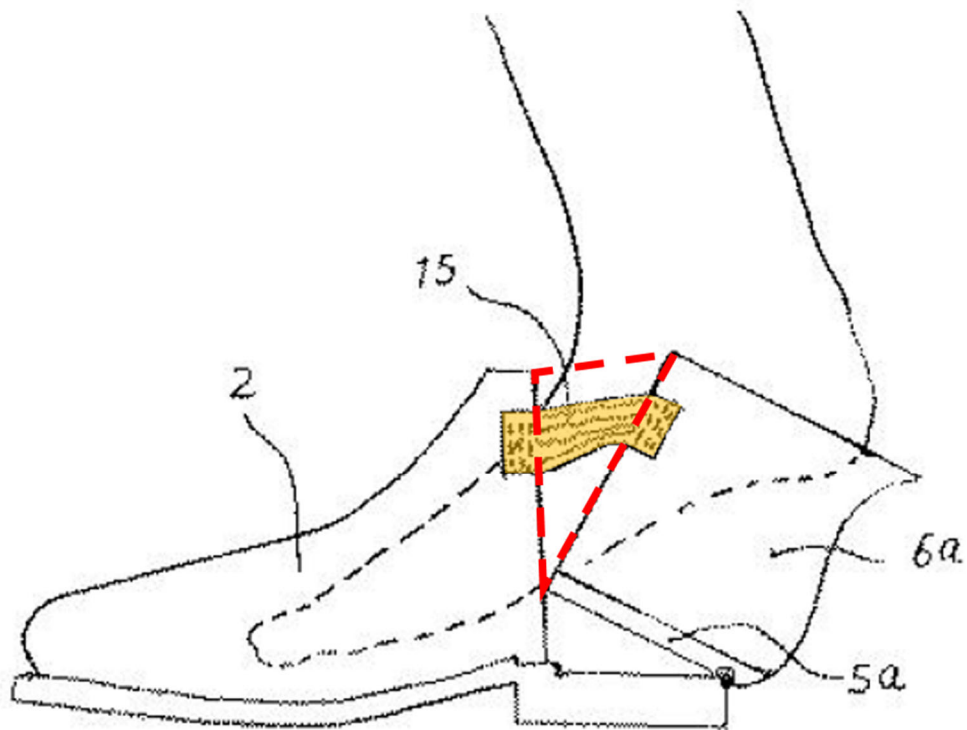
Id., Fig. 3 (highlighting and red arrow added); *see also id.*, pg. 4 (“FIG. 3 shows the movable heel portion being pulled in the closing direction by rubber cords as the foot attempts to enter the shoe while pushing backward.”).

C. Claim 8

- **8: The rapid-entry shoe of claim 7, further comprising a slit provided in the upper, wherein the flexible material is provided in the slit.**

Kawase discloses claim 8. Kawase explains that “the front securing portion 2 and the movable heel portion 6a of the shoe” are “pull[ed] together and connect[ed]” by the “[r]ubber cords 15.” *Id.*, ¶ 11. Figure 3, annotated by Petitioner below, shows the slit created by the separation of the front securing portion 2 and the movable heel portion 6a, annotated with red lines, and the rubber cords 15 provided in that slit, highlighted in orange:

[FIG. 3]



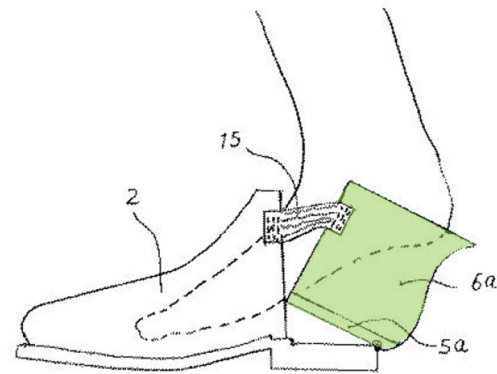
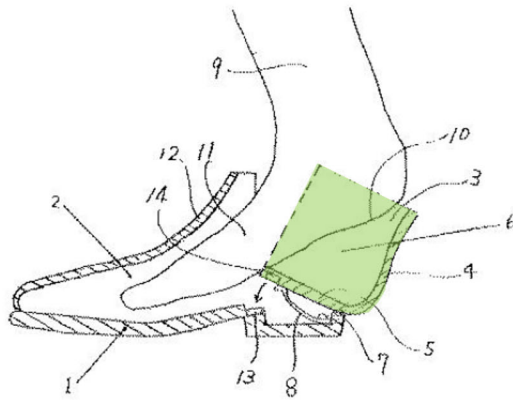
Id., Fig. 3 (emphasis added); *see also* EX1003 ¶ 22.

D. Claim 9

- **9: The rapid-entry shoe of claim 7, wherein the heel structure at least partially surrounds the rear portion of the rapid-entry shoe.**

Kawase discloses claim 9. As noted above for elements 7[b]-[d], Kawase's movable heel portion comprises "side portions 3, a rear portion 4, and a sole portion 5," *id.*, ¶ 10, and thus "makes contact with four sides of the rear portion of the foot (both lateral sides, the rear side, and the sole side)," Kawase ¶ 6. Figs. 1 and 3, annotated by Petitioner below, show the heel structure 6/6a, highlighted in green, at least partially surrounds the rear portion of the shoe:

[FIG. 3]



Id., Figs. 1, 3 (highlighting added).

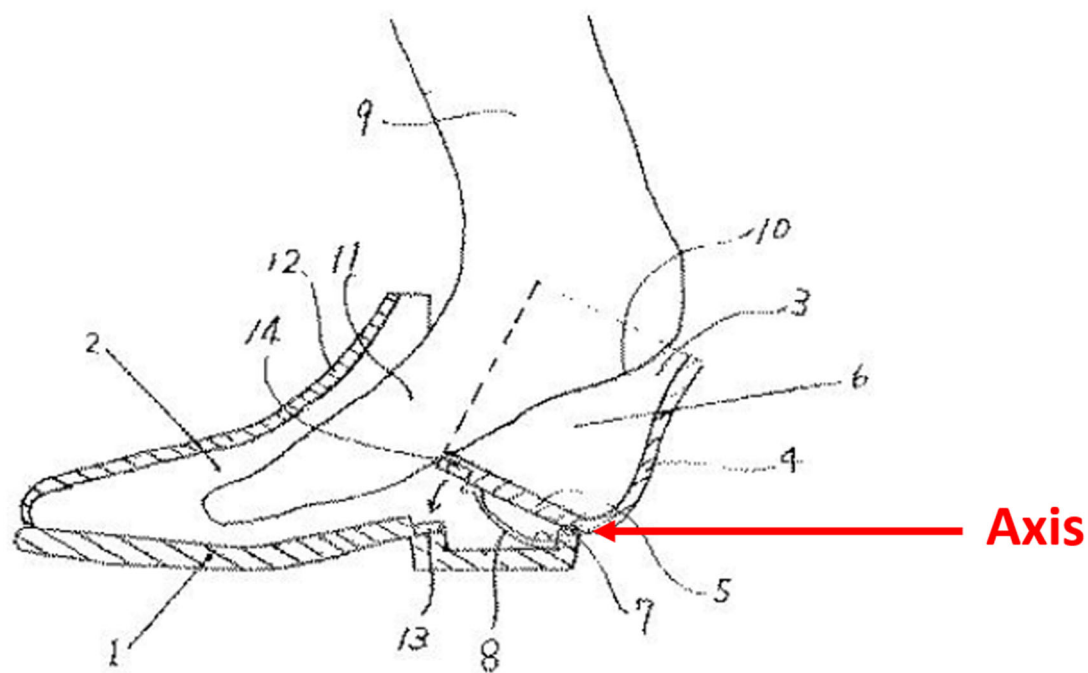
E. Claim 11

- **11: The rapid-entry shoe of claim 7, wherein the axis is proximal to the sole of the rapid-entry shoe.**

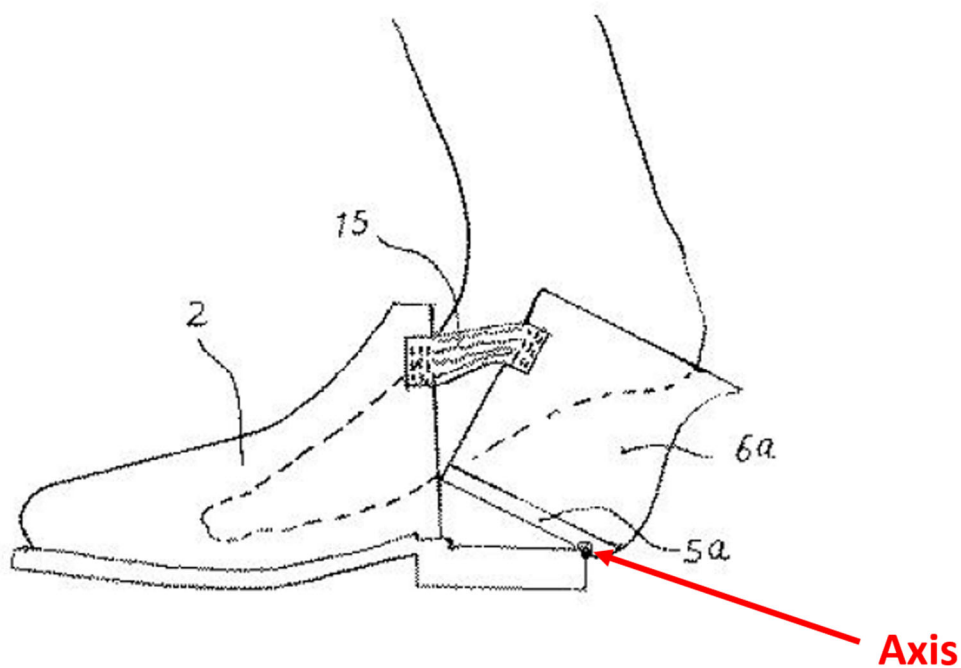
Kawase discloses claim 11. As discussed for claim element 7[f], the movable heel portion of Kawase is “pivotally supported along an axis extending left and right at the rear end of the sole of the footwear, allowing rotation relative to the front securing portion of the footwear that secures the front portion of the foot to the sole.”

Id., ¶ 6; *see also id.*, ¶ 14 (“Because the heel portion of the footwear pivots open at the rear end of the sole portion of the footwear, putting on the footwear while standing requires no bending, squatting, or use of hands or a shoehorn.”). Figures 1 and 3, annotated by Petitioner below, show “axis 7 extending in the lateral direction at the rear end of the sole 1 of the shoe.” *Id.*, ¶ 10.

[FIG. 1]



[FIG. 3]



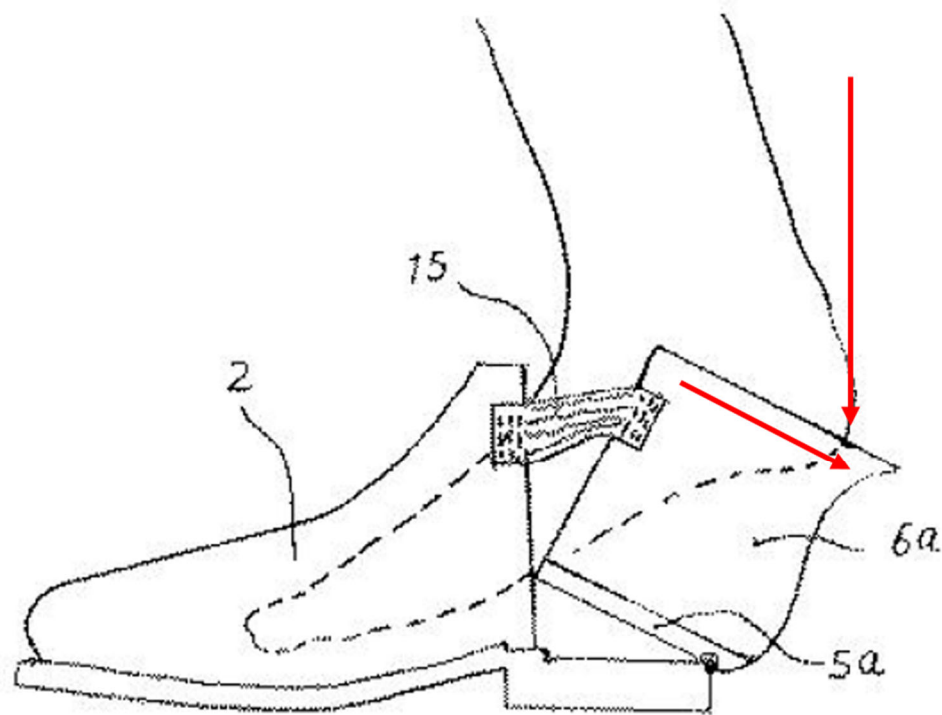
Id., Figs. 1, 3 (red arrows and annotations added).

F. Claim 12

- **12: The rapid-entry shoe of claim 7, wherein the pressure being applied to the upper portion causes at least a portion of the heel structure to move down and back.**

Kawase discloses claim 12. For example, in the Figure 3 embodiment of Kawase, the user “push[es] the movable heel portion 6a rearward when the foot is inserted,” *id.*, ¶ 11, causing the movable heel portion to be lowered and “pivot[ed] . . . along an axis extending left and right at the rear end of the sole of the footwear, allowing rotation relative to the front securing portion of the footwear that secures the front portion of the foot to the sole,” *id.*, ¶ 6. Figure 3, annotated below, shows the movable heel portion 6a moving down and back as the user pushes down with the heel of the foot while donning the shoe:

[FIG. 3]



Id., Fig. 3 (red arrows added); *see also id.*, pg. 4 (“FIG. 3 shows the movable heel portion being pulled in the closing direction by rubber cords as the foot attempts to enter the shoe while pushing backward.”), ¶ 11 (“When inserting the foot, the wearer pulls the movable heel portion 6a backward against the pulling force of the rubber cords 15 to insert the foot.”).

G. Claim 16

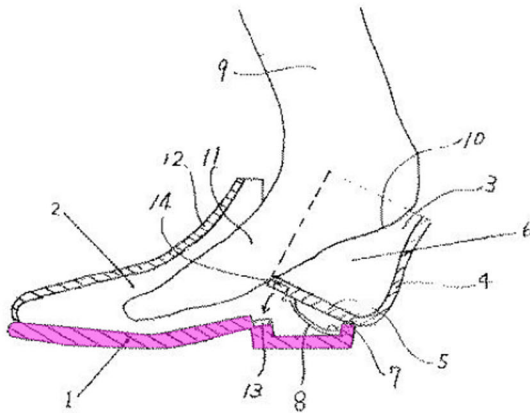
- **16[pre]: “A rapid-entry shoe, comprising:”**

To the extent the preamble is limiting, Petitioner refers to the teaching of Kawase discussed above for the preamble of independent claim 7, which is incorporated here by reference. *See* Part VII.B, 7[pre] (identical claim language).

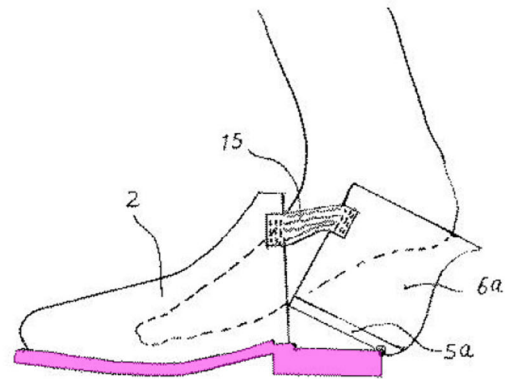
- **16[a]**: “a sole;”

Kawase discloses element 16[a]. For example, Figures 1 and 3, annotated by Petitioner below, include a “sole 1 of the shoe” (highlighted by Petitioner in pink) to which the “front securing portion 2” and “axis 7” are attached. Kawase ¶ 10.

[FIG. 1]



[FIG. 3]

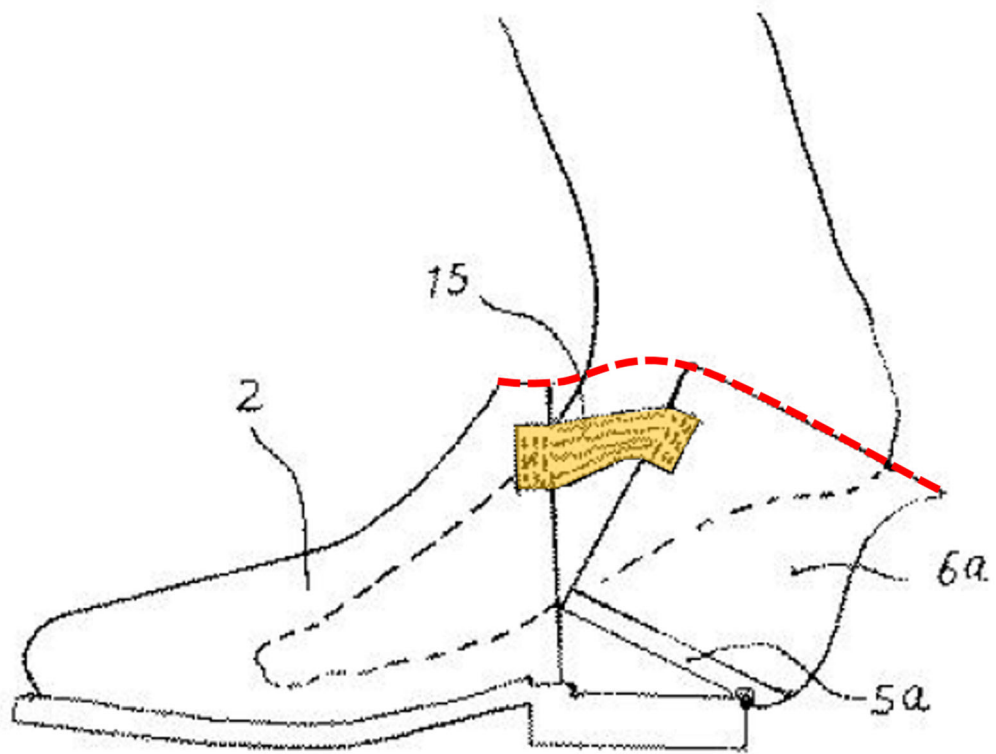


Id., Figs. 1, 3 (highlighting added).

- **16[b]**: “an upper comprising a flexible material and defining an opening of the rapid-entry shoe;”

Kawase discloses element 16[b]. Kawase explains that “the front securing portion 2 and the movable heel portion 6a of the shoe” are “pull[ed] together and connect[ed]” by “[r]ubber cords 15.” *Id.*, ¶ 11. For example, in Figure 3, annotated by Petitioner below, the upper comprises rubber cords (highlighted by Petitioner in orange) and defines an opening of the shoe (denoted by a red dashed line):

[FIG. 3]



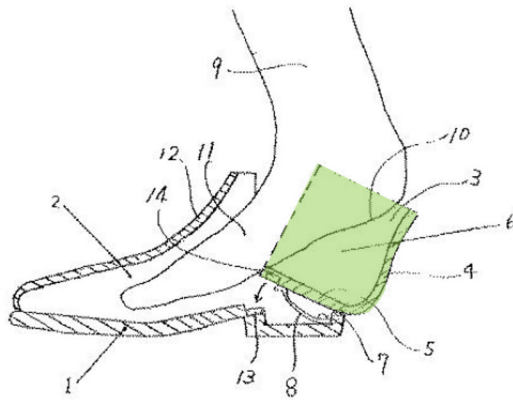
Id. Fig. 3 (highlighting and red line added).

- **16[c]**: “a heel structure disposed at a rear portion of the rapid-entry shoe and extending from the sole, the heel structure comprising:”

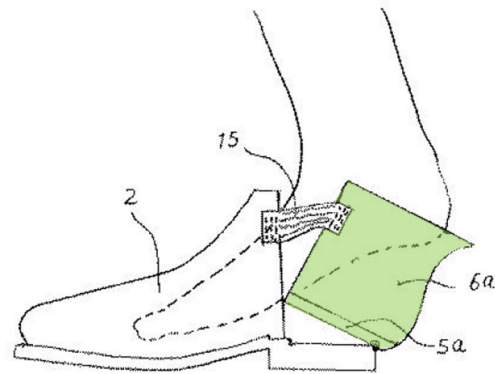
Kawase discloses element 16[c]. Kawase explains, the “movable heel portion 6 [6a in Fig. 3]” consists “of side portions 3, a rear portion 4, and a sole portion 5.”

Id., ¶¶ 10-11. As shown in Figures 1 and 3, annotated by Petitioner below, the heel structure 6/6a (highlighted by Petitioner in green) is disposed at a rear portion of the shoe and extends from the sole:

[FIG. 1]



[FIG. 3]

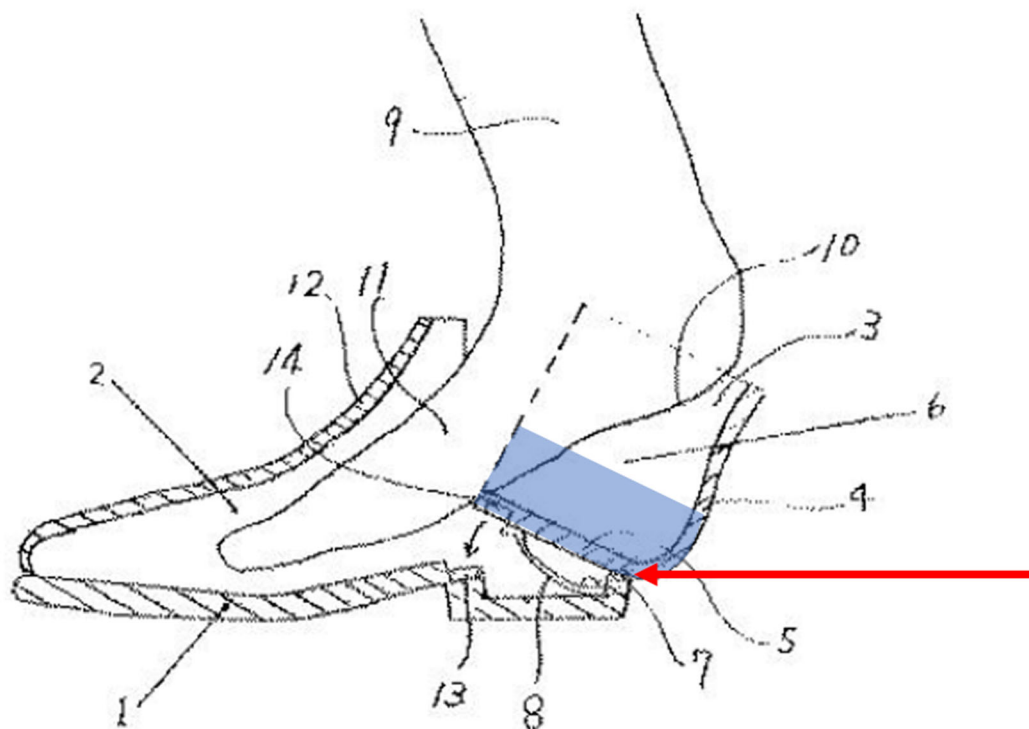


Id., Figs. 1, 3 (highlighting added).

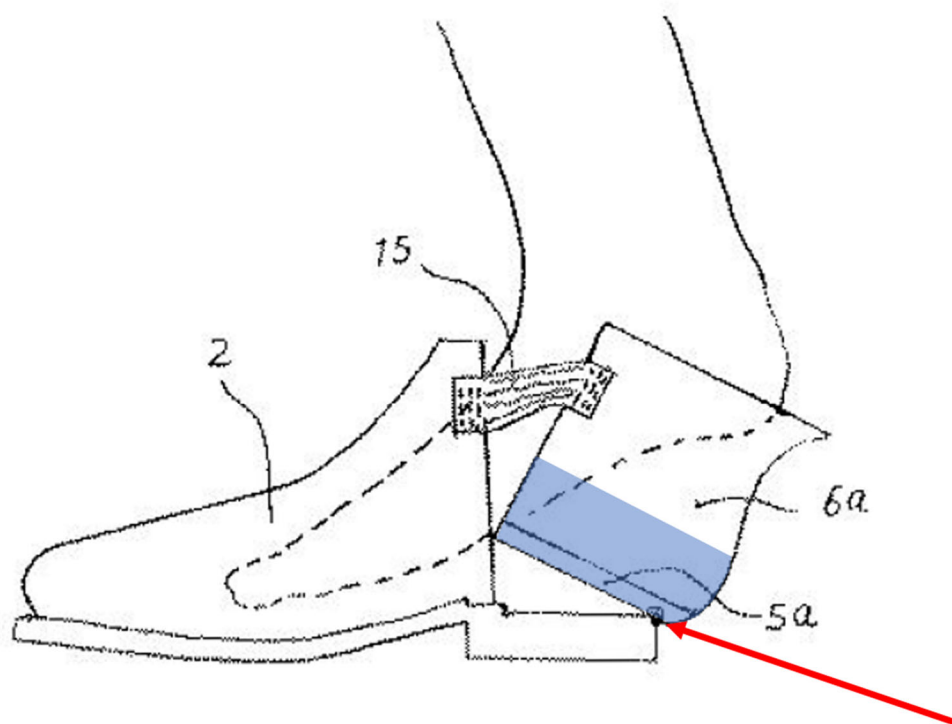
- **16[d]: “a first portion coupled to the sole and extending around the rear portion of the rapid-entry shoe between a medial side of the rapid-entry shoe and a lateral side of the rapid-entry shoe;”**

Kawase discloses element 16[d]. As discussed for element 7[c], Kawase’s “heel portion . . . makes contact with four sides of the rear portion of the foot (both lateral sides, the rear side, and the sole side),” and “is pivotally supported along an axis extending left and right at the rear end of the sole of the footwear” *Id.*, ¶ 6; *see also id.*, ¶ 10 (“[T]he movable heel portion 6 . . . is integrally separated from the shoe at the rear end of the sole 1 of the shoe and pivotally supported along an axis 7 extending in the lateral direction at the rear end of the sole 1 of the shoe.”). For example, as shown in Figures 1 and 3 annotated by Petitioner below, the first portion (highlighted blue) of Kawase’s heel portion is coupled to the sole at the axis of rotation 7 and extends around the rear portion of the shoe between its medial and lateral sides.

[FIG. 1]



[FIG. 3]

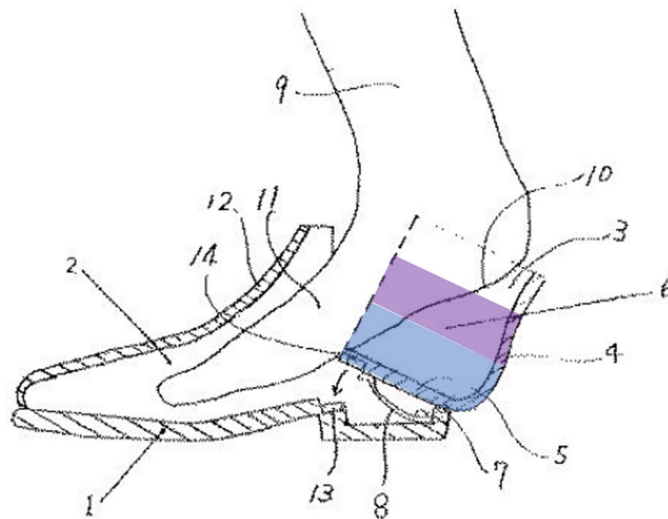


Id., Figs. 1, 3 (highlighting and red arrows added).

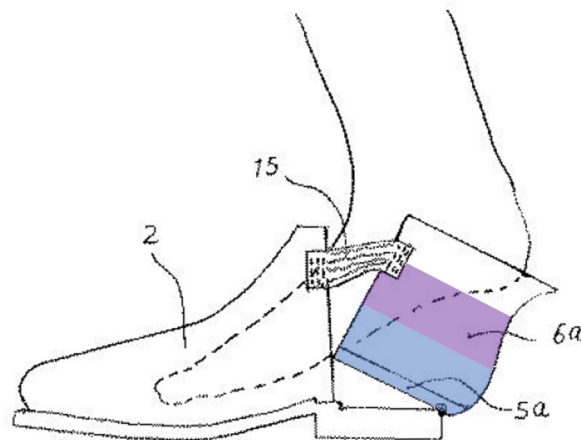
- **16[e]: “a second portion contiguous with, and extending upward from, the first portion, wherein a transition between the first portion and the second portion defines a continuous and non-overlapping profile; and”**

Kawase discloses element 16[e]. As shown in Figures 1 and 3, annotated by Petitioner below, the second portion (highlighted purple) of Kawase’s movable heel portion 6, 6a extends up from the first portion, and a transition between the first and second portions defines a continuous and non-overlapping profile:

[FIG. 1]



[FIG. 3]

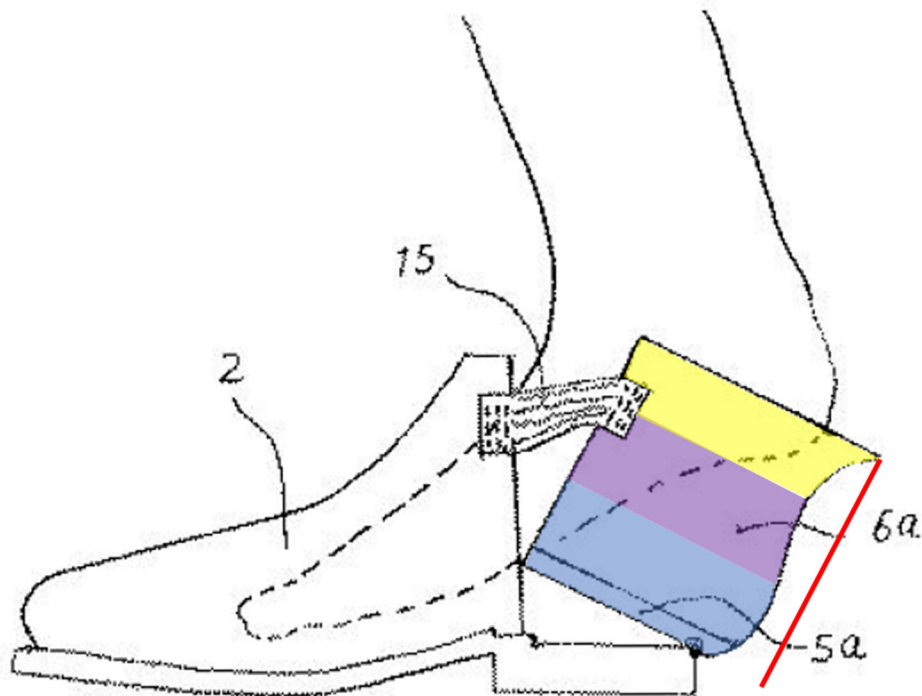


Id., Figs. 1, 3 (highlighting added).

- **16[f]:** “a third portion extending upward from the second portion and extending rearward to an extent greater than the second portion, the third portion allowing the heel structure to at least partially move downward or pivot about an axis of rotation proximal to the sole in response to a foot being inserted into the opening of the rapid-entry shoe;”

Kawase discloses element 16[f]. For example, in Figure 3, annotated by Petitioner below, the third portion (highlighted yellow) extends further rearward than the second portion (highlighted purple), as shown by the red line extending down from the rearward most portion of the upper portion.

[FIG. 3]



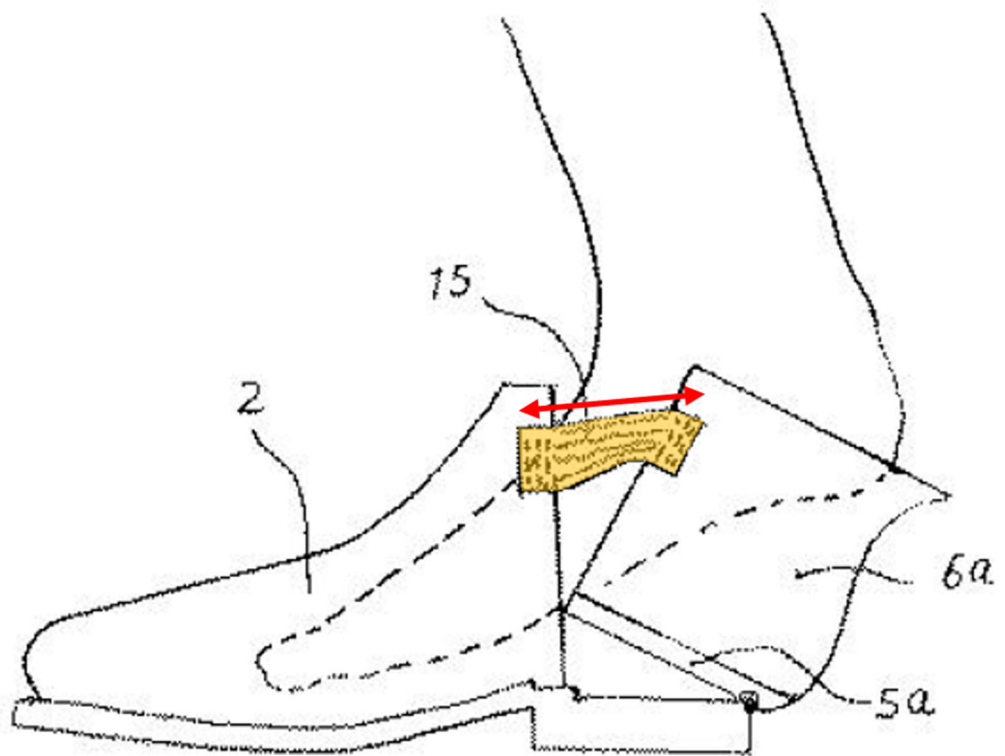
Id., Fig. 3 (highlighting and red line added). Kawase explains that the third portion extends further rearward so that the foot can enter the shoe by pushing down on the

third portion. *See id.*, ¶ 11 (“[T]he heel portion 6a . . . needs to be shaped to push the movable heel portion 6a rearward when the foot is inserted.”). When the user pushes the movable heel portion rearward, the movable heel portion is lowered and “pivot[ed] . . . along an axis extending left and right at the rear end of the sole of the footwear, allowing rotation relative to the front securing portion of the footwear that secures the front portion of the foot to the sole.” *Id.*, ¶ 6, *see also id.* p. 4 (“FIG. 3 shows the movable heel portion being pulled in the closing direction by rubber cords as the foot attempts to enter the shoe while pushing backward.”).

- **16[g]: “wherein the flexible material transitions from a non-expanded state to an expanded state in response to the foot being inserted into the opening of the rapid-entry shoe.”**

Kawase discloses element 16[g]. As explained above, Kawase’s Figure 3 embodiment includes “[r]ubber cords 15” that “pull together and connect the front securing portion 2 and the movable heel portion 6a of the shoe.” *Id.*, ¶ 11. Figure 3, annotated by Petitioner below, shows the rubber cords 15 expanding as the user inserts a foot and pushes the heel against the upper portion. *Id.* (“When inserting the foot, the wearer pulls the movable heel portion 6a backward against the pulling force of the rubber cords 15 to insert the foot.”).

[FIG. 3]



Id., Fig. 3 (highlighting and red arrow added); *see also id.*, pg. 4 (“FIG. 3 shows the movable heel portion being pulled in the closing direction by rubber cords as the foot attempts to enter the shoe while pushing backward.”).

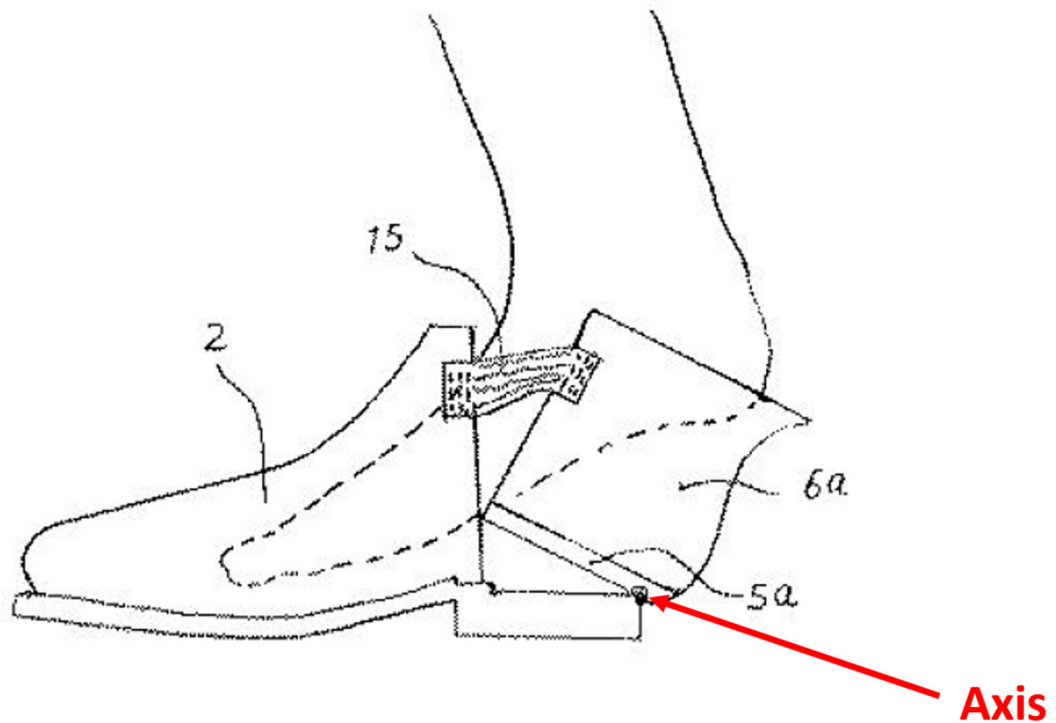
H. Claim 18

- **18: The rapid-entry shoe of claim 16, wherein a downward force being applied to the third portion causes at least a portion of the heel structure to move down and back.**

Kawase discloses claim 18. As discussed for claim elements 7[f] and 16[f], the discussion of which is incorporated here by reference, the user of Kawase’s shoe “push[es] the movable heel portion 6a rearward when the foot is inserted,” *id.*, ¶ 11, causing the movable heel portion to be lowered and “pivot[ed] . . . along an axis

extending left and right at the rear end of the sole of the footwear, allowing rotation relative to the front securing portion of the footwear that secures the front portion of the foot to the sole,” *id.*, ¶ 6. *See also* Parts VII.B, 7[f] and VII.G, 16[f], *supra*. For example, Figure 3, annotated by Petitioner below, shows the movable heel portion 6a moving down and back in response to a downward force:

[FIG. 3]



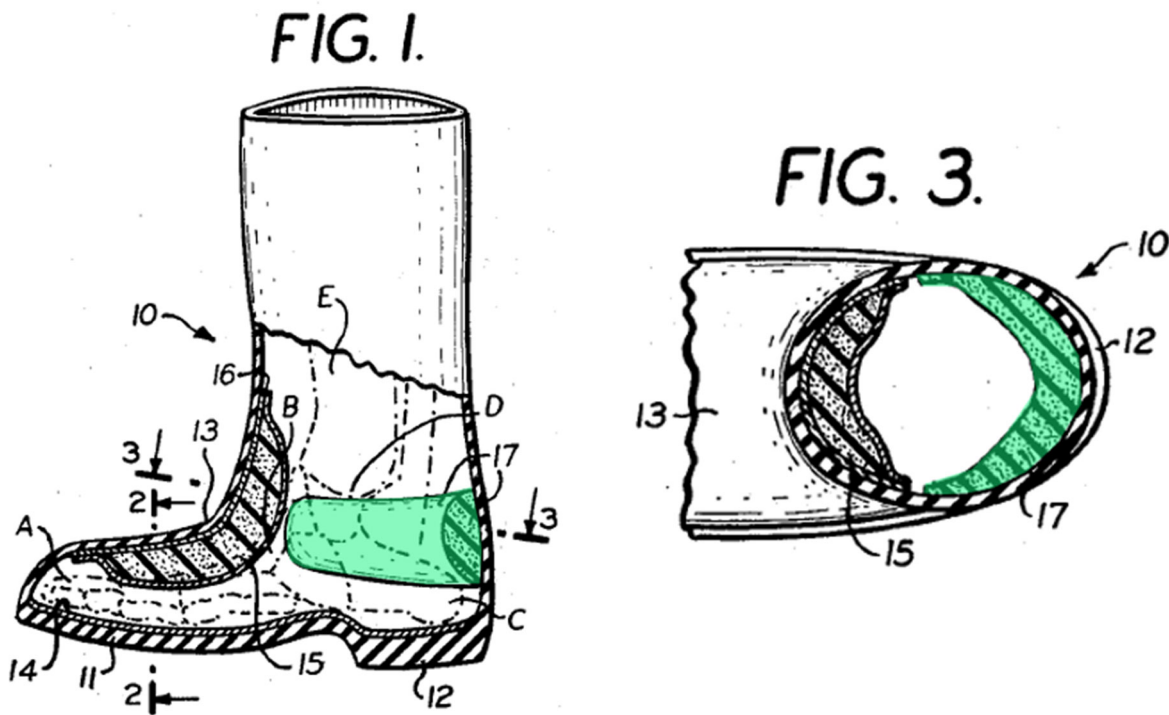
Id., Fig. 3 (arrow and annotation added).

VIII. GROUND 2: Claim 10 Is Obvious Over Kawase In View Of Murray

A. Overview of Murray (EX1007)

Murray discloses the use of “[i]nternal pads of sponge material” that are “enclosed in a fabric casing and secured to the inside surface of rubber boots or

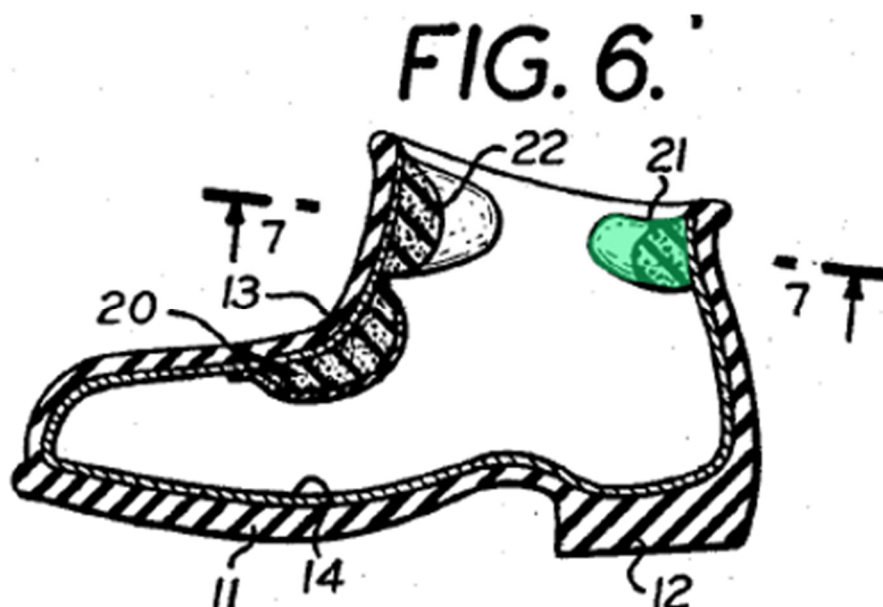
shoes” in order to “achieve a tight and comfortable fit.” EX1007, 1:34-38. The pads are described as “comprising a body of foam rubber or plastic covered with cloth,” and being “resilient or spongy.” *Id.*, 1:31-35; 2:35-37. “[B]y employing inward expanding sponge rubber inserts,” Murray explains that this “construction permits the wearer to put his feet into the boots without strenuous effort” such that they “may be removed easily without using a zipper opening or shoe laces.” *Id.*, 1:25-40. Figures 1 and 3 of Murray, annotated by Petitioner below, show the “insert 17,” highlighted in green, positioned at the heel region of the footwear:



Id., Figs. 1, 3 (highlighting added). Murray explains that the “insert 17 is placed in the boot, preferably in a level [sic] horizontal plane, just below the wearer’s interior

ankle bone D of tibia E and extending around the heel to the outside of the foot A,” forming a “semicircle” around the heel of the shoe. *Id.*, 2:23-27. “This insert 17 keeps the instep B of the foot and heel bone C in its proper position and when the foot is lifted, to walk or run, the heel bone of the foot engages insert 17 so that the boot closely follows the movement of the foot with no tendency to pull out. The foam material, however, is resilient or spongy enough to give way whenever it is desired to remove the foot from the boot.” *Id.*, 2:29-38.

Moreover, Murray further teaches an embodiment applying inserts to “a shoe type of footwear without an extended upper portion.” *Id.*, 2:53-54. In this embodiment, “insert 21 is positioned around the rear portion of the shoe top.” *Id.*, 2:56-57. Murray explains that this “keeps the foot firmly engaged within the footwear and at the same time absorbs the play which otherwise may exist around the ankle. The result is a comfortable fit” of the foot in the footwear. *Id.*, 2:61-64.



Id., Fig. 6 (highlighting added).

Murray explains that the pads can be applied to “all types of footwear such as firemen and sportsman boots, high and low shoes, loafers, slippers, and of all types of materials whether rubber, plastic, leather or cloth.” *Id.*, 1:16-20.

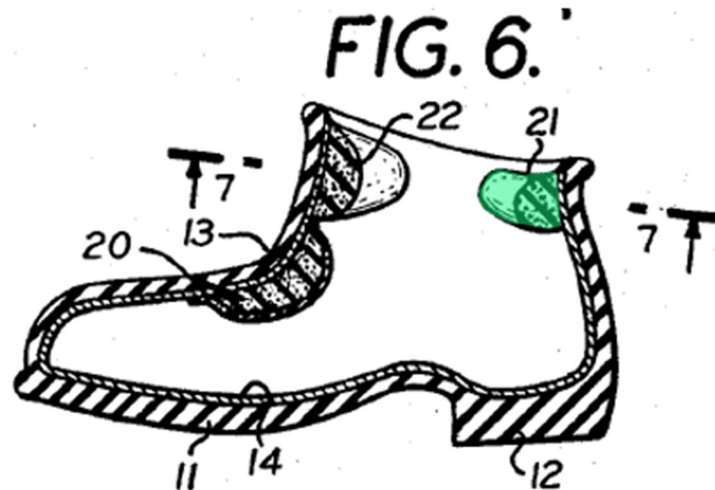
B. Claim 10

- **10: The rapid-entry shoe of claim 7, further comprising a shoe cushioning component provided on at least a portion of the heel structure.**

Claim 10 would have been obvious over Kawase in view of Murray. As shown above, Kawase teaches all elements of claim 7. *See* Part VII.B, *supra*. Murray further teaches “a shoe cushioning component provided on at least a portion of the heel structure,” and a POSITA would have arrived at the claimed invention by simply incorporating Murray’s shoe cushioning component on at least a portion of the heel structure disclosed by Kawase.

For example, Murray teaches a foam insert 17 that is positioned in the shoe “just below the wearer’s interior ankle bone D of tibia E and extending around the heel to the outside of the foot A,” forming a “semicircle” around the heel of the shoe. Murray, 2:23-27. “This insert 17 keeps the instep B of the foot and heel bone C in its proper position and when the foot is lifted, to walk or run, the heel bone of the foot engages insert 17 so that the boot closely follows the movement of the foot with no tendency to pull out. The foam material, however, is resilient or spongy enough





Id., Fig. 6 (highlighting added).

C. Combining Kawase and Murray

A POSITA would have found it obvious to incorporate Murray’s foam inserts within Kawase’s movable heel portion, and would have had a reasonable expectation of success in doing so. Among other things, a “motivation to combine may be found explicitly or implicitly in market forces; design incentives; the interrelated teachings of multiple patents; any need or problem known in the field of endeavor at the time of invention and addressed by the patent; and the background knowledge, creativity, and common sense of the person of ordinary skill.” *ZUP, LLC v. Nash Mfg., Inc.*, 896 F.3d 1365, 1371 (Fed. Cir. 2018) (collecting cases). Here, the interrelated teachings of Kawase and Murray provide a teaching, suggestion, or motivation to combine them.

For example, Kawase and Murray each address similar technology and are directed to similar design incentives and market pressures—namely, facilitating easy

donning and doffing by use of their technology. Kawase expressly states that “[a]n object of the present invention is to provide footwear that can be put on while standing without bending, squatting, or using hands or a shoehorn, and which, once put on, secures the foot, eliminating concerns about slipping sideways or coming off while walking.” Kawase ¶ 5. Similarly, Murray explains that its “construction permits the wearer to put his feet into the boots without strenuous effort.” Murray, 1:38-40. Moreover, each reference discloses heel structures particularly suited to this purpose: Kawase’s “heel portion” that “pivots open at the rear end of the sole portion,” Kawase ¶ 14, and Murray’s insert positioned “below the wearer’s interior ankle bone” that “extend[s] around the heel,” Murray, 2:23-25. Murray further teaches that its cushioning inserts are technology-independent, in that they can be incorporated multiple different types of shoes, such as the shoe of Kawase. *See* Murray, 1:15-20 (“[B]oots’ are used throughout to designate all types of footwear such as firemen and sportsman boots, high and low shoes, loafers, slippers, and of all types of materials whether rubber, plastic, leather or cloth.”); *see also DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2006) (“[A]n implicit motivation to combine exists . . . when the ‘improvement’ is technology-independent and the combination of references results in a product or process that is more desirable.”). Accordingly, a POSITA seeking to address the problem of footwear that is easy to don or doff without the use of

traditional methods such as laces or shoehorns would have been motivated to consider the teachings of both Kawase and Murray.

Separately, Murray explains that one problem with footwear that have “no laces and no zipper fastenings” is that they are “oversize” so that they “may be put on and taken off without too much effort.” Murray, 1:7-10. Murray notes that such shoes “make[] walking difficult and running almost impossible because the foot is not held firmly” in the footwear “and has considerable movement” in the footwear “when the wearer is in motion.” *Id.*, 1:11-14. Murray teaches that its foam inserts “correct[] these disadvantages” because they “do not permit the foot to move about within” the footwear and “cause[] the foot to cling to the sole.” *Id.*, 1:24-30. Similarly, Kawase teaches that by implementing its movable heel portion, “the footwear is secured to the foot, eliminating concerns about sideways slippage or coming off while walking.” Kawase ¶ 14, *see also id.*, ¶ 5 (“An object of the present invention is to provide footwear . . . which, once put on, secures the foot, eliminating concerns about slipping sideways or coming off while walking.”). Thus, Kawase and Murray both directly teach solutions to the problems of stability and retention of the foot in footwear. A POSITA would have been motivated to consider their teachings and would have understood that their features are complementary and would enhance securement of the foot in a shoe. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007) (“[A]ny need or problem known in the field of endeavor

at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.”).

Additionally, the proposed combination of Kawase and Murray would also have been obvious to a POSITA because it is a combination of prior art elements according to known methods to yield predictable results. *See, e.g., KSR*, 550 U.S. at 416 (“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”); *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1380–81 (Fed. Cir. 2023) (“There is a motivation to combine when a known technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the prior art elements according to their established functions.”) (cleaned up). For example, a POSITA would have understood that Murray’s foam insert could easily be added to Kawase’s movable heel portion in the same configuration taught by Murray—*i.e.*, attached “below the wearer’s interior ankle bone D of tibia E and extending around the heel to the outside of the foot A,” forming a “semicircle” around the heel of the shoe, Murray, 2:23-27—in order to yield the predictable result of better securing and stabilizing the foot within Kawase’s movable heel portion. A POSITA would have understood that incorporating Murray’s insert into Kawase’s movable heel portion would simply enhance Kawase’s teaching that “[o]nce put on, the footwear is secured to the foot,

eliminating concerns about sideways slippage or coming off while walking.”

Kawase ¶ 14.

Finally, it was well within the skill of a POSITA to modify the shoe of Kawase to use the cushioning component of Murray. Murray explains that its inserts can be incorporated into footwear using conventional methods, such as stitching, adhesives, or by making the foam itself sticky. Murray, 2:17-18, 2:47-53. Moreover, the materials and techniques for making and using the components of Kawase and Murray were standard well before the claimed priority date, and combining those components into a shoe would have been a predictable application of routine skill. EX1003, ¶ 27. For example, a POSITA would be able to easily make slight modifications to size, shape, and orientation of Murray’s foam insert based on the particularities of Kawase’s shoe, including its upper and movable heel portion, to effectively accommodate those components without experimentation or unconventional modifications. *See Intel*, 61 F.4th at 1381 (a claimed combination is obvious if “there was a known problem . . . in the art,” a reference “helped address that issue,” and “combining the teachings of [the references] wasn’t beyond the skill of an ordinary artisan.”).

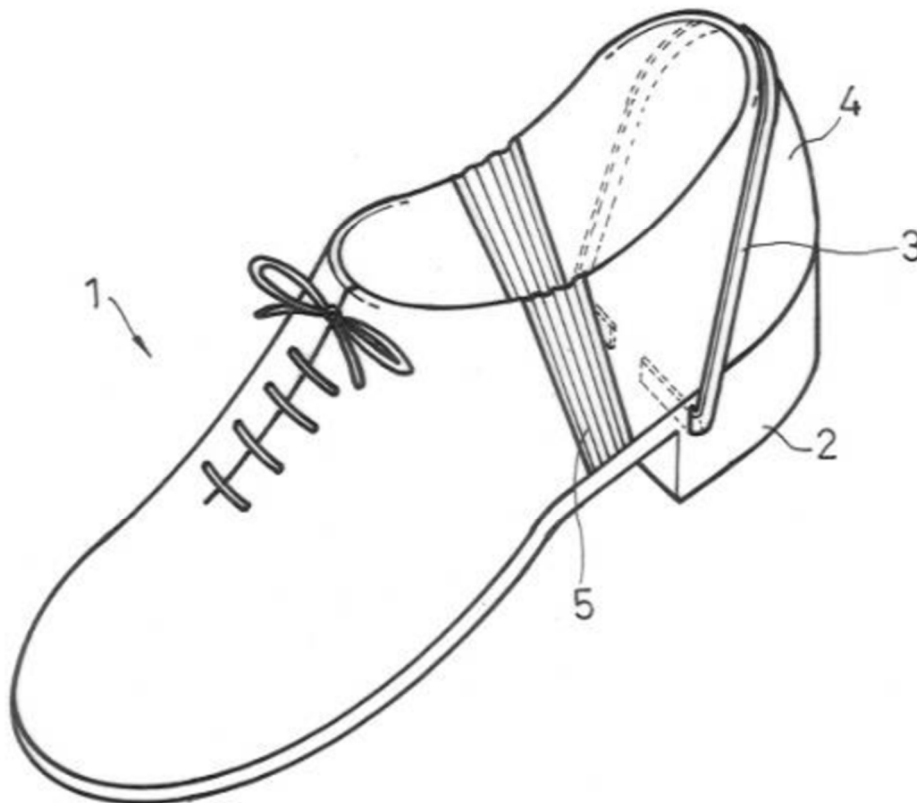
Accordingly, a person of ordinary skill would have been motivated to use Murray’s foam insert to improve Kawase’s shoe.

IX. GROUND 3: Claims 8 and 17 Are Obvious Over Kawase And Baek

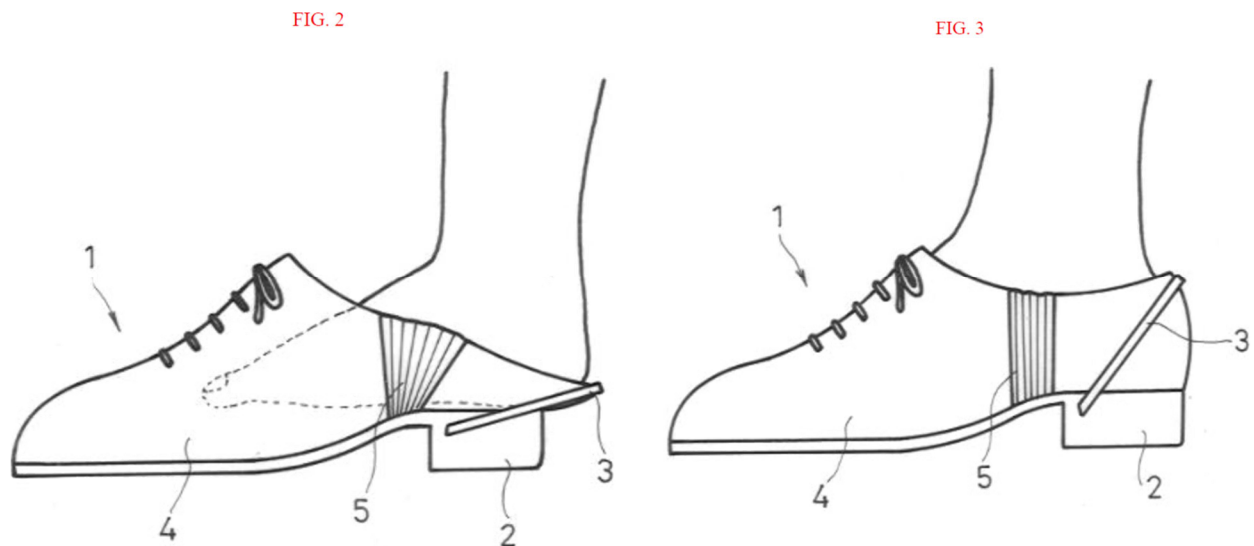
A. Overview of Baek (EX1009)

Baek discloses “footwear that can be easily put on by providing an elastic member at the heel portion, without the inconvenience of having to loosen and retie shoelaces each time the footwear is taken off and put on.” EX1009, pg. 2. For example, Baek teaches a shoe that has an “elastic member (3)” provided at the heel portion that “descends to allow the foot to easily advance forward” when a “foot presses the rear part of the footwear (1),” and a “stretchable portion (5)” of the upper that “extends and compensates for the portion tilted backward by the elastic member (3), thereby preventing damage to the outer skin (4).” *Id.*

FIG. 1



Id., Fig. 1. Baek explains that “[w]hen a user puts on the footwear (1) . . . the foot presses the rear part of the footwear (1) while pushing the front part of the foot into the interior of the footwear (1). At this time, the elastic member (3) descends to allow the foot to easily advance forward, and the stretchable portion (5) at both sides of the center of the outer skin (4) extends and compensates for the portion tilted backward by the elastic member (3), thereby preventing damage to the outer skin (4). Then, when the foot completely advances forward, the rear heel of the foot that was pressing the elastic member (3) also advances forward, so the force pressing the elastic member (3) is eliminated, elastic force is exerted, and the elastic member (3) ascends.” *Id.*, pg. 3. Figures 2 and 3, reproduced below, show a user donning Baek’s shoe according to the above description:



Id., Figs. 2, 3.

Baek further explains that “the structure of the present invention is not limited to use in men’s dress shoes as shown in FIGS. 1 to 3, but when applied to women’s shoes, athletic shoes, and sandals . . . various types of footwear can be put on more conveniently and quickly.” *Id.*, pg. 3.

B. Claim 8

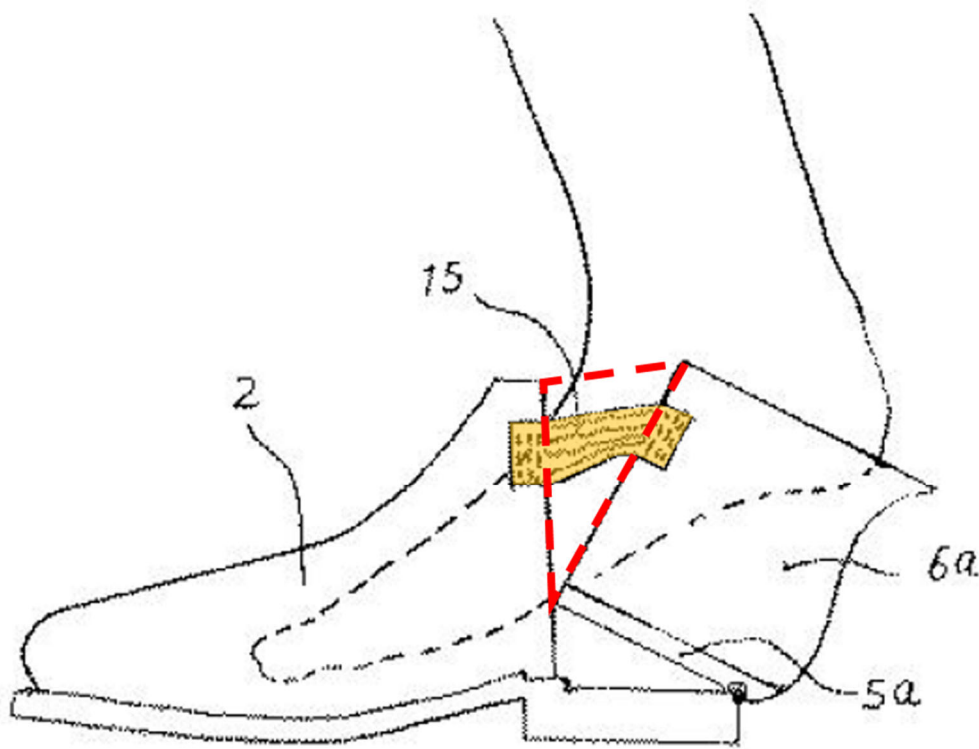
- **8: The rapid-entry shoe of claim 7, further comprising a slit provided in the upper, wherein the flexible material is provided in the slit.**

Claim 8 would have been obvious over Kawase in view of Baek. Kawase’s teachings claim 8 are discussed above in Section VII.C and are incorporated here by reference. As discussed, Kawase anticipates claim 8. However, should the Board determine that the limitations of claim 8 are not literally met by Kawase (they are), Skechers submits that claim 8 would also be obvious over Kawase in view of Baek.

In its own disclosure about the claimed “flexible material [being] provided in the slit,” the ’101 patent specification states, “the shoe opens at a slit 58, which may normally *be covered by* a piece of flexible material.” EX1001, 8:26-28 (emphasis added). It further states that “a slit 82 in the structure . . . may optionally be hidden under material.” *Id.*, 9:48-50. These statements, which are the sole disclosures in the ’101 patent specification directed to the relative positions of the slit and flexible material, would have apprised a POSITA at the time of the invention that the claimed “flexible material is provided in the slit” is related to “a slit . . . be[ing] covered by a

piece of flexible material,” (EX1001, 8:26-28) as also shown and discussed in Kawase.

[FIG. 3]



Kawase, Fig. 3 (emphasis added).

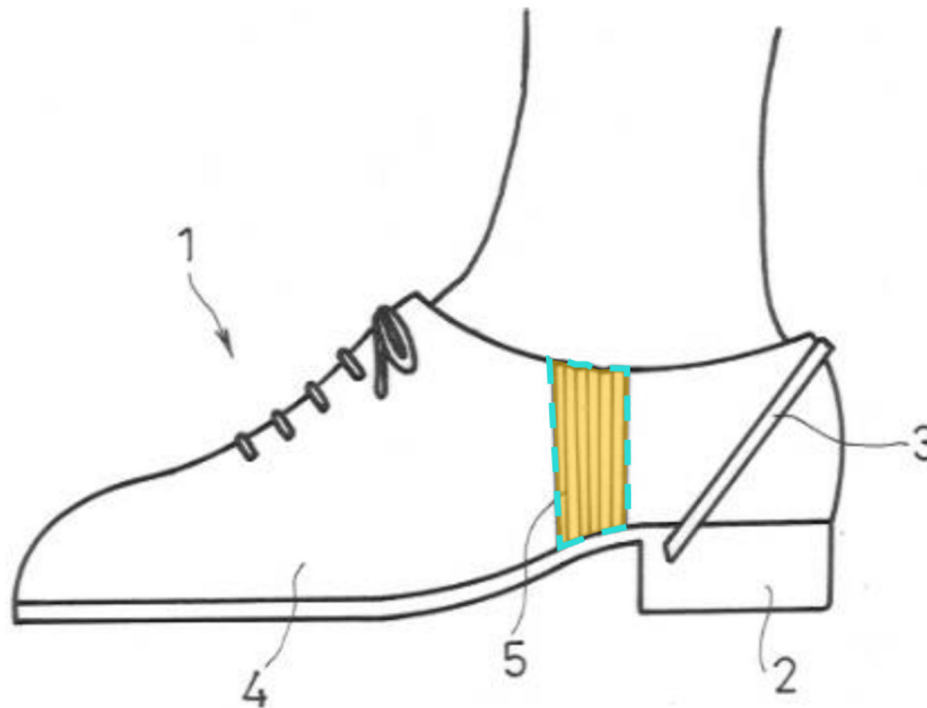
Minor adjustments in the position of components that otherwise do not impact the operation or functionality of those components in the context of the invention do not confer non-obviousness over the prior art. *In re Japikse*, 181 F.2d 1019, 1023 (CCPA 1950) (“[N]o invention in shifting the starting switch disclosed by Cannon to a different position since the operation of the device would not thereby be modified.”); *In re Kuhle*, 526 F.2d 553, 555 (CCPA 1975) (“[T]he particular

placement of the contact provides no novel or unexpected result. . . . [and] would be an obvious matter of design choice within the skill of the art.”). Any adjustment necessary to position Kawase’s “rubber cords 15” in the slit would not materially affect their operation or function to provide resilient coupling between the front securing portion 2 and the movable heel portion 6a to facilitate donning of the shoe. EX1003 ¶ 31.

Accordingly, to the extent that the Board determines that Kawase’s “rubber cords 15” are not literally “provided in the slit” in the separation between its front securing portion 2 and the movable heel portion 6a, Skechers submits that any minor adjustment to position the cords therein would have been a mere design choice that would not affect the operation or functionality of the cords and would, therefore, have been obvious to a POSITA at the time of the invention.

Moreover, Baek further explicitly teaches “a slit provided in the upper, wherein the flexible material is provided in the slit” as recited in dependent claim 8. For example, Figure 3 of Baek shows a stretchable portion 5 disposed in a slit between a front and rear portion of the upper:

FIG. 3



EX1009, Fig. 3 (emphasis added). It further states that, “the stretchable portion (5) at both sides of the center of the outer skin (4) extends and compensates for the portion tilted backward by the elastic member (3), thereby preventing damage to the outer skin (4).” *Id.*, pg. 3.

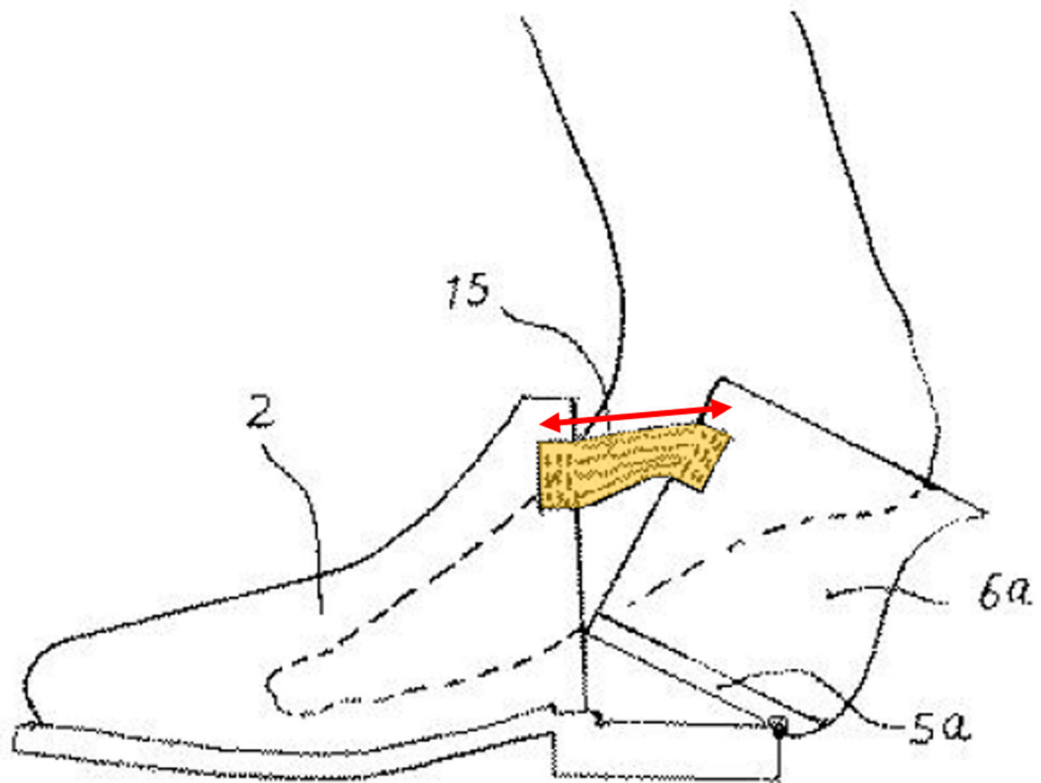
C. Claim 17

- **17: The rapid-entry shoe of claim 16, wherein the flexible material forms at least a portion of a topline of the rapid-entry shoe.**

Claim 17 would have been obvious over Kawase in view of Baek. As noted, Kawase's rubber cords 15 expand as the user inserts a foot and pushes the heel against the upper portion. Kawase ¶ 11 (“When inserting the foot, the wearer pulls

the movable heel portion 6a backward against the pulling force of the rubber cords 15 to insert the foot.”).

[FIG. 3]



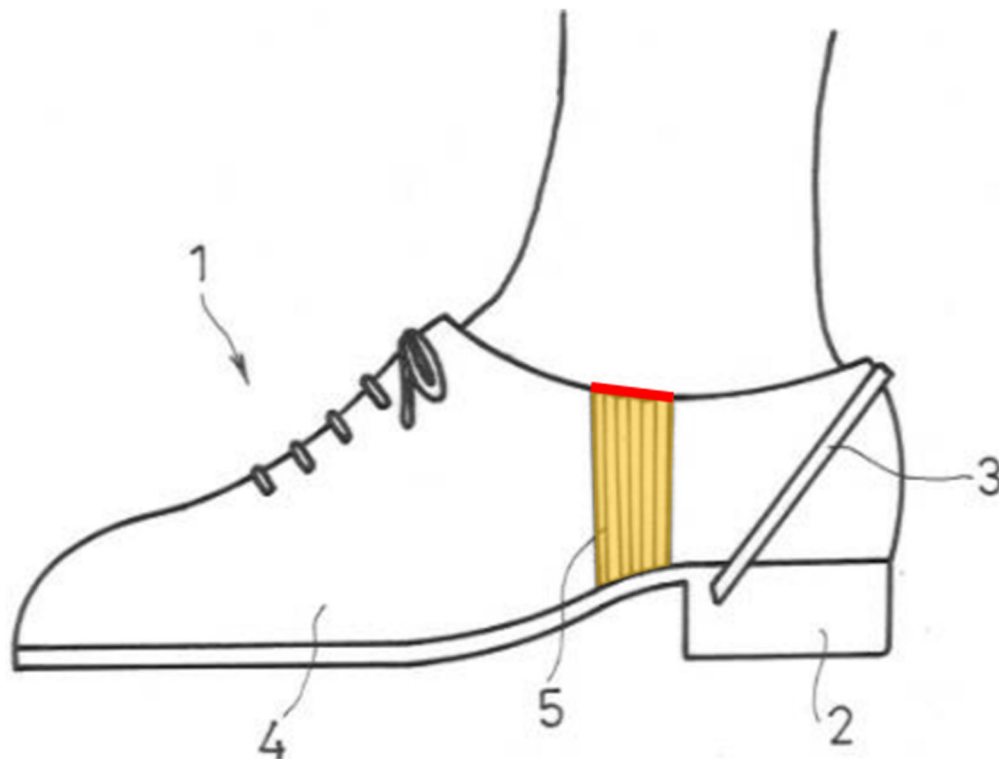
Kawase, Fig. 3 (highlighting and red arrow added).

It would have been obvious to a POSITA to adjust the position of the rubber cords 15 to be slightly higher such that the top edge thereof matched the top edge of the securing portion 2 and/or the movable heel portion 6a, because doing so represents a mere design choice. This minor change of position would not materially alter the operation or functionality of the rubber cords 15, which provide resilient coupling between the front securing portion 2 and the movable heel portion 6a to

facilitate donning of the shoe. EX1003, ¶¶ 31-32; *Japikse*, 181 F.2d at 1023; *In re Kuhle*, 526 F.2d at 555.

Moreover, Baek also teaches the limitation of “the flexible material forms at least a portion of a topline of the rapid-entry shoe” as recited in dependent claim 17. For example, Figure 3 of Baek shows this explicitly:

FIG. 3



EX1009, Fig. 3 (emphasis added). Baek clearly shows a top edge of its stretchable portion 5 being colinear with the top edge of the front and rear portions of the upper, forming a topline at the opening of the shoe.

D. Combining Kawase and Baek

A POSITA would have found it obvious to incorporate Baek’s stretchable portions within Kawase’s slit region, and would have had a reasonable expectation of success in doing so. Among other things, a “motivation to combine may be found explicitly or implicitly in market forces; design incentives; the interrelated teachings of multiple patents; any need or problem known in the field of endeavor at the time of invention and addressed by the patent; and the background knowledge, creativity, and common sense of the person of ordinary skill.” *ZUP, LLC v. Nash Mfg., Inc.*, 896 F.3d 1365, 1371 (Fed. Cir. 2018) (collecting cases). Here, the interrelated teachings of Kawase and Baek provide a teaching, suggestion, or motivation to combine them.

For example, Kawase and Baek each address similar technology and are directed to similar design incentives and market pressures—namely, facilitating easy donning and doffing by use of their technology. Kawase expressly states that “[a]n object of the present invention is to provide footwear that can be put on while standing without bending, squatting, or using hands or a shoehorn, and which, once put on, secures the foot, eliminating concerns about slipping sideways or coming off while walking.” Kawase ¶ 5. Similarly, Baek states that its “invention relates to footwear easy to put on. . . . without the inconvenience of having to loosen and retie shoelaces each time the footwear is taken off and put on.” Baek, pg. 2, ¶ 12. Baek

also states that, “the main object of the present invention is to provide footwear that enables convenience and quick putting on without requiring a person to bend at the waist to loosen shoelaces or adjust other fasteners.” *Id.*, pg. 2, ¶ 18. Baek further explains that its inventive structures are technology-independent: “the structure of the present invention is not limited to use in men’s dress shoes as shown in FIGS. 1 to 3, but when applied to women’s shoes, athletic shoes, and sandals . . . various types of footwear can be put on more conveniently and quickly.” *Id.*, pg. 3; *see also DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2006) (“[A]n implicit motivation to combine exists . . . when the ‘improvement’ is technology-independent and the combination of references results in a product or process that is more desirable.”). Accordingly, a POSITA seeking to address the problem of footwear that is easy to don or doff without the use of traditional methods such as laces or shoehorns would have been motivated to consider the teachings of both Kawase and Baek.

Separately, Baek explains that one problem with footwear with “laces . . . often tied loosely during normal use” to facilitate easy donning and doffing is that “easily slipping off occur.” Baek, p. 2, ¶ 13. Similarly, Kawase teaches that by implementing its movable heel portion, “the footwear is secured to the foot, eliminating concerns about sideways slippage or coming off while walking.” Kawase ¶ 14, *see also id.*, ¶ 5 (“An object of the present invention is to provide

footwear . . . which, once put on, secures the foot, eliminating concerns about slipping sideways or coming off while walking.”). Thus, Kawase and Baek both directly teach solutions to the problems of stability and retention of the foot in footwear. A POSITA would have been motivated to consider their teachings and would have understood that their features are complementary and would enhance securement of the foot in a shoe. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007) (“[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.”).

Additionally, the proposed combination of Kawase and Baek would also have been obvious to a POSITA because it is a combination of prior art elements according to known methods to yield predictable results. *See, e.g., KSR*, 550 U.S. at 416 (“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”); *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1380–81 (Fed. Cir. 2023) (“There is a motivation to combine when a known technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the prior art elements according to their established functions.”) (cleaned up). For example, Baek’s stretchable portions could easily have been added to Kawase’s slit region in the same configuration

taught by Baek—*i.e.*, “provided at both sides of the center of the outer skin (4) of the footwear (1)” EX1009, pg. 3, ¶ 3—in order to yield the predictable result of “perform[ing] a stretching action” to facilitate donning of the shoe. *Id.* As noted above, minor adjustments in the position of components that otherwise do not impact the operation or functionality of those components in the context of the invention, as taught by Baek for its stretchable portions as compared to Kawase’s rubber cords, do not confer non-obviousness over the prior art. *In re Japikse*, 181 F.2d 1019, 1023 (CCPA 1950) (“[N]o invention in shifting the starting switch disclosed by Cannon to a different position since the operation of the device would not thereby be modified.”); *In re Kuhle*, 526 F.2d 553, 555 (CCPA 1975) (“[T]he particular placement of the contact provides no novel or unexpected result. . . . [and] would be an obvious matter of design choice within the skill of the art.”).

Finally, it was well within the skill of a POSITA to modify the shoe of Kawase to use the stretchable portions of Baek. The materials and techniques for making and using the components of Kawase and Baek were standard well before the claimed priority date, and combining those components into a shoe would have been a predictable application of routine skill. EX1003, ¶ 32. For example, a POSITA would be able to easily make slight modifications to size, shape, and orientation of Baek’s stretchable portions based on the particularities of Kawase’s shoe, including its upper and movable heel portion, to effectively accommodate those components

without experimentation or unconventional modifications. *See Intel*, 61 F.4th at 1381 (a claimed combination is obvious if “there was a known problem . . . in the art,” a reference “helped address that issue,” and “combining the teachings of [the references] wasn’t beyond the skill of an ordinary artisan.”).

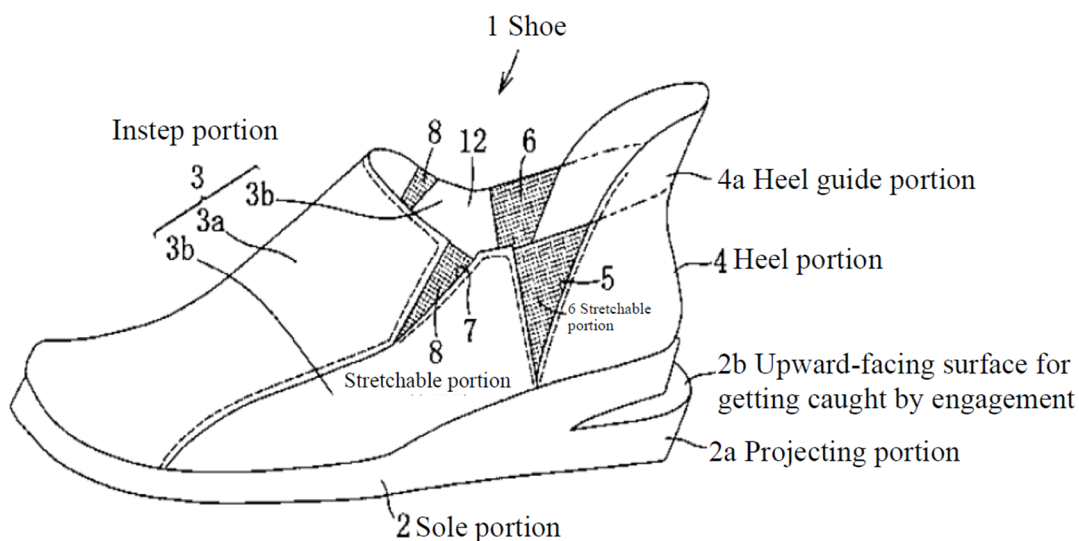
Accordingly, it would have been obvious to modify Kawase’s shoe to use Baek’s stretchable portions.

X. GROUND 4: Claims 8 and 17 Are Obvious Over Kawase And Kim

E. Overview of Kim (EX1012)

Kim discloses “a shoe that can be easily put on and taken off by people who cannot bend down, such as elderly people, physically disabled people and pregnant women.” Kim, Abstract. Kim achieves this with “a heel guide portion 4a” and “stretchable portions 6, 8 composed of a stretchable woven fabric member.” *Id.*

[FIG. 1]



Id., Fig. 1; *see also id.*, Figs. 3-7.

Kim explains that “the heel portion and the heel guide portion are composed of a hard core material, a soft skin material covering the outside of the core material, and a soft lining material covering the inside of the core material.” Kim, ¶10; *see also id.*, claim 3. “[W]hen putting on the shoe, the user first inserts, starting from the toes, the foot into the shoe, and then pushes the heel of the foot into the inside of the heel portion while sliding it along the heel guide portion.” *Id.*, ¶8. The “hard core material” of the heel and heel guide portions is provided “so a sufficient strength can be ensured in the heel portion and the heel guide portion, and the heel portion and heel guide portion can be prevented from losing their shape.” *Id.*, ¶17. Further, the “stretchable portions are composed of a stretchable woven fabric,” “a highly-flexible leather,” or “synthetic leather and a stretchable gathered rubber.” *Id.*, ¶¶11, 37-38. The stretchable portions provide that “the shoe opening 12 expands when the shoe 1E is put on or taken off, and the shoe 1E can be easily put on or taken off.” *Id.*, ¶37; *see also id.*, ¶25 (“[T]he shoe opening 12 expands when the two pairs of stretchable portions 6, 8 stretches.”).

F. Claim 8

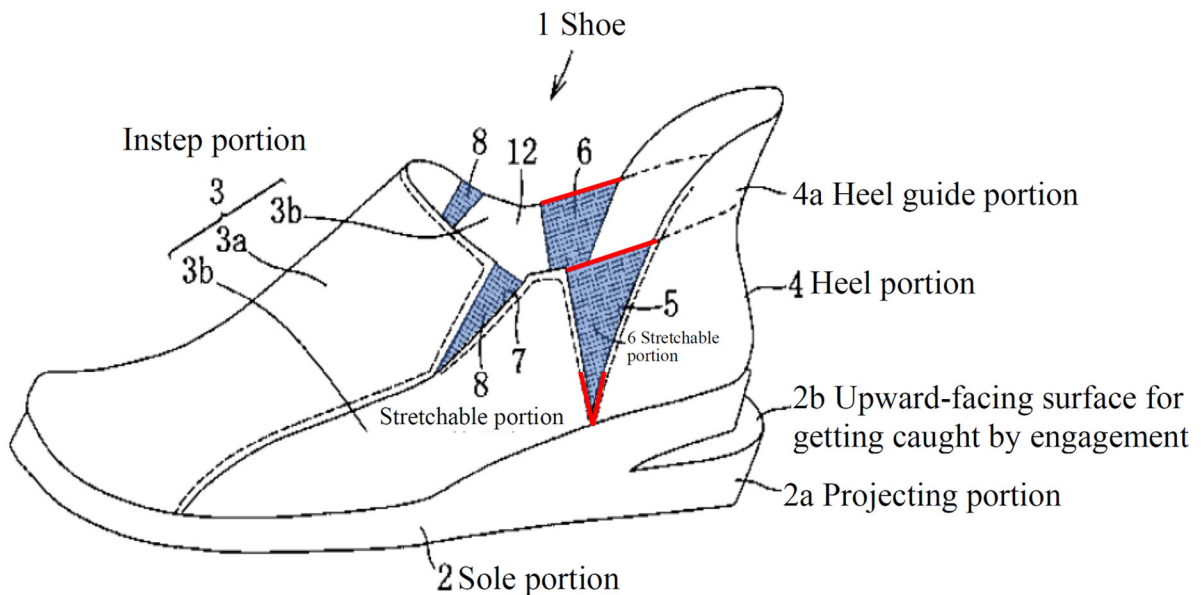
- **8: The rapid-entry shoe of claim 7, further comprising a slit provided in the upper, wherein the flexible material is provided in the slit.**

Claim 8 would have been obvious over Kawase in view of Kim. Kawase’s teachings for this claim are discussed above in Sections VII.C and IX.B and are

incorporated here by reference. Kawase anticipates claim 8. But should the Board determine that the limitations of claim 8 are not literally met by Kawase (they are), Skechers submits that claim 8 would also be obvious over Kawase in view of Kim.

Kim explicitly teaches “a slit provided in the upper, wherein the flexible material is provided in the slit” as recited in claim 8. For example, Kim discloses elastic “6 Stretchable portion[s]” adjacent to the lateral surface sides and extending from a topline of the shoe to the sole, and “8 Stretchable portion[s]” adjacent to the instep portion. Petitioner has annotated Figure 1 below, showing the elastic elements in blue and the “6 Stretchable portion[s]” extending to the topline and sole:

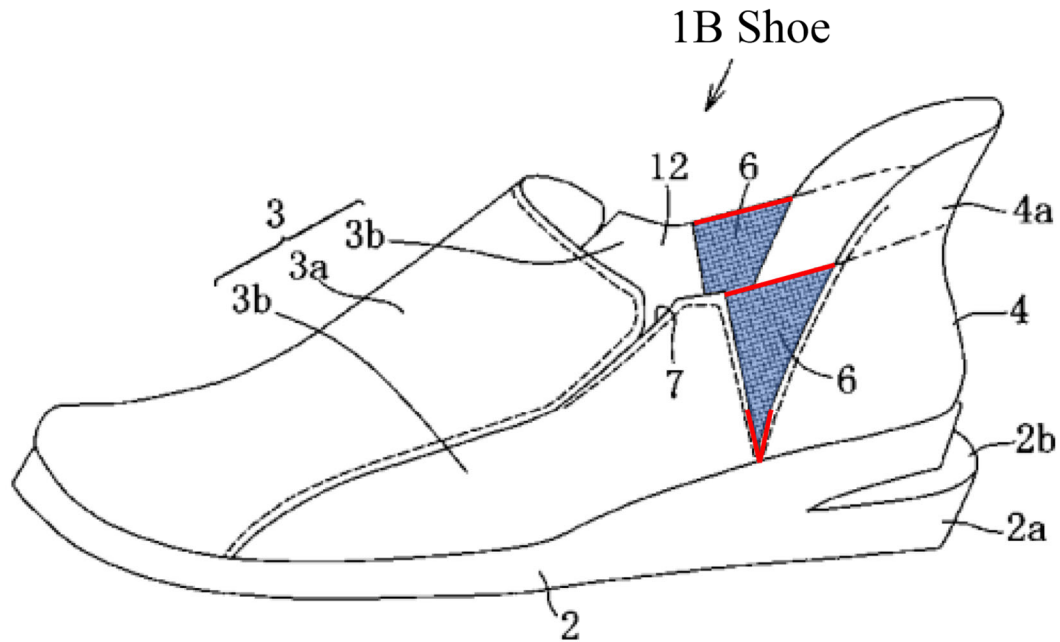
[FIG. 1]



EX1012, Fig. 1 (highlighting and color added). Kim describes “two pairs of stretchable portions 6, 8 composed of a stretchable woven fabric member at the

boundary between the instep portion 3 and the heel portion 4 and in the vicinity thereof.” *Id.*, Abstract. Kim also provides an example with only one pair of stretchable portions:

[FIG. 4]



Id., Fig. 4 (highlighting and color added).

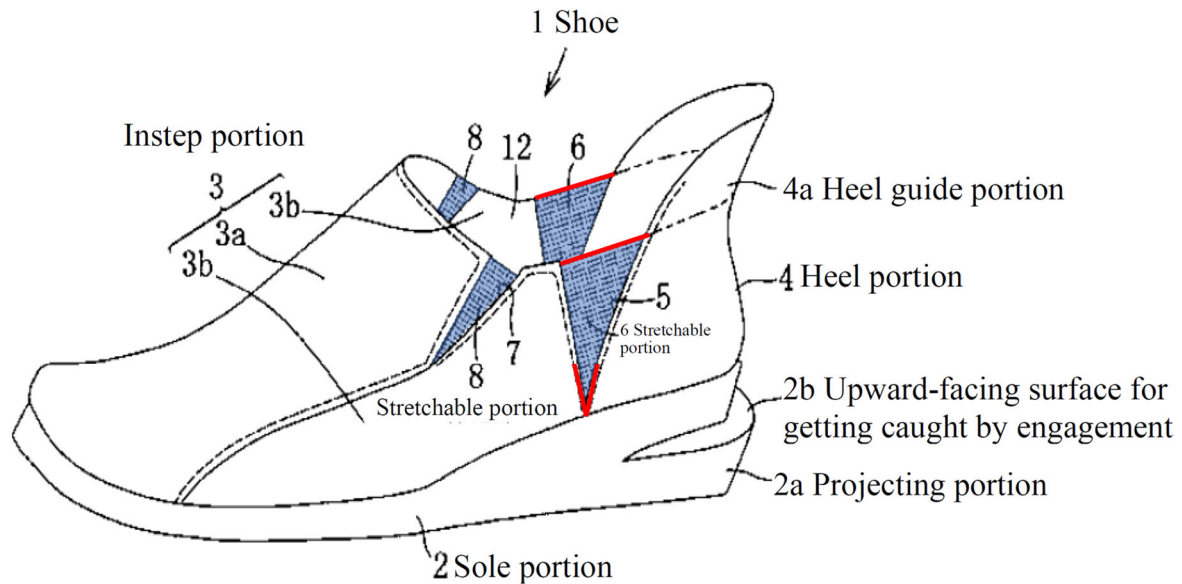
G. Claim 17

- **17: The rapid-entry shoe of claim 16, wherein the flexible material forms at least a portion of a topline of the rapid-entry shoe.**

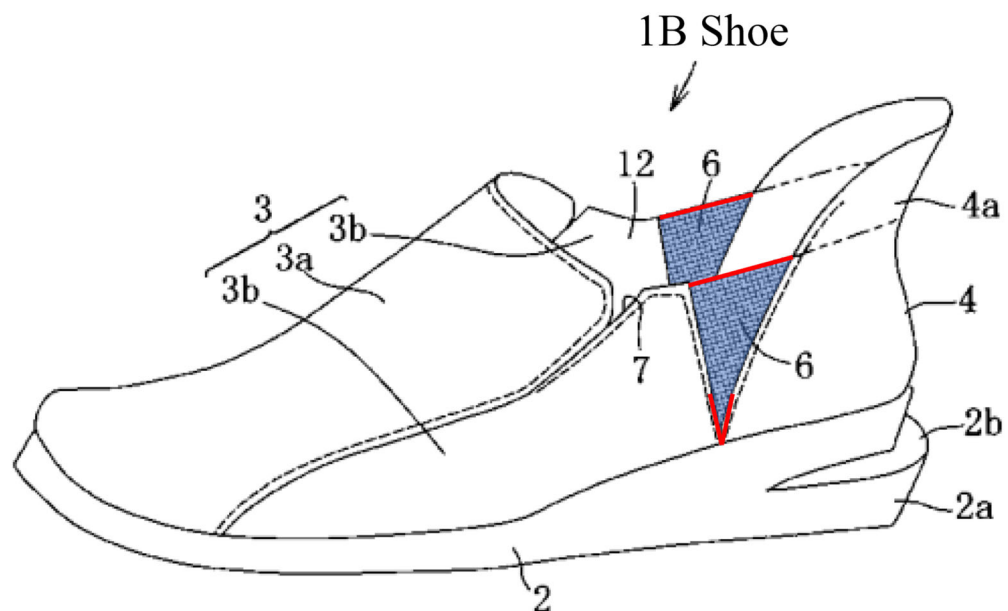
Claim 17 would have been obvious over Kawase in view of Kim. Kawase’s teachings for this claim are discussed above in Section IX.C and incorporated here by reference. Kim explicitly teaches the limitation of “the flexible material forms at least a portion of a topline of the rapid-entry shoe” as recited in claim 17. For

example, as noted above with respect to claim 8, Kim discloses elastic “6 Stretchable portion[s]” adjacent to the lateral surface sides and extending from a topline of the shoe to the sole, and “8 Stretchable portion[s]” adjacent to the instep portion:

[FIG. 1]



[FIG. 4]



EX1012, Figs. 1, 4 (highlighting and color added). As shown by the annotated red lines added by Petitioner above, each of Kim's stretchable portions clearly "forms at least a portion of a topline of the rapid-entry shoe" as recited in claim 17.

H. Combining Kawase and Kim

A POSITA would have found it obvious to incorporate Kim's stretchable portions within Kawase's slit region, and would have had a reasonable expectation of success in doing so. Among other things, a "motivation to combine may be found explicitly or implicitly in market forces; design incentives; the interrelated teachings of multiple patents; any need or problem known in the field of endeavor at the time of invention and addressed by the patent; and the background knowledge, creativity, and common sense of the person of ordinary skill." *ZUP, LLC v. Nash Mfg., Inc.*, 896 F.3d 1365, 1371 (Fed. Cir. 2018) (collecting cases). Here, the interrelated teachings of Kawase and Kim provide a teaching, suggestion, or motivation to combine them.

For example, Kawase and Kim each address similar technology and are directed to similar design incentives and market pressures—namely, facilitating easy donning and doffing by use of their technology. Kawase expressly states that "[a]n object of the present invention is to provide footwear that can be put on while standing without bending, squatting, or using hands or a shoehorn, and which, once put on, secures the foot, eliminating concerns about slipping sideways or coming off

while walking.” Kawase ¶ 5. Similarly, Kim addresses the problem “[t]o provide a shoe that can be easily put on and taken off by people who cannot bend down.” EX1012, Abstract. Kim further explains that its inventive structures are technology-independent: “In addition to leather shoes, it can be applied to various types of shoes such as boots, sneakers, synthetic leather shoes, cloth shoes, and sandals with heels.” *Id.*, ¶ 38; *see also DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2006) (“[A]n implicit motivation to combine exists . . . when the ‘improvement’ is technology-independent and the combination of references results in a product or process that is more desirable.”). Kawase and Kim also both directly teach solutions to the problems of donning and doffing of footwear without bending down or using a shoehorn. A POSITA would therefore have been motivated to consider their teachings and would have understood that their features are complementary and would enhance securement of the foot in a shoe. Accordingly, a POSITA seeking to address the problem of footwear that is easy to don or doff without the use of traditional methods such as laces or shoehorns would have been motivated to consider the teachings of both Kawase and Kim. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007) (“[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.”).

Additionally, the proposed combination of Kawase and Kim would also have been obvious to a POSITA because it is a combination of prior art elements according to known methods to yield predictable results. *See, e.g., KSR*, 550 U.S. at 416 (“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”); *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1380–81 (Fed. Cir. 2023) (“There is a motivation to combine when a known technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the prior art elements according to their established functions.”) (cleaned up). For example, Kim’s stretchable portions could easily have been added to Kawase’s slit region in the same configuration taught by Kim—i.e., “at the boundary between the instep portion 3 and the heel portion 4 and in the vicinity thereof,” EX1012, Abstract—in order to yield the predictable result whereby “the opening of the shoe expands.” *Id.*, ¶ 8. As noted above, minor adjustments in the position of components that otherwise do not impact the operation or functionality of those components in the context of the invention, as taught by Kim for its stretchable portions as compared to Kawase’s rubber cords, do not confer non-obviousness over the prior art. *In re Japikse*, 181 F.2d 1019, 1023 (CCPA 1950) (“[N]o invention in shifting the starting switch disclosed by Cannon to a different position since the operation of the device would not thereby be

modified.”); *In re Kuhle*, 526 F.2d 553, 555 (CCPA 1975) (“[T]he particular placement of the contact provides no novel or unexpected result. . . . [and] would be an obvious matter of design choice within the skill of the art.”).

Finally, it was well within the skill of a POSITA to modify the shoe of Kawase to use the stretchable portions of Kim. The materials and techniques for making and using the components of Kawase and Kim were standard well before the claimed priority date, and combining those components into a shoe would have been a predictable application of routine skill. EX1003, ¶ 36. For example, a POSITA would be able to easily make slight modifications to size, shape, and orientation of Kim’s stretchable portions based on the particularities of Kawase’s shoe, including its upper and movable heel portion, to effectively accommodate those components without experimentation or unconventional modifications. *See Intel*, 61 F.4th at 1381 (a claimed combination is obvious if “there was a known problem . . . in the art,” a reference “helped address that issue,” and “combining the teachings of [the references] wasn’t beyond the skill of an ordinary artisan.”).

Accordingly, it would have been obvious to modify Kawase’s shoe to use Kim’s stretchable portions.

XI. CONCLUSION

For the reasons set forth above, the challenged claims of the ’101 patent are unpatentable.

U.S. Patent No. 12,458,101

Dated: August 6, 2026

Respectfully submitted,

/s/ Samuel K. Lu

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CERTIFICATE OF WORD COUNT

I hereby certify, pursuant to 37 C.F.R. section 42.24, that the foregoing Petition contains 11,923 words, excluding the words in the table of contents, table of authorities, exhibit list, this certificate of word count, and certificate of service. The word count is based on the word count of the Microsoft Word program used to prepare the Petition.

Dated: August 6, 2026

/s/ Aron Berger
Aron Berger

CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. sections 42.6 and 42.105, that a complete copy of the Petition for *Inter Partes* Review of U.S. Patent No. 12,458,101 and Exhibits are being served via Priority Mail Express on August 6, 2026, the same day as the filing of the above-identified documents in the United States Patent and Trademark Office/Patent Trial and Appeal Board, upon the patent prosecution counsel of record for the Patent Owner:

164668 – FAST IP, LLC
1172 West 700 North
Suite 200
Lindon, UT 84042

Courtesy copies were also sent via ShareSite to Patent Owner's counsel of record in the related district court litigation at the following email address:

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/s/ Pia Kamath
Pia Kamath