Growing American Rubber: Strategic Plants and the Politics of National Security, by Mark R. Finlay. Studies in Modern Science, Technology, and the Environment. New Brunswick, NJ: Rutgers University Press, 2009. xiii, 317 pp. Illustrations, tables, notes, index. $49.95 cloth.

Reviewer Joanne Abel Goldman is associate professor of history at the University of Northern Iowa. She is the author of "Mobilizing Science in the Heartland: Iowa State College, the State University of Iowa, and National Science during WWII" in the *Annals of Iowa* (2000).

In *Growing American Rubber,* Mark Finlay examines the century-long effort to supplement the imported rubber supply with either a domestically produced source, natural or synthetic, or a foreign supply that could meet the needs of the growing U.S. economy. Finlay argues that the intensity of that effort grew and faded in direct correlation to the urgency of national security concerns. During World War II, the situation grew dire, and Iowans became particularly vocal as they lobbied for the development of grain-based synthetic rubber.

Finlay documents the history of early rubber production. In the 1920s, the United States imported the bulk of its rubber supply from British and Dutch plantations in the South Pacific. To stabilize profits, England regulated exports, and subsequently prices rose. Nonetheless, demand continued to increase, and the importance of a domestic supply became urgent. Thomas Edison rallied to the cause. Edison's group made valiant efforts to identify and grow domestic rubber plants, but despite inexhaustible energy, abundant resources, and unwavering commitment to success, he died before developing a reliable and adequate crop able to meet the growing demand.

World War II exacerbated an already critical situation inasmuch as the military engagements required rubber for tanks, airplanes, and medical supplies. With transoceanic trade compromised and the plantations of the South Pacific vulnerable to Japanese earth-scorching, the demand for domestic production reached a crescendo. In 1942 the federal government launched the Emergency Rubber Program, a national research initiative to solve the shortfall. Finlay likens the program to the Manhattan Project "in terms of scale, urgency and interdisciplinary scope" (141).

Government and private-sector scientists experimented with rubber-producing plants in California (including one in a Japanese internment camp), Arizona, Texas, and Minnesota. The United States controlled plantations in Mexico and Haiti as well. In addition, people began in earnest to synthetically develop rubber from grain-based alcohol and petroleum. The synthetic initiatives became politically charged as midwestern farmers faced off with petroleum producers.

Iowa Senator Guy Gillette chaired a Senate committee to study the problem and quickly became a proponent of grain-based alcohol production. The committee concluded that the government must support a new agency devoted to synthetic rubber production made exclusively from plants. Despite its efforts, the president vetoed the bill. The Gillette Committee then threw the debate into the public limelight, harnessing spirited public support throughout the Midwest. Roosevelt responded by supporting research and production on both grain- and petroleum-based synthetic rubber. By the end of 1942, the debates calmed and production of synthetic rubber reduced the urgent rubber shortage.

The whole rubber supply drama reaches a climax in chapter 6; there Finlay's organization proves to be weak. By that point it is unclear why the mammoth effort to grow or synthetically produce rubber never satisfied the demand. Not until chapter 7 does Finlay tell us that ineffectiveness, inefficiency, and scandal together with weather and disease events plagued much of the effort. In chapter 8 Finlay concludes the story by noting that with the end of World War II, the quest for rubber self-sufficiency waned, following the pattern that had persisted during most of the first half of the century.

Growing American Rubber is a good history of the rubber industry, private and public efforts to control the industry, and its vulnerability to world politics. This is important because we all need to understand that increased globalization and increased outsourcing intensify our vulnerability. Therefore, this book should be of interest to historians of science and technology, economics, and the twentieth century as well as to makers of public policy.

Staley: The Fight for a New American Labor Movement, by Steven K. Ashby and C. J. Hawking. Urbana and Chicago: University of Illinois Press, 2009. xi, 358 pp. Illustrations, notes, glossary, index. $75.00 cloth, $25.00 paper.

Reviewer Colin Gordon is professor of history at the University of Iowa. He is the author of *Mapping Decline: St. Louis and the Fate of the American City* (2008); *Dead on Arrival: The Politics of Health Care in Twentieth-Century America* (2003); and *New Deals: Business, Labor, and Politics in America, 1920–1935* (1994).

Each era of American economic history has its emblematic labor struggle: Homestead in the 1890s, steel at the close of World War I, the Flint Sit-Down in 1936–37, General Motors in 1946, the Memphis Sanitation Strike in 1968. Each of these, in its recounting, is held out as both a snapshot of that era's labor relations and the blueprint for a new la-