Regulating Railroad Innovation: Business, Technology, and Politics in America, 1840-1920
schemes collapsed and municipalities across Iowa tried to escape their bonded indebtedness, Iowa's supreme court switched course and ruled that the bonds had indeed been unconstitutional and were therefore void. Angry bondholders sued in federal courts. The Iowa cases eventually forced the U.S. Supreme Court to overturn Iowa's state courts in a series of decisions that expanded the power of the federal judiciary. The Iowa bond cases also remind readers that state and federal courts (and legislatures) often disagreed on salient matters of railroad law. Ely deserves high praise for discussing these complicated issues and contesting views lucidly and efficiently.

*Railroads and American Law* is a great achievement. Ely presents a complex, sprawling, and sometimes arcane topic using accessible language that convincingly demonstrates the impact the nation's first large corporations had on the law and society. Scholars and lay readers alike will be referring to Ely's book for years to come.


Reviewer H. Roger Grant is professor of history at Clemson University. He was the longtime editor of *Railroad History* and is the author of many books and articles on railroad history.

In this book with a clunky title, Steven Usselman has explored the relationships among railroad companies, regulatory bodies, and technology from the dawn of the American railroad industry in the 1830s and 1840s to the end of World War I. It is a complex story. During the experimental stage or "demonstration period" of the antebellum period, pioneer carriers for the most part freely exchanged technology whether involving roadbed construction techniques or motive power. Later in the nineteenth century, however, the nature of collaboration changed. Suppliers, including Carnegie Steel and Westinghouse Air Brake, played a more active role in developing and promoting new and replacement technologies, resulting in the emergence of special corporate and carrier connections. Trade groups and professional associations, too, actively participated in technology transfer activities and made major contributions to the betterment of the industry. For example, the Master Car-Builders Association (MCBA), in a series of well-publicized tests held in 1887 on the West Burlington Hill near Burlington, Iowa, made major suggestions about brake improvements, ones that Congress recognized in 1893 when it passed the landmark
Safety Appliance Act. Yet not all carriers enthusiastically embraced "better mousetraps." Some railroad managers preferred organizational remedies rather than technological ones to solve operating problems. Indeed, improvements regularly occurred due to standardization and the routinization of established practices.

Usselman has accomplished much. A great deal of what he examines is new, even though there are studies on related topics, including efforts to improve railway safety during the late nineteenth and early twentieth centuries. What is particularly valuable about Regulating Railroad Innovation is Usselman's ability to place specific topics into the larger historical context, allowing readers to grasp the overall significance. Moreover, the research is impressive. Not only has he consulted a plethora of secondary works, but he has also effectively mined contemporary trade and professional journals. As for major manuscript collections, Usselman has relied heavily on the corporate papers of two premier carriers, the Pennsylvania and the Chicago, Burlington & Quincy. Fortunately, records from the "Pennsy," the self-proclaimed "Standard Railroad of the World," are available to scholars. For any analysis of matters of railroad technology, the corporate policies of this road are vital.

Usselman does, unfortunately, tend to be repetitious. And occasionally he misunderstands the role of workers on railways. For example, on page 273, he confuses dispatchers with station agents. The former worked in a central or division office; the latter operated the train-control signals at trackside depots. Although the study is extensively documented, the absence of a bibliography is annoying, but perhaps that is not Usselman's fault. Still, the work features some fine illustrations that nicely complement the narrative.


Reviewer John Williams-Searle is a Ph.D. candidate at the University of Iowa. His article, "Courting Risk: Disability, Masculinity, and Liability on Iowa's Railroads, 1868–1900," won the Throne-Aldrich Award as the best article published in the Annals of Iowa in 1999.

Barbara Young Welke's book is an audacious, exhaustively researched work that will change how historians think about liberty in the United States during the rise of industrial capitalism. Welke examines changes in railroad corporations' technology, organization, and cultural power...