

Patent Cultures

This book explores how dissimilar patent systems remain distinctive despite international efforts toward harmonization. The dominant historical account describes harmonization as ever-growing, with familiar milestones such as the Paris Convention (1883), the World Intellectual Property Organization's founding (1967), and the formation of current global institutions of patent governance. Yet throughout the modern period, countries fashioned their own mechanisms for fostering technological invention. Notwithstanding the harmonization project, diversity in patent cultures remains stubbornly persistent. No single comprehensive volume describes the comparative historical development of patent practices. *Patent Cultures: Diversity and Harmonization in Historical Perspective* seeks to fill this gap. Tracing national patenting from imperial expansion in the early nineteenth century to our time, this work asks fundamental questions about the limits of globalization, innovation's cultural dimension, and how historical context shapes patent policy. It is essential reading for anyone seeking to understand the contested role of patents in the modern world.

GRAEME GOODAY is Professor of the History of Science and Technology in the University of Leeds School of Philosophy, Religion and History of Science. From 2007 to 2010 he led the Arts & Humanities Research Council-funded project "Owning and Disowning Invention," which produced the prize-winning *Patently Contestable* (2013) with coauthor Stathis Arapostathis. He was also coleader with Claire L. Jones of the international research network "Rethinking Patent Cultures" (2014), the first workshop of which generated this *Patent Cultures* volume.

STEVEN WILF is the Anthony J. Smits Professor of Global Commerce at the University of Connecticut Law School where he founded the Intellectual Property program. He has served as Microsoft Fellow at Princeton University and Abraham L. Kaminstein Scholar in Residence at the United States Copyright Office. He is the author of *The Law before the Law* (2008), *Law's Imagined Republic: Popular Politics and Criminal Justice in Revolutionary America* (Cambridge University Press, 2010), and numerous articles.

Cambridge University Press
978-1-108-47576-1 — Patent Cultures
Edited by Graeme Gooday, Steven Wilf
Frontmatter
[More Information](#)

Cambridge Intellectual Property and Information Law

As its economic potential has rapidly expanded, intellectual property has become a subject of front-rank legal importance. Cambridge Intellectual Property and Information Law is a series of monograph studies of major current issues in intellectual property. Each volume contains a mix of international, European, comparative and national law, making this a highly significant series for practitioners, judges and academic researchers in many countries.

Series Editors

Lionel Bently
Herchel Smith Professor of Intellectual Property Law, University of Cambridge
Graeme Dinwoodie
Global Professor of Intellectual Property Law, Chicago-Kent College of Law, Illinois Institute of Technology

Advisory Editors

William R. Cornish, Emeritus Herchel Smith Professor of Intellectual Property Law, University of Cambridge
François Dessemontet, Professor of Law, University of Lausanne
Jane C. Ginsburg, Morton L. Janklow Professor of Literary and Artistic Property Law, Columbia Law School
Paul Goldstein, Professor of Law, Stanford University
The Rt Hon. Sir Robin Jacob, Hugh Laddie Professor of Intellectual Property, University College London
Ansgar Ohly, Professor of Intellectual Property Law, Ludwig-Maximilian University of Munich

A list of books in the series can be found at the end of this volume.

Cambridge University Press
978-1-108-47576-1 — Patent Cultures
Edited by Graeme Gooday , Steven Wilf
Frontmatter
[More Information](#)

Patent Cultures

*Diversity and Harmonization in
Historical Perspective*

Edited by

Graeme Gooday

University of Leeds

Steven Wilf

University of Connecticut



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press
978-1-108-47576-1 — Patent Cultures
Edited by Graeme Gooday, Steven Wilf
Frontmatter
[More Information](#)

CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom
One Liberty Plaza, 20th Floor, New York, NY 10006, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre,
New Delhi – 110025, India
79 Anson Road, #06–04/06, Singapore 079906

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning, and research at the highest international levels of excellence.

www.cambridge.org
Information on this title: www.cambridge.org/9781108475761
DOI: 10.1017/9781108654333

© Cambridge University Press 2020

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2020

A catalogue record for this publication is available from the British Library.

Library of Congress Cataloging-in-Publication Data

Names: Gooday, Graeme, 1965– editor. | Wilf, Steven Robert, editor.

Title: Patent cultures : diversity and harmonization in historical perspective / [edited by] Graeme Gooday, Steven Wilf.

Description: 1. | New York : Cambridge University Press, 2019. |

Series: Cambridge intellectual property and information law |

Includes bibliographical references and index.

Identifiers: LCCN 2019038200 (print) | LCCN 2019038201 (ebook) |

ISBN 9781108475761 (hardback) | ISBN 9781108468886 (paperback) |

ISBN 9781108654333 (epub)

Subjects: LCSH: Patent laws and legislation. | Intellectual property.

Classification: LCC K1505 .P373 2019 (print) | LCC K1505 (ebook) |

DDC 346.04/86–dc23

LC record available at <https://lcn.loc.gov/2019038200>

LC ebook record available at <https://lcn.loc.gov/2019038201>

ISBN 978-1-108-47576-1 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

Contents

<i>List of Figures</i>	<i>page</i> viii
<i>List of Tables</i>	ix
<i>List of Contributors</i>	x
<i>Preface</i>	xiii
<i>Acknowledgments</i>	xiv
<i>Note on the Cover Image</i>	xvi
Part I Introductory	1
1 Diversity versus Harmonization in Patent History: An Overview	3
GRAEME GOODAY AND STEVEN WILF	
2 The 1883 Paris Convention and the Impossible	
Unification of Industrial Property	38
GABRIEL GALVEZ-BEHAR	
3 One for All? The American Patent System and	
Harmonization of International Intellectual Property Laws	69
B. ZORINA KHAN	
Part II Americas	89
4 Technical Imaginaries: US Patent Models as	
Specimen and Specification	91
COURTNEY FULLILOVE	
5 Mexico and the Puzzle of Partial Harmonization:	
Nineteenth-Century Patent Law Reconsidered	109
EDWARD BEATTY	
6 An Early Patent System in Latin America: The Chilean Case,	
1840s–1910s	126
BERNARDITA ESCOBAR ANDRAE	
	v

Part III Southern Europe	145
7 The Italian Patent System during the Long Nineteenth Century: From Privileges to Property Rights in a Latecomer Industrializing Country	147
ALESSANDRO NUVOLARI AND MICHELANGELO VASTA	
8 Industrial “Property”, Law, and the Politics of Invention in Greece, 1900–1940	166
STATHIS ARAPOSTATHIS	
9 Mediation and Harmonization: Construction of the Spanish Patent System in the Twentieth Century	184
ANA ROMERO DE PABLOS	
Part IV Central and Eastern Europe	199
10 The Struggle over “the Social Function of Intellectual Work in the Economy of Nations”: Engineers, Patent Law, and Enterprise Inventions in Germany and Their European Significance	201
KARL HALL	
11 Multiple Loyalties: Hybrid Patent Regimes in the Habsburg Empire and Its Successor States	221
KARL HALL	
12 Patent Debates on Invention from Tsarist Russia to the Soviet Union	247
KARL HALL	
Part V Asia	271
13 Patent Policy in India under the British Raj: A Bittersweet Story of Empire and Innovation	273
RAJESH SAGAR	
14 The India Twist to Patent Culture: Investigating Its History	302
TANIA SEBASTIAN	
15 The Life and Times of Patent No. 2,670: Industrial Property and Public Knowledge in Early Twentieth-Century Japan	319
KJELL ERICSON	

Cambridge University Press
978-1-108-47576-1 — Patent Cultures
Edited by Graeme Gooday , Steven Wilf
Frontmatter
[More Information](#)

Contents	vii
Part VI Epilogue	341
16 Postscript	343
STEVEN WILF AND GRAEME GOODAY	
<i>Index</i>	347

Figures

2.1	Number of patents issued in the world and some European countries, 1791–1900	<i>page</i> 43
3.1	International harmonization of patent laws	70
3.2	Patenting in Japan, 1885–2010	82
3.3	Patenting in China, 1998–2014	84
7.1	Innovative activities in Regno delle due Sicilie and Regno di Sardegna, 1810–60	152
7.2a	Distribution of number of patents according to pre-unitary states borders, 1864–5 and 1881	156
7.2b	Distribution of patents per million population according to pre-unitary states borders, 1864–5 and 1881	157
7.3	Annual renewal fees of patenting in Germany, the UK, and Italy, 1880s	161
13.1	Patenting activity, 1856–79	278
13.2	Patenting activity by native Indians and non-natives, 1856–79	279

Tables

2.1	Some characteristics of patents in 1859	<i>page</i> 47
2.2	The patent in the British colonies, 1853	48
2.3	British patent applications by country of origin, 1884	49
2.4	Number of patents taken out in Germany, the United States, France, and Great Britain by foreigners between 1905 and 1915	63
6.1	Petitions to Congress for exclusive privileges, 1830–40	131
6.2	Countries with patent laws prior to Chile’s first patent law	136
6.3	Protected subject matter in Chile’s first patent law	136
6.4	Patent protection provided by Chile’s first patent law	137
7.1	Main characteristics of patent legislations in pre-unitary states	150
7.2	Patent fees in pre-unitary states, 1857–63	155
7.3	Degree of openness of the patent systems, 1864–1922	160
7.4	Number of patents by typologies	162
7.5	Foreign patents’ average duration: scheduled versus real	163
7.6	Share of hi-tech patents by typologies	164
13.1	Patenting activity under various Patent Acts enacted in India during the pre-independence period	296

Contributors

Stathis Arapostathis is Assistant Professor of History of Science and Technology in the Department of History and Philosophy of Science at the National and Kapodistrian University of Athens. In addition to coauthoring, with Graeme Gooday, *Patently Contestable: Electrical Technologies and Inventor Identities on Trial in Britain* (MIT Press, 2013), he coedited with Graham Dutfield *Knowledge Management and Intellectual Property: Concepts, Actors and Practices from the Past to the Present* (Edward Elgar, 2013).

Edward Beatty is Professor of History and Faculty Fellow at the Kellogg Institute for International Affairs at the University of Notre Dame, USA. A historian specializing in economic development in nineteenth- and twentieth-century Latin America and especially in Mexico, he has published *Institutions and Investment: The Political Basis of Industrialization in Mexico before 1911* (Stanford University Press, 2001) and *Technology and the Search for Progress in Modern Mexico* (University of California Press, 2015), which won the 2016 Friedrich Katz Prize for the best book on Latin American and Caribbean history from the American Historical Association.

Kjell Ericson is a Program-Specific Assistant Professor in the Center for the Promotion of Interdisciplinary Education and Research at Kyoto University, Japan. He writes about environmental and legal history in Japan, with a focus on marine issues. He is now completing a book manuscript on the history of pearl cultivation.

Bernardita Escobar Andrae is an Economist and Economic historian in the Department of Political Science and Public Administration at the Faculty of Law and Social Sciences, University of Talca, Chile. She has written numerous articles on the economic and business history of Chile, focusing on issues of intellectual property and gender.

Courtney Fullilove is an Associate Professor of History and affiliated faculty in the Science in Society Program at Wesleyan University,

USA. She researches the history of sustainability, biodiversity, intellectual property law, traditional knowledge, and cultural heritage. She is the author of *The Profit of the Earth: The Global Seeds of American Agriculture* (University of Chicago Press, 2017).

Gabriel Galvez-Behar is a Professor in contemporary history at the University of Lille, France, specializing in economic history, history of science and technology, and the history of innovation in France. His first monograph was *La République des Inventeurs: Propriété et organisation de l'innovation en France, 1791–1922* (PU Rennes, 2008).

Graeme Gooday is Professor of the History of Science and Technology at the University of Leeds. He led the Arts & Humanities Research Council (AHRC)-funded project “Owning and Disowning Invention” from which he produced with coauthor Stathis Arapostathis the prize-winning *Patently Contestable: Electrical Technologies and Inventor Identities on Trial in Britain* (MIT Press, 2013); this is currently being translated into Mandarin. Gooday was also the principal investigator for the international AHRC network “Rethinking Patent Cultures” in which he and coauthor Karen Sayer extended patents research to the history of hearing aids.

Karl Hall is Associate Professor in the Department of History at the Central European University, Hungary. Training as a historian of Soviet physics, he now specializes in Central and East European intellectual history, with research on industrial laboratories, intellectual property, and tacit knowledge. He was the coeditor with Michael Gordin and Alexei Kojevnikov of *Intelligentsia Science: The Russian Century, 1860–1960* special issue of *Osiris* (2008).

B. Zorina Khan is Professor of Economics at Bowdoin College, USA. Her research examines issues in law and economic history, including intellectual property rights, technological progress in Europe and the United States, antitrust, litigation and legal systems, and corporate governance. Her first book, *The Democratization of Invention: Patents and Copyrights in American Economic Development, 1790–1920* (Cambridge University Press, 2005), received the Alice Hanson Jones Biennial Prize for outstanding work in North American economic history.

Alessandro Nuvolari is Professor of Economic History at Sant’Anna School of Advanced Studies, Pisa, Italy, specializing in the economics of innovation, especially the roles of science and technology in “modern economic growth” and has published extensively on the relationship between patent systems and economic performance both in historical and contemporary contexts.

xii List of Contributors

Ana Romero de Pablos is a Research Fellow at the Institute of Philosophy in the Department of Science, Technology and Society at the Spanish National Research Council in Madrid, Spain. As Historian of Science and Technology, she has published extensively on the history of physics and nuclear energy in Spain, female scientists in physics, and on patents and on the circulation of knowledge and scientific objects. In addition to her co-authored volume with María Jesús Santesmases *Cien años de Política Científica en España* (Fundación BBVA, 2008), her most recent book is *Las primeras centrales nucleares españolas. Actores, políticas y tecnologías* (Sociedad Nuclear española, 2019).

Rajesh Sagar is a qualified solicitor advocate in England and Wales and a member of the Bar Council of Delhi in India. He regularly advises clients on intellectual property and ancillary matters and has extensive experience of co-ordinating high value, multi-jurisdictional patent litigations across the Life Sciences and TMT sectors. He was recently instrumental in enforcing the current European data and marketing exclusivity regime for the very first time. Within the TMT sector, Rajesh has a particular focus on issues of FRAND royalty terms and the enforceability of standard essential patents. He is regularly published on these subjects, and has worked on several intellectual property projects funded by organisations such as the European Commission and UK Research Councils. His PhD thesis is entitled “The evolution of patent policy in India from 1856 – 2005”, and he has regularly published and spoken about his research at conferences.

Tania Sebastian is Assistant Professor of Law at School of Law, Vellore Institute of Technology, Chennai, India (previously she was an assistant professor at the Gujarat National Law University in Gandhinagar, India). Currently pursuing her PhD, she has published on patent and healthcare law in India.

Michelangelo Vasta is Professor of Economic History in the Department of Economics and Statistics at the University of Siena, Italy. His main fields of interest are economics of innovation in the long-run perspective, institutions and economic performance, the economic history of living standards, entrepreneurship, and trade. He has published extensively in the major economic history and business history journals.

Steven Wilf is the Anthony J. Smits Professor of Global Commerce, Law School, University of Connecticut, USA. His research focuses on intellectual property law and legal history, and he is the author of *The Law before the Law* (Rowman & Littlefield, 2008), *Law's Imagined Republic: Popular Politics and Criminal Justice in Revolutionary America* (Cambridge University Press, 2010), and numerous articles. In 2016 and 2018 he was a visiting professor at Yale Law School.

Preface

This collective volume arises from the workshop “International Diversity in Patent Cultures – a Historical Perspective” that was held May 15–16, 2014 at the University of Leeds. This was funded by the UK’s Arts & Humanities Research Council grant “Rethinking Patent Cultures” AH/L009803/1. Like the edited chapters that have come together here, there was no direct aspiration then to achieve any “global” conclusions: that would have required a much larger event than we could achieve with an open call for papers at a two-day workshop. After an international open call for contributors, we received participants from Europe, North America, South America, and Asia; that international representation is matched in the chapters of this book. Overall we draw from the work of contributors some provisional claims about the diversity and commonalities of patent cultures in sixteen countries in those four continents, with comments on the recent roles of Africa and China. This is therefore definitely not the last word on the topic, only (we humbly think) a starting point. We very much hope that other scholars will be able to take this topic further to achieve a broader geographical and cultural reach in discussing patent cultures than can be achieved in one volume.

Acknowledgments

We are grateful to the Arts & Humanities Research Council for supporting the Research Network project “Rethinking Patent Cultures” that funded the workshop that generated this book, also the principal investigator, Graeme Gooday, co-investigator, Claire L. Jones, and the network administrator, Carl Warom.

We thank commentators at the May 2014 workshop, especially Lionel Bently, Mario Biagioli, Graham Dutfield, and Steven Wilf, and all the participants, including Jose Bellido and Patricio Sáiz. Also three anonymous reviewers for Cambridge University Press whose comments helped us to refine the book considerably in the latter stages of its development.

Versions of papers were presented at the Society of History of Technology Round Table at the National University of Singapore on June 24, 2016.

Graeme Gooday would particularly like to thank Gregory Radick, Jamie Stark, and other colleagues and PhD students in the Centre for History and Philosophy of Science, School of Philosophy, Religion and History of Science at the University of Leeds, and of course Christine “Chris” MacLeod for her unfailing wisdom and moral support for our exploration of the history of patents.

Steven Wilf would particularly like to thank the Law School of the University of Connecticut for its support. The many students who have served as interlocutors over the years have been a special source of encouragement. As always, this book would not have been possible without Guita and our family.

In preparing the manuscript of this book we thank our three dedicated proofreaders: Lewis Hodges, Hannah Hunt, and Callum Duguid, and Debbie Foy for her final assistance in assembling the script.

At Cambridge University Press we thank Matt Gallaway and his team for making the publication process so smooth. This has been a global project, and one of the benefits of the conferences, conversations, and the production of this volume has been the opportunity to exchange ideas

Cambridge University Press
978-1-108-47576-1 — Patent Cultures
Edited by Graeme Gooday , Steven Wilf
Frontmatter
[More Information](#)

Acknowledgments

xv

with such a talented cohort. The coeditors are especially fortunate to have enjoyed the process of collaboration – even if it has meant the juggling of two busy academic schedules. Our conversations in person over three continents and across two disciplines has been a pleasure. We may have had the only conversation about patent sovereignty and harmonization that has taken place at Raffles Long Bar in Singapore with (naturally) the assistance of a few Singapore Slings. And we hope this book is better for such convivial moments.

Note on the Cover Image

This volume's cover image comes from the front of a 1948 Japanese children's book entitled *Two Inventions That Will Lift Up the Nation: The Pearl and the Automatic Loom*, written by an elected Diet member named Toyosawa Toyoo and illustrated by artist Kinoshita Shigeru. Toyosawa's book consists of hagiographic accounts of two individual inventors, the pearl cultivator Mikimoto Kōkichi and the loom maker Toyoda Sakichi. Heroic inventor narratives (and illustrations) of British industrial figures like James Watt circulated widely in the late nineteenth-century world. Meiji Japan (1868–1912) was no exception. Tales of Japanese invention, centering on figures including Mikimoto and Toyoda, appeared with regularity from the first decade of the twentieth century onward. In one sense, *Two Inventions That Will Lift Up the Nation* reflected the ongoing resonance of the heroic inventor genre in mid-twentieth-century Japan. Toyosawa's book can also be read as part of broader efforts to promote “national” invention in the aftermath of the imperial Japanese state's wartime suspension of industrial property protections, the post-1945 collapse of the Japanese empire, and proposals for patent reform then circulating amid the American-led occupation of Japan. As Kinoshita's illustration shows, invention encompassed not only wood-and-metal machines, but living shellfish, too. Further discussion of this front cover image can be found in Chapter 15.