

*Building Better Roads: Iowa's Contribution to Highway Engineering, 1904–1974*, by Leo Landis. Ames: Center for Transportation Research and Education, Iowa State University, 1997. xiii, 96 pp. Illustrations, tables, notes, appendix, bibliography, index.

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AND TALLGRASS HISTORIANS L.C.

*Building Better Roads* is a commissioned history that commemorates the 75th anniversary of the Transportation Research Board of the National Research Council, organized in 1920 as the Highway Research Board. Two Iowans, Anson Marston and Thomas MacDonald, were behind the founding of this national research agency, thus providing the rationale for highlighting Iowa's contributions to highway engineering in general, from the inception of the Iowa State Highway Commission in 1904 (an instructional entity within Iowa State College until 1913) to its reorganization as the Iowa Department of Transportation in 1974.

Marston, first dean of the College of Engineering at Iowa State and also a member of the State Highway Commission (SHC) from 1904 to 1927, trained many of the engineers who went on to long, productive careers with the commission. MacDonald, one of them, served as chief engineer of the SHC until 1919, when he was appointed Commissioner of the U.S. Bureau of Public Roads. MacDonald's new position placed him in Washington, D.C., and provided the base from which he and Marston created support for the Highway Research Board, established to coordinate the work of the Bureau of Public Roads with that of the American Association of State Highway Officials, state experiment and research stations, private consulting engineers, and commercial laboratories.

Landis recounts myriad advances and achievements in highway engineering under the auspices of the SHC. Some of this information will be of interest principally to those with a background in civil engineering or those who want to know more about the technological history of Iowa's road systems. An appendix provides a handy timeline of Iowa's most important contributions, chief among them the "slip-form paver," introduced in 1949, which revolutionized concrete highway construction by eliminating the need to use fixed forms.

Within this discussion of engineering achievements, Landis stresses the continued prominence of Iowa's highway engineers in the Highway Research Board (HRB). Notably, Roy Crum, another Marston protégé, did pioneering work in materials research for the SHC, then went on to serve as the HRB director for twenty-two years.

Three engineering professors at Iowa State—Merlin Spangler, M. B. Russell, and Ralph Moyer—were among the first recipients of the HRB's George Bartlett Award, established in 1940 to recognize outstanding research. Only after Crum died in 1951 and MacDonald retired from the Bureau of Public Roads in 1953 did Iowa's presence on the national stage begin to wane.

*Building Better Roads* serves its intended purpose well. The narrative is clearly written, with each chapter helpfully divided by sub-headings, and generously illustrated with an appropriate selection of historical photographs and engineering drawings. It is also a history that future scholars will consult. Other historians have covered Thomas MacDonald's role in envisioning the interstate highway system; however, those who wish to examine the evolution of highway engineering nationwide can consult this work to learn more about Iowa's overall contributions.

*The Struggle for Student Rights: Tinker v. Des Moines and the 1960s*, by John W. Johnson. Landmark Law Cases and American Society Series. Lawrence: University Press of Kansas, 1997. xiii, 250 pp. Bibliographical essay, index. \$35.00 cloth, \$12.95 paper.

REVIEWED BY KERMIT L. HALL, OHIO STATE UNIVERSITY

Few law cases in the history of Iowa have stirred as much controversy and generated as much constitutional discourse as *Tinker v. Des Moines Independent Community School District*, decided by the Supreme Court of the United States in 1969. The case involved Christopher Eckhardt, John Tinker, and Mary Beth Tinker, all students at Des Moines public schools. The two teenaged boys had participated in the November 1965 march against the Vietnam War in Washington, D.C., although Mary Beth had not. In December 1965 the three teenagers brought their protest home by wearing black arm bands to class in violation of a recently (and hastily) passed school policy prohibiting the practice. School authorities suspended the students and sent them home, refusing to readmit them until they returned without the arm bands. The students, for their part, claimed a constitutional right under the First Amendment of the federal Constitution to register their dissent to the war, and they charged that school authorities had violated that right by banning the wearing of arm bands. The students also insisted that the school board had adopted a double standard, asking the students during the previous year to wear arm bands to mourn the loss

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