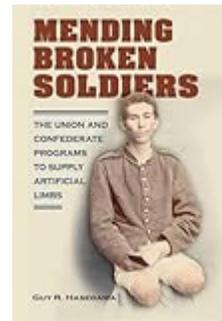




Guy R. Hasegawa. *Mending Broken Soldiers: The Union and Confederate Programs to Supply Artificial Limbs.* Carbondale: Southern Illinois University Press, 2012. 160 pp. \$24.95 (cloth), ISBN 978-0-8093-3130-7.



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This concise and focused book is a history of the manufacture of prostheses during the American Civil War. While ample literature examines medical care, particularly nursing, during the war, the manufacture of artificial limbs has not been studied. Between 1861 and 1865, around sixty thousand limbs were amputated due to war injuries. The empty sleeve and the empty trouser leg became common sights. Devoting his study to this widely overlooked Civil War topic, Guy R. Hasegawa begins with a chapter that gives voice to the soldiers, using letters they wrote to their families. The voices are powerful and the quoted passages are overwhelmingly poetic in their description of the actual moment of injury, described, for example, by one soldier as “a terrific jar of a peal of thunder” (p. 1). Hasegawa is sensitive to the soldiers’ perspectives, presenting those who were ashamed and those who were proud of their loss. He addresses the complexity and technicality of surgery that clearly depended on the type of limb that was lost (toe, finger, leg, or arm). The focus of the text quickly moves to the leg, the limb that was most commonly replaced.

Hasegawa traces the art of artificial limb making to the Anglesey leg made by James Potts of London around 1800 and the wide use of artificial limbs in the aftermath of the Battle of Waterloo (1815). Potts later moved to the

United States and expanded his business. Hasegawa then summarizes the debate concerning the best material for prostheses, including cork, rubber, whalebone, and silver—a debate that became more urgent following the expansion of the railroad system in the United States, which created a demand for artificial limbs because of high incidence of injuries among railroad workers. There was tension over whether a limb should primarily be functional (for example, a hand able to hold things) or cosmetic (for example, a leg that resembles the natural limb). The latter approach might have led to interesting discussion of the human machine, but Hasegawa does not explore theoretical discourses. He does, however, have an eye for the human element; for example, of Potts he states: “Contributing to his recognition were his ceaseless self-promotion and his equally persistent criticisms of competitors” (p. 9).

Hasegawa finds that during the Civil War, leg replacements were mainly available in the North and, costing 150 dollars, were almost unaffordable to a private who earned 13 dollars a month. The following chapters detail discussions about possible state funding, the cost of manufacturing limbs, and negotiations surrounding the hospitals that would benefit, thus showing the role of economics and the advantages for a few manu-

facturers. Some amputees were supported with grants of 25 to 50 dollars, but they still had to pay the difference of 50 to 100 dollars. Unfortunately Hasegawa does not link these economic factors to the wider economic context. Nor does he investigate the factories and working conditions of limb craftsmen.

Instead, he explores the procedures for the evaluation of the effectiveness of limbs, particularly from correspondence that gives insight into how manufacturers were commissioned, how these procedures differed from North to South, and how they changed even during the course of the Civil War. One survey showed that by May 1867 devices had been supplied to more than 6,700 military men who had suffered amputation or resection of a limb. Although not all recipients were happy with their prostheses, the program was a remarkable logical accomplishment and an important milestone in the government's commitment to care for its wounded soldiers and sailors (p. 45). This perhaps suggests that there was conflict between quantitative demand and qualitative expectations of users.

Chapter 6 details the artificial limb program of the Confederate state, which was predictably racist and struggled with devaluation of the Confederate currency. Hasegawa is a perfectionist in listing all the changes that

occurred. In this chapter, he meticulously details the appointment of government agents and manufacturers, as well as a tabulation of the actual orders of legs (768 legs between January 1864 and March 1865).

The book includes a brilliant selection of illustrations, which provide their own visual stories and beautiful glimpses into history. The section includes an image of Samuel H. Decker who lost both forearms but with artificial limbs was able to write and pick up objects; an amazing drawing of Selpho's 1856 patent of an artificial leg including the details of the joint mechanisms; newspaper advertisements; and images of the Walker brothers, Henry and Levi, before the war and following the Gettysburg campaign in which both lost their right legs. Hasegawa also supplies a useful list of makers and inventors associated with the artificial limb programs discussed.

Hasegawa's work provides a concise overview of the artificial limb programs during the Civil War. He uses his sources meticulously, captures the voices of the agents doomed to coordinate the program, and reveals the difficulties in keeping the broken soldiers economically valuable to society. It is now the task of others to reveal the larger dimensions embedded in the outcomes of the Civil War, bodies and machines in a rising capitalist economy.

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