of how these letters returned to Indiana is complicated, but they reveal with almost naive honesty the life, times, observations, joys, and sorrows of over forty years of the Ingle family as they move from pioneer rusticity to settled "sophistication" in southwestern Indiana. With McCutchan's explications, plus the supplementary town documents, almost every letter opens new insights into varied Hoosier institutions, be they religious, political, economic, or intellectual.

The excitement of learning to know people from the past may be even more valuable than the information derived from the content of the letters. In this charming exposé of Ingle family life the reader eagerly awaits the next episode to see how family health and wealth will fare. These letters from a semiliterate pioneer family on the cutting edge of frontier civilization flesh out statistics to reveal how Hoosiers really lived; Saundersville in turn comes alive. It is to be hoped that a new generation of Indiana social historians with requisite imagination will combine quantitative analysis with a growing supply of such local vignettes as these in order to create a needed historical synthesis. Any good collection of Indiana history materials should include this book; all friends of Indiana history are indebted to the Friends of Willard Library, Evansville.

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Alloys and Automobiles: The Life of Elwood Haynes. By Ralph D. Gray. (Indianapolis: Indiana Historical Society, 1979. Pp. xi, 243. Illustrations, notes, tables, note on sources, index. Paperbound, $9.00.)

On a July 4th afternoon in 1894 Elwood Haynes of Kokomo, Indiana, took a successful test drive in an automobile that he had designed. His action certainly established him as Kokomo's first citizen and placed him among the very earliest automotive pioneers in the United States. Whether Haynes designed, built, and operated the first gasoline-powered automobile in the United States or not remains uncertain—despite Ralph D. Gray's best efforts. Gray does succeed, however, in demonstrating that Haynes deserves far greater recognition as an early automotive pioneer than he is generally accorded.

Haynes was born into an upper-class family in Portland, Indiana, in 1857. He received more formal education than most of America's Gilded Age businessmen and inventors. After completing high school, he entered Worcester County (Massa-

chusetts) Free Institute of Industrial Sciences and graduated in 1881. Later on he spent a year in graduate study at Johns Hopkins University. Perhaps that is why Haynes placed a far higher value on college education than most of his contemporaries. He argued: "Never employ a man, not in this day of the world, who is not a college graduate to attack any problem that requires an original process" (p. 213).

In the last decade of the nineteenth century, Haynes, after a brief career as superintendent of the Portland (Indiana) Natural Gas and Oil Company, turned his attention to the development of the automobile. The successful test drive in 1894 was the result of several years' experimentation and development, always conducted in what Haynes perceived to be the proper scientific method. In 1894 Haynes and Elmer Apperson, in whose machine shop the actual construction of Haynes' first car had taken place, entered the automobile business. The Haynes-Apperson partnership lasted less than a decade. Apperson, strongly attracted by the early "races" and endurance "runs" being conducted at the turn of the century to promote the automobile, set up his own company to specialize in the production of more powerful racing cars. Haynes, until it was too late, ignored the market for small inexpensive cars and concentrated on building medium or large luxury cars designed for upper-class customers. Lured by a seemingly limitless market during the latter part of World War I and the immediate postwar years, the Haynes Automobile Company overbuilt and despite heroic efforts never fully recovered from the 1921-1922 depression in the industry. The company failed in 1925.

At least part of the problem had been poor management. Haynes was never really an automobile business executive. Without a great deal of business talent himself, Haynes relied much too heavily on his family, none of whom possessed the necessary management experience and skills to direct an automobile company during those turbulent years. It is difficult to fault Haynes for his lack of entrepreneurship or business ability; he was an inventor and deserves recognition as a metallurgist.

In September, 1912, Haynes received patents on "stellite," a ternary alloy of cobalt, chromium, and tungsten, which produced an extremely hard metal ideal for machine tools, medical and dental equipment, cutlery, and other items which needed to take and hold a fine edge. After a brief period during which Haynes manufactured and marketed stellite through the Haynes Stellite Company, the alloy patents were acquired by Union Carbide and Carbon Corporation.

The same year that Haynes received his stellite patents he applied for patents on an iron or steel and chromium alloy which was noncorrosive. Haynes' patent on the chromium alloy, popularly known as "stainless steel," was not granted until 1917 when the Patent Office Board of Examiners ruled that Harry Bearley's 1916 patent on the alloy had interferred with Haynes' earlier work. Haynes may not have built the first automobile, but he undoubtedly deserves credit for having first patented the corrosive-resistant properties of stainless steel.

Working with rich sources relating to Haynes' businesses, Gray presents an excellent picture of his subject's accomplishments in pioneer automobile development and metallurgy. He is less successful in dealing with Haynes, the man, but it is difficult to fault Gray considering that in this respect few sources were apparently available. What is otherwise a fine book is somewhat marred by Gray's obsession with the question of whether or not Haynes built the first car. Rather than dealing with the topic on at least three separate occasions, Gray would have better served his readers with one thorough discussion. This is, however, a minor fault in an otherwise excellent treatment of the first citizen of Kokomo, Indiana.

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Eugene V. Debs: Spokesman for Labor and Socialism. By Bernard J. Brommel. (Chicago: Charles H. Kerr Publishing Company, for the Eugene V. Debs Foundation, 1978. Pp. 265. Illustrations, notes, index. $15.00.)

This is the first full-length biography of Eugene Victor Debs since Ray Ginger's *The Bending Cross* (1949). Bernard J. Brommel's book is not as powerfully evocative of the man and his times as is that previous work, but it is well grounded in original research. The author has mined contemporary magazines and newspapers, labor and radical journals, and the papers of socialists who worked with Debs. He has discovered some new Debs letters and the collection that Theodore Debs kept as his brother's secretary. Brommel has even found some volumes from Debs' own personal library and has interviewed survivors who knew the great labor-socialist agitator.

The book has fresh information on Debs' youth, including the sources of his formal education and informal reading. The story of his early work as a labor organizer and editor is well told. Brommel also notes Debs' service as Terre Haute's city