

ASPEN CASEBOOK SERIES

WILLIAM
M. G. WILSON

WILLIAM M. G. WILSON
WILLIAM M. G. WILSON
WILLIAM M. G. WILSON

*Second
Edition*



Wolters Kluwer
Law & Business

ASPEN CASEBOOK SERIES

The Law of
PATENTS

Second Edition

Craig Allen Nard

*Tom J.E. and Bette Lou Walker Professor of Law
Case Western Reserve University
School of Law*



Wolters Kluwer

Law & Business

AUSTIN BOSTON CHICAGO NEW YORK THE NETHERLANDS

© 2011 Aspen Publishers. All Rights Reserved.
<http://AspenLaw.com>

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher. Requests for permission to make copies of any part of this publication should be mailed to:

Aspen Publishers
Attn: Permissions Department
76 Ninth Avenue, 7th Floor
New York, NY 10011-5201

To contact Customer Care, e-mail customer.service@aspenpublishers.com, call 1-800-234-1660, fax 1-800-901-9075, or mail correspondence to:

Aspen Publishers
Attn: Order Department
PO Box 990
Frederick, MD 21705

Printed in the United States of America.

2 3 4 5 6 7 8 9 0

ISBN 978-0-7355-9649-8

Library of Congress Cataloging-in-Publication Data

Nard, Craig Allen, 1965-

The law of patents / Craig Allen Nard. — Second edition.
p. cm.

Includes bibliographical references and index.

ISBN 978-0-7355-9649-8 (alk. paper)

1. Patent laws and legislation — United States — Cases. I. Title.

KF3095.N37 2010
346.7304'86 — dc22

2010046221

About Wolters Kluwer Law & Business

Wolters Kluwer Law & Business is a leading provider of research information and workflow solutions in key specialty areas. The strengths of the individual brands of Aspen Publishers, CCH, Kluwer Law International and Loislaw are aligned within Wolters Kluwer Law & Business to provide comprehensive, in-depth solutions and expert-authored content for the legal, professional and education markets.

CCH was founded in 1913 and has served more than four generations of business professionals and their clients. The CCH products in the Wolters Kluwer Law & Business group are highly regarded electronic and print resources for legal, securities, antitrust and trade regulation, government contracting, banking, pension, payroll, employment and labor, and health-care reimbursement and compliance professionals.

Aspen Publishers is a leading information provider for attorneys, business professionals and law students. Written by preeminent authorities, Aspen products offer analytical and practical information in a range of specialty practice areas from securities law and intellectual property to mergers and acquisitions and pension/benefits. Aspen's trusted legal education resources provide professors and students with high-quality, up-to-date and effective resources for successful instruction and study in all areas of the law.

Kluwer Law International supplies the global business community with comprehensive English-language international legal information. Legal practitioners, corporate counsel and business executives around the world rely on the Kluwer Law International journals, loose-leafs, books and electronic products for authoritative information in many areas of international legal practice.

Loislaw is a premier provider of digitized legal content to small law firm practitioners of various specializations. Loislaw provides attorneys with the ability to quickly and efficiently find the necessary legal information they need, when and where they need it, by facilitating access to primary law as well as state-specific law, records, forms and treatises.

Wolters Kluwer Law & Business, a unit of Wolters Kluwer, is headquartered in New York and Riverwoods, Illinois. Wolters Kluwer is a leading multinational publisher and information services company.

PREFACE TO THE SECOND EDITION

Patent law jurisprudence has historically moved at a snail's pace, an accretion comparable to familiar first-year common law courses such as property and contracts. No longer. All of patent law's institutional players have become fully engaged over the past several years. The Supreme Court has renewed its interest in the useful arts, Congress has made it a yearly tradition to engage — unsuccessfully — in patent reform proposals, the USPTO has skillfully navigated the patent law landscape to effect change, and the Federal Circuit, which is patent law's principle policy driver, has asserted itself in a more pronounced way, fully cognizant that other actors are paying close attention. All of this means that a second edition of *The Law of Patents* is due. While there hasn't been much legislation to speak of, the courts and the USPTO have been busy. Since the first edition there have been significant developments relating to patent law's disclosure requirements, eligible subject matter, nonobviousness, enforcement, defenses, and remedies. All of these changes (or at least, what I think are the most important) are represented and discussed in the second edition. Moreover, I've made an attempt to provide a richer discussion of the prosecution process in Chapter 1, reflecting the divergence in practice among various industries as well as recent empirical findings.

In addition, there are two noteworthy structural changes to the second edition. First, a good portion of claim interpretation — which appeared entirely in Chapter 7 in the first edition — forms part of Chapter 2, thus emphasizing to a greater degree the importance of the claim in patent law. (The *Markman* case remains part of Chapter 7, however.) Second, the chapter on non-obviousness immediately follows the chapter on novelty, with statutory bars being covered after nonobviousness. Beyond the substantive and structural changes, *The Law of Patents* remains largely unchanged. There are still *Policy* and *Comparative Perspectives*, extensive Comments, relevant statutory sections reproduced in the back of the book, and a casebook website at <http://law.case.edu/lawofpatents/>. This site provides PDFs of all of the patents-in-suit in the principal cases, relevant secondary material broken down by chapter, and links to important patent law/IP-related documents and websites.

As with the first edition, I welcome the comments of adopters and others steeped in patent law at craig.nard@case.edu.

Craig Allen Nard

Shaker Heights, Ohio
October 2010

PREFACE TO THE FIRST EDITION

Patent law has rapidly assumed center stage in the global marketplace and information economy, presenting some of the most exciting, important, and complex issues facing not only our legal system, but also the business and technology communities. Indeed, patent law's presence in our legal, economic, and social fabric has increased dramatically in the past 25 years, and particularly, since the beginning of this century. The growing significance of patent law is understandable given the importance of intellectual capital to a firm's economic well being and the fact that for the past decade—and perhaps longer—a majority of firm value has been attributable to intangible assets. As such, legally protecting these assets—oftentimes with patents—is instrumental to a firm's business strategy. Constructing and judiciously managing a patent portfolio can lead to competitive advantages and lucrative revenue streams, through licensing, commercialization, or blocking competitor entry. Patent law's enhanced profile is manifested in the significant increase in patent applications filed in various countries throughout the world over the past several years. In the United States, for instance, 162,708 applications were filed in 1990; in 2006, there were 415,551.

In addition to raw numbers and corporate patent strategies, I am personally reminded of patent law's star power every academic year, not only because I teach and write about this particular area of the law, but also because of the number of law students who have an interest in pursuing careers in patent law. It was not uncommon for patent attorneys of my generation (I received my law degree in 1990) to “fall into” patent law after a few years working as an engineer or a chemist—law school just wasn't on the radar screen for many of us during college. While this remains an indirect route to the patent world, many more students today major in engineering or a physical or biological science fully expecting to go to law school with patent law in their sights. (Or, at least, students majoring in technical fields become aware of patent law soon after entering university.) This student demand prompted a number of law schools (including my own) to create centers and courses devoted to law and technology and intellectual property. Concomitantly, law schools hired people with an interest in teaching and writing in patent law, which has led to an extraordinary amount of patent law scholarship in recent years.

This book was designed with the aforementioned student and academic in mind. The book begins with a discussion of the history and economics of patent law, as well as an exploration of what a patent is and how one is obtained. With this foundation in place, chapter two introduces patent law's important disclosure and claiming requirements. These requirements are explored first because

they introduce the student to the entire patent document and capture patent law's "big picture," namely the bargain between the inventor and society. Chapter three discusses eligible subject matter and the utility requirement. Chapters four through six explore, respectively, the patentability requirements of novelty (chapter four), statutory bars (chapter five), and non-obviousness (chapter six). Among these requirements, non-obviousness has the most practical significance and can be a particularly robust policy tool. This requirement demands that the inventor provide society with an invention that is more than simply new, what the Europeans call an "inventive step." Chapter seven is devoted to patent enforcement, and includes some of patent law's most controversial and important issues and doctrines such as claim interpretation and the doctrine of equivalents. Defenses to patent infringement are explored in chapter eight, including the role of antitrust and issues at the intersection of contract and patent law. And lastly, chapter nine is about remedies, namely money damages and equitable relief.

Four additional features of the book are worth mentioning. First, most of the chapters have *Comparative Perspectives* or *Policy Perspectives*. The former is designed to explore a particular issue through a comparative lens, with an emphasis on Europe and, less so, Japan. Patent law is a global affair, and having insight into how other jurisdictions approach a given issue can inform and enrich one's understanding of American patent law. The policy perspectives seek to provide a richer and more in depth discussion of a given issue, and introduce secondary, academic literature for further reading and exploration. Second, each case or set of cases is preceded by reference to applicable statutory section numbers, tailored to the specific issues raised in the cases. And the relevant *statutory provisions* are reproduced and integrated into the text (near the end of the book), thus eliminating the need for students to buy a separate statutory supplement. Third, each case or set of cases is preceded with a description of the issues to be discussed in the case and followed by *Comments* that explore the case and issues raised therein in greater detail. And fourth, I tried to include technologically accessible principal cases. It is a wonderfully propitious time to engage the rich world of patent law, and if you decide to continue reading *The Law of Patents*, I encourage you to contact me with your questions, comments, and suggestions at craig.nard@case.edu.

Craig Allen Nard

Shaker Heights, Ohio
March 2008

ACKNOWLEDGMENTS

Composing an acknowledgements section for a patent law book is particularly appropriate because I am reminded of the inventive enterprise and the fact that we are all standing on the shoulders of those who came and created before us. For the past 20 years or so, scholars from the legal and economics communities provided us with a more sophisticated and deeper understanding of the inner workings of patent law and its relationship to innovation. I have benefited a great deal from this rich literature.

I also have the good fortune of having generous friends and colleagues who read and commented on the *The Law of Patents*. Indeed, the following people made *The Law of Patents* a better book: Andrew Beckerman-Rodau, Alan Bentley, Christopher Cotropia, Steve Errick, Troy Froebe, Ed Hejlek, Timothy Holbrook, Amy Landers, Jeff Lefstin, Mark Lemley, Clarisa Long, Joe Miller, Andy Morriss, Patricia Motta, Janice Mueller, Josh Sarnoff, Sean Seymore, Mark Thurmon, and Polk Wagner.

And, of course, I must acknowledge my students at Case Western Reserve University, the University of Torino, and the WIPO Academy, whose comments and feedback made the book a more effective teaching tool.

SUMMARY OF CONTENTS

<i>Preface to the Second Edition</i>	<i>xix</i>
<i>Preface to the First Edition</i>	<i>xxi</i>
<i>Acknowledgments</i>	<i>xxiii</i>
Chapter 1 History and Architecture of the Patent System	1
Chapter 2 Claiming and Disclosing the Invention	57
Chapter 3 Eligible Subject Matter and Utility	157
Chapter 4 Novelty and Priority	231
Chapter 5 Nonobviousness	305
Chapter 6 Statutory Bars	377
Chapter 7 Enforcing Patent Rights	437
Chapter 8 Defenses to Patent Infringement	585
Chapter 9 Remedies	789
<i>Selected Patent Statutes and Regulations</i>	<i>873</i>
<i>Table of Cases</i>	<i>889</i>
<i>Index</i>	<i>903</i>

CONTENTS

<i>Preface to the Second Edition</i>	xix
<i>Preface to the First Edition</i>	xxi
<i>Acknowledgments</i>	xxiii

CHAPTER 1

History and Architecture of the Patent System 1

Introduction	1
A. A History of Patent Law	5
1. The Classical Period	5
2. European Origins	8
a. The Italian Renaissance	8
b. English Patent Policy and the Statute of Monopolies	11
3. The American Experience	15
4. The U.S. Court of Appeals for the Federal Circuit	24
Comparative Perspective: The European Patent Convention	27
B. Economics of Patent Law	28
C. The Patent Document and Process of Obtaining Patent Rights	36

CHAPTER 2

Claiming and Disclosing the Invention 57

Introduction	57
A. Claim Interpretation	58
<i>Phillips v. AWH Corp.</i>	59
Comments	72
<i>Unique Concepts, Inc. v. Brown</i>	76
Comments	83
Policy Perspective: Claim Construction Methodology	86
B. Enablement	87
1. Enablement and Claim Scope	88
<i>O'Reilly v. Morse</i>	88
<i>Consolidated Electric Light Co. v. McKeesport Light Co.</i> (The Incandescent Lamp Case)	91
Comments	98

Matt Richtel, Edison . . . Wasn't He the Guy Who Invented Everything?	105
Policy Perspective: Optimal Claim Scope and Patent Law's Delicate Balance	107
2. Enablement and Undue Experimentation	108
<i>Cedarapids, Inc. v. Nordberg, Inc.</i>	108
<i>Automotive Technologies International, Inc. v. BMW of North America, Inc.</i>	111
Comments	117
C. Written Description	120
<i>Ariad Pharmaceuticals, Inc. v. Eli Lilly and Company</i>	120
Comments	127
<i>Gentry Gallery, Inc. v. Berkline Corp.</i>	130
Comments	134
D. Best Mode	135
<i>Young Dental Manufacturing Company, Inc. v. Q3 Special Products, Inc.</i>	136
Comments	139
E. Definiteness	141
<i>Datamize LLC v. Plumtree Software, Inc.</i>	141
<i>Star Scientific, Inc. v. R.J. Reynolds Tobacco Company</i>	146
Comments	150
 CHAPTER 3	
Eligible Subject Matter and Utility	157
Introduction	157
A. Eligible Subject Matter	158
1. Biomedical-Related Inventions	159
<i>Diamond v. Chakrabarty</i>	159
Comments	167
<i>Harvard College v. Canada (Commissioner of Patents)</i>	173
Comments	183
A Note on Patents, Biotechnology, and the Bayh-Dole Act	183
Comparative Perspective: Biotechnology and Patents in Europe	185
2. Business Methods and Process-Related Inventions	185
<i>Bilski v. Kappos</i>	185
Comments	196
Comparative Perspective: Software and Business Method Patents in Europe	206
B. Utility	207
1. Operability and the Basic Utility Test	207
<i>In re Swartz</i>	207
Comments	208
2. Substantial Utility	210
<i>Brenner v. Manson</i>	210

Comments	214
<i>In re Fisher</i>	215
Comments	226
Note on Design Patents	227

CHAPTER 4

Novelty and Priority 231

Introduction	231
A. Novelty	231
1. Novelty's Doctrinal Framework	232
<i>Atlas Powder Company v. IRECO Incorporated</i>	232
Comments	238
2. "Known or Used" Under § 102(a)	241
<i>Gayler v. Wilder</i>	241
<i>Rosaire v. Baroid Sales Division</i>	243
Comments	246
Comparative Perspective: Defining Prior Art and Geographical Limitations	248
3. Novelty-Defeating Patent Disclosures Under § 102(e)	249
<i>Alexander Milburn Co. v. Davis-Bournonville Co.</i>	249
Comments	251
4. Novelty-Defeating Inventive Activity Under § 102(g)(2)	252
<i>Thomson, S.A. v. Quixote Corp.</i>	252
Comments	255
5. Foreign-Based Activity as Prior Art Under §§ 102(e) and (g)	261
<i>In re Hilmer (Hilmer I)</i>	261
<i>In re Hilmer (Hilmer II)</i>	267
Comments	269
B. "Printed Publication"	271
<i>In re Klopfenstein</i>	271
Comments	276
Comparative Perspective: Novelty and State of the Art Under the European Patent Convention	279
C. Priority	284
1. Proving Date of Invention	285
<i>Mahurkar v. C.R. Bard, Inc.</i>	285
Comments	289
2. Diligence and Abandonment	291
<i>Griffith v. Kanamaru</i>	291
<i>Fujikawa v. Wattanasin</i>	296
Comments	303
Comparative Perspective: First-to-File vs. First-to-Invent	303

CHAPTER 5**Nonobviousness****305**

Introduction

305

A. The Historical Foundation of § 103 and the Nonobviousness Requirement

307

Hotchkiss v. Greenwood

307

Comments

310

B. The *Graham* Test

311

Graham v. John Deere Co.

311

United States v. Adams

318

Comments

323

C. Application of the *Graham* Test

329

1. Determining Obviousness (or Not)

329

KSR International v. Teleflex, Inc.

330

Perfect Web Technologies, Inc. v. Infousa, Inc.

342

Comments

345

Proctor & Gamble Company v. Teva Pharmaceuticals USA, Inc.

350

Comments

356

Policy Perspective Using § 103 as a Policy Tool

359

Comparative Perspective: Section 103's European Counterpart- "Inventive Step"

360

2. Constructing the Person Having Ordinary Skill in the Art

362

Daiichi Sankyo Co., Ltd v. Apotex Inc.

362

Comments

364

3. Available Prior Art and the Analogous Art Doctrine

366

In Re Icon Health and Fitness, Inc.

366

Comments

369

D. Secondary Considerations

371

Iron Grip Barbell Company, Inc. v. USA Sports, Inc.

372

Comments

375

CHAPTER 6**Statutory Bars****377**

Introduction

377

A. On-Sale Bar

378

1. Developmental Stage of the Claimed Invention

379

Pfaff v. Wells Electronics

379

Space Systems/Loral, Inc. v. Lockheed Martin Corp.

384

Comments

387

2. What Constitutes an Offer for Sale?

388

Plumtree Software, Inc. v. Datamize, LLC

388

Comments

393

B. Public-Use Bar

396

Egbert v. Lippmann

396

Motionless Keyboard Co. v. Microsoft Corp.

399

Comments	402
Comparative Perspective: Prejudicial Disclosures Under the European Patent Convention	404
C. Experimental Use	406
<i>City of Elizabeth v. American Nicholson Pavement Co.</i>	407
<i>Electromotive Division of General Motors Corp. v. Transportation Systems Division of General Electric Co.</i>	410
<i>Lisle Corp. v. A.J. Manufacturing Co.</i>	419
Comments	422
D. Third-Party Activity	425
<i>Lorenz v. Colgate Palmolive-Peet Co.</i>	425
<i>Evans Cooling Systems, Inc. v. General Motors Corp.</i>	428
Comments	432
Comparative Perspective: Third-Party Activity in Europe and Japan	435
 CHAPTER 7	
Enforcing Patent Rights	437
Introduction	437
Comparative Perspective: Enforcing Patents in Europe	443
A. Claim Interpretation	445
<i>Markman v. Westview Instruments, Inc. (Markman II)</i>	445
Comments	448
B. Infringement	452
1. Literal Infringement	452
<i>Larami Corporation v. Amron</i>	453
Comments	456
2. The Doctrine of Equivalents	458
Comparative Perspective: Non-Literal Infringement in Europe	459
<i>Graver Tank v. Linde Air Prods. Co.</i>	460
Comments	464
<i>Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.</i>	466
Comments	475
3. Limitations on the Doctrine of Equivalents	480
<i>FestoCorp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd. (Festo VIII)</i>	481
Comments	489
Policy Perspective: <i>Festo</i> and the Devolution of Responsibility	493
<i>Johnson & Johnston Assocs., Inc. v. R.E. Service Co., Inc.</i>	494
Comments	501
<i>Scimed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.</i>	503
Comments	510
<i>Wilson Sporting Goods Co. v. David Geoffrey & Associates</i>	514

Comments	519
Comparative Perspective: Claim Interpretation and Non-Literal Infringement in the United Kingdom	520
<i>Kirin-Amgen, Inc. v. Hoechst Marion Roussel Ltd.</i>	520
Comments	533
4. Indirect Infringement	535
<i>Lucent Technologies, Inc. v. Gateway, Inc.</i>	536
Comments	540
5. Infringement of Means-Plus-Function Claims	543
<i>Odetics, Inc. v. Storage Technology Corp.</i>	543
Comments	549
C. Defining the Geographic Scope of the Patent Right	551
1. The Parameters of § 271(a): Defining “Within the United States”	552
<i>NTP, Inc. v. Research in Motion Ltd.</i>	552
Comments	561
2. The Parameters of § 271(f): Export Activity	563
<i>Microsoft Corp. v. AT&T Corp.</i>	563
Comments	573
3. The Parameters of § 271(g): Import Activity	576
<i>Eli Lilly & Co. v. American Cyanamid Co.</i>	577
Comment	583

CHAPTER 8

Defenses to Patent Infringement 585

Introduction	585
A. The Rights and Limitations on the Use of Contract in Exploiting Patent Rights	585
1. The Scope of Patent Exhaustion and the Repair-Reconstruction Doctrine	587
<i>Jazz Photo Corp. v. International Trade Commission</i>	587
Comments	596
2. Contractual Limitations and the Misuse Doctrine	598
a. Package Licenses and Tying Arrangements	598
<i>U.S. Philips Corp. v. International Trade Commission</i>	598
<i>Morton Salt Co. v. G.S. Suppiger Co.</i>	607
Comments	609
b. Field-of-Use Restrictions	614
<i>Mallinckrodt v. Medipart</i>	614
<i>Quanta Computer, Inc. v. LG Electronics, Inc.</i>	619
Comments	627
c. Contractual Provisions Relating to Royalty Payments	632
<i>Brulotte v. Thys Co.</i>	632
Comments	637
<i>Scheiber v. Dolby Laboratories, Inc.</i>	638
Comment	641

3. Contractual and Jurisdictional Restrictions Relating to Challenging Patent Validity	642
a. Licensee's Ability to Challenge Patent Validity	642
<i>Lear, Inc. v. Adkins</i>	642
<i>Medimmune, Inc. v. Genentech, Inc.</i>	648
Comments	653
b. Declaratory Judgment Jurisdiction	655
<i>Sandisk Corp. v. Stmicroelectronics, Inc.</i>	656
Comments	666
B. Antitrust	669
1. Patents and Market Power	670
<i>Illinois Tool Works Inc. v. Independent Ink, Inc.</i>	670
Comments	675
2. <i>Walker Process</i> and "Sham" Litigation	678
<i>Nobelpharma AB v. Implant Innovations, Inc.</i>	678
Comments	687
3. Settlements	689
<i>In Re Tamoxifen Citrate Antitrust Litigation</i>	690
Comments	710
4. Refusal to Deal	714
<i>In Re Independent Service Organizations Antitrust Litigation</i>	714
Comments	718
C. Inequitable Conduct and the Duty of Candor	721
<i>Kingsdown Med. Consultants, Ltd. v. Hollister, Inc.</i>	721
<i>Agfa Corp. v. Creo Products Inc.</i>	727
Comments	731
D. Experimental Use	734
1. Statutory Experimental Use Under § 271 (e)(1)	734
<i>Merck v. Integra Lifesciences I</i>	734
Comments	741
2. Common Law Experimental Use	742
<i>Madey v. Duke</i>	742
Comments	747
E. Inventorship	748
<i>Hess v. Advanced Cardiovascular Systems, Inc.</i>	748
<i>Acromed Corp. v. Sofamor Danek Group, Inc.</i>	754
Comments	760
F. Preemption	762
1. The Framework of Preemption Analysis	762
<i>Pharmaceutical Research and Manufacturers of America v. District of Columbia</i>	762
2. Preemption of State Law	768
<i>Kewanee Oil Co. v. Bicron</i>	768
<i>Bonito Boats, Inc. v. Thunder Craft Boats, Inc.</i>	778
Comments	786

CHAPTER 9**Remedies****789**

Introduction

789

A. Money Damages

789

1. Lost Profits

790

Rite-Hite Corp. v. Kelley Co., Inc.

790

Grain Processing Corp. v. American Maize-Products Co.

799

Comments

810

2. Reasonable Royalty

813

Trio Process Corp. v. Goldstein's Sons, Inc.

814

Lucent Technologies, Inc. v. Gateway, Inc.

819

Comments

831

B. Equitable Relief

833

1. Preliminary Injunctions

833

Amazon.com, Inc. v. barnesandnoble.com, Inc.

833

Comments

839

2. Permanent Injunctions

840

Ebay Inc. v. Mercexchange, L.L.C.

840

*Commonwealth Scientific and Industrial Research Organisation**v. Buffalo Technology Inc.*

844

Comments

851

Policy Perspective: Property Rules, Liability Rules, and
Patent Litigation

856

C. Willful Infringement and Enhanced Damages

856

Knorr-Bresmse Systeme v. Dana Corp.

857

In Re Seagate Technology, LLC

863

Comments

866

D. Marking and Constructive Notice

867

Maxwell v. J. Baker, Inc.

867

Comments

870

Selected Patent Statutes and Regulations

873

Table of Cases

889

Index

903