

University of Mississippi

eGrove

Honors Theses

Honors College (Sally McDonnell Barksdale
Honors College)

2005

Civil War Medicine: Crisis and Heroism in the Medical Profession, 1861 - 1865

Diana Frances Semmes

Follow this and additional works at: https://egrove.olemiss.edu/hon_thesis

Recommended Citation

Semmes, Diana Frances, "Civil War Medicine: Crisis and Heroism in the Medical Profession, 1861 - 1865" (2005). *Honors Theses*. 2258.

https://egrove.olemiss.edu/hon_thesis/2258

This Undergraduate Thesis is brought to you for free and open access by the Honors College (Sally McDonnell Barksdale Honors College) at eGrove. It has been accepted for inclusion in Honors Theses by an authorized administrator of eGrove. For more information, please contact egrove@olemiss.edu.

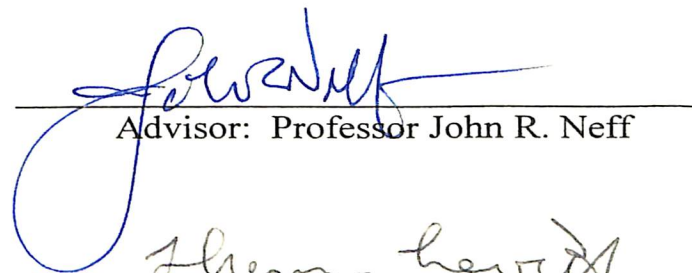
CIVIL WAR MEDICINE: CRISIS AND HEROISM IN THE MEDICAL
PROFESSION, 1861 - 1865

by
Diana Frances Semmes

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of
the requirements of the Sally McDonnell Barksdale Honors College.

Oxford
May 2005

Approved by



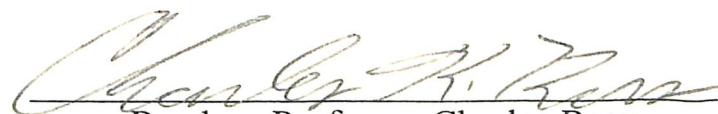
A handwritten signature in blue ink, appearing to read "John R. Neff", is written over a horizontal line.

Advisor: Professor John R. Neff



A handwritten signature in black ink, appearing to read "Theresa Levitt", is written over a horizontal line.

Reader: Professor Theresa Levitt



A handwritten signature in black ink, appearing to read "Charles Ross", is written over a horizontal line.

Reader: Professor Charles Ross

© 2005
Diana Frances Semmes
ALL RIGHTS RESERVED

I would like to dedicate this thesis to my parents for all the support they have shown me throughout the years. I would also like to dedicate this to my advisor Dr. Neff who has been a source of inspiration for me throughout my time as a student at the University of Mississippi.

ABSTRACT

DIANA FRANCES SEMMES: Civil War Medicine: Crisis and Heroism in the Medical Profession, 1861 – 1865
(Under the direction of Dr. John Neff)

This thesis uses a variety of sources to look at the medical profession during the Civil War era. Both primary sources and secondary sources provide information on the perspectives of the key players during the period as well as an understanding of the knowledge present at that time and the methods and practices employed. Most of the research has been done using the J. D. Williams Library on the University of Mississippi main campus though it has been supplemented by books in my own personal collection, items loaned from Dr. Neff's collection, online resources such as the Library of Congress and the Centers for Disease Control website, and information in the Archives of the State of Mississippi. Information gathered includes personal experiences from Civil War medicine recorded, as well as information regarding the history of medicine. Also included is information regarding the techniques and equipment used by the medical professionals. The picture painted by all of the information gathered is a scene of crisis because of the overwhelming numbers of soldiers needing treatments for battlefield wounds and diseases. Diseases ravished the army camps. Horrifying descriptions of amputations depict the state of surgery at a time when antisepsis was only beginning to be employed and when there were very limited drugs to help alleviate suffering and infections. However, through the crisis came a form of heroism among the doctors and other medical professionals in their ability to treat as many people as possible with the

knowledge they had. Through the crisis and heroism, came advancements in medicine that led to the medical revolution to come in the decades following the war. This study of medicine concludes that medical practice during the Civil War period is an important aspect of the time and plays a key role in future developments in the world of medicine.

TABLE OF CONTENTS

INTRODUCTION.....	1
CHAPTER I: NATURAL WARFARE.....	6
CHAPTER II: MEDICAL TREATMENTS FOR DISEASES AND WOUNDS.....	17
CHAPTER III: A GRUESOME SOLUTION.....	29
CHAPTER IV: HOSPITALS AND THE AMBULANCE CORPS.....	38
CHAPTER V: DOCTORS AND NURSES.....	46
BIBLIOGRAPHY.....	65

Introduction

Medicine was an important aspect of the American Civil War. The importance can be seen in how much information there is about medicine during the war. Many doctors, soldiers, and nurses wrote in books about their experiences during the war. There are also plenty of books by historians studying this aspect of the Civil War. Any time a soldier became sick or wounded, he turned to the medical professionals for help. The war became a turning point in American medicine. At the onset of the war, doctors knew little about how to treat certain wounds and diseases, but by the end of the war, they were efficient at treating injuries and were learning more about diseases such as the importance of sanitation. A crisis resulted from the massive numbers of men suddenly needing treatment at the same time due to either diseases in the camps or to injuries received while fighting. The war served as a catalyst for heroism among the medical personnel who worked to resolve the crisis created by the war. Doctors and nurses worked long hours trying to contain battle-field wounds. For example, because of the mass numbers of amputations, doctors learned the best ways to perform them. Doctors were seeing more patients in twenty four hours than they had probably seen in months or even years before the war. The civilian nurses are also to be commended. Many women turned out to aid the sick and wounded by taking on the role of nurse. In order to understand the importance of medicine as a catalyst for the heroism of the medical

professionals in response to the profound crisis at hand, the state of medicine before the war must be looked at.

Medicine has been practiced in various forms since its beginning in some of the early civilizations. During the era of Hippocrates, people believed that sickness was caused by an imbalance in the bodily fluids termed humors. Humoral imbalance could be prevented or corrected through either lifestyle or by medical or surgical means. By the dawn of the Civil War, medicine had progressed past the point of belief in the humors to the beginnings of modern medicine.

Doctors had long been performing autopsies to understand the mechanics of disease. Laboratories around 1850 “were transforming physiology and pathology and making their mark...upon medical education.”¹ Once the effects of diseases had been determined, it would only be a matter of time before their root cause would be discovered. The “germ theory” was not proven until after the Civil War when Louis Pasteur demonstrated that “particular microbes actually caused particular diseases.”² Unfortunately for the soldiers of the Civil War, bacteria had yet to be discovered and the practice of antisepsis was only beginning to be put to use. After the beginning of the twentieth Century, doctors also discovered the relationship between nutrition and sickness. Malnutrition had been a problem for Civil War soldiers as sometimes food was scarce in the army camps. Medicinal therapies were revolutionized during the nineteenth century with the transformation to pharmacology and the mass production of drugs such as opium. Opium would be a key player in the medicinal treatments employed by Civil

¹ Roy Porter , Blood and Guts: A Short History of Medicine (New York: W. W. Norton & Company, 2002) , 79 .

² Porter , 86 .

War doctors. With the discovery of bacteria came the search that led to the discovery of penicillin in 1928.³

Fortunately for the thousands of soldiers who endured operations after receiving battle wounds, there was anesthesia, which had been introduced to surgery in the 1840s.⁴ The first anesthetic to be used was nitrous oxide in the 1790s. In the 1840s, doctors began to use ether and the less dangerous chloroform. With the advent of these anesthetics, operations became not only bearable but also remarkably safer.

Anesthetics were just the beginning of the revolution of surgery. The most important discovery was that the spread of disease could be prevented by antiseptics. Diseases were at that time thought to have come from bad air. People such as Florence Nightingale made efforts to ventilate and avoid overcrowding hospitals in order to slow down the transmittance of diseases.⁵ Water, vinegar, and iodine were used as some of the first antiseptics. In 1865, the last year of the Civil War, Joseph Lister would discover that carbolic acid was an effective antiseptic.⁶ By the turn of the century, antiseptics made its way into surgery by way of the sterilization of instruments, a practice that definitely could have been beneficial to surgeons during the Civil War who were forced to perform incredible numbers of surgeries.

With this background in pre-war medicine, the reasons for such a high death toll during the war make more sense. Without the revolutionary techniques that were available only a few decades later, soldiers and surgeons were faced with the grim reality

³ Porter , 105 .

⁴ Porter , 113 .

⁵ Porter , 125 .

⁶ Porter , 125 .

that often there was no cure. Doctors were often only able to treat the symptoms and ease pain through the use of opiates and morphine.

In order to paint a full picture of the practice of medicine during the Civil War, there are two sides that demand attention. First are the types of medical problems and therapies common during this era. A look at the diseases that were most frequently witnessed throughout army camps provides a clue as to what kinds of non-military battles the soldiers and doctors met. Disease was a huge problem for both the Union and the Confederacy. Doctors had a variety of treatments that could be used, though non as effective as the antibiotics of medicine today. When it came to injuries from the battlefield, there were various types. Doctors employed numerous techniques and therapies to help patients heal from these wounds. One of the most common practices was that of amputation. The sheer amount of amputations performed in the Civil War warrants that some innovative procedures should develop. Surgeons were able to learn a great deal about the timeliness of amputations as well as which techniques proved to be the most effective.

The second area of Civil War era medicine to be examined is the social aspect of medicine. Hospitals and ambulance corps were revolutionized. Field hospitals were able to set up and take apart to move with remarkable speed. The governments did their part to establish guidelines and make hospitals and ambulance corps more efficient. The medical corps was also improved. Civil War medicine cannot be looked at without taking a look at the persons responsible for the care of the patients; namely the doctors and nurses. Doctors were heroic in their efforts to ease the suffering of the many soldiers in the hospital camps. Many soldiers commented on the care they received from the

doctors and nurses while in the hospital. The governments and the civilians commented on medical personnel and worked to improve the social side of medicine. All efforts were made to make life easier for the soldiers residing in the hospitals.

Medicine is an important part of the history of the American Civil War. With diseases and battlefield injuries being so frequent among troops, medicine played a large part in the life of the Civil War soldier. This thesis hopes to impart to its readers an understanding of the challenges and accomplishments of medical professionals during this trying time in American history, both in the area of diseases, wounds, and treatments as well as in the area of medical organization and personnel.

Chapter 1

Natural Warfare: Diseases in the Camps

The incidence of disease was a significant component of medicine during the American Civil War. Often soldiers died in military hospitals from diseases rather than from wounds. In Bell Irvin Wiley's *The Life of Billy Yank*, soldiers observed that more comrades died from sickness than from injury.⁷ According to Wiley, four soldiers died from sickness for every one soldier killed among the Federal forces, with the heaviest incidences of diseases occurring during the months of July and August and affecting the black soldiers the most.⁸ However, the commonly accepted ratio among historians is two soldiers dead from disease for every one soldier killed in battle. Sometimes these diseases were infections that set in after an operation or a battlefield wound. Sometimes they were contagious infections that spread among the army camps. At the time of the Civil War, little was actually known about the causes of sickness. For example, bacteria, the cause of many illnesses, would not be discovered until after the war.

However, through practice people had found that sanitation helped to prevent the occurrence of diseases. Kate Cummings, a southern woman who worked as a nurse, wrote in her diary, "Dr. Smith has taken charge of the hospital, and I think things will be

⁷ Bell Irvin Wiley, *The Life of Billy Yank, the Common Soldier of the Union* (Indianapolis: Bobbs-Merrill, 1952), 124.

⁸ Wiley, 124.

different from now on. He is having the house and yard cleansed. Before this, it was common to have amputated limbs thrown into the yard and left there.”⁹ The simple act of cleaning the area where many patients were located helped to cut down on the number of infections. Neither Dr. Smith nor Kate Cummings knew why removing the amputated limbs would curb infections, but they knew that it would somehow do so. With the amputated limbs gone, there was not as plentiful a source of food for bacteria to feed on, since bacteria gain nutrients from the body of their host.

The spread of diseases was a large problem for physicians. The lack of medicines and supplies hindered the treatment of diseases, allowing them to be more capable of spreading. Once a disease entered a camp, they easily became epidemics. Surgeons and doctors were overworked because of the ease with which diseases spread. Surgeon George T. Stevens of the Seventy-seventh New York Volunteers wrote “we began to feel the scourge of new regiments. Disease became almost universal. We had but a single medical officer and he was tasked beyond his strength.”¹⁰ There are two main reasons for this trend among new regiments. New soldiers had not been previously exposed to many of the diseases that affected the camps. Also, the new recruits might bring diseases that had not yet reached the army camps. The epidemics rampaging through the camps of soldiers included measles and mumps, acute respiratory tract infections, typhoid fever, typhus, meningitis and meningococemia.

Another problem came from the soldiers’ lack of knowledge about individual precautions for diseases. The soldiers camped in areas of poor drainage and set the tents

⁹ Beulah M. D’Olive Price , “Nurses Played a Strategic Role in Civil War,” Daily Corinthian, 28 December 1983 .

¹⁰ Alfred Jay Bollet , Civil War Medicine: Challenges and Triumphs (Tuscon: Galen Press, Ltd., 2002) , 257 .

up close together. They also would often not wash their hands after going to the bathroom.¹¹ There also was a lack of garbage disposal as well as insufficient clothing and shelter. Without sufficient clothing, soldiers faced the effects of the elements. They lacked protection from cold air, sun, or precipitation. This weakened their immune systems and allowed diseases to set in more easily. The same goes for diet. Many soldiers did not receive an adequate nutrition. Without proper diet, the soldiers faced the threat of disease due to weakened immune systems.

Outside of the communicable diseases, it was often the trauma of injury that invited disease. Gangrene was one of the most common conditions caused by infection among the soldiers. Gangrene would set into wounded areas and often caused the amputation of limbs. The only way doctors knew how to stop the spread of the gangrene was to remove the infected part and hope that all the disease was removed with the flesh. The type of gangrene typical among soldiers was what is now termed “gas gangrene.” According to the Mayo Clinic, this type of gangrene is caused by “infection with certain types of bacteria, such as clostridium. It typically occurs at the site of a recent injury or surgery. The bacteria rapidly destroy muscle and surrounding tissue” and typically causes the skin to be swollen and to initially look pale but then become dark red or purple in color.¹²

Therefore, one of the most common reasons for amputation was the presence of gangrene in a limb. Soldiers’ wounds would sometimes become infected by gangrene, which in turn would call for amputation of the limb to stop the spread of the infection rather than as a result of the original injury. This was done if the gangrene had gotten to

¹¹ Wiley , 126 .

¹² <<http://www.mayoclinic.com/invoke.cfm?id=HQ00737>> (10 September 2004) .

the point where the limb could not be saved. Surgeon Hargrove Hinkley of Demopolis, Alabama, wrote an article for the September 1864 issue of the *Confederate States Medical and Surgical Journal* in which he described a patient that came to his care whose arm was infected with gangrene. He described how the arm “muscles were dissected by the gangrene to above insertion of deltoid and nearly to elbow.”¹³ Furthermore, he said that “the treatment hitherto pursued not having had any effect, and the disease advancing rapidly, I decided two or three days after taking charge to amputate at the shoulder joint, as a *dernier resort*, with but faint hope of saving life.”¹⁴ *Dernier resort* is French for a last or final resort or expedient. His use of the term indicates the reluctance to amputate as well as the necessity of amputation. As can be seen, gangrene was a nasty infection and caused problems for many wounded soldiers.

But it was the communicable diseases and not gangrene that wreaked havoc on the health care system in place for the soldiers during the war. General Robert E. Lee wrote a letter to his wife telling her about his army’s condition upon his arrival. “The soldiers everywhere are sick,” he wrote. He continued, saying “The measles are prevalent throughout the whole army, and you know that disease leaves unpleasant results, attacks on the lungs, typhoid, etc., especially in camp, where accommodations for the sick are poor.”¹⁵ B. J. Semmes, a major in the Confederate Army wrote in one of his letters that he was “very uneasy about [his] brother, Thomas, who is in New Orleans. The cholera is raging there, 150 having died on Christmas Day and 100 each day before

¹³ Hargrove Hinkley , “Treatment of Hospital Gangrene,” Confederate States Medical & Surgical Journal 1 , no. 9 (1864) : 131 .

¹⁴ Hinkley , 131 .

¹⁵ Paul E. Steiner , Disease in the Civil War: Natural Biological Warfare in 1861-1865 , (Springfield: C. C. Thomas, 1968) , 54 .

for four or five days.”¹⁶ Semmes’ brother, Thomas, was a senator from Louisiana in the Confederate Senate.

Historian of medicine Alfred Bollet provides some statistical evidence of the scope of the problem. He states in his book that among the Union troops there were 67,763 cases of measles among whites with 4, 246 deaths and among black troops 8,555 cases with 931 deaths.¹⁷ This means that among white soldiers suffering from the measles, 6.27% died. Among black soldiers, the percentage of measles resulting in death was 10.88 %. Out of a total of 76,318 cases of measles, 6.78% resulted in death. Bollet continues by saying that measles was more prevalent among the Confederate troops; however, he gives no numbers to show how many people were actually affected although he speaks of how the number of cases per year dropped in the later years of the war because soldiers who survived gained immunity to the disease.¹⁸ Bollet is unable to give statistics for the incidences among Confederate troops mainly because many of the records simply did not survive. Mumps was another disease that like measles was common among the camps, affecting comparable numbers of troops. The swelling of the parotid glands caused much pain to the soldiers, especially when they chewed. According to Bollet, during an outbreak of mumps amidst the encampment, “men would tie up their jaws with a bandage to decrease the pain from inflamed parotid glands when they chewed.”¹⁹

Scurvy was another disease that ran rampant throughout the troops. In the *Confederate States Medical and Surgical Journal*, W. S. Oliver, M.D., wrote an article

¹⁶ Anderson Humphreys , and Curt Guenther , *Semmes America* , (Memphis: Humphreys Ink, Inc., 1989) , 366 .

¹⁷ Bollet , 269 .

¹⁸ Bollet , 269 .

¹⁹ Bollet , 271 .

telling what he believed was the cause of scurvy, though the exact cause was still unknown: he was “so confident that the true cause of scurvy entirely [depended] on a deficiency of protein compounds, both animal and vegetable, in the food used by sufferers from that disease.”²⁰

George Geer, a soldier aboard the *U.S.S. Monitor* wrote to his wife complaining of gastrointestinal problems saying “It first affected my Bowels and water. I have no appetite, sick to my Stomach, and very weak.”²¹ Geer was actually suffering from hepatitis and wrote, “This time it is my Liver is out of order, caused by drinking River Water. What water passes me is the color of Blood, and I am as yellow you would think I had the jaunders, and I am so weak I can scarce stand alone.”²²

One of the most feared and fatal epidemic diseases during the Civil War period was Typhoid Fever. According to the Center for Disease Control, typhoid fever is a “life threatening disease caused by the bacterium *Salmonella Typhi*. . . [A person can] get typhoid fever if [he or she] eat[s] food or drink[s] beverages that have been handled by a person who is shedding *S. Typhi* or if sewage contaminated with *S. Typhi* bacteria gets into the water [he or she uses] for drinking or washing food.”²³ The CDC also describes the symptoms: “Persons with typhoid fever usually have a sustained fever as high as 103° to 104° F (39° to 40° C). They may also feel weak, or have stomach pains, headache, or loss of appetite. In some cases, patients have a rash of flat, rose-colored spots.”²⁴ Contamination with the bacteria was common among army camps and caused

²⁰ W. S. Oliver , “Scurvy: Its Cause,” Confederate States Medical & Surgical Journal 1 , no. 9 (1864) : 143.

²¹ William Marvel , The Monitor Chronicles: One Sailor’s Account (New York: Simon & Schuster, 2000), 114 .

²² Marvel , 117 .

²³ <http://www.cdc.gov/ncidod/dbmd/diseaseinfo/typhoidfever_g.htm> (10 September 2004) .

²⁴ <http://www.cdc.gov/ncidod/dbmd/diseaseinfo/typhoidfever_g.htm> (11 September 2004) .

epidemics that had the potential to become widespread. Among white Union soldiers during the Civil War there were 75,418 cases reported with 27,058 of the cases resulting in death.²⁵ In all likelihood the statistics are comparable for the Confederate soldiers, though there is no substantial data. However, Confederate Brig. Gen. John Magruder reported in 1861 that:

The sickness among the troops in the Peninsula is grave, both in extent and character, all diseases taking more or less a typhoid character, and many deaths occurring--at Yorktown about two a day. Some idea may be formed of its effects when I state that the Fifth North Carolina Regiment, composed of twelve companies and over 1,000 strong, is now less than 400 for duty. . . . Typhoid has been so prevalent and fatal at Jamestown Island as to make the withdrawal of the men from that post necessary.²⁶

When a soldier survived an attack of typhoid fever, he would then become a carrier of the disease and could contaminate others through his excrement due to the generally poor sanitation of the time period.

Among other fevers, there are several diseases that were lumped under the category of “spotted fever” during the Civil War. These diseases were all called “spotted fever” because their symptoms typically included a high fever and a spotty rash. One of the diseases was typhus though it was not one of the major “spotted fever” epidemics. Typhus symptoms include severe headaches, a rash, a high fever, and progressive neurological involvement. Complications to typhus included bronchopneumonia and nephritis. Meningitis was a far more serious problem. According to the CDC, “Meningitis is an infection of the fluid of a person's spinal cord and the fluid that surrounds the brain.”²⁷ With meningitis infections, the “organism spreads rapidly

²⁵ Bollet , 273 .

²⁶ Bollet , 275 .

²⁷ <http://www.cdc.gov/ncidod/dbmd/diseaseinfo/meningococcal_g.htm> (11 September 2004) .

through the bloodstream, giving rise to tiny hemorrhagic blisters in the skin” which gave rise to the term “spotted fever.”²⁸ Rocky Mountain spotted fever and other Rickettsial diseases likely account for some of the remaining cases of “spotted fever” that were diagnosed during the Civil War.²⁹ A Rickettsial disease is one from the Rickettsiaceae family of rod-shaped, coccoid, or diplococcus-shaped and often pleomorphic bacteria that cause various diseases such as the above mentioned typhus.

One of the most common groups of diseases affecting soldiers during the Civil War were the diarrheal diseases. Thus named for their main symptom, diarrheal diseases were the number one affliction of soldiers during the Civil War. According to Paul E. Steiner, author of *Disease in the Civil War: Natural Biological Warfare in 1861-1865*, “Dysentery and diarrhea were the most important military diseases from the viewpoints of number of victims, mortality, chronicity, sequels, relapses, and repeated attacks. . . . In severity it ranged from a benign, mild, ‘walking’ purging to protracted, painful, febrile, half-hourly, blood and pus evacuations.”³⁰ Diarrhea could be caused by the diets of the soldiers, the poor sanitation, and the ingestion of spoiled food. Dysentery was another term sometimes used to refer to the intestinal problem of diarrhea though some doctors used it to mean more specifically blood in the stools. The occurrence of diarrhea among soldiers was very high. The disease was so common that soldiers would often not report it as an illness. Of those reported, Bollet states that there were 1,528,098 infected among Union troops.³¹ Soldiers used many names when referring to diarrhea, including “the

²⁸ Bollet , 278 .

²⁹ Bollet , 278 .

³⁰ Steiner , 16 .

³¹ Bollet , 284 .

Confederate disease,” “The Virginia Quickstep,” and the “Tennessee Trots.”³² In Corinth, Mississippi, Union General Henry Halleck’s Union troops fell ill to diarrhea after using the same contaminated water supply that General P. G. T. Beauregard’s sick troops had used before withdrawing from the town and therefore termed their diarrhea “the Evacuation of Corinth.”³³ The poor living conditions of the soldiers led some surgeons to speculate as to the causes of diarrhea. One surgeon attributed “the main causes of diarrhea to crowding of the camps and men, poor diet, salt meat in excess, want of fresh food, and badly kept [latrines].”³⁴ He added that “A well man will, I believe, sometimes get diarrhea by sitting upon sinks used by patients affected by that disease.”³⁵ This opinion was more than likely true for the cases of diarrhea caused by bacterial infections.

Malaria was the second most common disease during the Civil War. There were almost a million cases recorded among Union forces, with contemporary observers thinking that Confederate forces might have faced higher incidences.³⁶ Soldiers did not realize that malaria was transmitted through infected mosquitoes. The Malaria Foundation International describes malarial symptoms as “spells of chills, fever and weakness. This illness generally lasts 10-14 days.”³⁷ Malaria has the capability for recurrence, so many of the cases reported were relapses. Cavalryman Charles Francis Adams, Jr., who wrote to his father, Henry Adams, serving as the U.S. Minister to London, in September 1863, said that “an army soon breeds a malaria which engenders

³² Bollet , 285 .

³³ Bollet , 285 .

³⁴ Steiner , 135 .

³⁵ Steiner , 135 .

³⁶ Bollet , 289-290 .

³⁷ <<http://www.malaria.org/>> (11 September 2004) .

the most fatal of fevers”³⁸ The number of cases of malaria peaked during the summer months when troops would be exposed to more mosquitoes in the swampy regions near rivers. This supported the theory of miasma, believed by medical professionals of the Nineteenth Century. They suspected contaminated air of being the root cause of many of the diseases, hence *mal aria*, or bad air.

Smallpox was a problem for both sides of the war. A major outbreak of smallpox occurred in the United States during 1863. The pandemic caused many people to seek vaccinations that year, more than ever had before.³⁹ Cases of smallpox were more frequent among black troops than were among white troops. This is probably due to the better availability of vaccinations to whites combined with the common racial misconceptions that blacks were by nature more resistant to disease. Another factor was the nature of vaccination coupled with the requirement for newly enlisted troops to be vaccinated. Bollet describes the process for vaccination stating:

In civilian life, children were first vaccinated with material taken directly from a lesion on the udder of a cow or a calf infected with cowpox. . . . Liquid obtained from the children’s lesions was then inserted into adults’ arms by making deep, painful gouges with a knife, which, of course, was not sterilized. Liquid from the adult’s lesions was then used to inject others. In the army, soldiers often vaccinated others.⁴⁰

The use of an unsanitary knife would often result in further problems for the soldiers because infections could develop in the wound and potentially become fatal. Smallpox was a problem on the battlefield, but it also affected many prisoners held in military prisons. There was a policy for vaccinating prisoners who did not have the scar caused by previous vaccination, but this policy failed to prevent the occurrence of outbreaks in

³⁸ Steiner , 17 .

³⁹ Bollet , 290 .

⁴⁰ Bollet , 291 .

the prisons each time new sets of prisoners would be brought in. The occurrence of smallpox in the prisons led to accusations on both sides of the use of “biological warfare.”⁴¹

There were many more diseases that were common among soldiers during the Civil War. Most outbreaks seem to be related to the lack of proper sanitation and the lack of knowledge about the causes of diseases. Today, knowledge about diseases and their spread makes it easy to see where the soldiers in the armies were making the problem worse by their inattention to what is now considered common sense, especially sanitary procedures. Sterilization of medical equipment, locating latrines away from living quarters, and isolation of diseased patients could have had a large impact on the numbers of sick soldiers. However, the lack of understanding of causes prevented the armies from following these simple procedures. As a result, a large portion of the soldiers in hospitals and of those who died during the war was suffering from a natural warfare, rather than man-made war. Each army not only had to fight the opposing army, but they also had to fight off nature.

⁴¹ Bollet , 294 .

Chapter 2

Medical Treatments for Diseases and Wounds

Although antibiotics had yet to be discovered, there were numerous treatments for various diseases and wounds that could be used by doctors during the Civil War. Prior to the Civil War, there was little knowledge about drugs that would be effective in the treatment of diseases or injuries. In spite of this hardship, doctors continued to treat patients and learned through experience. For example, doctors often used chemical mixtures to treat wounds and infections although they did not know how the mixture worked. Though not always knowing why, doctors could see the benefits of some of the mixtures in preventing or curing injuries and diseases. Much of the credit can be given to the antiseptic properties of the chemicals. Many of the chemicals in a surgeon's knapsack did nothing more than rid the body of bacteria that caused infections. Alcohol is an example of one of these chemicals. It is still used today in medicine as an antiseptic agent. During this period in medical history, doctors began to discover antiseptics and its effect on infection. Another way doctors gained medical knowledge was through experience. With the large numbers of amputations performed, doctors were able to see the benefits of using anesthetics such as chloroform. Doctors had to battle the harsh conditions of life on the battlefield in addition to the specific problems of wounds and infections. Malnutrition and fatigue, examples of battlefield hardships, compounded the

problems caused by injuries and diseases. These factors weakened the immune systems of the ill soldiers and caused them to be more susceptible to infection. With the use of antiseptic chemicals, a little rest, the various other treatments for specific injuries, and medicines when available, doctors were well capable of easing the sufferings of their patients and over time became even more effective at doing so.

Medicines were scarce, particularly among the Confederate army due to the Union naval blockade of major Southern ports. Surgeons and doctors often could not import the medicines they needed to properly treat the wounded, and could not easily manufacture them. Many women did their part to help out, even to the point of smuggling medicines across state lines. Mary Louise Marshall states that "Opium and quinine encased in small bags were quilted into the full skirts of the ladies passing from north to south."⁴² In an article put out by the Mississippi Historical Society on the University Hospital at the University of Mississippi, Dr. Hilgard describes how the hospital managed to get its medical supplies: "I can personally vouch for a few articles which I supplied from the university laboratory. Chief among these, was alcohol, needed to make tinctures, of which at first there was absolutely no supply. I then set to work to make alcohol by distillation of such materials as I could obtain from persimmons first, and then from molasses sent from Vicksburg."⁴³ He continues, saying that "It was slow work, as the only still I had was that of a small steam apparatus in the laboratory. . . . Quinine was the most desired drug, and most difficult to obtain, being considered contraband of war; but it, with some other drugs, was smuggled out of Memphis by farmers, then brought to Oxford by 'pony express.' Undoubtedly, a good many patients

⁴² Mary Louise Marshall, "Nurse Heroines of the Confederacy," Bulletin of the Medical Library Association 45 (1957): 320.

⁴³ Jemmy Grant Johnson, "The University War Hospital," Mississippi Historical Society 12: 102.

died at this time for lack of proper medicines and hospital supplies.”⁴⁴ Since many of the drugs were contraband, they either had to be smuggled through, or they had to be made in chemistry laboratories such as Dr. Hilgard described.

Confederates found other ways around the contraband restrictions. Jefferson Davis, President of the Confederacy wrote a memoir of the war called *The Rise and Fall of the Confederate Government*, in which he spoke of the shortage of medical supplies. “As in the case of other departments, there was in this a want of the stores requisite, as well for the field as the hospital. To supply medicines which were declared by the enemy to be contraband of war, our medical department had to seek in the forest for substitutes, and to add surgical instruments and appliances to the small stock on hand as best they could.”⁴⁵ He commends the medical corps for doing what they did, saying “It would be quite beyond my power to do justice to the skill and knowledge with which the medical corps performed their arduous task, and regret that I have no report from the Surgeon-General, Moor, which would enable me to do justice to the officers of his corps, as well in regard to their humanity as to their professional skill.”⁴⁶ Davis realized all the effort put forth by the medical corps in order to make sure that they could provide the desperately needed supplies to the best of their ability. Even physicians not involved directly in the war felt the pains of the lack of medical supplies. In the March 31, 1863, edition of the *Staunton Spectator* from Staunton, Virginia, a blurb appears saying that “the high prices of the necessaries of life have forced the physicians, like others, to raise

⁴⁴ Johnson , 102 .

⁴⁵ Jefferson Davis , *The Rise and Fall of the Confederate Government* , vol. 1 (New York: D. Appleton and Company , 1881) , 310 .

⁴⁶ Davis , 310 .

their charges.”⁴⁷ This shows that everybody living at that time felt the effects of war, combatant or non-combatant alike.

The Civil War was fought before the vaccination against small pox became widely accepted. At the time, quarantine rules were observed, to keep the virus from spreading. John Apperson talks in his diary entry from November 22, 1862, about how “a member of the Sanitary Committee was [there] that morning and [reported] a case of Small Pox among the citizens. Quarantine rules [had] not been as strictly observed as they ought to have been.”⁴⁸ Apperson worried that “unless much care [was] observed that loathsome disease [would] spread throughout [their] country.”⁴⁹ Apperson and others feared the spread of diseases among the soldiers already in the hospitals.

In some cases of injury, doctors chose to let a wound heal by itself. Confederate surgeon Thomas Fanning Wood wrote in his recollections that he attended the organization of the Army and Navy Surgeons Medical Association, where he heard several doctors and others speak on the subject of when a gun shot wound should simply be closed up. He says that “the majority of speakers were inclined only in the rarest cases to close these wounds, but allow free suppuration,--drainage and antiseptics were of course not employed. The application of cold water and frequent renewal of dressings was the routine.”⁵⁰ Going along with common sense, it stands to reason that not all cases would warrant a limb being amputated, but would rather simply require healing on their own. The body is amazing in that it has the ability to heal itself in many instances. This

⁴⁷ Staunton Spectator , 31 March 1863 .

⁴⁸ John Herbert Roper , Repairing the “March of Mars” : The Civil War Diaries of John Samuel Apperson, Hospital Steward in the Stonewall Brigade, 1861 – 1865 , (Macon: Mercer University Press, 2001) , 307 .

⁴⁹ Roper , 307 .

⁵⁰ Donald B. Koonce , ed. , Doctor to the Front: The Recollections of Confederate Surgeon Thomas Fanning Wood, 1861-1865 , (Knoxville: The University of Tennessee Press , 2000) ,

property along with the fact that wounded soldiers were allowed to rest and given a more proper diet, unlike the soldiers on the field, helped the soldiers to heal even in the absence of medicines.

The use of cold water washings and renewal of dressings was a common routine among medical practitioners. Soldiers even took care of themselves and their comrades using this treatment. Reverend J. C. Smith of New Franklin recalled that “All who were wounded in the head, the arms, the shoulders, the nonvital parts of the body were compelled to walk through the ankle-deep mud. . . . When they came to a pump, one would place his wounded member under the spout while another would pump cold water on the sore. Then he would do a like service to his comrade. Thus the pumps were going all day.”⁵¹ Nurses and stewards spent hours every day attending to the needs of the wounded, either washing their wounds with cold water, or by nourishing them to health with food and drink.

Although one of the biggest treatments was to simply wash wounds with cold water, there were plenty of medicines that physicians could opt to use in treatment. Oliver Wendell Holmes wrote in a medical essay that “The improvement which has taken place in medical practice is in the substitution of tonics, stimulants and general management for the drastic cathartics, for bleeding, depressing agents, including mercury, tartar emetic, etc., so much in vogue during the early part even of this century.”⁵² A common treatment used especially for gangrene among hospital patients was a tincture, which is a solution of a medicinal substance in an alcoholic menstruum. Surgeon Hargrove Hinkley describes the treatment for one amputee in which gangrene

⁵¹ William C. Davis , Brian C. Pohanka , and Don Trojani , Civil War Journal , (Nashville: Rutledge Hill Press , 1999) , 427-428 .

⁵² Bollet , 231 .

appeared: "The treatment adopted consisted in stimulants, i.e. brandy-toddy and egg-nogg, *ad libitum*. The most nourishing food consisting of soups, roast fowl, eggs, bread and butter, milk and coffee. Tincture of iron, gradually increased to twenty-five drops three times a day; opium, three to four grains a day; nitric acid to slough; the wound well washed out with soap and water; dead parts removed, and freely washed off with turpentine and Labarraque's solution of chlor. Soda; tincture of iodine painted on edges and around the wound; tincture of iron applied once to wound itself."⁵³ The doctors did not really know of any other way to treat the gangrene other than to try these methods, and if the condition worsened, to amputate in order to stop the spread of the disease.

For use in field hospitals, there were hospital knapsacks put out for the Union by Jos. C. De La Cour of Camden, New Jersey. He was a chemist and pharmacist. The contents of the knapsack included metal medicine containers with screw tops because they were "found to be stronger than glass."⁵⁴ The knapsack also included tourniquets and bandage rolls, absorbent lint, a brass alcohol burner, splint material and adhesive plaster.⁵⁵ Another medical kit used by the U.S. Army was the U.S. Army Medicine Pannier that was marketed by Edward R. Squibb, M.D., and sold to the Army for \$110.⁵⁶ The kit included a large list of treatments: cantharides, silver nitrate, silver chloride, iodine, tartar emetic, mercurous chloride, beef extract, coffee extract, condensed milk, black tea, alcohol, spirit of ether, strong alcohol, cough mixture, white sugar, chloroform, liniment, syrup of squill, ammonia water, compound spirit of ether, tincture of opium, fluid extract of cinchona, fluid extract of valerian, fluid extract of ginger, olive oil, oil of

⁵³ Hinkley , 131 .

⁵⁴ Gordon Dammann , A Pictorial Encyclopedia of Civil War Medical Instruments and Equipment 2 , (Missoula, MT : Pictorial Histories Publishing Company , 1988) , 36 .

⁵⁵ Dammann , 36-37 .

⁵⁶ Dammann , 64 .

turpentine, glycerine, paregoric, solution of ferric sulfate, spirit of ammonia, compound cathartic pills, pills of colocynth and ipecac, quinine sulfate, potassium chlorate, potassium bicarbonate, potassium iodide, rochelle salt, morphine sulfate, pills of camphor and opium, mercury pills, opium pills, tannic acid, alum, collodion, creosote, fluid extract of aconite, fluid extract of colchicines, fluid extract of ipecac, tincture of ferric chloride, lead acetate, and zinc sulfate.⁵⁷ This list of medicines does not look like the list of drugs one might find in a doctor's kit today. The absence of penicillin and other antibiotics as well as a vast variety of other drugs commonly used to treat wounds and infections today is noticeable. The kits included bandages and tourniquets, but the remaining contents are mostly chemical solutions. Most of these chemical solutions were effective because they are antiseptic and aided in sanitizing the wounds. The few actual known drugs that were effective were typically anesthetics or pain medications, such as chloroform, ether, and opiates such as morphine. It is difficult to know today why some of the items like white sugar, black tea, and condensed milk would have been helpful.

Chloroform was a popular drug among civil war doctors. Chloroform was used to anesthetize patients before operations. The effectiveness of chloroform was discovered in 1847 by James Young Simpson, professor of midwifery at Edinburgh University.⁵⁸ It began to be employed in childbirth shortly thereafter. By the time of the Civil War, chloroform had been in use for over a decade and was becoming more widely accepted as a useful anesthetic. Professor J. J. Chisolm believed that "The universal use of chloroform to allay the pain of surgical operations, is a complete vindication of the utility

⁵⁷ Dammann , 64 .

⁵⁸ <<http://www.bbc.co.uk/history/timelines/scotland/chloroform.shtml>> (15 April 2005) .

of the remedy, and proof of its necessity. . . . We do not hesitate to say, that it should be given to every patient requiring a serious or painful operation.”⁵⁹

In the absence of anesthetics like chloroform, surgeons would sometimes be forced to operate without them. In place of the missing chloroform, the surgeons would sometimes use liquor. There were occasions when patients refused chloroform, as was the case with T. D. Kingsley. Kingsley wrote in a letter to his wife that “they wanted to give [him] chloroform: this [he] refused to take and [the doctor] took a pair of scissors and cut out the pieces of bone in [his] mouth: then gave [him] a drink of whiskey and had [him] laid away.”⁶⁰ Chances are that he refused the chloroform because many soldiers died when undergoing surgery while anesthetized by chloroform. From his point of view, the chloroform appeared to be the cause of death. In reality, however, the deaths were probably caused by injuries and disease.

One of the most widely used medicines during the Civil War was opium. Since shock blurred the sense of pain for most soldiers suffering from severe wounds, the pain would not be felt until infection had set into the wound. Opiates were needed the most within 24-48 hours of the wound.⁶¹ Not only was opium good for the treatment of pain, but it also was an effective treatment for the diarrhea that ran rampant throughout army camps. Opium was usually a tincture of 10% opium in alcohol and was typically called “laudanum.” It was also available as pills and powder. Though the opium pills were used most often, there were other experimental pain medications. Anywhere from one to

⁵⁹ John Julian Chisolm , A Manual of Military Surgery for the Use of Surgeons in the Confederate Army , (San Francisco: Norman Publishing , 1989) , 427.

⁶⁰ William E. Gienapp , ed. , The Civil War and Reconstruction: A Documentary Collection , (New York : W. W. Norton & Company , 2001) , 247 .

⁶¹ George Worthington Adams , Doctors in Blue: The Medical History of the Union Army in the Civil War, (New York : Henry Schuman , 1952) , 119 .

three grains of “morphine [would be] scattered on or rubbed into the wound.”⁶² When hypodermic syringes came to be more widely used by surgeons, they learned that injecting morphine was an even better treatment than just rubbing it into the wounds. Morphine took effect much quicker when injected as opposed to being rubbed into a wound with a finger. Due to the fact that both opium and morphine were two of the few drugs known to physicians that were effective, they were used frequently. Bollet suggests that the “Union forces used approximately 10 million opium pills and nearly 3 million ounces of opium powder and tinctures to treat almost every illness.”⁶³ Quinine was another heavily prescribed drug, with the Union forces estimating the use of at least 19 tons of quinine sulfate and 9.5 tons of cinchona bark, the precursor to quinine.⁶⁴ The quinine was used to treat chills and fever. Quinine was specifically used for malaria, but its antipyretic and analgesic effects caused it to be the only drug available for those purposes until sodium salicylate and antipyrine were introduced in the decade after the war.⁶⁵

There were other treatments available, specifically for wounds from the battlefield aside from the chemicals found in the doctor’s knapsack. Surgical techniques were found to be effective in repair of the damage caused by weapons. For example, when doctors encountered a soldier with torn intestines, they would remove the “destroyed sections and rejoining the severed ends.”⁶⁶ These wounds, as well as other types, were then sewn up with sutures. An important advancement in medicine came as a result of chest wounds. Surgeons learned that collapsed lungs came as a result of air being sucked into the chest

⁶² Adams , 119 .

⁶³ Bollet , 240 .

⁶⁴ Bollet , 236 .

⁶⁵ Bollet , 238 .

⁶⁶ Bollet , 173 .

cavity. Assistant Surgeon Benjamin Howard, a physician for the Union Army, “devised a way to seal the opening in the chest wall to prevent air from being sucked in” that is “still an important element in the treatment of such wounds today.”⁶⁷ In a letter to the Surgeon General written on June 25, 1863, Howard wrote describing his procedure for chest wounds:

All foreign bodies within reach having been removed, and bleeding of the wound having ceased, if it be from gunshot, pare the edges of the wound all round . . . bring the opposite edges together, and retain them in accurate opposition by metallic sutures; carefully dry the wound and parts immediately surrounding; place thereon a few shreds of charpie arranged crosswise after the manner of warp and woof, pour on the charpie a few drops of collodion so as to saturate it.⁶⁸

Howard’s procedure served to seal the wound and thus allow the body to heal without the danger of collapsed lungs. The “charpie” that Howard talks about is a type of bandage that was made out of lint or old linen. The “collodion,” one of the chemicals found in the medicine pannier, is a chemical that formed a seal when it dried. Both the sealing of chest wounds and the suturing and repairing of the gut in abdominal wounds were integral procedures in attempting to avoid the occurrence of even more fatalities.

Some medical procedures and treatments served to heal wounds that were not as likely as a chest wound or other body cavity wound to be fatal. One of the pioneers in the field of treating lower extremity fractures was Dr. Gurdon Buck. Dr. Buck developed an apparatus that provided traction and splinting of a fracture of the leg. This contraption was the precursor to what is now called the “Buck’s traction splint.” Other splints and traction devices were developed for the numerous types of wounds to the extremities that soldiers would incur. Dr. Buck’s apparatus “provided continuous extension of the leg by

⁶⁷ Bollet , 174 .

⁶⁸ Bollet , 174 .

using a weight and pulley.”⁶⁹ Not only did Dr. Buck invent this apparatus, he also was a leader in the developing field of reconstructive surgery. What is now called plastic surgery was most often performed on facial wounds. According to Bollet, “Because infection is often less of a problem in such facial injuries, successes were more frequent than in other innovative procedures.”⁷⁰ The decreased risk of infection allowed the field of facial reconstruction to thrive and lead to developments that would become standard procedures after the war.

Another important area of developing medical procedure was in the area of blood transfusions. In the later years of the war a Parisian physician lectured on the use of blood transfusions. Later, Union surgeons decided to try it on a patient who suffered from gangrene and faced an amputation:

Blood having been obtained from the temporal artery of a strong, healthy German, an attempt was made to penetrate the internal saphenous vein . . . after which an opening was made in the median basilic, and about two ounces were transfused by means of a Tiemann’s syringe. Immediately afterward a marked difference was noted in the patient’s pulse, which became stronger and firmer.⁷¹

The doctors noted the positive effect that the patient felt from the transfusion and deemed the procedure a success. Apparently the doctors were lucky enough to unknowingly make a correct match of blood type between the donor and the patient. They also were fortunate that the unsterilized equipment did not lead to infections that would have compounded the soldier’s problems.

Plasters, a type of bandage, were sometimes employed in medicine. In an interesting letter to his sister, John Hamer writes that he had “also a pain on the breast but

⁶⁹ Bollet , 178 .

⁷⁰ Bollet , 178 .

⁷¹ Bollet , 186 .

I had a blistering plaster, - a terrible hot one, too it burnt a little lik Greek fire – laid on my breast and that put a stop to that.”⁷² One can only assume that the “blister plaster” helped the pain through the application of heat. The letter contains no further description of the treatment.

The small amount of drugs known by doctors to be effective were widely used and helped to ease the trouble of the soldiers. Doctors were able to learn the approximate dosages that were the most effective. The use of the medicines made the job of caring for the sick and wounded an easier job because they helped to ease the pain of the soldiers. The combination of drugs and the innovative medical procedures led to advancements in medicine that pioneered the path for the treatments that are available today. Less pain due to the use of drugs such as opium allowed doctors to be better able to experiment with new procedures for closing wounds and treating fractures. The pioneers of medical techniques helped pave the way for modern medicine that would begin to flourish in the decades after the war.

⁷² John Hamer , “Letter to Eveline Hamer” (24 November 1863) .

Chapter 3

A Gruesome Solution: Amputation

Civil War Era medicine is most widely characterized by the volume of amputations that took place during the four years of battle. With relatively few medicines available and a lack of the advanced medical technologies commonly used today to correct injuries caused by gunshots, Civil War surgeons often had little option other than amputation. Amputation was used to stop the spread of gangrene as well as to remove injured limbs that could not be salvaged. According to William Clyburn in an article on Civil War medicine, amputation was almost a necessity for many wounds. He states that “For those with serious arm and leg wounds the answer was often amputation, especially if a bone had been hit. The only thing they could do at that point was amputate as quickly as possible, and hope that gangrene didn’t get into the wound.”⁷³ The large number of amputations performed during the war helped doctors to perfect their techniques for the surgery as well as lead to better stumps and prosthetic devices. Amputations therefore led to advancement in the field of orthopedics. Because of the frequency with which amputations were performed, there is much written material about them. There are many graphic descriptions of amputations by soldiers and others that show the primitiveness of the technique and its gruesomeness.

⁷³ William Clyburn , “Civil War Medicine” The Rebel Yell. (The Jackson Civil War Roundtable, Inc. , 1995) , 3. Archives of the State of Mississippi. Vertical File: Civil War Medicine .

The description of an operating room either on the field or in an army hospital is a scene that is quite horrifying. Surgeons frequently opted to amputate an injured limb as it was often deemed the most effective treatment of certain wounds. As soon as one operation would be finished, another person needing a prescribed amputation would be brought in. Right after a major battle, the amount of amputations would increase drastically. Such was the case after the battle of Gettysburg. General Carl Schurz described an operation that he witnessed in a field hospital. His description said:

Most of the operating tables were placed in the open where the light was best, some of them partially protected against the rain by tarpaulins or blankets stretched upon poles. There stood the surgeons, their sleeves rolled up to their elbows, their bare arms as well as their linen aprons smeared with blood, their knives not seldom held between their teeth, while they were helping a patient on or off the table or had their hands otherwise occupied. . . . As a wounded man was lifted on the table, often shrieking with pain as the attendants handled him, the surgeon quickly examined the wound and resolved upon cutting off the injured limb. Some ether was administered and the body put in position in a moment. The surgeon snatched his knife from between his teeth . . . wiped it rapidly once or twice across his bloodstained apron, and the cutting began. The operation accomplished, the surgeon would look around with a deep sigh, and then, 'Next!'⁷⁴

This was a typical setting for amputations. After the battle of Second Manassas, a war correspondent that had been at the scene of the battle described what he had seen: "The operating tables . . . were slimy with blood . . . and as fast as one patient was removed another took his place to be anesthetized by the merciful chloroform and undergo the necessary surgical treatment. The men all appeared to bear their wounds cheerfully, and it was only now and then when the knife cut deep that a smothered groan revealed the sharp pang of pain."⁷⁵ According to the war correspondent, the soldiers bore their

⁷⁴ Adams , 118 .

⁷⁵ H. H. Cunningham , Doctors in Gray: The Confederate Medical Service , (Gloucester, MA : Peter Smith, 1970) , 221-222 .

wounds with a bravery almost unimaginable. Surgeons bore their load without much complaint though they were forced to work under highly strenuous conditions. Spencer Glasgow Welch, a Confederate surgeon, wrote in a letter to his wife on September 3, 1862, from Ox Hill, Virginia, that "Jake Fellers had his arm amputated without chloroform. I held the artery and Dr. Huot cut it off by candlelight. We continued to operate until late at night and attended to all our wounded."⁷⁶

The most common prescription for a wound in a limb was amputation. If the doctors felt that the destruction to the limb was too great for the limb to be saved, they would remove it. G. M. B. Maughs of the Provisional Army of the Confederate States wrote an article for the *Confederate States Medical and Surgical Journal* in September 1864 giving his thoughts on surgery on the battlefield and in the hospitals of the Army of Tennessee. In his article, he states that "Indeed we fear that the highest boast of modern surgery, its conservation, whereby limbs that formerly would have been condemned are now preserved, has been lost sight of, in the desire, unfortunately too common, to make the most out of the present surroundings--the preservation of life and limb being made subordinate to the great end and aim of the army surgeon, the acquiring [of] experience in capital operations."⁷⁷ Professor J. J. Chisolm included in his third edition of the *Manual of Military Surgery* his belief that "Among a certain class of surgeons . . . amputations have often been performed when limbs could have been saved, and the amputating knife has often been brandished, by inexperienced surgeons, over simple flesh wounds."⁷⁸

⁷⁶ Spencer Glasgow Welch, *A Confederate Surgeon's Letters to His Wife*, (Marietta, GA : The Continental Book Company, 1954), 26-27.

⁷⁷ G. M. B. Maughs, "Thoughts on Surgery, Operative and Conservative, Suggested by a Visit to the Battle-field and Hospitals of the Army of Tennessee," *Confederate States Medical and Surgical Journal* 1, no. 9 (1864), 129.

⁷⁸ Bollet, 164.

According to Dr. Kuz and Dr. Bengtson in their book *Orthopaedic Injuries of the Civil War*, “Many surgeons gained the reputation of Saw-bones if their colleagues felt they were quick to amputate a limb.”⁷⁹

In the beginning of the war the desire for operating was so great among the large number of medical officers recently from the schools who were for the first time in a position to indulge in this extravagant propensity, that the limbs of soldiers were in as much danger from the ardor of young surgeons as from the missiles of the enemy.”⁸⁰

However, on the other side of the argument, Dr. J. J. Chisolm also states in the *Manual of Military Surgery*, that “experience teaches us that although the wound appears trifling today, in attempting to save it [the limb] we will sacrifice a life a few days hence.”⁸¹

There were two methods for amputation. The circular method simply cut off the limb while leaving a stump that was open. This type of amputation would only heal gradually. The operation began with the division of the skin and subcutaneous tissues down to the muscles. After pulling back the skin, “the muscle would be divided circularly at the highest level possible. This was followed by cutting the bone at this level with a saw.”⁸² The surgeons then tied off the arteries and veins and cut the nerve. The other method was known as the flap method and consisted of surgeons creating a flap of skin to close the raw stump. This procedure took longer to perform due to its intricateness, but it allowed the wound to heal quicker and left a better looking stump. In this method, the arteries, veins, and nerves were treated the same as in circular

⁷⁹ Julian E. Kuz and Bradley P. Bengtson , *Orthopaedic Injuries of the Civil War: An Atlas of Orthopaedic Injuries and Treatments During the Civil War* , (Kennesaw, GA : Kennesaw Mountain Press, Inc., 1996) , 14 .

⁸⁰ Bollet , 165 .

⁸¹ Chisolm , Quoted in Bollet , 143 .

⁸² Kuz and Bengtson , 37.

amputations, but the soft tissues were divided differently. In both types of amputations, postoperative pain medication included opium and whiskey. One of the benefits of the circular method was that it was easier to transport victims after this procedure.

Ambulance rides could cause the flap to open on an amputee leading to repeated operations and a greater risk for infection. The circular method amputee was not as likely to face this problem. An immediate amputation was called a “primary amputation.”

Those amputations occurring forty-eight hours or more after the injury were called “secondary amputations.” Surgeons recognized that soldiers receiving primary amputations had a greater chance for survival than did those receiving secondary amputations. The surgeons did not know that this was partly because of infection in the wound having spread. Cutting through the site of an infection could increase the spread of the infection through the occurrence of septicemia. An alternate to amputation, excision, faced a higher mortality rate. Excision, also known as resection, was the removal of the portion of the limb containing the shattered bone with the hope that the body would heal the wound itself by bridging the gap in the bone.

All too often, amputations were necessary. Part of this was due to the new weapon technology introduced during the Civil War. Before the war, the most common weapon – the musket - fired smooth-bore balls. During the war, however, rifled muskets were introduced. These used bullets that were known as minié balls. Bollet quotes an unnamed regimental surgeon who said that “A wound from a smooth-bore and a round shot striking the thigh bone was often deflected with no serious injury to the bone. At the same time, a minié ball fired from a grooved [rifled]musket under similar conditions

might not only fracture, but crush two or three inches of the bone.”⁸³ The effects that this surgeon saw came from the rifled bullet being more accurate and traveling further, thus being more likely to strike its target. Soldiers became more likely to be injured by the minié ball because it was more likely to reach their lines. John Samuel Apperson, a hospital steward in the Stonewall Brigade, wrote in his diary about the night he was awakened by Dr. Black to go aid a man who had just been shot. Apperson describes the injury, saying that “the bullet pass[ed] through the palm of the hand and carried away a part of and shattered the metacarpul bones of the middle and fore finger. . . . Dr. Black assisted by Dr. Leyburn . . . took away the two fingers that had lost all important connection with the body and dress[ed] the wound and brought the man to camp.”⁸⁴ The damage caused by the bullet left the doctors with no real choice except to remove the fingers that had been fairly completely severed.

There were reasons for soldiers to fear going under the knife to have an amputation. Kate Cumming wrote in her diary on April 23, 1862, that a young soldier she was taking care of was to have an amputation. “He says that he knows that he will die,” she writes, “as all who have had limbs amputated in this hospital have died.”⁸⁵ Although necessary, many soldiers died as a result of the profound trauma. Surgeon J. J. Chisholm, M.D., thought that “During the performance of capital operations on the battlefield, death sometimes ensues from nervous exhaustion, produced by excess of suffering: the use of chloroform relieves the patient at least from this risk.”⁸⁶ The soldiers were so weak from exhaustion and from malnutrition that during the surgeries,

⁸³ Bollet , 144 .

⁸⁴ Roper , 139 .

⁸⁵ Kate Cumming , *Kate: The Journal of a Confederate Nurse* , ed. Richard Barksdale Harwell (Baton Rouge: Louisiana State University Press , 1959) , 24 .

⁸⁶ Chisolm , 427 .

the stress from the operation would lead to their passing. Doctors and surgeons employed chloroform and other medicines in an attempt to prevent this from occurring. Some surgeons chose to believe that the reason for so many deaths among amputees was that “the enemy poisoned their balls.”⁸⁷

Bollet states that the Union army recorded a total of 29,980 amputations with a 26.3% mortality rate and that although there are not concrete figures for the Confederate army, the available data shows comparable figures.⁸⁸ When an amputation was to be performed, surgeons had to determine how much of the limb to remove while allowing for a stump that would allow the use of a prosthetic device if possible. According to the authors of *Orthopaedic Injuries of the Civil War*, when the amputation was performed on a limb “far enough from the trunk, a tourniquet was used. The goal, after saving the soldier’s life, in lower extremity amputation surgery, was to provide a stump that would accommodate a prosthesis readily without pain or skin breakdown.”⁸⁹ The surgeons put forth their best effort in making life comfortable for the soldiers after amputations.

The thousands of amputees faced many hardships after the war. The amputations often left the men in the position of being unable to work anymore. The veterans also faced discrimination among relatives and loved ones. Many soldiers had engagements broken off after their fiancées learned of their disfigurement. Thomas A. Perrine of Michigan wrote a poem after losing his girlfriend:

I offered her my other hand
Uninjured by the fight;
‘Twas all that I had left.
‘Without two hands,’ she made reply,

⁸⁷ Cumming , 24 .

⁸⁸ Bollet , 153 .

⁸⁹ Kuz and Bengtson , 37 .

‘You cannot handsome be.’⁹⁰

Perrine was not the only soldier to suffer this fate. Many were left with “an empty sleeve, [and] an empty heart.”⁹¹ This led to the belief among many that the surgeon was to blame instead of the real cause of the problem, the bullet.

The disfigurement of the soldiers prompted the Mississippi State Legislature to take action to help the veterans. Chapter CLXII of the *Laws of the State of Mississippi* records:

An Act to provide Artificial Limbs for the maimed State and Confederate soldiers of this State.

Section 1- Be it enacted by the Legislature of the State of Mississippi, That the Sum of thirty thousand dollars . . . [be provided] for the manufacture or purchase of Artificial Limbs, for the maimed State or Confederate Soldiers of this State, who may make application therefore...

Section 3 - That any maimed State or Confederate Soldier, who may have furnished himself at his own expense, prior to the passage of this act, with any Artificial Limb or Limbs, shall be entitled . . . to draw from the sum appropriated by this act, an amount equal to the cost of the limb or limbs, as paid for by the state⁹²

The legislature of Mississippi realized the necessity of helping the soldiers returning from the war and saw it as their duty to provide the maimed soldiers with artificial limbs to make their lives as normal as possible. The *Journal of the House of Representatives of the State of Mississippi* shows the Disbursements from 1866 – 1869. From May 1, 1866, to April 30, 1867,⁹³ the House of Representatives appropriated \$203.00 for artificial limbs. From May 1, 1867, to April 30, 1868, they appropriated \$24,712.25, and from

⁹⁰ Bollet , 157 .

⁹¹ Bollet , 157 .

⁹² Laws of the State of Mississippi Passed at a Called Session of the Mississippi Legislature Held in the City of Jackson. October 1866, and January and February 1867 , (Jackson, MS: J. J. Shannon & Co. , 1867) , 226 . State Archives of Mississippi. Vertical File: Confederate Medicine .

⁹³ Journal of the House of Representatives of the State of Mississippi. (Jackson, MS: Kimball, Raymond & Co., State Printers, Jackson, 1870) , 114 . State Archives of Mississippi. Vertical File: Confederate Medicine .

May 1, 1868 to April 30, 1869, they appropriated \$444.00.⁹⁴ The state of Mississippi tried to make life easier for the maimed soldiers after the War.

Because amputation was such a widely used treatment for gunshot wounds and gangrene, there are many written sources of information about it. From these, it becomes evident how truly horrid the operating room was and how awful the surgery was. In addition, however, it is also clear that through the repeated practice of amputation, surgeons learned the most effective methods. Society knew that veteran soldiers faced many hardships due to their maimed bodies stemming from amputations. The legislatures tried to make life easier for the soldiers by providing them with the prosthetic devices necessary to get by in life comfortably. Amputation led to policies to help make life easier and to perfect the surgical technique, eventually leading to the techniques and prosthetics seen today.

⁹⁴ Journal , 116 – 118 .

Chapter 4

Hospitals and the Ambulance Corps

Before the Civil War, the use of hospitals was not common in a large portion of the United States. When a person would become sick, the local doctor would make a house call and treat the patient there. An exception was the Catholic nuns throughout the country. They had small facilities set up in their convents, but these facilities were mainly to be used to take care of sick nuns. The massive influx of wounded and diseased soldiers in the camps prompted the formation of hospitals. Hospitals were staffed by stewards, nurses, surgeons, physicians, and volunteers. Additionally, the formation of the U.S. Sanitary Commission and the creation of the ambulance corps greatly assisted the hospitals in their ability to care for the sick and wounded.

In the beginning of the war, hospitals were created in any suitable building available. Hotels, churches, schools, and homes were among some of the buildings used as hospitals. Buildings on the campus of the University of Mississippi, for example, served as a hospital for wounded soldiers after the battle of Shiloh. Louisa May Alcott described a sight she saw in Fredericksburg in her book *Hospital Sketches*:

The sight of several stretchers, each with its legless, armless, or desperately wounded occupant, entering my ward, admonished me that I was there to work. . . . The house had been a hotel before hospitals were needed, and many of the doors still bore their old names; some not so

inappropriate as might be imagined, for my ward was in truth a ball-room, if gun-shot wounds could christen it.⁹⁵

The hospitals created were often very crowded. Alcott parodies a poem by Alfred, Lord Tennyson with a verse reading:

Beds to the front of them,
Beds to the right of them,
Beds to the left of them,
Nobody blundered.
Beamed at by hungry souls,
Screamed at with brimming bowls,
Steamed at by army rolls,
Buttered and sundered.
With coffee not cannon plied,
Each must be satisfied,
Whether they lived or died;
All the men wondered.⁹⁶

After the onset of the war, the armies on both sides recognized the need for suitable buildings to be used as hospitals. Later in the war, tents were often used as hospitals on the battlefield and also served as additional wings on permanent hospitals when full. The first major use of the field hospital was at the battle of Shiloh in April, 1862. Tents were also used as a type of quarantine to keep patients from spreading diseases such as smallpox or hospital gangrene. As needed, the armies would also construct their own buildings for hospital use. As one would assume, most of the hospitals were built quickly out of wood. The buildings “were fitted with many windows, making them drafty and quite cold in the winter. . . . Draftiness was considered beneficial most of the time, since it carried away the almost constant and overwhelming odors of putrefaction.”⁹⁷ These structures were not suitable by modern standards, but served their purpose and provided more shelter than did the tents. The Confederate Army adopted a strategy of creating

⁹⁵ Louisa May Alcott, *Hospital Sketches*, ed. Alice Fahs, (Boston: Bedford/St. Martin's, 2004), 71.

⁹⁶ Alcott, 75.

⁹⁷ Bollet, 219.

hospitals that consisted of small buildings that housed groups of soldiers. This helped to minimize the spread of disease because not all of the soldiers were located in close proximity to those carrying diseases.

The hospitals became self-sufficient in that they often had their own gardens for vegetables and bakeries that produced other foods. The majority of the work was done by the convalescents that were capable and by volunteers. They tended the garden and made goods that could be traded for supplies.

Surprisingly enough, wounded soldiers were treated with kindness the majority of the time when they were in enemy hospitals. Jonathan Letterman, the Union Army's medical director expressed the sentiment much like that of most other army medical officers in saying that "Humanity teaches us that a wounded and prostrate foe is not then our enemy."⁹⁸ After the battle of Antietam, he reported that "Not only were the wounded of [the Union] army supplied, but all the Confederate wounded, which fell into [their] hands, were furnished with all the medicines . . . required for their use."⁹⁹ Kate Cumming included in her journal entry on April 11, 1862, that "the Federal prisoners [were] receiving the same attention as [the Confederate] men; they [were] lying side by side."¹⁰⁰

Although wounded, and often in great pain, soldiers were always sacrificing. Cornelia Hancock wrote of how the soldiers always say "help my neighbor first he is worse."¹⁰¹ Soldiers bore their wounds with bravery, and did not complain frequently. William Howell Reed wrote that "All this suffering was borne in utter silence. There was

⁹⁸ Cunningham , 129 .

⁹⁹ Davis, Pohanka, and Trojani , 423 – 424 .

¹⁰⁰ Cumming , 15 .

¹⁰¹ Stephen B. Oates , A Woman of Valor: Clara Barton and the Civil War , (New York: The Free Press , 1994) , 189 .

no complaining; each waited for his turn, without appealing to us to pass another by in order to come to him.”¹⁰² Reed describes how one soldier was a German boy who spoke no English and kept to himself. The boy always kept a cheery face, and “at last when [Reed] went to him and opened his shirt, a horrible wound was disclosed, a shell having carried away his arm at the shoulder, together with the fleshy part of his side. The wound was perfectly fresh and healthy, yet the poor fellow was so quiet and submissive to the necessary manipulation in the dressing that he won the love and admiration of all.”¹⁰³ Soldiers were always very thankful for every attention given them. They would thank and bless their caretakers for the simplest items, such as a cool drink of water or a bite of something to eat. The gratefulness of the soldiers as well as the bravery with which they bore their wounds makes them quite deserving of respect and admiration.

The U.S. Sanitary Commission, an organization founded by Northern civilian volunteers, played a role in improving the sanitary condition of the hospitals. They began to inspect hospitals shortly after the outbreak of the war. According to Bollet, “Each inspector used 179 questions to document the general health of the men and the sanitary conditions of both the regiment and the hospital. Among these were the state of the latrines, how many changes of underclothing the men had, what they ate, and details such as ‘Does each man wash his head, neck and feet once a day?’”¹⁰⁴ These questions addressed the status of the cleanliness of the hospitals. Though not knowing why, the inspectors knew that cleanliness helped prevent diseases. The inspectors’ visits were random and unscheduled.

¹⁰² William Howell Reed , Hospital Life in the Army of the Potomac , (Boston : William V. Spencer , 1868) , 42 .

¹⁰³ Reed , 42 .

¹⁰⁴ Bollet , 225 .

William Howell Reed described the services of the Sanitation Commission as being a “service [that] embraced all those more immediate necessities of the soldier, of personal relief, both in the field and in the hospital, and included in its operations a vast aggregate of good, out of the army, which never met the public eye.”¹⁰⁵ Reed goes on to tell that “in emergencies of great suffering, or when starvation threatened to add its horrors to the miseries of the wounded, the Commission was at hand with its medicines, morphine, or chloroform, saving by them as many lives as by its stimulants and food.”¹⁰⁶ The Sanitation Commission aided the military’s medical department greatly by doing their best to supply them with medical supplies on the field. The efforts put forth helped in cleaning up the medical department, and in producing the best treatment for wounded soldiers.

Many people praised the efforts of the Sanitary Commission for its efforts to keep the hospitals clean through the use of inspections. Dr. S. Weir Mitchell stated in a speech to a Chicago physician’s club in 1913, “I am perfectly satisfied that even the best of our city hospitals would be better for these, sudden inspections by watchful physicians, not of the staff or by ignorant managers. Such inspections should fulfill all the exactions of . . . [the] admirable little handbook of hospital management.”¹⁰⁷ The U.S. Sanitary Commission also received attention from abroad. In 1862, an editorial in the prestigious British medical journal, the *Lancet*, compared the mortality rates reported for the Union Army to that of the British Army during the Crimean War. The mortality rate among Union troops was at that point only 65 per 1000 soldiers whereas the British rate never

¹⁰⁵ Reed , 61 .

¹⁰⁶ Reed , 62 .

¹⁰⁷ Bollet , 226 .

went below 124 per 1000 soldiers.¹⁰⁸ The author of the editorial commented in his conclusion that the figures “well might claim for the United States Volunteers, in the midst of a disastrous war, a supremacy of health-conditions above the forces of the chief European nations in active service.”¹⁰⁹ Later in the war Congress established a rank among the Army Medical Corp to perform its own inspections, although the civilian Sanitary Commission was allowed to continue with their inspections as well. The Sanitary Commission was not supported by government funds, and therefore had to look elsewhere for the money to operate. This was probably through fund-raisers and private contributions that allowed the organization to keep inspectors working and provide relief funds for soldiers.

The government did its part to assist these hospitals and the wounded soldiers by forming the ambulance corps whose job it was to assist injured soldiers off the battlefield and to the field hospital. Major General George B. McClellan issued General Orders Number 147, which set up regulations for the organization of the ambulance corps, organized the chain of command, established how many men of each ranking were to be in the corps, as well as established some guidelines. General Orders No. 106 issued on March 16, 1864, was an act to create a uniform system of ambulances among the United States armies. The act specified the chain of command as well as how many ambulances should be assigned each group. Ambulances played a key part of the job of treating the wounded. Ambulance trains would collect the injured and carry them to hospital tents so that their wounds might be examined and treated. William Howell Reed wrote that “as a class, these ambulance drivers were humane men. . . . [he had] seen their carefulness and

¹⁰⁸ Bollet , 259 .

¹⁰⁹ Bollet , 259 .

skill in driving, and [had] wondered sometimes at the tender considerateness with which they ministered to their suffering comrades, when their life of hardship and their rough associations would have made such tendency to make them insensible.”¹¹⁰ Ambulance drivers did their very best to aid others, taking great care not to drive too wildly, causing unnecessary pain to those suffering from injuries. In an article titled “Ambulance Circa 1862” from the city of Jackson’s Clarion Ledger on Sunday, February 1, 1970, Carl McIntire writes about an ambulance discovered that had been built for the Union Army in 1862 by the Studebaker Corp. He writes, “Drawings from the Official Records of the Civil War . . . show the ambulance has special rockers to keep the patients as comfortable as possible while being drawn in the two-horse wagon to a hospital. The Sanitary Commission Bulletin of the U.S. Army described the wagon thusly: ‘To enable the badly wounded to be easily loaded and unloaded, two litters or beds are provided, made of wood like an ordinary shutter, with sliding handles at each corner. Upon this the patient is easily shifted without any disturbance.’”¹¹¹ The ambulances were designed to help transport wounded soldiers easily and with as little discomfort as possible. Soldiers did not always believe that the ambulances were comfortable. Louisa May Alcott writes of one soldier she visited in the ward where she was a nurse. He said to her, “Now don’t you fret yourself about me, miss; I’m first rate here, for it’s [great] to lie still on this bed, after knocking about in those confounded ambulances, that shake what there is left of a fellow to jelly.”¹¹² The major factor contributing to the jarring of patients in the ambulances was the condition of the roads. The roads were mostly earthen and were subject to having deep ruts created by wagon travel during rainy times when the ground

¹¹⁰ Reed , 58 .

¹¹¹ Carl McIntire , “Ambulance Circa 1862 ,” The Clarion Ledger , 1 February 1970 , sec. F.

¹¹² Alcott , 73 .

was soft and muddy. The rutting of the roads in the fields made the ambulance ride uncomfortable for the wounded soldiers.

The drastic need for improvement in hospitals and ambulances stimulated the medical corps on both sides of the war to create hospitals and ambulances that were more comfortable for the patients and provided for better treatment. The establishment of field hospitals, the Sanitary Commission, and the rocking ambulances all aimed at making life easier for both patients and doctors. Improving the living conditions of the patients helped to increase the effectiveness of the available medical treatments.

Chapter 5

Doctors and Nurses: The Human Side of Medicine

Some of the most important positions during the Civil War were that of physician, surgeon, and nurse. These were the primary care givers to the many thousands of wounded or sick soldiers. They ran the hospitals established in buildings as well as in tents on the field of battle and oversaw the care and medical treatment of the soldiers there. Their job was to make sure that all soldiers were provided for as best as possible, that they received the best treatment and that adequate nourishment was given. They also made sure that the hospitals were kept as clean as possible though the full advantages of sanitation were still fairly unknown. Through service to the ill and wounded, the medical personnel of the Civil War earned respect for their actions, even in the face of criticisms.

In hospitals, the staff worked many long hours in an attempt to save as many people as possible. Clara Barton, who later founded the American Red Cross, wrote to her friend Mary Norton that she spent “a most laborious day examining and distributing among the Camp and Hospitals, not reaching home until near 11 o’clock at night.”¹¹³ Kate Cumming wrote in her journal about how the hospital where she was stationed was refilling with wounded in May 1862. She writes that “There [was] scarcely an hour

¹¹³ Oates , 95 .

during which they are not coming in from skirmishes.”¹¹⁴ Whenever the two armies were near each other, the hospitals would see an increase in the number of men needing treatment. Working together for such long periods of time led physicians to form close bonds with one another. When one of the physicians in Chambersburg, PA, died, his comrades met in tribute to his memory, which shows how close-knit physicians became with one another.¹¹⁵

Some soldiers spoke of the valiant efforts of the surgeons and physicians. Admiral Raphael Semmes spoke in his memoirs of his surgeon, D. H. Llewellyn, and his honorable death aboard the *C.S.S. Alabama* when it was sunk by the *U.S.S. Kearsarge* in 1864. “Here is the proper place to drop a tear over the fate of a brave officer,” he begins. Semmes goes on to say that his surgeon lost his life by drowning. “It was his privilege to accompany the wounded men, in the boats, to the *Kearsarge*, but he did not do so. He remained and took his chance of escape, with the rest of his brethren in arms, and perished almost in sight of his home, after an absence of two years from the dear ones who were to mourn his loss.”¹¹⁶ His bravery permitted him to remain with his comrades and serve them until the end. Brigadier General William H. Morris wrote to Captain Adam E. King on May 10, 1864, in regards to the battle of the Wilderness. The very last thing he says is that “[His] thanks are due to [his] surgeons for their faithful attendance to the sick and wounded.”¹¹⁷ In a letter to Samuel H. Stout, A. J. Foard writes that “[Stout’s] organization of the Reserve Corps of Surgeons [had] proven itself a perfect

¹¹⁴ Cumming , 34-35 .

¹¹⁵ S. D. Culbertson , “Tribute of Respect ,” *Valley Spirit*. 22 May 1861 .

¹¹⁶ Raphael Semmes , *Service Afloat; Or, The Remarkable Career of the Confederate Cruisers Sumter and Alabama, During the War Between the States* , (New York : Excelsior Publishing House , 1900) , 759 .

¹¹⁷ William H. Morris , “Wilderness, 87th Pa. Infantry, Report of Brig. Gen William H. Morris, May 9, 1864,” *Official Records* , < <http://jefferson.villilage.virginia.edu/vshadow2>> (6 November 2002) .

success.” He continues, saying that “Had a battle taken place the wounded would have received better attention than has ever been given on any of [their] battlefields. Every wound would have been dressed and all necessary operations would have been performed before the wounded were sent to [General] Hospital; the importance of which is so well known to the members of [their] profession.”¹¹⁸ However, one must wonder if the corps physically could have taken care of every wound before the transport to the hospital. Regardless, Foard obviously feels that the surgeon corps merited praise for their valiant efforts. These sentiments were felt by many soldiers, both Union and Confederate.

Soldiers and sailors were not the only people that took notice of the treatment by physicians and surgeons. Nancy Emerson wrote in her diary on July 8, 1864, while she was recovering from a severe illness. In her diary entry, she states that “By the blessing of God, however, upon the close attention of [her] physicians and the most careful nursing, [she] was at length restored”¹¹⁹ Kate Cumming entered into her diary on May 27, 1862, that “The surgeons, one and all, have proved themselves kind and attentive to the brave men whom they have had under their care.”¹²⁰ As a nurse, she was able to experience the way that surgeons treated the soldiers first hand. People also took note of the character and intelligence of the physicians. Walt Whitman said of the many doctors he encountered as a wound dresser, “I must bear my most emphatic testimony to the zeal, manliness, and professional spirit and capacity, generally prevailing among the surgeons, many of them young men, in the Hospitals and the army. I will not say much about the exceptions for they are few. . . . I never ceas’d to find the best young men, and the hardest

¹¹⁸Glenna R. Schroeder-Lein , Confederate Hospitals on the Move: Samuel H. Stout and the Army of Tennessee. (Columbia, SC: University of South Carolina Press , 1994) , 133 .

¹¹⁹ Nancy Emerson , “July 8, 1864 ,” The Diary of Nancy Emerson , <<http://etext.lib.virginia.edu/modeng/modengE.browse.html>> (6 November 2002) .

¹²⁰ Cumming , 40 .

and most disinterested workers, among these Surgeons, in the Hospitals. They are full of genius, too.”¹²¹

Many soldiers spoke of the treatment they received while in the hospitals and not all of them as glowing as Whitman’s account. Sometimes they had nothing but praise for the treatment, but other times they described a more gruesome picture of the surgeons and their tactics. T. D. Kingsley, a Union colonel wounded at Port Hudson, Louisiana, wrote a letter to his wife describing the field hospital he was in. “The surgeons used a large Cotton Press for the butchering room and when I was carried into the building and looked about I could not help comparing the surgeons to fiends.”¹²² He goes on to describe the room, saying that “in the middle of the room was some 10 or 12 tables just large enough to lay a man on; these were used as dissecting tables and they were covered with blood; near and around the tables stood the surgeons with blood all over them and by the side of the tables was a heap of feet, legs and arms.”¹²³ But unlike Kingsley, most soldiers spoke kindly of the treatments they received, offering much praise to the physicians and nurses. A soldier corresponding with the *Spirit Times* wrote in late September 1862 that “Most new recruits, on leaving home, have a horror of hospitals . . . [the correspondent] can bear the strongest testimony to their treatment, comfort, and admirable arrangement and management. The sick soldier who resists going to the hospital stands in his own light-- for there he will receive every attention, kind and obliging nurses, suitable clothing and good medical treatment.”¹²⁴ On July 8, 1862, a young sailor aboard the monitor wrote to his wife about his bout with hepatitis, for which

¹²¹ Mary Denis Maher , To Bind Up the Wounds: Catholic Sister Nurses in the U.S. Civil War , (Baton Rouge : Louisiana State University Press , 1989) , 48 .

¹²² Gienapp , 247 .

¹²³ Gienapp , 247 .

¹²⁴ Kennedy. “Correspondence from the Army of Virginia ,” Spirit Times , 24 September 1862 .

at that point there was no real treatment other than rest and time. He talks about his doctor, saying that “I found him a much better Doctor than I had put him down for. I had no doubt that I would come around all right in a few days under [the doctor’s] care.”¹²⁵

Although the doctors may have been kind towards their patients, often they were not seen as aiding the sick and wounded in a very timely manner. Kentucky Senator William E. Simms complained in 1862 that “Soldiers [were] allowed to lie on railway platforms for three days and [were] dying on the cars, in the hospitals, and on the streets for the want of a little attention. Medical officers [had] slain [their] troops.”¹²⁶ He felt that the untimely treatment of the wounded by the doctors was the reason for so many losses due to casualties. Had doctors been able to attend to the injured in a more timely fashion, perhaps the death rate would have been lower. Dr. John Vance Lauderdale explained in one of his letters home that “It is impossible to do justice to so many, crowded together as they are in every nook and corner on both decks [of the boat he was on].”¹²⁷ William Howard Reed spoke in his book titled *Hospital Life in the Army of the Potomac* about how overwhelming the work was for hospital workers. “We were almost overwhelmed by the accumulated work which every hour seemed to be bringing to us,”¹²⁸ he begins. Reed continues by telling of a soldier that approached him: “One man, whose piteous appeal I could not resist, asked me to dress his leg. It was a flesh wound, but was dry and hard. The bandage was stiff and clotted; and when I had cleansed the skin, I

¹²⁵ Marvel , 11 .

¹²⁶ Davis, Pohanka and Trojani , 414

¹²⁷ John Vance Lauderdale , The Wounded River: The Civil War Letters of John Vance Lauderdale, M.D. , Peter Josyph , ed. , (East Lansing, MI: Michigan State University Press , 1993) , 50 .

¹²⁸ Reed , 32 .

found that he had bled to death. At the moment of his appeal to me his life was going out.”¹²⁹

In an editorial from the *Confederate States Medical and Surgical Journal* from September of 1864, there is discussion about the necessity of speed in sealing wounds.

The editorial suggests:

Should quick union [of incisions into subcutaneous wounds] be obtained, comparatively speaking, a cure is effected in from forty-eight to seventy-two hours, which under the usual conditions, will require weeks, and may not be cured for months; the patient escaping all of the dangers from hospital gangrene, secondary hemorrhage, and the common one of unprotracted suppuration followed often by contracted limbs; and, besides a large saving of human life, the government saving in hospital accommodation, in supplies for the wounded, in the avoidance of long and repeated furloughs, and in the speedy restoration of the wounded, to add to the effective strength of the army in the field. Nearly the entire treatment of the wounded should be perfected at the field infirmaries. In the few days following a battle, while the wounded are awaiting transportation, the outer orifices of their wounds can be healed, and the cases now beyond all danger, could be directly furloughed for a short period without going into hospital.¹³⁰

Doctors noticed that a delay in closing open wounds would result in additional health problems such as infection. Surely this came out of experience since often doctors were unable to seal wounds immediately. As the war progressed, the doctors could see that there was less danger of infection and need for repeat treatments when a wound was quickly closed. This is only another example of the medical knowledge gained through war experience.

Whenever possible, doctors tried their best to treat wounds immediately. In *Medical and Surgical History*, the authors emphasized that “the importance of an early and complete examination of the wounded seems to have been fully realized by the

¹²⁹ Reed , 32 .

¹³⁰ Ayres and Wade , “On the Treatment of Gun-Shot Wounds by Hermetically Sealing ,” *The Confederate States Medical and Surgical Journal* 1 , no. 9 (1864): 139 .

surgical staff. This examination was generally conducted under the influence of anesthetics for the purpose of accurate diagnosis; in its course, balls and foreign bodies were extracted, bleeding vessels secured, and splinters of bone removed; upon its conclusion such operations were performed as in the judgment of the surgeon were necessary.”¹³¹ What is important here is that doctors realized the need to examine patients and to decide on the best course of action, all needing to occur in a small time frame.

Many civilians and non-combatants were abhorred at the way some things were run in the medical department. President Abraham Lincoln was appalled to learn in October 1862 from a committee in Baltimore that the city was filled with soldiers being released from the hospital. It appears that the soldiers were, “half-sick, half well, who profess to have been turned from the hospitals with no definite directions where to go.”¹³² He wrote a letter to Surgeon General William A. Hammond, asking if what the committee had told him was true. Soldiers not in hospital camps needed to be with their regiments.

Despite generally good efforts, suspicion remained. Many soldiers disliked the idea of being seen by a surgeon or a physician following a wound. One man from Ohio injured in Chattanooga during May 1864 wrote that “The surgeon insisted on sending me to the hospital for treatment. I insisted on taking the field and prevailed – thinking that I had better die by rebel bullets than Union Quackery.”¹³³ Louisa May Alcott served as a nurse for a month during the Civil War. She complained about conditions in northern hospitals, saying that “I should like to enter my protest against employing convalescents

¹³¹ Bollet, 78 .

¹³² Adams , 189 .

¹³³ Wiley , 132 .

as attendants instead of strong, properly trained, and cheerful men. . . . Here it was a source of constant trouble and confusion, these feeble ignorant men trying to sweep, scrub, lift, and wait upon their sicker comrades.”¹³⁴ She tells of one soldier who had a diseased heart. He “was expected to run up and down stairs, carry heavy trays, and move helpless men; he tried it, and grew rapidly worse than when he first came: and, when he was ordered out to march away to the convalescent hospital, fell, in a sort of fit, before he turned the corner, and was brought back to die.”¹³⁵ Kate Cumming spoke in her diary of the inhumane treatment of soldiers by Dr. Hawthorn. He had a cruel way of punishing men, which she describes as “bucking and gagging,” which was a common form of discipline in the Confederate armies.¹³⁶ Dr. Hawthorn “sometimes puts a bayonet in their mouth instead of a stick, and ties it so tightly that the blood gushes out. Many a time he has made the men stay in this position twenty-four hours, giving them neither food nor water. I do not think there is any necessity for going to such extremes.”¹³⁷ She knew that this was unacceptable behavior for any doctor or nurse because it was their job to improve the health of the men and not cause it to worsen. In the separate medical departments, ailing soldiers were sometimes expected to do more than their health would allow. Also, they were occasionally subjected to mistreatment by a doctor. But as a whole, most of the evidence shows that the soldiers were treated with much kindness by the staff taking care of them. Most often, surgeons worked as hard and as fast as they could to tend to the wounded. Hannah Ropes writes:

It would be folly to say they [the soldiers] all might have lived with more prompt attention; it is also unjust to a true conviction not to say they have

¹³⁴ Schroeder-Lein , 76 .

¹³⁵ Schroeder-Lein , 76 .

¹³⁶ Cumming , 105 .

¹³⁷ Cumming , 105 .

lost their only chance through a lack of earnest interest in the superior surgeon. . . . Our men have been saved only by the best of nurses and the kind and constant help from friends at home¹³⁸

As a nurse, Ropes realized that the problem was not the lack of effort by the medical personnel. She witnessed the heroic efforts undertaken by physicians and nurses to see to providing the best care for the soldiers in the hospitals.

The governments of both the United States and of the Confederate States did things to help those employed by the medical corps and in the hospitals throughout the duration of the war. Clara Barton wrote to her friend Mary Horton, saying that “I do not know how I should succeed in my work without the full cooperation and kind care of the Government,--they not only never deny me a request but try to anticipate my wants and necessities.”¹³⁹

The Confederate government worked on increasing their medical department beginning early on in the war. On August 19, 1861, Jefferson Davis wrote a letter to William Porcher Miles, who was at that time the chairman of the House Military Affairs Committee. The Confederate Congress had been working on a “bill to add to the Medical staff by the appointment of an asst. surgeon to each Regt.”¹⁴⁰ In his letter, Davis encourages Congress to change the “phraseology” if the bill is not intended to change the policy by which surgeons are in a separate corps and are then dispersed among the regiments. He wanted the bill to state that there would be one assistant surgeon for each regiment added to the medical corps who would then distribute the doctors to their posts. The next year, on March 28, 1862, Confederate Congress considered a bill dealing with

¹³⁸ Hannah Ropes , Civil War Nurse: The Diary and Letters of Hannah Ropes , John R. Brumgardt, ed. , (Knoxville: The University of Tennessee Press , 1980) , 71 .

¹³⁹ Oates , 95-96 .

¹⁴⁰ Lynda Lasswell Crist , ed. , Mary Seaton Dix, ed. , The Papers of Jefferson Davis vol. 7 (Baton Rouge: Louisiana State University Press , 1992) , 287 .

the Medical Department. Mr. Miles spoke for his committee, introducing “A bill to promote the efficiency of the Medical Department.”¹⁴¹ The bill was to add two assistant surgeons with the rank, pay, and allowances of a lieutenant-colonel of the cavalry. By passing through bills like this one, the Confederate Congress was constantly working towards boosting the Medical Department of the Confederate Army. A larger medical staff allowed for the treatment of more soldiers and the improvement of mortality rates.

Nurses and hospital stewards made up a large portion of the medical care providers that soldiers encountered. Their jobs were well respected among most of the soldiers, though according to Hannah Ropes, “between surgeons, stewards, nurses and waiters, the poor men in all the hospitals barely escape with life or clothes or money.”¹⁴² The position of nurses and stewards was attractive to non-combatants who joined the medical forces, serving to heal the wounded soldiers. Samuel M. Potter described his job in the hospitals to his wife in a letter dated December 10, 1862. He tells her that his “duties in the hospital are to give out the medicine the Surgeon prescribed. . . . my duty is to see that [the patients get] it at the right times and to see that the nurses do their duty keeping the hospital and patients clean and properly warmed”¹⁴³ Confederate nurse Kate Cumming wrote in her journal that “nothing that I had ever heard or read had given me the faintest idea of the horrors witnessed [in the hospital]. I do not think that words are in our vocabulary expressive enough to present to the mind the realities of that sad scene.”¹⁴⁴ She later writes in her journal about a cartoon she saw in one of the papers

¹⁴¹ Journal of the Confederate Congress, vol. 5 of “A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774 – 1875,” 156, <<http://memory.loc.gov>> (17 November 2002).

¹⁴² Ropes, 69.

¹⁴³ Samuel M. Potter, “Franklin County: Samuel M. Porter to Cynthia Potter, December 10, 1862,” The Valley of the Shadow, <<http://etext.virginia.edu>> (6 November 2002).

¹⁴⁴ Cumming, 14.

made her laugh. It portrayed a dialogue between a soldier and a lady nurse, in which the nurse asks the man if she can do anything for him or if she can wash his hands and face, to which he replies that she would be the fourteenth lady to do so that morning. This shows that the public realized that there were often a lot of nurses who turned out for the war, and even how the person who created the comic believed that there were too many nurses for the number of patients. Quite often on both sides, however, nurses and other medical personnel were greatly needed. Clara Barton told her friend Mary that she was “so happy in doing any little things I am able to, and glory so in any trifling sacrifice I am called to make that I frequently think I ought to be the happiest person in the world.”¹⁴⁵ In a letter written while on board a boat with wounded soldiers from Pittsburgh Landing in April 1862, Dr. John Vance Lauderdale takes note of three ladies onboard the ship that were helping tend the wounded soldiers. “There are three ladies on board who are acting the part of Florence Nightingales,” he writes.¹⁴⁶ Dr. Lauderdale is referring to ladies following the leadership demonstrated by Florence Nightingale, who became a model for civilian nurses after her participation in the Crimean War. He continues by describing the work of the women as going “around to the cots of the patients, and pretend[ing] to minister words of comfort & attend to little wants. I saw one reading in a Testament to a dying one.”¹⁴⁷

The women serving as nurses often worked under grueling circumstances. One Confederate nurse wrote in her diary that “The foul air from this mass of human beings at first made me giddy and sick, but I soon got over it. We have to walk and when we give

¹⁴⁵ Oates ,

¹⁴⁶ Lauderdale , 49 .

¹⁴⁷ Lauderdale , 49 .

the men anything kneel in blood and water; but we think nothing of it.”¹⁴⁸ Nurse Hannah Ropes writes in a letter of her job. She has been feeding the soldiers that can eat and distributing among them the fruit sent by the ladies. She does this “because it is a pleasure to me.”¹⁴⁹ She enjoyed serving, even in such a simple manner as ensuring that the delicacies sent by women to the soldiers were properly distributed among the men. The job of nurse could be sad though, as she describes in a letter from October 1862, saying “New days bring new trials to combat; and while we are cheered with the prospective recovery of most of those brought in . . . we turn away with saddened eyes from the long list of those whose last sleep has fallen upon them in this hospital.”¹⁵⁰

One of the most esteemed groups of nurses during the war was that of the Catholic Sisters. The sisters contributed greatly to the civilian corps of medical personnel though they are largely unmentioned in most medical accounts of the Civil War. The sisters were well known for their help during the Crimean War in Europe as well as for their hospitals and care. There are several instances when the armies would specifically request the aid of the sisters in the hospitals. On June 1, 1861, Brigadier General John F. Rathbone of Albany, New York, wrote to Bishop John McCloskey asking for help from the Sisters of Charity:

Nevertheless, there are now over one hundred men in our Hospital, and the number of nurses employed is quite insufficient to ensure their comfort and proper treatment. The superiority of the Sisters of Charity as nurses is known wherever the names of Florence Nightingale and the Sisters who accompanied her to the Crimea have been repeated, and these soldiers, most of whom have had woman’s tender hands to minister to their want before leaving home to engage in their country’s battles, would feel

¹⁴⁸ Wiley , 263 .

¹⁴⁹ Ropes , 55 .

¹⁵⁰ Ropes , 71 .

encouraged by their kindness and care. I should esteem it a personal favor, should they be able to comply with my request.¹⁵¹

Requests like this one came to other communities of nuns such as the Daughters of Charity. Confederate authorities asked the Daughters of Charity to admit sick soldiers to the Infirmary of St. Francis De Sales, their hospital located in Richmond, Virginia, in May 1861.¹⁵² These types of requests were repeated throughout the war, sometimes even coming from high ranking individuals, such as the requests of Union Secretary of War Edwin Stanton to the Sisters of Mercy and the Daughters of Charity.¹⁵³ Whenever they could, the sisters responded readily to the requests.

In the event that a battle erupted near a convent, the nuns would hastily offer their convent to be used as a hospital, as did St. Catherine's Convent in Perryville, Kentucky, in early October 1862. The sisters were so willing to respond to the crisis of war because their role as nuns was to live a life of service to others. Some of the Catholic sisters even served on naval vessels. One Daughter of Charity describes her experience:

When men, sisters, provisions, horses, etc. were all on board, we were more like sinking than sailing. . . . Here misery was in her fullness and her victims testified to her power by the thousand-toned moans of bitter waves. . . . Here our sisters shared with their poor patients every horror except that of feeling their bodily pains. They were in the lower cabins; the ceiling low, and lighted all day by hanging lamps or candles; the men dying on the floor with only space to stand or kneel between them.¹⁵⁴

Often the sisters served under conditions that most of the volunteer lay nurses would not agree to work under.

The sisters not only provided medical attention and nourishment to the soldiers, but often also served to save the souls of the men. According to Sister Maher, one sister

¹⁵¹ Maher , 71 .

¹⁵² Maher . 72 .

¹⁵³ Maher ,

¹⁵⁴ Maher , 102 .

wrote about a young man who was dying yet refused to hear the sister speak of his soul. He eventually asked the sister to write a letter to his fiancée with the agreement that afterwards he would listen to what the sister had to say. The sister wrote that after reading the letter to him, “He was satisfied now to do as she advised, and being prepared for baptism died with very pious disposition.”¹⁵⁵ Many men forged a close relationship with the sisters who served them, and began to ask questions about the “White Bonnet Religion” (the sister’s wore a white habit).¹⁵⁶ The affinity of the men to be drawn towards the religion of the nuns helped the nuns to serve their role as nuns in two manners by both providing service to others in both the physical and the spiritual sense. Soldiers saw the work of the sisters and found a deep affection for the sisters and their religion and were therefore more receptive to being baptized into the Catholic faith.

Soldiers really appreciated how kind the nurses were towards them. A soldier begged Clara Barton to “use my influence to keep him there, not have him taken away”¹⁵⁷ because of how nice and kind she had been towards him. Cornelia Hancock was a Union nurse at the battle of Gettysburg. She wrote to her sister telling her that she felt “assured I should never feel horrified at anything that may happen to her here.” She goes on to talk about amputations, saying that “I could stand by and see a man’s head taken off I believe- -you get so used to it here.”¹⁵⁸ In the Mississippi Historical Society publication on the University hospital, the author talks about the ladies who came to nurse the soldiers after the battle of Shiloh. “A few women came with their own for the sick and wounded, and having nursed them, remained to minister to other boys who were not so fortunate as to

¹⁵⁵ Maher , 117 .

¹⁵⁶ Maher , 117 .

¹⁵⁷ Oates , 179 .

¹⁵⁸ Gienapp , 189 .

have their own mothers or sisters with them.” The same article mentions a woman by the name of Mrs. Frances Harrison, who “gave her untiring services day and night, to the last hour they were needed.”¹⁵⁹ Upon arriving at a field hospital for the Union Army, Nurse Cornelia Hancock discovered a horrifying scene. She described the scene saying, “So appalling was the number of the wounded as yet unsuccored, so helpless seemed the few who were battling against tremendous odds to save life, and so overwhelming was the demand for any kind of aid that could be given quickly, that one’s senses were benumbed by the awful responsibility that fell to the living.”¹⁶⁰ She continues with “Action of a kind hitherto unknown and unheard of was needed here and existed here only.”¹⁶¹ Cornelia understood that it took a special person to be able to rise to the call and help aid the pitiful soldiers who were wounded on the battlefield. One of the first tasks facing Cornelia upon her arrival at the hospital was to serve food to the soldiers. She took bread and jelly and gave the men much needed nourishment. She wrote of this action recounting that “I had the joy of seeing every morsel swallowed greedily by those whom I had prayed day and night I might be permitted to serve.”¹⁶²

Hancock, like many women of the day, was anxious to help serve the men fighting to protect her country. She did what she could to help with the knowledge that some other woman might be acting in the same manner to help the men in her life should they become ill or wounded. Nurses on both sides played an important part of the soldiers’ lives while in the hospital. However, this took place more in the North since southern women were not to see such horrors as the wounds inflicted in battle or to see

¹⁵⁹ Johnson, 98,103 .

¹⁶⁰ Cornelia Hancock , Letters of a Civil War Nurse , Henrietta Stratton Jaquette, ed. , (Lincoln: University of Nebraska Press , 1998) , 5 .

¹⁶¹ Hancock , 5 .

¹⁶² Hancock , 6 .

the wounded or ill men naked. The nurses were the ones to tend to the wounds, dressing them in fresh dressings and washing the wounds, as well as making sure the soldiers were clean and had plenty to eat. They served valiant positions, sometimes even endangering their lives by going out onto the field. Women were unable to fight themselves, so they served their respective countries by fulfilling the role of nurse, even though at times they found men lying in horrible suffering. Cornelia Hancock wrote from Gettysburg to her cousin telling of the conditions she found there. "There are no words in the English language to express the sufferings I witnessed today, she said, continuing with "The men lie on the ground; their clothes have been cut off them to dress their wounds; they are half naked, have nothing but hard-tack to eat only as Sanitary Commissions, Christian Associations, and so forth give them..You can tell Aunt that there is every opportunity for "secesh" sympathizers to do a good work among the butternuts; we have lots of them suffering fearfully."¹⁶³ Hancock could see firsthand that there was plenty of work for civilians to do. Before the war, women had been mostly excluded from the medical profession. This changed during the war when women made up the majority of the nurses.

Throughout the war, the civilian community as a whole came out and helped those in need. If not filling positions of nurses or doctors, they did other jobs. Mrs. Felicia Grundy Porter headed a group known as the Women's Relief Society of the Confederate States. The purpose of the organization were included in its constitution, which stated that its goals were to "supply artificial limbs for all officers, soldiers and seamen who have been maimed in the service of their country, and to furnish such other

¹⁶³ Hancock , 7 .

relief as will contribute to the general objects proposed.”¹⁶⁴ The Mississippi Historical Society article says that “Immediately after the battle of Shiloh . . . word was brought to Oxford that there would be sent down that evening, numbers of sick and wounded soldiers, to be cared for at the university. . . . When this news reached Oxford excitement ran high in the town . . . many of the homes were stripped of . . . everything that could be spared, or that could contribute to the comfort of the men who had spared no sacrifice for the defense of their country.”¹⁶⁵

The entire community of non-combatants felt the war. A boy attending the Virginia Military Institute wrote home to his mother telling her that he had still not recovered from his illness and was still taking medicine. He talked about getting a furlough to go home and see his family, saying that he wanted to go home and see his family. “It almost makes me cry to think about home and the dear ones there.”¹⁶⁶ Joseph Addison Waddell, a civilian, wrote in his diary after returning from a funeral. In talking about the empty graves awaiting for the soon to die soldiers, he says that “the sight brought before us visibly the sufferings of the soldiers dying in the military hospitals, far from home and kindred and all the horrors of a time of war.”¹⁶⁷

For the first time, hundreds of people were dying in ways unfamiliar; they were far away from home, from the comforts of familiarity and family, and in harsh territory under strenuous conditions.¹⁶⁸ The notion of dying all alone from wounds brought about

¹⁶⁴ Cunningham , 145 .

¹⁶⁵ Johnson , 96 .

¹⁶⁶ Jacob Kent Langhorne , “Augusta County: Jacob Kent Langhorne to His Mother, November 2, 1862 ,” The Valley of the Shadow , <<http://jefferson.villiage.virginia.edu/vshadow2/personal.html>> (6 November 2002) .

¹⁶⁷ Joseph Addison Waddell , “Augusta County: Diary of Joseph Addison Waddell (1855 – 1865),” The Valley of the Shadow , <<http://jefferson.village.virginia.edu/vshadow2/>> (6 November 2002) .

¹⁶⁸ John R. Neff, Honoring the Civil War Dead , (Lawrence, KS: University Press of Kansas, 2005) , 22-24 .

large amounts of sympathy among civilians, leading them to aid the wounded to the best of their ability. Illnesses urged soldiers to write home to their loved ones, perhaps because of the fear that they could never see each other again. John Hamer wrote to his sister Eveline on November 24, 1863, telling her that he was still sick and in the hospital, but that he was not much better. He was feeling some better, however, and since he was “not confined to bed . . . when the weather [permitted he could] run about through town.”¹⁶⁹ Community was of extreme importance to either side’s wounded. The *Spirit Times* had a space in the September 24, 1862, edition that said that “everything that [could] be done by skillful physicians and a humane community [was] being done to render [the wounded soldiers] more comfortable.”¹⁷⁰

Despite the vast amounts of civilian volunteers, there were not always enough people to take care of the ill. Cornelia Hancock included in her letter to her sister that “there is a great want of surgeons here; there are hundreds of brave fellows, who have not had their wounds dressed since the battle.”¹⁷¹ There was a want for a chaplain in the hospital where Kate Cumming worked. The men often asked for a chaplain, but there was no one to send them. “We profess to be Christian people,” she says, “and should see that all the benefits of Christianity are administered to our dying soldiers.”¹⁷²

Not all people served the two sides of the war through man-to-man combat; many people combated the gunshot wounds and the diseases that soldiers suffered. These courageous men and women fulfilling the positions of doctors, surgeons, nurses, stewards and ambulance drivers strived to keep the armies well and able. The often worked under

¹⁶⁹ Hamer .

¹⁷⁰ Kennedy , 1 .

¹⁷¹ Gienapp , 189 .

¹⁷² Cumming , 32 .

difficult circumstances and faced horrifying scenes on the battlefield. However, these men and women put aside their own needs and tried to make the soldiers as comfortable as was possible with the little knowledge and supplies that they had to work with. Their heroic efforts are worthy of notice.

Bibliography

Books

- Adams, George Worthington . Doctors in Blue: The Medical History of the Union Army in the Civil War . New York : Henry Schuman , 1952 .
- Alcott, Louisa May . Hospital Sketches . Ed. Alice Fahs . Boston : Bedford/St. Martin's, 2004 .
- Bollet, Alfred Jay. Civil War Medicine: Challenges and Triumphs . Tuscon: Galen Press, Ltd., 2002 .
- Chisolm, John Julian . A Manual of Military Surgery for the Use of Surgeons in the Confederate Army . San Francisco: Norman Publishing , 1989 .
- Clyburn, William. "Civil War Medicine" The Rebel Yell. (The Jackson Civil War Roundtable, Inc. , 1995) , 3. Archives of the State of Mississippi. Vertical File: Civil War Medicine .
- Crist, Lynda Lasswell, ed. , Mary Seaton Dix, ed. , The Papers of Jefferson Davis vol. 7 Baton Rouge: Louisiana State University Press , 1992 .
- Cumming, Kate. Kate: The Journal of a Confederate Nurse . Ed. Richard Barksdale Harwell. Baton Rouge: Louisiana State University Press , 1959 .
- Cunningham, H. H. Doctors in Gray: The Confederate Medical Service . Gloucester, MA : Peter Smith , 1970 .
- Dammann, Gordon . A Pictorial Encyclopedia of Civil War Medical Instruments and Equipment Vol. 2 , Missoula, MT : Pictorial Histories Publishing Company , 1988 .
- Davis, Jefferson . The Rise and Fall of the Confederate Government , vol. 1. New York: D. Appleton and Company , 1881 .
- Davis, William C., Brian C. Pohanka , and Don Trojani . Civil War Journal . Nashville: Rutledge Hill Press , 1999 .

Gienapp, William E., ed. The Civil War and Reconstruction: A Documentary Collection. New York : W. W. Norton & Company , 2001 .

Hamer, John. "Letter to Eveline Hamer" (24 November 1863) .

Hancock, Cornelia . Letters of a Civil War Nurse . Edited by Henrietta Stratton Jaquette. Lincoln: University of Nebraska Press , 1998 .

Humphreys, Anderson and Curt Guenther. Semmes America . Memphis: Humphreys Ink, Inc., 1989 .

Journal of the House of Representatives of the State of Mississippi . Jackson, MS: Kimball, Raymond & Co., State Printers, Jackson, 1870 . State Archives of Mississippi. Vertical File: Confederate Medicine .

Koonce, Donald B., ed. Doctor to the Front: The Recollections of Confederate Surgeon Thomas Fanning Wood, 1861-1865 . Knoxville: The University of Tennessee Press , 2000 .

Kuz, Julian E. and Bradley P. Bengtson . Orthopaedic Injuries of the Civil War: An Atlas of Orthopaedic Injuries and Treatments During the Civil War . Kennesaw, GA : Kennesaw Mountain Press, Inc., 1996 .

Lauderdale, John Vance . The Wounded River: The Civil War Letters of John Vance Lauderdale, M.D. Edited by Peter Josyph . East Lansing, MI: Michigan State University Press , 1993 .

Laws of the State of Mississippi Passed at a Called Session of the Mississippi Legislature Held in the City of Jackson. October 1866, and January and February 1867 . Jackson, MS: J. J. Shannon & Co. , 1867 . State Archives of Mississippi. Vertical File: Confederate Medicine .

Maher, Mary Denis . To Bind Up the Wounds: Catholic Sister Nurses in the U.S. Civil War . Baton Rouge: Louisiana State University Press , 1989 .

Marvel, William. The Monitor Chronicles: One Sailor's Account . New York: Simon & Schuster, 2000 .

Neff, John R. Honoring the Civil War Dead . Lawrence, KS: University Press of Kansas, 2005 .

Oates, Stephen B. A Woman of Valor: Clara Barton and the Civil War . New York: The Free Press , 1994 .

Porter, Roy. Blood and Guts: A Short History of Medicine . New York: W. W. Norton & Company, 2002 .

Reed, William Howell . Hospital Life in the Army of the Potomac . Boston : William V. Spencer , 1868 .

Roper, John Herbert . Repairing the “March of Mars” : The Civil War Diaries of John Samuel Apperson, Hospital Steward in the Stonewall Brigade, 1861 – 1865 . Macon: Mercer University Press, 2001 .

Ropes, Hannah. Civil War Nurse: The Diary and Letters of Hannah Ropes . Edited by John R. Brumgardt. Knoxville: The University of Tennessee Press , 1980 .

Schroeder-Lein, Glenna R. Confederate Hospitals on the Move: Samuel H. Stout and the Army of Tennessee. Columbia, SC: University of South Carolina Press , 1994 .

Semmes, Raphael . Service Afloat; Or, The Remarkable Career of the Confederate Cruisers Sumter and Alabama, During the War Between the States . New York : Excelsior Publishing House , 1900 .

Steiner, Paul E. Disease in the Civil War: Natural Biological Warfare in 1861-1865 . Springfield: C. C. Thomas, 1968 .

Welch, Spencer Glasgow . A Confederate Surgeon’s Letters to His Wife . Marietta, GA : The Continental Book Company , 1954 .

Wiley, Bell Irvin. The Life of Billy Yank, the Common Soldier of the Union. Indianapolis: Bobbs-Merril, 1952 .

Articles in Periodicals

Ayres and Wade . “On the Treatment of Gun-Shot Wounds by Hermetically Sealing ,” The Confederate States Medical and Surgical Journal 1 , no. 9 (1864) : 139 .

Culbertson, S. D. “Tribute of Respect ,” Valley Spirit. 22 May 1861 .

Hinkley, Hargrove. “Treatment of Hospital Gangrene,” Confederate States Medical & Surgical Journal 1 , no. 9 (1864) : 131 .

Johnson, Jemmy Grant . “The University War Hospital ,” Mississippi Historical Society 12 .

Kennedy. “Correspondence from the Army of Virginia ,” Spirit Times . 24 September 1862 .

Marshall, Mary Louise . “Nurse Heroines of the Confederacy,” Bulletin of the Medical Library Association 45 (1957) : 320 .

Maughs, G. M. B. “Thoughts on Surgery, Operative and Conservative, Suggested by a Visit to the Battle-field and Hospitals of the Army of Tennessee ,” Confederate States Medical and Surgical Journal 1 , no. 9 (1864) , 129 .

McIntire, Carl . “Ambulance Circa 1862 ,” The Clarion Ledger , 1 February 1970 , sec. F.

Oliver, W. S. “Scurvy: Its Cause,” Confederate States Medical & Surgical Journal 1 , no. 9 (1864) : 143.

Price, Beulah M. D’Olive. “Nurses Played a Strategic Role in Civil War,” Daily Corinthian, 28 December 1983 .

Staunton Spectator , 31 March 1863 .

Electronic Sources

<<http://www.bbc.co.uk/history/timelines/scotland/chloroform.shtml>> (15 April 2005).

<http://www.cdc.gov/ncidod/dbmd/diseaseinfo/meningococcal_g.htm> (11 September 2004).

<http://www.cdc.gov/ncidod/dbmd/diseaseinfo/typhoidfever_g.htm> (10 September 2004).

<http://www.cdc.gov/ncidod/dbmd/diseaseinfo/typhoidfever_g.htm> (11 September 2004).

Emerson, Nancy. “July 8, 1864,” The Diary of Nancy Emerson.

<<http://etext.lib.virginia.edu/modeng/modengE.browse.html>> (6 November 2002).

Journal of the Confederate Congress, vol. 5 of “A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774 – 1875,” 156,

<<http://memory.loc.gov>> (17 November 2002).

Langhorne, Jacob Kent. “Augusta County: Jacob Kent Langhorne to His Mother, November 2, 1862,” The Valley of the Shadow. <

<http://jefferson.villiage.virginia.edu/vshadow2/personal.html>> (6 November 2002).

<<http://www.malaria.org/>> (11 September 2004).

<<http://www.mayoclinic.com/invoke.cfm?id=HQ00737>> (10 September 2004).

Morris, William H. "Wilderness, 87th Pa. Infantry, Report of Brig. Gen William H. Morris, May 9, 1864," Official Records ,
<<http://jefferson.village.virginia.edu/vshadow2>> (6 November 2002) .

Potter, Samuel M. "Franklin County: Samuel M. Porter to Cynthia Potter, December 10, 1862 ," The Valley of the Shadow . <<http://etext.virginia.edu>> (6 November 2002) .

Waddell, Joseph Addison . "Augusta County: Diary of Joseph Addison Waddell (1855 – 1865) ," The Valley of the Shadow <<http://jefferson.village.virginia.edu/vshadow2/>> (6 November 2002) .