

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HEAD SPORT GMBH,
Petitioner,

v.

VERMONT SAFETY DEVELOPMENTS LLC.,
Patent Owner.

Case IPR2024-01099
Patent No. 7,523,953

Declaration of Kelley M. Hayes Greenhill Regarding Ex. 1006

I, Kelley M. Hayes Greenhill, state and declare as follows:

I. Introduction

1. I have prepared this Declaration in connection with the Petition for *Inter Partes* Review of U.S. Patent No. 7,523,953, which I understand will be filed concurrently with this Declaration.

2. I am currently a Senior Manager with the Research & Information Services team at Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, located at 901 New York Avenue, NW, Washington, DC 20001-4413.

3. I am over eighteen years of age, and I am competent to make this Declaration. I make this Declaration based on my own personal knowledge, and my knowledge of Library Science practices.

4. I earned a Master of Science in Library Science from the Catholic University of America in 1995, and a Bachelor of Arts in Political Science from Duquesne University in 1989. I have worked as a librarian for over thirty years. I have been employed at Finnegan, Henderson, Farabow, Garrett & Dunner, LLP since 2019. Before that, from 1995–2015, I was employed in the Library Department of Sterne, Kessler, Goldstein & Fox, PLLC. And from 2015–2019, I was employed in the Knowledge and Research Service Group (formerly, Information Research Service) at Northrop Grumman Corporation.

5. I am a member of the American Association of Law Libraries.

II. Standard Library Practices for Receiving, Cataloging, and Making Materials Publicly Available

6. I have knowledge of and experience with standard library practices regarding the receipt, cataloging, and making materials available to the public. I have knowledge of and experience with the Machine-Readable Cataloging (MARC) system, an industry-wide standard that libraries use to catalog materials. I also have knowledge of and experience with OCLC (previously called Online Computer Library Center, Inc.) and OCLC Control Numbers, which are unique accession numbers assigned by the OCLC system when a bibliographic record is catalogued and made available to the public through WorldCat. OCLC control numbers are often used by the public to search for specific records within WorldCat, the latter being an online database of 548,338,915 bibliographic records from libraries throughout the world as of September 2023 (Source: <https://www.oclc.org/en/worldcat/inside-worldcat.html>).

7. The MARC record system was developed during the 1960s to standardize bibliographic catalog records so they could be read by computers and shared among libraries. By the mid-1970s, MARC had become the international standard for cataloging bibliographic materials and is still used today. Many libraries provide public access to their MARC records via the Internet and/or their electronic cataloging systems at the library. In a MARC

record, each field provides specific information about the cataloged item, including how materials are held and when they were made available to the public.

8. The MARC record system uses specific three-digit numeric codes (“field tags”) from 001-999 to identify each field in a catalog record. For example, field tag 008 provides the six-digit date the item was received and catalogued (Date entered on file). The first six characters of field tag 008 are always in the “YYMMDD” format. Descriptions for all of the character positions of field tag 008 are outlined here:
<https://www.loc.gov/marc/bibliographic/bd008a.html>

9. MARC field tags related to this Declaration are explained here. MARC field tag 245 identifies the full title statement for the work and field tag 260 identifies the place of publication, name of publisher, and copyright date of the publication.

10. Based on standard library practice, when a library receives an item, it stamps (and/or labels) the item with the library name, barcode, often with a date that is within a several days or a week of receipt. Then, the library will catalog the item within a matter of a several days of receiving it.

11. Normally, after an item is cataloged, the public may access the item by searching a library catalog, browsing the library shelves, and either requesting

or electronically accessing the item from the library. Standard library practice is to make the item available to the public within a several days of cataloging it.

III. Serial Publications

12. A serial publication, often known as a “journal” or “periodical,” is a resource that is issued in successive parts and has no predetermined conclusion. These successive parts are commonly referred to as “issues,” and each issue is usually chronologically numbered and dated. The presence of enumeration, years of coverage, and/or other chronological information also indicates a serial publication.

13. There are significant differences between cataloging finite resources (books/monographs) and continuing resources (serials). For serials, the catalog record provides information about the serial as a whole, including the first or earliest available issue. It also provides information as to holdings – the volumes and issues, with dates, received by the library and made available to the public. In serials cataloging, there are identifying characteristics unique to serials that are slightly different from monographs (books). The issue date for a print serial publication, for example, generally appears on the cover (front or back), the masthead page, the title page (if any), the table of contents page(s), or on the pages of the individual articles contained in the issue. The initial periodicals record will sometimes not reflect all subsequent changes in publication details

(including minor variations in title, etc.). More information regarding the unique aspects of cataloging serials can be found at this link: <https://www.loc.gov/aba/pcc/conser/scctppt/Basic-2014/Basic-Trainee-Mannual.pdf>.

IV. Ownership and Date-Stamp

14. Libraries have different policies on whether or not to date stamp publications. It is becoming increasingly common for libraries to no longer date stamp publications. In the past, it was standard practice to affix an ownership stamp somewhere within the publication, usually on the cover page, verso of the cover page, or a designated page within the publication. The timing of when an ownership stamp is entered on the monograph or periodical can vary from one library to another. It could occur when received in acquisitions after shipment to the library or at the time of cataloging. Therefore, it is possible for there to be instances when the date of receipt precedes the cataloging date or vice versa.

V. Open Access Resources

15. Open Access (OA) refers to all electronic resources that are available online without any licensing or copyright restrictions. A publication is considered 'open access' when there are no financial, legal, or technical barriers to accessing it. This means anyone can read, download, copy, distribute, print, search for, and search within the information or use it for education or any other

legal purpose. Examples of Open Access resources include articles, journals, books, conference proceedings, theses, videos, music, and more. Open Access has become increasingly popular in scholarly research and communication as academic resource prices have significantly increased over the past decade, and academic libraries' budgets have not kept pace with these new expenses.

VI. ASTM Digital Library

16. The American Society for Testing and Materials, ASTM International is a global organization that governs over 12,000 standards. The organization aims to enhance performance and instill confidence in the products and services people use daily. They offer innovative business services that improve millions of lives. ASTM Digital Library covers a broad range of engineering disciplines including aerospace, biomedical, chemical, civil, environmental, geological, health and safety, industrial, materials science, mechanical, nuclear, petroleum, soil science and solar engineering. While ASTM is best known for its standards, the Digital Library is a collection of nearly every other ASTM publication – 1,500+ eBooks and 60,000+ papers and chapters dating back to 1932.

VII. Different Between Printed and Published

17. Printing and publishing are two different terms that refer to various aspects of book production. Printing specifically refers to the physical process

of reproducing text and images from a computer onto paper and bookbinding. On the other hand, publishing involves the entire process of developing, acquiring, producing, and disseminating information. The main distinction between these two terms is that printing involves producing physical books, while publishing involves making them available to interested readers.

18. It used to be common practice for eBooks to be printed later. For instance, the book "Skiing Trauma and Safety: Thirteenth Volume, ASTM Special Technical Publication 1397" was published in January 2000 and later printed in December 2000.

II. Exhibit 1006 (“*Gulick*”)

19. This Declaration relates to the public availability, accessibility, and authenticity of the following: Gulick, D. W. and Mote Jr., C. D., "Design of a Learning Binding for Alpine Skiing," *Skiing Trauma and Safety: Thirteenth Volume, ASTM Special Technical Publication 1397*, R. J. Johnson, P. Zucco, and J. E. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2000, pp. 30-49. I understand that *Gulick* has been submitted as **Exhibit 1006** in this proceeding.

20. *Gulick* was received from representatives of the University of Wisconsin – Madison, Wisconsin Tech Search (WTS).

21. I have inspected *Gulick*. *Gulick* appears to be in a condition that

creates no suspicion about its authenticity. Specifically, the text of the article is complete, no pages are missing, the text on the pages appear to flow seamlessly, from one page to the next and there are no visible alterations to the document. I understand from WTS's representative that *Gulick* was found within University of Wisconsin – Madison Libraries, a place where, if authentic, a copy of this journal would likely be found.

22. As detailed below, I reviewed the University of Wisconsin – Madison Libraries MARC record for its print copies of the *ASTM special technical publication*, containing Gulick, D. W. and Mote Jr., C. D., "Design of a Learning Binding for Alpine Skiing," *Skiing Trauma and Safety: Thirteenth Volume, ASTM Special Technical Publication 1397*, 2000, pp. 30-49. **Appendix A** to this Declaration is a true and correct copy of the MARC record for *Gulick*.

23. **Appendix B** to this Declaration is a true and correct copy of the University of Wisconsin – Madison Libraries public catalog and MARC for its copy of the serial publication ASTM Special Technical Publication, containing Gulick, which was downloaded from: <https://search.library.wisc.edu/catalog/999488506602121>.

24. The University of Wisconsin – Madison Libraries MARC record for *Gulick* identifies the fixed data elements of MARC field tag 008 as 760920d19612009pauuu m 0 a0eng c. This indicates that the serial the

ASTM Special Technical Publication was first catalogued by the University of Wisconsin – Madison Libraries on September 20, 1976. The publication status code “d” appearing in MARC field tag 008 refers to “Continuing resource ceased publication” as of 2009. Based on this MARC record and standard processing by the University of Wisconsin – Madison Libraries, *Gulick* would have been catalogued and made available in print to the public in 2000.

25. The University of Wisconsin – Madison Libraries MARC record for ASTM special technical publication containing *Gulick* includes field tag 245, which denotes the title and statement of responsibility for the work as “\$aASTM special technical publication.”

26. In the University of Wisconsin – Madison Libraries MARC catalog record, field tag 260 denotes information relating to the place of publication, name of publisher, and date of publication of ASTM special technical publication as “\$aPhiladelphia, Pa. :\$bAmerican Society for Testing and Materials,\$c1961-2009.” Subfield code “a” refers to the place of publication. Subfield code “b” refers to the name of the publisher. Subfield code “c” refers to date of publication, which for this record is 1961-2009.

27. The University of Wisconsin – Madison Libraries public catalog record for ASTM special technical publication sets forth the holdings a print resource and available to the public seeking access to *Gulick*.

28. **Appendix B** to this Declaration is a true and accurate copy of the ASTM Digital Library record for *Gulick*. This record indicates the article entitled “*Design of a Learning Binding for Alpine Skiing*,” was published in *Skiing Trauma and Safety: Thirteenth Volume*. The publication date is January 1, 2000.

29. Based on the information in **Appendix B**, it is clear that the Skiing Trauma and Safety: Thirteenth Volume issue of containing *Gulick* was added to ASTM Digital Library in January 2000. It is my professional opinion, *Gulick* would have been disseminated within a matter of several days or a week of January 1, 2000.

30. Based on the evidence presented above, it is my professional opinion that *Gulick* is an authentic document and would have been made publicly available and accessible at the University of Wisconsin – Madison Libraries in January 2000.

VIII. Conclusion

31. In signing this Declaration, I understand it will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I understand I may be subject to cross-examination in this case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-

examination within the United States during the time allotted for cross-examination.

32. I declare that all statements made herein of my knowledge are true, that all statements made on information and belief are believed to be true, and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed on June 26, 2024, in Washington, DC.


Kelley M. Hayes Greenhill

APPENDIX A



Journals, Magazines, Newspapers

ASTM special technical publication

AVAILABLE AS
Physical

Available Issues / Request a Copy

Save to Lists

Citation

Details

Physical Locations

Multiple items exist. Use Available Issues / Request a Copy to see what's on the shelf.

Middleton Shelving Facility

by request only
S AM28 SP (59-L-1)

Notes
cancelled after 2012

This Location Has
no. 305-310, 310A, 311-315, 315D-315I, 316-329, 329-S1, 330, 331, 331A, 332, 332A, 332A (3rd ed,1977), 333, 333A, 333C-333E, 334-3403A, 404-442, 442A, 443-447, 447A-447B, 448-470,
470A-470B, 471-509, 509A, 510, 510A, 511-512, 512A, 513-585, 585A, 586-736, 738-785, 787-801, 803-1362,
1364-1409, 1411-1434, 1436-1440, 1442-1456, 1458-1482, 1484, 1486-1506

Supplements
1 v.442A
1 v.621-v.621

Publication Details

OTHER TITLES

Some issues have title: STP
Some issues have title: Special technical publications (STP)

FORMAT

Journals, Magazines, Newspapers

LANGUAGE

English

CONTRIBUTORS

[American Society for Testing and Materials](#)
[ASTM International](#)

PUBLICATION

Philadelphia, Pa. : American Society for Testing and Materials, 1961-2009
-2009 ; West Conshohocken, PA : ASTM International

PUBLICATION DATES

No. 305-1506

PHYSICAL DETAILS

volumes : illustrations ; 23-28 cm

ISSNS

0066-0558

OCLC

ocm06959147

PRECEDING TITLES

[Special technical publication \(American Society for Testing Materials\)](#)

SUCCEEDING TITLES

[Journal of ASTM International. Selected technical papers](#)

Notes

Chemical abstracts 1969-

Subjects

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Newspape...

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Newspape...

Groundwater series =
Grondwaterreeks

Physical

Journals, Magazines,
Newspape...

Hospital management ser

Physical

UNC

UNC

UNC

UNC



Additional Information

Digital Copies at HathiTrust

Information from the Web

Library Staff Details

MARC Bibliographic Record

LEADER	02036cas a2200541 a 4500
001	992197093602122
005	20150420151148.0
008	760920d19612009pauuu m 0 a0eng c
010	\$asf 89010003 \$zsn 84006663
012	\$b3\$j0\$11
019	\$a2453278
022	0_ \$a0066-0558\$10066-0558\$21
030	\$aASTTA8
035	\$a(OCOLC)ocm06959147
035	\$a219709
035	\$a(WU)219709-uwmadisondb
035	\$z(OCOLC)2453278
035	\$a(EXLNZ-01UWI_NETWORK)999488506602121
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042	\$ansdp\$apec
049	\$aGZMA
050	00 \$aUNC
082	14 \$a620\$211
210	0_ \$aASTM spec. tech. publ.

222	_0	\$aASTM special technical publication
245	00	\$aASTM special technical publication.
246	3_	\$aAmerican Society for Testing and Materials special technical publication
246	30	\$aSpecial technical publication
246	1_	\$iSome issues have title:\$aSTP
246	1_	\$iSome issues have title:\$aSpecial technical publications (STP)
260		\$aPhiladelphia, Pa. :\$bAmerican Society for Testing and Materials,\$c1961-2009.
260	3_	\$3-2009 ;\$aWest Conshohocken, PA :\$bASTM International
300		\$avolumes :\$billustrations ;\$c23-28 cm
336		\$atext\$btxt\$2rdacontent
337		\$aunmediated\$bn\$2rdamedia
338		\$avolume\$bnc\$2rdacarrier
362	0_	\$aNo. 305-1506.
510	2_	\$aChemical abstracts\$x0009-2258\$b1969-
650	_0	\$aMaterials\$xTesting.
690		\$aBuilding materials\$xCollected works.\$9LOCAL
690		\$aStrength of materials\$xCollected works.\$9LOCAL
710	2_	\$aAmerican Society for Testing and Materials.
710	2_	\$aASTM International.
762	1_	\$x1040-3094
762	1_	\$x1096-1828
780	00	\$tSpecial technical publication (American Society for Testing Materials)\$x0066-0558\$w(DLC)\$f 8
785	00	\$tJournal of ASTM International. Selected technical papers\$w(DLC) 2010254739\$w(OCOLC)65022072
850		\$aDLC\$aDeU\$aGEU\$aICU\$aNbU-U\$aNvU\$aWaU
891	20	\$81\$a(*)\$i(year)\$wx
891	40	\$81.1\$a<1451>\$i<2003>
997		\$aMARCIVE

MMS IDs

Document ID: 999488506602121

Network Electronic IDs:

Network Physical IDs: 999488506602121

mms_mad_ids: 992197093602122

APPENDIX B

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SYMPOSIA PAPER

Published: 01 January 2000

STP12863S

Design of a Learning Binding for Alpine Skiing

[Source](#)

Advances in binding design for alpine skiing have been unable to eliminate injuries to the lower leg and knee. Studies to identify appropriate release settings have concluded that the maximum forces during skiing are not predictable using any measurable anthropometric parameters, and furthermore, that they are variable during skiing due to changes in snow conditions, skiing style, and other unmeasurable variables. This paper considers the feasibility of an alpine skiing binding with variable release settings that adapt to changes in the force magnitudes during skiing. Release settings are determined according to difference equations involving previous and current force measurements. To facilitate comparison with contemporary commercial bindings, the learning binding design includes three release modes: external twist and internal twist governed by the lateral force component at the toe and forward lean governed by the vertical force component at the heel. Binding forces measured during more than 36 min of skiing experiments are used to determine values for the design parameters within the adaptive algorithm. Then the performance of the learning binding is judged by comparing the release settings to the settings recommended by ASTM Standard F 939-93.

The release settings of the learning binding algorithms are on average more than 22% less than the ASTM recommended settings for each skier, with a maximum reduction of 50% for one subject. No inadvertent releases are predicted throughout the skiing data. The reduced release settings adapt to temporal changes in forces and yield earlier releases in several falling scenarios experienced in the data. These results suggest that a learning binding can significantly improve the safety of alpine skiing.

Author Information

Gulick, DW

University of California, Berkeley, CA

Mote, CD

University of Maryland, College Park, MD

Format

PDF

Price: \$25.00

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Page 20 of 21

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Page 21 of 21

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2/2