

AMERICAN PATENT LAW

Students and established scholars of intellectual property law often look for historical context when trying to understand the development and present-day contours of IP rules and systems. *American Patent Law* supplies this context, offering readers a comprehensive account of the evolution of the US patent system and patent doctrine beginning in 1790. From the technologies for harvesting wood and shoemaking in the earliest periods to computer software and biotechnology of the present, each chapter of the book covers the characteristic technologies of each historical era. The book also describes how businesspeople in each era acquired and enforced patents and used patents as the foundation of various business arrangements. This book is a landmark in the history of technologies, the US patent system, and the way private actors have deployed patents across American history.

ROBERT MERGES is a professor of law at Berkeley Law (University of California), where he co-directs the Berkeley Center for Law & Technology. He has been writing about patents and patent law for over thirty years.

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American Patent Law

A BUSINESS AND ECONOMIC HISTORY

ROBERT P. MERGES

University of California, Berkeley



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This book is dedicated to the community of scholars that is the University of California at Berkeley. Being among you is one of the great satisfactions of my life.

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Preface

Many if not most books bear the imprint of biography, in their origin if not their content. This is definitely true of the book you're looking at. I took a fair number of undergraduate history courses at my American university, and so thought I knew something of the field. But when I arrived at Trinity College, Dublin, for a year of study in Irish history, the academic advisor assigned to me looked in horror at the scattershot selection of "micro-history" courses I had taken. Though a senior at Trinity, I was assigned straightaway to a freshman course whose title was "History of Ireland from 600 to 1550 AD." The primary textbook was the *Cambridge History of Ireland, Volume 1: 600 to 1550*. When I asked what course was set for the spring, I was told: "Irish History II: 1550–1730." I had already guessed the main textbook – the *Cambridge History, Volume 2*, covering precisely the same years. The advisor never said it, but her attitude was: I don't know what that mishmash is on your transcript, but here we study history. So go start.

I was not displeased with my American university experience; it afforded me the chance to take a very wide assortment of classes, from chemistry to economics, from finance to intellectual history. But my Irish introduction to *longue-durée* (long duration) study as the cornerstone of history stuck with me.

Years later I often found myself casting about for a source to consult on some aspect or another of patent law and economic history. For almost any era or topic, there were helpful sources. But to get the full picture, I had to string together snippets of context and scattered insights regarding the coevolution of patent law and the American economy. It often felt like trying to reconstruct a fascinating news story from the strips of jumbled, shredded newsprint that had been packed around some item in a shipping box. Frustrating.

So, it occurred to me that my field, patent law, could use a single-volume history that covered the founding era up through current times.¹ As has happened to me more than once, I went in search of a book that I imagined should be found in the literature on my field. On not finding it, I ended up supplying it myself.

I will add, quickly: There are some outstanding history monographs in this field, and I draw on all of them in this book. Several show real mastery over important episodes, technologies, and economic eras: Chris Beauchamp on the telephone; Oren Bracha on intellectual history; Zorina Khan on the nineteenth century; Herb Hovenkamp on classical Gilded Age economic theory; Kara Swanson on the history of patent examiners, women inventors, and more; and Edward Walterscheid on the entire founding era. But there was not, to my knowledge, a single comprehensive volume that tried to integrate the insights and observations of these many deep but only loosely connected works. With this book, I can say I have now tried. I describe the place of patents in business and the American economy from the beginning in 1790 up to the present time.

If I sound as if writing this book was like scratching a long-standing itch, I don't want to give the impression that it was an irritating process. In fact, I enjoyed it immensely. But that was because I had so much support, help, and backing. I could immerse myself in the secondary historical literature, as well as census and GDP data, old patents, Patent Office reports, and patent cases, because I was not teaching classes for a year. And this sabbatical was made possible by my colleagues at the Berkeley Center for Law and Technology: Peter Menell, Pam Samuelson, Molly van Houweling, former Executive Directors Robert Barr and Jim Dempsey, and the talented, dedicated, and supportive staff, Richard Fisk, Jann Dudley, Irys Schenker, numerous student interns, and all the other members of the BCLT community. I could not have taken time off from my teaching and other obligations without all their help. They form an integral part of my corner of a great world university. In recognition, I dedicate this book to the place and values that bind us together: U.C. Berkeley – a lively, thrumming community, trying to live out its own enlightened progressive aspirations, that I have had the great fortune to be part of for over 25 years (and counting).

The list of others who helped me in immediate forms must begin with Su Li, Ph.D., Berkeley Law class of 2021. Su helped enormously with the many graphs and tables in this book, gathering data, formatting the results, and poring over the small details in many of the figures and illustrations. A law student with her empirical skills, and the patience and diligence to apply them so helpfully, was the perfect gift from the Writing Gods during the gestation of this book. I was probably not worthy of this level of help. But I am very glad I got it anyway.

¹ I might have been inspired by a book from one of my Trinity instructors, L. M. Cullen's *Economic History of Ireland Since 1660* (London: Batsford Publishers, 1972).

The library staff at Berkeley Law, led and guided by esteemed colleague Katherine Vanden Heuvel, were indispensable to my research. They answered dozens of queries for books, articles, and online resources. I always had what I needed, in surprisingly short time, so forward progress was never stymied. It is a privilege and a luxury for any researcher to have a staff of skilled professionals two floors down or one email away, and I am profoundly grateful to yield up a long round of applause for those at Berkeley who perform this vital scholarly function.

I also owe a vast debt to the many colleagues, former students, and friends who I have met in the past ten years or so on my visits to and research about mainland China. Visiting China during these dynamic years of economic development, and watching the concurrent growth of a modern, progressive intellectual property system there, made me more curious than ever about the rapid years of “economic take-off” in the United States from roughly 1870 to 1910. Though the differences could fill a large book, there seemed to me significant similarities between the two periods of rapid growth. And – most strikingly for a scholar of intellectual property – the Chinese government seemed intent on developing a world-class intellectual property system. Not primarily as the result of pressure from the United States and other countries but because of national self-interest. Here was evidence, in a contemporary setting, of a state undergoing rapid economic development and simultaneously feeling an urgent need to upgrade institutions for granting and enforcing IP rights. Watching it all, I was inspired to return to a similar moment in history when the United States was on the rise, and to explore more fully the co-development of the US patent system along with its economy.

To name a few names: Professors CUI Guobin and JIANG Ge of Tsinghua Law School; Professors YANG Ming, and ZHANG Ping, of Peking University Law School; my Berkeley colleagues, Mark Cohen and HAO Yuan of our Asia IP Law initiative; former students Professor CHEN Xiankai of Jinan University, BIAN Renjun of Peking University, SONG Haiyan of NBA-China, and LIU Fang (Helen Liu) of the Anjie Law Firm, Beijing; JIANG Nandi of Rouse Law firm, Beijing; HONG Yan, also of Tsinghua Law School; Jacob LI of National Tsinghua Law School, Taiwan; Jesse LU of the National Cheng-Chi University Law School, Taiwan; K. C. (Kungchung) LIU of Singapore Management University; LEE Jyh-An of the Chinese University of Hong Kong; former Judge HSIUNG Sungmei of Deloitte Law Partners, Taipei; and my friend SONG Haining, Fangda Partners, Beijing. I have no doubt missed many others, but, as with all my friends, I hope they will forgive my mental density and accept sincere apologies.

When it comes to acknowledgments, two provisos come to mind. Save the best for last; and keep it short. So, in that spirit I say: most of all, thanks to my family – wife Jo and children Robert and James (the true historian in the family). You keep me loose, absorb my horrific puns, and generally humor me in my digressions and other foibles. You are the pack this dog loves to run with. Love you, one and all.

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