

**UNITED STATES DISTRICT COURT
DISTRICT OF VERMONT**

VERMONT SAFETY DEVELOPMENTS	)	
LLC,	)	
	)	
Plaintiff,	)	Case No. 2:23-cv-00089
	)	
v.	)	
	)	
HEAD SPORT GmbH,	)	
	)	
Defendant.	)	

**HEAD SPORT GMBH’S INITIAL NON-INFRINGEMENT
AND INVALIDITY CONTENTIONS**

Pursuant to the entered Stipulated Discovery Schedule (Dkt. 23), Defendant Head Sport GmbH (“Head”) hereby provides to Plaintiff Vermont Safety Developments, LLC (“VSD”) its Initial Non-Infringement and Invalidity Contentions for claims of United States Patent No. 7,523,953 (the “’953 patent” or “Asserted Patent”).

VSD included as Exhibit 1 (Dkt. 1-1) to its Complaint (Dkt. 1) a claim chart allegedly mapping claims 30, 35-38, and 53-56 of the ’953 patent (the “Asserted Claims”) to United States Patent No. 11,325,018. When negotiating the discovery schedule, VSD served a corrected version of Exhibit 1, correcting omitted figures, and indicated that this supplemental claim chart would serve as VSD’s initial infringement contentions. *See* Correspondence on Nov. 30, 2023, from M. Borick to A. Berlenbach, et al. A few days later, Head alerted VSD that it did not consider the supplemental exhibit to serve as sufficient initial infringement contentions. *See* Correspondence on

Dec. 4, 2023, from A. Berlenbach to M. Borick, et al. Specifically, the corrected version of Exhibit 1 to the Complaint lacked clarity; did not include recognizable citations; and failed to provide any analysis of the accused products, instead mapping the claims of the '953 patent to United States Patent No. 11,325,018. *Id.* Thus, Head notified VSD that the exhibit did not provide sufficient notice of the infringement allegations against Head's accused products.

On December 22, 2023, VSD served preliminary infringement contentions. *See* Correspondence on Dec. 22, 2023, from C. Wolford to A. Parker, et al. The preliminary infringement contentions again lacked clarity, did not include proper citations, and largely mapped the asserted claims of the '953 patent to United States Patent No. 11,325,018. Head once again is not on sufficient notice of the infringement allegations against Head's accused products. Head's provision of these non-infringement and invalidity contentions is based on the Court's Scheduling Order (Dkt. 23), and is not an admission that VSD's preliminary infringement contentions are proper. Head reserves all rights and objections with respect to VSD's infringement contentions. Nevertheless, Head contends that the claims of the Asserted Patent are invalid, not infringed, and unenforceable.

Head's investigation of prior art and the technology and claim scope of the Asserted Patent, including the construction of the Asserted Claims, is still ongoing, and the following disclosure is based on information currently available to Head. The Court's claim constructions may affect Head's non-infringement and invalidity contentions. Accordingly, Head reserves the right to supplement or modify this

disclosure as new information becomes available through discovery, court order, or other investigation.

For any claim limitation that VSD may contend is not disclosed in the cited prior art, Head reserves the right to assert that the limitation is inherent, the limitation would have been obvious to a person of ordinary skill in the art, or that the limitation is disclosed in other prior art that may be combined with the cited prior art.

Head's non-infringement and invalidity contentions are based upon the Asserted Claims in VSD's preliminary infringement contentions served on December 22, 2023. To the extent VSD seeks to assert additional claims, or attempts to supplement or amend its infringement contentions, Head reserves the right to supplement its non-infringement and invalidity contentions. Head's identification of prior art is not an admission that the accused products practice the claims. Moreover, Head's non-infringement and invalidity contentions are not, and should in no way be seen as, admissions or adoptions as to any particular claim scope or construction, or as any admission that any particular claim limitation is met in any particular way. Head objects to any attempt to imply claim constructions from any identification of potential prior art.

Head's non-infringement and invalidity contentions take into account VSD's improper assertions of infringement and improper applications of the claims. Head does not agree with VSD's application of the Asserted Claims and denies infringement. Head's non-infringement and invalidity contentions are based in part on its present understanding of the Asserted Claims as VSD appears to apply those claims in its

preliminary infringement contentions. In those instances where Head contends that the Asserted Claims are invalid under 35 U.S.C. § 112 (*e.g.*, indefinite, insufficient written description, and/or not enabled), Head has applied the prior art in part in accordance with Head's assumption that VSD contends those claims are definite, have sufficient written description support in, and are enabled by the Asserted Patent. For example, if Head contends that a claim is indefinite under § 112, Head has prepared prior art invalidity charts for the claim based in part on VSD's interpretation and application of the claim in its preliminary infringement contentions (to the extent Head can understand VSD's infringement contentions). However, Head's prior art invalidity contentions do not represent Head's agreement or view as to the meaning, definiteness, written description support for, or enablement of any claim contained therein.

Head identifies specific portions of prior art references that disclose elements of the Asserted Claims in the attached claim charts. Although Head has identified citations for the claim elements, each and every disclosure of the same claim element in the prior art reference is not necessarily identified. It should be recognized that a person of ordinary skill in the art would generally read a prior art reference as a whole and in the context of other publications, literature, and general knowledge in the field. To understand and interpret any specific statement or disclosure in a prior art reference, a person of ordinary skill in the art would rely upon other information, including other publications and general marketing, scientific, or engineering knowledge. Head therefore reserves the right to rely upon currently unidentified

portions of the prior art references and on other publications and expert testimony to provide context and to help with understanding and interpretation of the identified portions.

Head also reserves the right to rely upon other portions of the prior art references, other prior art references, other publications and materials, and the analysis and testimony of experts to establish that the Asserted Claims are anticipated or would have been obvious to a person of ordinary skill in the art at the time of the alleged invention, including on the basis of modifying or combining certain references.

Where Head identifies a particular figure in a prior art reference, the identification should be understood to encompass the caption and description of the figure as well as any text relating to the figure in the specification and prosecution history in addition to the figure itself. Similarly, where an identified portion of text refers to a figure or other material, the identification should be understood to include the referenced figure or other material as well.

Head reserves the right to modify, amend, and/or supplement its non-infringement and invalidity contentions as discovery proceeds, after claim construction, or on any other permissible ground in accordance with the Federal Rules of Civil Procedure and/or the Local Rules, in view of, without limitation, information provided by VSD concerning its infringement allegations; discovery concerning the alleged conception and reduction to practice dates for any of the Asserted Claims; additional prior art obtained through discovery or further investigation, including without limitation discovery from VSD or third parties; expert discovery; the Court's

claim construction; or any other basis in law or in fact.

I. Non-Infringement Contentions

A. The Accused Products

VSD asserts that four different models of the “Protector” ski bindings literally infringe claims 30, 35-38, and 53-56 of the ’953 patent. Dkt. 1 at ¶ 8. These four different models of the “Protector” ski bindings are the Protector PR 13 GW Alpine Bindings (Product No: 100880-CP), the Protector PR 11 GW Alpine Bindings (Product No: 100882-CP), the Protector Attack 13 MN Freeski Bindings (Product No: 114500.SET), and the Protector PR1 1 GW Alpine Bindings (Product No: 114508-CP) (collectively, the “Accused Products”). Dkt. 1 at ¶ 8. VSD has not met its burden in proving that any of the Accused Products infringe any claim of the Asserted Patent.

B. VSD Has Failed to Show that the Accused Products Infringe the ’953 Patent

The plaintiff bears the burden of establishing that the allegedly infringing products contain each and every element of the asserted claims. VSD alleges that the accused products literally infringe claims 30, 35-38, and 53-56 of the ’953 patent. “Literal infringement requires that each and every limitation set forth in a claim appear in an accused product.” *V-Formation, Inc. v. Benetton Group SpA*, 401 F.3d 1307, 1312 (Fed. Cir. 2005); *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1331 (Fed. Cir. 2001). If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law. *V-Formation*, 401 F.3d at 1312; *Mas-Hamilton*

Grp. v. LaGard, Inc., 156 F.3d 1206, 1211 (Fed. Cir. 1998) (“If even one limitation is missing or not met as claimed, there is no literal infringement.” (internal citations omitted)).

The accused products do not infringe the asserted claims for at least the reasons identified in the attached claim chart. *See* Exhibit A - Non-Infringement by the Accused Products of the '953 patent.

II. Invalidity Contentions

For the reasons provided herein, claims 30, 35-38, and 53-56 of the '953 patent are invalid.

A. Identification of Invalidating References

The Asserted Claims are anticipated and/or rendered obvious by one or more of the prior art products, patent documents, and/or non-patent publications listed below, alone or in various combinations with each other or with the knowledge of a person of ordinary skill in the art.

1. U.S. Patent Application No. 2002/0101063 A1 (“Dodge”), published Aug. 1, 2002.
2. U.S. Patent No. 5,639,108 A (“Challande”), published Jun. 17, 1997.
3. Swiss Patent No. CH 679213 A5 (“Freudiger”), published Jan. 15, 1992.
4. European Patent No. EP 1190746 A2 (“Freudiger”), published March 27, 2002.
5. U.S. Patent No. 3,915,467 A (“Frechin”), published Oct. 28, 1975.
6. U.S. Patent No. 4,336,956 A (“Richert”), published Jun. 29, 1982.

7. French Patent No. FR 2749180 A1 (“Gilles”), published Dec. 5, 1997.
8. French Patent No. FR 2533833 A1 (“Bernard”), published Apr. 6, 1984.
9. German Patent No. DE 1954511 A (“Pfretschner”), published Jun. 11, 1970.
10. US 2004/0173994 A1 (“Howell”), published Sept. 9, 2004.
11. U.S. Patent No. 4,411,446 (“Spitaler”), published Oct. 25, 1983.
12. U.S. Patent No. 4,533,155 A (“Krob”), published Aug. 6, 1985.
13. French Patent No. FR 2480130 A1 (“Salomon”), published Oct. 16, 1981.
14. Austrian Patent No. AT 332277 B (“Sittmann”), published Dec. 15, 1975.
15. U.S. Patent No. 3,920,256 A (“Sittmann”), published Nov. 18, 1975.
16. German Patent No. DE 2340420 A1 (“Sittmann”), published Feb. 20, 1975.
17. German Patent No. DE 3804383 A1 (“Bogner”), published Aug. 24, 1989.
18. European Patent No. EP 0255910 B1 (“Pozzobon”), published Feb. 17, 1988.
19. Austrian Patent No. AT 379752 B (“Wittmann”), published Jul. 15, 1985.
20. U.S. Patent No. 4,572,539 A (“Salomon”), published Feb. 25, 1986.
21. U.S. Patent No. 5,518,264 (“Broughton”), published May, 21, 1996.

22. U.S. Patent Application No. 2006/0214393 A1 (“Dodge”), published Sept. 28, 2006.
23. U.S. Patent No. 3,667,770 (“Lawrence”), published Jun. 6, 1972.
24. U.S. Patent No. 4,629,208 (“Gertsch”), published Dec. 16, 1986.
25. U.S. Patent No. 4,971,351 (“Flick”), published Nov. 20, 1990.
26. U.S. Patent No. 3,625,536 (“Marker”), published Dec. 7, 1971.
27. European Patent No. EP 0508241 A1 (“Gorza”), published Oct. 14, 1992.
28. Japanese Patent No. JPH 11192338 A (“Numagami”), published Jul. 21, 1999.
29. Wunderly et al., *A Mechanical Alpine Ski Binding With Programmable Release*, in SKIING TRAUMA AND SAFETY: SEVENTH INTERNATIONAL SYMPOSIUM, Philadelphia: ASTM International, pp. 199-209, 1989.
30. Hull et al., *Design of an Actively Controlled Snow Ski Release Binding*, in JOURNAL OF BIOMECHANICAL ENGINEERING, September 1981.
31. Gulick et al., *Design of a Learning Binding for Alpine Skiing*, in SKIING TRAUMA AND SAFETY: THIRTEENTH VOLUME, ASTM Special Technical Publication, 1397, 30-49, 2000.
32. Ettlinger et al., *A Method to Help Reduce the Risk of Serious Knee Sprains Incurred in Alpine Skiing*, AM. J. SPORTS MED. 23, 531-537, 1995.

33. Nancy St-Onge, et al., *Effect of Ski Binding Parameters on Knee Biomechanics: A Three-Dimensional Computational Study*, MEDICINE & SCIENCE IN SPORTS & EXERCISE, 2004.

34. Crawford et al., *Ski Binding Minimum Retention Requirements*, in SKIING TRAUMA AND SAFETY: ELEVENTH VOLUME, ASTM Special Technical Publication, 1289, 93-108, 1997.

Discovery is ongoing. Head reserves the right to supplement the identity of any prior art as it becomes known.

B. The Asserted Patent is Invalid Under 35 U.S.C. §§ 102 and/or 103

The Asserted Patent describes an apparatus that was well-known in the prior art. The asserted claims are anticipated and/or rendered obvious by one or more of the prior art references listed above, alone or in various combinations with each other or with the knowledge of a person of ordinary skill in the art (“POSITA”).

Head provides exemplary claim charts identifying, without limitation, select elements from the claims taught by the prior art. *See* Exhibit B – Invalidity of the Asserted Claims by Freudiger-1 (CH 679213 A5); Exhibit C – Invalidity of the Asserted Claims by Freudiger-2 (EP 1190746 A2); Exhibit D – Invalidity of the Asserted Claims by Dodge (2002/0101063 A1). The attached prior art claim charts provide specific examples of where the prior art discloses, either expressly or inherently, limitations of the claims of the Asserted Patent. The charts are intended to be exemplary and non-exhaustive. Head does not waive any rights in citing other portions of the prior art references. Additional prior art, including but not limited to

the prior art listed above, alone or in various combinations, may also render the Asserted claims invalid under 35 U.S.C. §§ 102 and/or 103. Head does not waive any rights in relying on different prior art not specifically charted.

Discovery in this case is ongoing, and as it proceeds, to the extent Head is able to obtain additional information showing how the prior art applies to invalidate one or more of the Asserted Claims, Head will timely supplement these invalidity contentions as necessary. Head reserves the right to rely on any currently non-charted prior art, including but not limited to the prior art listed above, in support of Head's invalidity case. Based on at least the prior art listed above, it is evident that VSD did not invent a novel or nonobvious apparatus for releasably securing a ski boot to a ski.

C. The Asserted Claims are Invalid Under 35 U.S.C. § 112

The patent specification must conclude with one or more claims that “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention.” 35 U.S.C. § 112. To satisfy the definiteness requirement, a claim must inform a POSITA of the invention's scope with reasonable certainty when read in view of the specification and prosecution history. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). Claim definiteness is measured from the viewpoint of a POSITA at the patent's filing date. *Id.* at 909.

Under 35 U.S.C. § 112(a), a patent specification must contain a written description of the invention. The test for an adequate written description is whether the specification objectively demonstrates to a POSITA that the patent applicant actually invented, or “possessed,” the claimed subject matter when the patent

application was filed. *Ariad Pharm., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010); *Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1566 (Fed. Cir. 1997) (a “mere wish or plan” for obtaining the invention is not adequate).

A patent specification must teach a POSITA how to make and use the claimed invention without undue experimentation, which is known as the enablement requirement. 35 U.S.C. § 112(a); *ALZA Corp. v. Andrx Pharm., LLC*, 603 F.3d 935, 940 (Fed. Cir. 2010). To determine whether experimentation would have been undue, courts typically consider: “(1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.” *Id.* (citing *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988)).

The claims of the Asserted Patent reciting one or more of the following claim limitations are invalid under 35 U.S.C. § 112 as being indefinite, lacking written description, and/or not being enabled:

Claim Term	Claim Number(s)	35 U.S.C. § 112 Issue
a first release	30, 35, 36, 37, 38, 53, 54, 55, 56	Indefinite, Written Description, Enablement
said ski binding assembly including release logic that causes the ski binding assembly to release the ski boot at said first release in response to a release condition	30, 53	Indefinite, Written Description, Enablement

assess, relative to a first axis, a first loading internal to the ski system caused by an external loading applied to the ski system	30, 53	Indefinite, Written Description, Enablement
assess, relative to a second axis spaced from said first axis and substantially parallel to said first axis, a second loading internal to the ski system caused by the external loading	30, 53	Indefinite, Written Description, Enablement
determine whether or not the release condition is occurring as a function of both of the first loading and the second loading	30, 53	Indefinite, Written Description, Enablement
wherein said ski binding assembly is configured to determine a force-couple at a third axis from said first loading and said second loading	30	Indefinite, Written Description, Enablement
said release logic is configured to determine whether or not the release condition is occurring as a function of the force-couple	30	Indefinite, Written Description, Enablement
said ski binding assembly is configured to determine the force-couple from the first moment and the second moment	34	Indefinite, Written Description, Enablement
wherein said ski binding assembly has a second release	35, 53	Indefinite, Written Description, Enablement

said first release being an attenuated release relative to said second release	35, 53	Indefinite, Written Description, Enablement
wherein said first release is at least 20% less than said second release	36, 54	Indefinite, Written Description, Enablement
a first release torque . . . a second release torque	37, 38, 55, 56	Indefinite, Written Description, Enablement
wherein said first release torque is at least 20% less than said second release torque	38, 56	Indefinite, Written Description, Enablement

D. The Asserted Claims are Unenforceable

Upon information and belief, VSD failed to comply with its obligations under 37 C.F.R. § 1.56 to disclose prior art material to patentability and withheld this material information with specific intent to deceive the Patent Office, and thus VSD engaged in inequitable conduct before the Patent Office to get the '953 patent allowed. Specifically, VSD failed to disclose prior art from Mr. Dodge, including at least U.S. Patent Application No. 2002/0101063 A1. The '953 patent is therefore unenforceable.

Dated: February 2, 2024

Respectfully submitted,

/s/ Aaron L. Parker

David M. Pocius
PAUL FRANK + COLLINS P.C.
P. O. Box 1307
Burlington, VT 05402-1307
(802) 658-2311
dpocius@pfclaw.com

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Aaron L. Parker (*pro hac vice*)
Anthony J. Berlenbach (*pro hac vice*)
FINNEGAN, HENDERSON, FARABOW
GARRETT & DUNNER, LLP
901 New York Avenue, NW
Washington, DC 20001-4413
Telephone: (202) 408-4000
aaron.parker@finnegan.com
anthony.berlenbach@finnegan.com

Counsel for Head Sport GmbH