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OFF THE BLOODIED GROUNDS: THE CIVIL WAR AND THE PROFESSIONALIZATION
OF AMERICAN MEDICINE

by

NICOLAS HOFFMANN

Under the Direction of Wendy Venet, PhD

ABSTRACT

This dissertation uses the Civil War as a fulcrum to talk about the professionalization of American Medicine. Tracking doctors, nurses, hospitals, surgery, and other treatments, this dissertation describes their progression and professionalization over the nineteenth century. It argues that the Union and Confederacy deal with the Civil War in different ways, with the Confederacy pushing away from standardization and the Union embracing it.

INDEX WORDS: Civil War, Medicine, Doctors, Nurses, Hospitals, Illness

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OF AMERICAN MEDICINE

by

NICOLAS HOFFMANN

A Thesis/Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

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2019

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PROFESSIONALIZATION OF AMERICAN MEDICINE

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May 2019

DEDICATION

I dedicate this dissertation to the three most important women in my life. To my mother who really taught me to write and helped edit this. To my wife, who supported me through all my job changes and graduate work and allowed me to complete this (along with editing this and assuring it made any sense). And to my daughter, for whom I was a stay at home Dad to work on this dissertation and watch you through your developing newborn months. This document would not exist without the three of you incredible and loving people.

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LIST OF ABBREVIATIONS

The Bureau of Medicine and Surgery will be abbreviated as BMS.

The Confederate States of America will be abbreviated as CSA.

The Medical and Surgical History of the War of the Rebellion will be abbreviated as MSHWR.

United Confederate Veterans will be abbreviated as UCV.

The United Daughters of the Confederacy will be abbreviated as UDC.

The United States Sanitary Commission will be abbreviated as USSC.

The Young Men's Christian Association will be abbreviated as YMCA.

1 INTRODUCTION

On Shiloh's dark and bloody ground, The dead and wounded lay;
 Amongst them was a drummer boy, Who beat the drum that day.
 A wounded soldier held him up His drum was by his side;
 He clasp'd his hands, then rais'd his eyes, And prayed before he died.
 He clasp'd his hands, then rais'd his eyes, And prayed before he died.

"Look down upon the battle field, Oh, Thou our Heavenly Friend!
 Have mercy on our sinful souls!" The soldiers cried "Amen!"
 For gathered 'round a little group, Each brave man knelt and cried;
 They listened to the drummer boy, Who prayed before he died,
 They listened to the drummer boy, Who prayed before he died.

"Oh, Mother," said the dying boy, "Look down from heaven on me,
 Receive me to thy fond embrace-Oh, take me home to thee.
 I've loved my country as my God; To serve them both I've tried,"
 He smiled, shook hands - death seized the boy Who prayed before he died.
 He smiled, shook hands - death seized the boy Who prayed before he died.

"The Drummer Boy of Shiloh" by W.S. Hays ¹

One of my favorite vignettes from the Civil War is the story of Thomas 'Stonewall' Jackson. Out late one night before battle, Jackson was scouting the battlefield to prepare for the next day. To be more clandestine, he chose to wear a dark colored overcoat. Surprised by Jackson's movement, one of his own men shot him through the arm. The shooting signaled to the

¹ W. S. Hays, "The Drummer Boy of Shiloh," in *Songs of the Civil War*, ed. Irwin Silber and Jerry Silverman (New York, NY: Dover, 1995), 140-42.

Union troops the start of battle, and a small firefight took place. Rescuing Jackson from the battlefield was difficult because of several cannon rounds passing nearby, causing the men retrieving the General to twice drop him from the stretcher. The surgeons did the best they could, but the shattered arm was beyond repair and amputated. Undeterred, Jackson fought on, but within three days the infection spread to his lungs and he died of pneumonia.²

They laid the general to rest; however, the men did not entomb him in just one plot. In proper protocol, soldiers and chaplains buried the body and arm, not only in two separate locations, but gave both memorials. The locals considered this a myth for decades; the legend of the land. In 1921, when a local farmer told Commanding General of the Marine Corps Smedley Butler (the same Smedley Butler who received the Medal of Honor twice and announced to Congress and the American People the Business Plot) he was so infuriated that he told the farmer "Bosh! I will take a squad of Marines and dig up that spot to prove you wrong!" When they dug in the area, they not only found the arm but also a rotted wooden marker, Butler ordered its reburial in a metal coffin and a new official military burial.³

Though this event seems novel, it signifies something important. We know by the end of the war, graphic images by Mathew Brady and others depicting piles of bodies and severed appendages will permanently mark this era. However, so much of our modern medicine

² Frank R. Freeman, *Gangrene and Glory: Medical Care During the American Civil War* (Urbana: University of Illinois Press, 2001), 101-07.

³ Tony Horwitz, *Confederates in the Attic: Dispatches from the Unfinished Civil War* (New York: Vintage, 1999), 232.

The Business Plot was an attempt by several prominent businessmen to lead World War I veterans against the Roosevelt government, claiming his New Deal was creeping Socialism. The conspirators approached General Butler to lead the army of veterans, but instead turned to Congress to announce the plot. Despite his testimony and a public address, the names of the backers remained secret; however, a special committee in the House of Representatives confirmed many of his claims.

separates us from this type of viscera and gore; with hospitals disposing of the removed offensive pieces without our visual confirmation. Yet in the nineteenth century, they buried Jackson not once, but twice; as though something within him existed as much in that severed arm as the whole; an idea that we would never consider today. It is an idea which possibly makes us uncomfortable even to consider. Perhaps, it is worth starting with the story of the medical treatment and death of one of our greatest citizens to show the baseline of American medical care from the era before the Civil War.⁴

1.1 George Washington's Body

When America elected George Washington President, he was our most famous and one of our wealthiest citizens. In fact, in many ways, he was the only logical choice to be the first leader of this new experimental nation. As the story goes, George Washington was powerful, tall, and impressive. He was an excellent equestrian and an even better dancer. In an era where calves were a sign of attractiveness, his were always in view. His gallant stride and confident manner walking into the Continental Congress in full regalia led to his appointment as head of the American armies; a trick that worked a second time, as his uniformed approach helped make the President named Commander in Chief (a position he was sure to fill). According to diplomat and politician Rufus King, King George III “had lately spoken in regard to General Washington, he told him since his resignation that in his opinion ‘that act closing and finishing what had gone before and viewed in connection with it, placed him in a light the most distinguished of any man living, and that he thought him the greatest character of the age.’”⁵

⁴ Freeman, *Gangrene and Glory*, 107.

⁵ Rufus King, *The Life and Correspondence of Rufus King; Comprising His Letters, Private and Official, His Public Documents, and His Speeches*, vol. 3 (New York, NY: G. P. Putnam and Sons, 1894), 545; T. P. O'Connor, *My Beloved South* (New York, NY: Putnam, 1913), 365.

Regardless if it was true, the educated in America and Europe were calling Washington the “Cincinnatus,” (the Roman dictator, who the Senate called from his field to defend Rome, saved the day, and returned to his fields). In 1788, after French traveler Jacques-Pierre Brissot de Warville visited with Washington at Mount Vernon, he said Washington lived up to the title, “the comparison is doubtless just. The celebrated General is nothing more at present than a good farmer, constantly occupied in the care of his farm and the improvement of cultivation.” He would give up power three times: after the Revolution when he released his armies and stepped down, when as President he raised an army to put down the Whiskey Rebellion, and third, after two terms, he left the Presidency.⁶

However, we are not here to talk about how the man who could have been King conducted himself, we are talking about his health. George Washington was a relatively healthy man and as he married rich, he could afford excellent medical care for the time. However, this did not mean that medical treatment was always the most helpful. For example, despite legend, many Americans know Washington’s teeth were not wooden. Though he had a full set of dentures by his presidency, dentists constructed them of other teeth, either human or ivory. Dentures of the era were generally teeth, taken from slaves, the dead (especially battlefields; the

As quoted from T. P. O’Connor on General Washington, “Take measure of a gentleman who wares well-made cloaths of the following size: to wit, six feet high and pro-portionable made-if anything, rather slender than thick for a person of that height, with pretty long arms and thighs... My Mammy used to say, Straight legs for a dandy, bowlegs for a cavalry man, and knock-knees for nothin'. The General's legs were not only those of a "dandy," but were exquisitely tapering and rounded. Many a chorus girl would envy such a perfection, and the breeches fitted his graceful legs without a wrinkle.”

⁶ J. P. Brissot de Warville, Joel Barlow, and American Imprint Collection (Library of Congress), *New Travels in the United States of America, Performed in 1788* (New York, NY: Printed by T. & J. Swords, for Berry & Rogers, Booksellers and Stationers, 1792), 492.

This was such a powerful and recognized idea that the Veteran hereditary society of those who fought in the Revolutionary War called themselves the Society of Cincinnati.

Battle of Waterloo was known for this as it was the one of the biggest battles on the European continent), the poor would sell healthy teeth, or denture makers sculpted them out of tusks. His dentures were at times so ill-fitting and painful that Washington would barely speak. In fact, if one compares portraits of Washington, one can see this. Comparisons of Joseph Wright's and James Peale's two portraits in 1782-83 to Jean-Antoine Houdon's 1785 bust, Washington's new dentures in 1785 were painful and thus his cheeks are puffy. Also, compare Charles Wilson's 1787 Mezzotint engraving and Charles Peale Polk's 1790 painting to Guiseppe Ceracchi's 1791 bust or Archibald Robertson's 1791 portrait and see how bad the 1791 dentures were.⁷

Further, Washington's death was tragic. On Thursday, December 12, 1799, he had spent the day riding around the plantation in the sleet and snow on inspection. Rather than keep the waiting dinner guests, he ate supper without stopping to change. The next day as it got colder with a brutal snowstorm, he developed a worsening sore throat, but, not wanting to rest, he went out to the fields to point out to his supervisor the trees he wanted cleared. By that evening, he complained of congestion and a sore throat. By Saturday morning at 3 am, Washington awoke and was unable to speak and barely breathe. Bloodletting was common at the time, Washington was a firm believer in it, and had it performed on his slaves for their illnesses. With that, after sending for his physicians, he ordered the overseer to drain a pint of blood. Washington's

⁷ Joseph Wright, *George Washington*, 1783. Historical Society of Pennsylvania; Charles Wilson, *George Washington*, 1787. 7 7/16 x 5 13/16 in. (18.9 x 14.7 cm). The Metropolitan Museum of Art; Archibald Robertson, *George Washington*, 1791. 12 3/4 x 10 1/2 in. (32.4 x 26.7 cm). New York Historical Society; Charles Peale Polk, *George Washington*, 1789. The Metropolitan Museum of Art; James Peale, *George Washington*, 1782. The Metropolitan Museum of Art; Jean-Antoine Houdon, *George Washington*, 1785. University of California, San Diego; Guiseppe Ceracchi, *George Washington*, 1791. University of California, San Diego; Paul Kerley, "The Dentures Made from the Teeth of Dead Soldiers at Waterloo," *BBC News Magazine*, 16 June 2015.

personal physician Dr. James Craik, along with Dr. Gustavus Brown and Dr. Elisha Dick soon arrived.⁸

Drs. Craik and Brown thought that Washington had quinsy (Peritonsillar abscess), which doctors today would treat with an antibiotic or, if severe, drainage and antibiotic with steroids (or frequently with a tonsillectomy and antibiotics). However, in the 18th century, the treatment was more bloodletting. Over the next few hours, doctors took more than six pints of blood. Those attending applied various poultices and salves. Dr. Dick was convinced it was more likely a closing throat, even at one point temporarily saving Washington's life with an emergency tracheotomy. However, after drifting in and out of consciousness, Washington died at 10 pm on Saturday, December 14, 1799 at age 69. His final instructions were "Have me decently buried, and do not let my body be put in the vault in less than three days after I am dead." His last words were to his wife, "'tis well."⁹

Upon word of his death, the nation mourned, and Martha Washington wore a black cape for a year. In France, First Consul Napoleon ordered ten days of mourning. The ships of the British Naval Channel Fleet lowered their flags to half-mast. Then, Congress got involved. Washington's body was an curious specimen. He was tall with people claiming he was six feet to six feet two; however, at death he was measured six feet three and a half, as though it was the last secret he tried to keep. Martha buried Washington on Mount Vernon in a lead sealed sarcophagus so that no one could take his body. A former disgruntled employee attempted this in

⁸ Dave Anthony, *The Death of George Washington*, podcast audio, The Dollop, 32:462015; Ron Chernow, *Washington: A Life* (New York, NY: Penguin Press, 2010), 806-14; Joseph J. Ellis, *His Excellency: George Washington*, 1st Vintage Books ed. (New York, NY: Vintage Books, 2005), 269.

⁹ Anthony, *The Death of George Washington*; Chernow, *Washington: A Life*, 806-14; Ellis, *His Excellency: George Washington*, 269.

1830; in response, Congress funded a construction on a new vault for his and Martha's sarcophagi. In 1832, Congress debated moving Washington to the Capitol. Charles Bullfinch, who was in charge of the renovation of the Capitol Building after the British burned it down in 1814, had left a space under the rotunda for Washington's burial. It is under a silver compass, the origin of all addresses in Washington DC. In reaction to this, the state General Assembly of Virginia passed a law to prevent Washington's removal from the state. Congress contemplated putting Abraham Lincoln here for saving the Union, but Mary Todd insisted on maintaining his wishes and burying him in Illinois. It remains empty today. Yet, that is not the last of Washington's body. Despite his death 177 years prior, in 1976, Congress posthumously appointed George Washington the "General of the Armies," and the unofficial rank of six-star general (Douglas MacArthur had advocated for this for two decades). Thus, no future officer will ever outrank George Washington. Life and death are complicated things.¹⁰

1.2 The State of Nineteenth Century Medicine

From Washington's death at the end of the eighteenth century to the middle of the nineteenth, medicine took several complicated twists and turns. Modern medicine and science in the nineteenth century were a baffling and confusing affair. The early nineteenth century was an era of experimentation in terms of medicine and diet. Most Americans ate mostly pork; smoked, cured, and dried. In an era before true refrigeration and proper canning techniques, pickling and drying were the only ways to preserve vegetables, and alcohol was the most commonly consumed beverage. This terrible diet led to chronic gas and a short life span with many

¹⁰ Anthony, *The Death of George Washington*; Chernow, *Washington: A Life*, 806-14; Ellis, *His Excellency: George Washington*, 269; Gerald Ford, "Appointment of George Washington to the Grade of General of the Armies of the United States.," in *Public Law 94-479*, ed. Congress of the United States (Washington, DC: Government Printing Office, 1976).

complaining of feeling sluggish and groggy. Flush with excitement from the Second Great Awakening, Americans examined the early part of the nineteenth century with moral vigor. Reformers such as Dr. Sylvester Graham believed that the American diet, which relied heavily on spices and meats, led to lustful behavior and masturbation. He started a movement of reform through diet, creating a group called the Grahamites who abstained from alcohol and sex and practiced frequent bathing, daily brushing of teeth, and vegetarianism. Graham is probably best known today for his development of Graham Flour, a whole-grain wheat-based flour, including the germ and various levels of milling. He designed it to be so bland and fibrous that it would suppress lust. All puritanical vigor imposed was not only on Victorian women (who made up most his group), but the diet spread to Oberlin College (then Oberlin Collegiate Institute) by David Campbell, one of Graham's acolytes. It was a part of Oberlin from 1840 until it publicly renounced in 1841, avoiding a student revolt. At a series of lectures in 1832, Dr. Graham was so ardent of his diet that even goes as far as blaming eating meat and drinking alcohol as the cause of death in Asiatic cholera.¹¹

It is worth mentioning, however, that Dr. Graham, while a cartoonish example, had profound influence. His teachings combined with those of the Seventh Day Adventists led to the creation of the famous Kellogg Sanitarium. It helped to develop modern ideas of nutrition and

¹¹ Adele Braun, "Looking to Quell Sexual Urges? Consider the Graham Cracker," *The Atlantic* (2014); Sylvester Graham, "A Lecture on Epidemic Diseases Generally: And Particularly the Spasmodic Cholera: Delivered in the City of New York, March 1832, and Repeated June, 1832 [Sic] and in Albany, July 4, 1832, and in New York, June, 1833: With an Appendix Containing Several Testimonials, --Rules of the Graham Boarding House, &C," (New York, NY: Mahlon Day, 1833).

Though soon after, the *New York Courier* and *New York Inquirer* published responses stating that in Asia, Asiatic Cholera had in fact killed the most Hindus, who subsist mainly on rice and no meat and during that the outbreak of Cholera in Constantinople, those who suffered the least consumed alcohol and those who suffered the most were Jews on a religious fast.

corn flakes, but also used those corn flakes as a food and a douche and prescribed frequent enemas to the patients. Despite the odd quirks of the practices, when the Kellogg brothers took it over in 1876, it came to represent a dramatic change in the understanding of stress and anxiety as mental conditions (it was a sanitarium after all) and represents one of the many transitions of the post-Civil War era.¹²

Great strides made in medicine and psychology are only part of the equation. There needed to be a change of perception as well. Freak shows, like those run by P.T. Barnum, and other carnival acts and patent medicine barker drove this. They showed off medical oddities and irregularity and reinforced normalcy at the hands of Victorian era Americans. Even in death, they disinterred deformed persons and filled them with formaldehyde so that their bodies could be on permanent display. Hospitals performed surgeries in operating theaters on the top floors in hospitals, so the public could not hear screams from pre-anesthetic operations from the street, but observers could still learn from the surgeries. The human body and its treatment were terrifying at times.¹³

The military expected that more people would die because of disease than combat during warfare. They performed experimental medicine, such as amputations, so rarely (because they assumed soldiers would just die) that during the Mexican-American War, they preserved all amputated limbs for medical study by students and the curious, (and if you count yourself among

¹² Brian C. Wilson, *Dr. John Harvey Kellogg and the Religion of Biologic Living*, 1 edition ed. (Bloomington, IN: Indiana University Press, 2014), 82-106.

¹³ Rosemarie Garland Thomson, *Extraordinary Bodies: Figuring Physical Disability in American Culture and Literature* (New York, NY: Columbia University Press, 1996), 55-63. J. M. Fenster, *Ether Day: The Strange Tale of America's Greatest Medical Discovery and the Haunted Men Who Made It*, Reprint edition ed. (New York, NY: Harper Perennial, 2002), 1-5.

the curious, almost all of them are at the Mutter Museum, part of the College of Physicians of Philadelphia).¹⁴

While there were doctors and surgeons in the military (the terms are confusing as most doctors performed some surgery, surgeon was a military rank), most doctors on the home front treated patients in their homes as they considered hospitals places that people went to die. This was especially true for the poor, who could not afford to pay doctors for home visits. All of this changed in the United States because of the Civil War. The pragmatism of the late nineteenth and early twentieth century replaced prewar transcendental and romantic movements in the United States as the nation faced the grim reality of upwards of 750,000 dead and millions more wounded both mentally and physically. It is during the post-Civil War era that people turn away from their former distrust of medicine and old methods give way to modern medical technique and science.¹⁵

During the Civil War, illness was the primary killer. Outbreaks of every conceivable disease, from smallpox and measles to dysentery and cholera, popped up and affected the outcome of certain battles. Malaria played a significant role at Vicksburg, Yellow Fever in the fall of South Carolina, and dysentery led to the War Crimes conviction of Captain Henry Wirz for the mistreatment of soldiers at Andersonville Prison in Georgia where 13,000 died. Additionally, malnutrition led to both scurvy and nyctalopia (night blindness) and further influenced entire campaigns.¹⁶

¹⁴Freemon, *Gangrene and Glory*, 19-28.

¹⁵ Louis Menand, *The Metaphysical Club: A Story of Ideas in America* (New York, NY: Farrar, Straus and Giroux, 2002), 337-77.

¹⁶ Freemon, *Gangrene and Glory*, 92-101, 16-23, 24-34, 42-47.

By the end of the war, an entire generation of men in the North and virtually the entirety of the South had experienced death on untold levels, but more than that -- death in their midst; bodies dead in their fields and towns, surrounding them. Dying away from home, the body became symbolic and fought over as a symbol of the war. The images of Mathew Brady with their raw, gruesome depictions of death changed the hidden nature of death in the American psyche. Amputation, a common war practice, but extraordinarily rare beforehand, was so common that to see men with missing limbs became a common sight. A new generation of reformers tried desperately to treat the mentally wounded. Agents of change, like Samuel Stout, John Letterman, Dorothea Dix, Clara Barton, and Elizabeth Blackwell created hospitals, nurses, a system of triage, asylums, and a modern medical system. However, initially for reasons of war a necessity, these institutions remained after the war and formed the basis of a modern health care system.¹⁷

The overwhelming number of war casualties forced a mass industrialization of the body. The massive number of dead and wounded took the experimental and intimate nature of early nineteenth century medicine and forced the increased efficiency that comes with factory medicine. This challenged previously taboo ideas of the body's sanctity. Replacing parts or removing them to make the machine function became part of the norm, all of which is necessary

¹⁷ Glenna R. Schroeder-Lein, *Confederate Hospitals on the Move: Samuel H. Stout and the Army of Tennessee* (Columbia, SC: University of South Carolina Press, 1996); Freemon, *Gangrene and Glory*; George Worthington Adams, *Doctors in Blue: The Medical History of the Union Army in the Civil War* (Baton Rouge, LA: Louisiana State University Press, 1996); Bennett Augustine Clements, *Memoir of Jonathan Letterman* (Press of G.P. Putnam's sons, 1883); Thomas J. Brown, *Dorothea Dix: New England Reformer*, Harvard Historical Studies (Harvard University Press, 1998); David H. Burton, *Clara Barton: In the Service of Humanity*, Contributions in Women's Studies (Westport, CT: Greenwood Press, 1995); Elizabeth Blackwell, *Pioneer Work in Opening the Medical Profession to Women* (Boston, MA: Longmans, Green and Company 1895).

to save the machine that is the body. This transition was slowed by institutionalized racism, seeing particularly the African Americans as having different anatomy. In the post-Civil War era, while medicine to white men is improving, it is still a struggle for the freedmen. Reconstruction brought with it the first federally created health care system in the form of Reconstruction hospitals to treat ill freedmen. However, misinterpretations of racial differences led to large-scale outbreaks in the death of thousands of free people. In addition, it creates the first federal pension system for veterans.¹⁸

Additionally, there are reactions to this movement, as well. In fact, prophets founded two still existing major religions on the principles opposed to this industrialization and de-sanctification of the body. To this day, the Jehovah's Witnesses refuse transfusions and organ transplants and the members of the Church of Christian Scientists believe that healing occurs only through prayer. Both churches, started in the 1870s, fought the emerging mechanical view of the body.¹⁹

The mental well-being of the nation started changing before the war with Dorothea Dix, among others, fighting a crusade against the incarceration of the mentally ill. Her fight led to reform before the war and her selection to lead the nursing corps during the war. After the war, her movement continued in the form of sanitariums popping up across the country to treat those damaged by the war, including the famous Kellogg sanitarium where, following in the footsteps of Dr. Graham, the Kellogg brothers develop cornflakes as a treatment for mental illness.

Additionally, with the creation of the M'Naghten Rules in 1843 in England, the courts

¹⁸ Jim Downs, *Sick from Freedom: African-American Illness and Suffering During the Civil War and Reconstruction*, 1 edition ed. (New York, NY: Oxford University Press, 2012), 146-62; Shauna Devine, *Learning from the Wounded: The Civil War and the Rise of American Medical Science* (Chapel Hill, NC: The University of North Carolina Press, 2014), 249-72.

¹⁹ Wilson, *Dr. John Harvey Kellogg and the Religion of Biologic Living*, 1-30.

considered mental illness as excusable for crime and by 1851 the United States also accepted the insanity defense and used in the trial of James Guiteau, the assassin of President James Garfield.²⁰

1.3 Thesis

Using the Civil War as the fulcrum, this dissertation will explore how the mass carnage of the Civil War fundamentally shifted the way that Americans viewed science and medicine, leading to professionalization and public health reform. The start of the nineteenth century saw challenges to the growth of science and medicine during the Second Great Awakening. Health and wellbeing linked to diet and exercise as vegetarianism and meals free of spices encouraged longer life and fought lusts; illness linked to morality. However, the seemingly endless dead and wounded experienced during the Civil War led to the professionalization of medicine and to changes in the understanding of bodily function. Post-Civil War Americans perceived the body as a machine and they developed modern sanitization and health systems. To explain this, I will analyze the evidence using the body narratives of Michel Foucault, Drew Gilpin Faust, Rosemarie Garland Thomson, Jim Downs, and Susan Matt. To address the professionalization aspects, I will engage the work of Shauna Devine, James Mohr, Franklin Dyer, Michael Chesson, Horace Cunningham, and Ira Rutkow.²¹

²⁰ Brown, *Dorothea Dix*, 176-96; Wilson, *Dr. John Harvey Kellogg and the Religion of Biologic Living*, 30-62; *ibid.*; Candice Millard, *Destiny of the Republic: A Tale of Madness, Medicine and the Murder of a President* (New York: Anchor Books, 2012), 273-743.

²¹ Michel Foucault, *Discipline & Punish: The Birth of the Prison*, trans. Alan Sheridan (New York, NY: Vintage Books, 1995); Drew Gilpin Faust, *This Republic of Suffering: Death and the American Civil War*, Reprint edition ed. (New York: Vintage, 2009); Thomson, *Extraordinary Bodies*; Downs, *Sick from Freedom*; Susan J. Matt, *Homesickness: An American History* (New York, NY: Oxford University Press, 2011); Devine, *Learning from the Wounded*; James C. Mohr, *Doctors and the Law: Medical Jurisprudence in Nineteenth-Century America* (Baltimore, MD: The Johns Hopkins University Press, 1996); J. Franklin Dyer and Michael B. Chesson, *The Journal of a Civil War Surgeon* (Lincoln, NE: University of Nebraska Press, 2003); Horace

My dissertation will respond to scholarly literature and will create a new narrative of the Civil War as the catalyst for the interpretation of the body which led to the rise of professionalization and standardization of medicine and propelled the perception of the body from sacred vessel to machine. I will examine a variety of archival sources, including papers of the University of Pennsylvania Medical School archives, the United States Sanitary Commission Archives at the New York Public Library, manuscripts pertaining to key figures in Civil War medicine (such as Clara Barton, Elizabeth Blackwell, Mary Ann Bickerdyke, Dorothea Dix, Samuel Stout, et al., in the archives of the Library of Congress, Emory University, and the University of Georgia); and the U.S. Army Surgeon General's Office papers, the Holy Grail of Civil War medical research.

2 THE THEORY OF THE NINETEENTH CENTURY BODY

My brave lad sleeps in his faded coat of blue;
 In a lonely grave unknown lies the heart that beat so true
 He sank faint and hungry among the famish'd brave
 And they laid him sad and lonely within his nameless grave
 Refrain: No more the bugle calls the weary one,
 Rest, noble spirit,
 In thy grave unknown! I'll find you and know you,
 Among the good and true,
 When a robe of white is giv'n for the faded coat of blue.

Herndon Cunningham, *Doctors in Gray: The Confederate Medical Service* (Baton Rouge, LA: Louisiana State University Press, 1993); Ira Rutkow, *Bleeding Blue and Gray: Civil War Surgery and the Evolution of American Medicine*, 1 edition ed. (New York, NY: Random House, 2005)..

He cried, "give me water and just a little crumb,
 And my mother she will bless you thro' all the years to come;
 Oh! Tell my sweet sister, so gentle, good and true,
 That I'll meet her up in heaven, in my faded coat of blue
 "The Faded Coat Of Blue," by J. H. McNaughton²²

In looking at the Civil War, one finds the most brutal and transformative event in the nation's history. It forced Americans to assess what it meant to be American and it flung us into the Age of Nations. The Union forced the previously agricultural South to become industrial, though this was far from a peaceful or immediate transition. Finally, it caused Americans to reassess themselves as individuals, from what it meant to be American to the very concept of personhood. However, it is important to contextualize the era in the most current narrative structures.

2.1 Historiography of the Nineteenth Century

Contemporary scholarship of the nineteenth century begins with *The Market Revolution: Jacksonian America*, 1815-1846. Charles Sellers looks at the era between the War of 1812 and the Mexican-American War and attempts to find the narrative drivers of history. Spending an impressive amount of time on James Monroe and John Quincy Adams, his book bridges the traditional Jacksonian narrative by tying together the entire era as part of a bigger movement. While delving into the political struggles of the whole-time frame, but focusing on Jackson, Sellers creates an extraordinarily complete world of nineteenth century America, incorporating

²² J. H. McNaughton, "The Faded Coat of Blue," in *Songs of the Civil War*, ed. Irwin Silber and Jerry Silverman (New York, NY: Dover, 1995).

social, religious, economic, psychological, gender and intellectual history all around one theme: the market revolution.²³

In Sellers' nineteenth century America, the market revolution shapes everything. Growing capitalist sentiment developed the basis, often to the detriment of the citizenry, of a more modern and connected America. It transformed America from a nation that celebrated subsistence and arduous work, to one that sought only profits, often breaking up families and overriding traditional American values of labor and devotion and encouraging conformity. Sellers put it like this: subverted by the market revolution, "maternal love activated filial guilt to internalize norms of self-repressive effort in carefully educated sons." He went on to state that the market even redefines masculinity, "the market appropriated male libido to capitalist production by both repressing sexuality and plunging gender into confusion."²⁴

It is in this mode that Sellers celebrates Andrew Jackson, Martin Van Buren, and Thomas Hart Benton and their Democratic party. Jackson became the hero of the yeoman and worker. Seeing no demagoguery in Jackson's actions, Sellers sees them as attempts to stem the tides of the market revolution, even supporting Jackson's monetary policy and fiscal decisions. Sellers goes further by arguing that "by mystifying the relations of class, power, and culture, our historical mythology of consensual capitalism renders incomprehensible the massive resistance that rallied around Andrew Jackson." It is this force that he seems to associate with the undermining of the Democrats, who he argues are protecting the democratic citizenry. Therefore, the Peggy Eaton affair represented proto-Victorian bourgeois values, the Bank War was a fight for independence from the Federalist elite, and the incorporation of funds into the pet banks

²³ Charles Sellers, *The Market Revolution: Jacksonian America, 1815-1846* (New York, NY: Oxford University Press, 1994).

²⁴ *Ibid.*, 242-45.

"challenged bourgeois hegemony like no other President." However, Sellers' Marxist interpretation of history represents only a small part of the narrative that is at play. By focusing on the fight against the growing market revolution and therefore the capitalist classes, the argument focuses on the political classes and not the subaltern. Sean Wilentz focuses instead on the power of democracy as the motivating tool to illustrate the movement of the nineteenth century.²⁵

The Rise of American Democracy: Jefferson to Lincoln by Sean Wilentz is an attempt to define American Democracy on the way to the Civil War. Wilentz writes that Democracy "appears when some large number of previously excluded, ordinary persons. . . secure the power not simply to select their governors but to oversee the institutions of government, as officeholders and as citizens free to assemble and criticize those in office." [Its rise was] "highly contested, not a given, and developed piecemeal, by fits and starts, at the state and local as well as the national level." Wilentz tracks this push through significances of many examples, each challenging the hegemony and hierarchy. The book manages to weave together such revolutionary moments as the Amistad Affair and the publication of *Uncle Tom's Cabin* to the greater movements of abolitionism, the Second Great Awakening, Manifest Destiny, and the transition of cross class coalitions. However, he starts with a section on the Democratic Republicans starring Thomas Jefferson.²⁶

Frustration with the Constitution and its uses, the frustrated urban subaltern and yeomen farmers unified under Jefferson in the Democratic-Republican Societies to attack the Federalist Administrations. Jefferson could redirect their anger away from the officeholders that shared

²⁵ Ibid., 268, 333.

²⁶ Sean Wilentz, *The Rise of American Democracy: Jefferson to Lincoln*, Reprint edition ed. (New York: W. W. Norton & Company, 2006), xix-xxi.

their views and form a political party, leading to the Revolution of 1800. Wilentz argues that this led to a Democratic widening that was massive. The members of the Constitutional Convention and especially the Federalists wanted to limit access to the government. Wilentz calls the Federalists ‘elitist monocrats,’ in some ways mirroring Richard Hofstadter who said that the Federalists of the Constitutional Convention believed “Let it stand as a principle that government originates from the people; but let the people be taught...that they are not able to govern themselves.” His argument grows, making a point to show the nature of the Jeffersonian principle giving the people rights and fighting for their agency.²⁷

At the heart of this book is an attempt to redefine the maligned Jackson and greater early Democrats, elucidating their message. Wilentz argues that the Democrats were not proslavery and that the Federalists were not antislavery. While he does call the Indian Removal Act and similar policies insidious, he blames them on sectional tensions. However, Wilentz does relent in acknowledging that most of the Jacksonians were racists who fought abolitionists misinterpreting their humanitarian message as government overreach and fought Civil Rights reform. Additionally, he gives positive voice to the Whigs and the Anti-Masonic Parties.²⁸

Focusing on the Panic of 1819 and the Missouri Crisis and subsequent Compromise of 1820, Wilentz argues that the frustrated local Democrats sought a powerful leader, on whom Andrew Jackson (with mobilization help from Martin Van Buren) was able to capitalize on. Once there, Wilentz interprets the Jackson Administration as almost a New Deal, fighting business and giving more power to the individual. Wilentz makes Jackson out to be the greatest hero of the age. When he became to the Whigs as ‘King Andrew,’ Wilentz defends him, stating,

²⁷ Richard Hofstadter, *The American Political Tradition: And the Men Who Made It* (New York, NY: Vintage, 1989), 19.

²⁸ Wilentz, *The Rise of American Democracy*, 276, 78-80, 402, 20-40, 70-80.

"too rarely have historians appreciated the Democrats' willingness to wield federal power forcefully, over economic issues no less than over nullification, [and against Indians and Mexicans, one might add] when they thought doing so was necessary to protect the democratic republic."²⁹

After Jackson, Wilentz argues that the intellectual center of the Democrats falls into the hands of eastern radicals like William Gouge, which only strengthens the Democratic message. The creation of hard money and the creation of the Independent Treasury system by Martin Van Buren was an attempt to control the state bankers and remove the worthless money from circulation. However, due to the federal tariff and the Specie Circular, there was no mechanism for the federal currency to circulate.³⁰

The book ends with a reassessment of democratic ideals, stating that the democratic ideal turned itself against the issue of slavery. By the 1840s there were two types of democracy, Northern and Southern, inevitably pulling towards war.³¹

However, recent scholarship challenges both Sellers and Wilentz. In the immense work, *What Hath God Wrought: The Transformation of America, 1815-1848*, Daniel Walker Howe addresses Sellers directly in the attempt to look at the decades between the War of 1812 and the end of the Mexican War (1848) and reorganize it. Arguing against the Market Revolution as being the sole driver, Howe attempts to inspect what the transformations were so that he could get at their root.³²

²⁹ Ibid., 438.

³⁰ Ibid., 444-57, 58-63, 64.

³¹ Ibid., 117, 25, 543, 795.

³² Daniel Walker Howe, *What Hath God Wrought: The Transformation of America, 1815-1848* (New York, NY: Oxford University Press, 2009).

To formulate his points, Howe looks at the relations between science and literature to illustrate a larger culture. Howe shows connections between evangelical reformers and preachers like Lyman Beecher and Charles Grandison Finney and their association to social reform, sectional politics, and economic development. This book is important in the discussion of how the Second Great Awakening connects the nation via these evangelists and their creation of the national organizations that found the antebellum reform movement and create a national dialogue. He declares that this creates a political revivalism that elects William Henry Harrison, but while Howe lauds Harrison, he attacks Jackson.³³

Portraying Jackson as a white supremacist - violent, dangerous, and authoritarian - Howe labels the Jacksonian Democratic revolution as one that spreads white supremacy across the nation, pointing out that the National Bank, Tariff, and Nullification were secondary, that Indian Removal was primary as domestic policy. This was a thesis in an era where enfranchisement expanded to white males, but reduced to women, natives, freedmen, and most immigrants. This became a tenet of Manifest Destiny, a core principal of the Jacksonian Democratic movement, along with the expansion of slavery. In contrast to the villainy this book places on Jackson, Van Buren, and Polk, it elevates Clay and Quincy Adams, who the book labels ‘Improvers.’³⁴

The book dedicated to the “to the memory of John Quincy Adams,” gives one a lead to what Howe thinks of these men. Though not much of their efforts became law in their tenure, Howe shows them as creating a blueprint for America for decades to come, creating an urban-industrial modern nation. They fought the expansion of slavery and ‘imperialism (as Howe puts it) and pushed for the large federal projects that created the modern American state, while

³³ Ibid., 411-45, 570-612.

³⁴ Ibid., 243-85.

fighting the states' rights movement that was pushing for slavery and popular sovereignty. The definition of the states and the polarity of national religious movements feeds into a major step outlined by James McCardell in *The Idea of a Southern Nation: Southern Nationalists and Southern Nationalism, 1830-1860*. McCardell argues that the Civil War could have only existed, and the Confederate states could have only seceded if they thought of themselves as wholly separate from the North. Part of this is the cultural narrative including religion. This distinction is crucial in understanding the significant role of how the religion of the day changes and what this means in the greater moral construct.³⁵

Howe's arguments reach their zenith with his discussion of the Mexican American War. Declaring that Polk provoked it without question and that the finale of the Jacksonian Democratic narrative stands as the apex of the argument of Howe's book. He further states that it is a "book [that] tells a story; it does not argue a thesis." However, this argument puts him directly opposed to the rest of the historians on the matter. In this, Howe challenges directly both Wilentz's work on Andrew Jackson (as well as Arthur Schlesinger Jr.) and Sellers' work on the market revolution. Instead, he argues that the biggest driver of nineteenth century history was the communication revolution.³⁶

Howe describes three parts to the communications revolution: the invention after the War of 1812 of the steam powered rotary press, the reorganization of the U. S. Postal Service, and the creation of Samuel Morse's 'lightning' electric telegraph in 1844. This is the transfer from small island communities into the growing nation-state. These changes increase the availability of

³⁵ Ibid., 143, 632, 92, 702-09; John McCardell, *The Idea of a Southern Nation: Southern Nationalists and Southern Nationalism, 1830-1860* (New York, NY: W. W. Norton & Company, 1981).

³⁶ Howe, *What Hath God Wrought*, 846.

information, the amount of information, and the speed of information. This communication revolution couples with the era of transportation revolution, the making of roads, canals, steamboats, and railroads. He calls these the twin revolutions. It is these tools that allow the growing influence of the reform movements of the antebellum era. Howe states that “the abolitionist movement could not have flourished without the mass production of periodicals, tracts, and inexpensive books (including antislavery books for children), the circulation of petitions to Congress, the ability to gather national conferences, and convenient travel for its agents.... [and that] the importance of the distribution of information to the cause of antislavery.”³⁷

Pulling from all of these narratives, one sees the power of the democratic and communications revolutions in Edward Ayers book *In the Presence of Mine Enemies: The Civil War in the Heart of America, 1859-1864*, a magnificent work of nineteenth century history. Focusing on two counties in the Shenandoah Valley, one that will remain with the Union and one that will join the Confederacy, Ayers paints a picture of the Civil War in the terms of neighbors. We often refer to the Civil War as a war between brothers, however, Ayers digs into the connotation of such. By following newspapers, diaries, and letters, he is able to track the relationship between the two counties of Franklin and Augusta as it begins so positively, sharing markets, and marrying across borders. However, when war breaks out, it is stunning the speed with which relations turn. Sentiments of immorality and allegations of the devil incarnate replace shared citizenry.³⁸

³⁷ Ibid., 646-47, 58-701.

³⁸ Edward L. Ayers, *In the Presence of Mine Enemies: The Civil War in the Heart of America, 1859-1864* (New York, NY: W. W. Norton & Company, 2004).

Franklin and Augusta counties' unfortunate proximity to the battlefronts only worsens hostilities as they end up thrown into the caldron of war due to their importance to the war effort as their agricultural production became vital. The book focuses solidly on the soldiers and family members, while mostly ignoring the bigger national political events that would require a broader analysis. In fact, it is a skilled attempt to grant agency to the subaltern by looking at the greater conflict solely through their eyes. The fact that a border separates the two counties shows the political world they live in. The division of Augusta and Franklin County means the inclusion of slavery, but until the war, it meant similar crops and general understanding. The books show the democratic demagoguery of the era, stating that the "people voted for icons and symbols more than policies and issues."³⁹

The inherent flaw of this is evident in the elegance of Ayers' argument. Stating solidly without mincing words, that slavery was the cause of secession, and Ayers shows the transition of the views from neighbors to 'godless hypocrites.' Chauvinistic nationalism develops rapidly, leading to a Hayekian Militarism. Showing the immediate consequence of the mutual democratic pandering, the book places emphasis to the attachment to the icons of secession and Union that it turned not only county against county but created dissent as well. Suddenly, Augusta's residents feared invasion and starvation and Franklin's Unionists feared slaves looking for freedom. This creates a catalytic environment pushing resurgence in the Democratic Party. By summer 1863, the Confederate army invades Franklin County on the way to

After thirteen years, the sequel *The Thin Light of Freedom* was published and focused on the counties of Augusta, Virginia, and Franklin in Pennsylvania.

Ibid.

Edward L. Ayers, *The Thin Light of Freedom: The Civil War and Emancipation in the Heart of America* (New York: W. W. Norton & Company, 2017).

³⁹ *In the Presence of Mine Enemies*, 91.

Gettysburg. The fear is mutual, which army, nay, nation would survive the onslaught as the Union was at their weakest and the Confederacy the strongest? Whose rhetoric would survive? The aggressive, but collapsing Confederates, or the vulnerable Union Homeland?⁴⁰

While the developing modern markets were creating modern America, the struggle was for the Democratic hearts and minds of the citizenry. The specter of Andrew Jackson looms as one of the most controversial Presidents in US History. However, his realignment of the political system is impressive. The democratic movement, coming out of the yeomen and local political parties, mobilized by Van Buren and Jackson, represents a shift in governance. This change is the crucial turning point leading to the Civil War and modern America. This narrative structure of the nineteenth century provides a crucial foundation to my work. The spreading of information, the increase of democratization, and the development of the consumer culture paves the way to understanding of how America builds to the Civil War. The Civil War is so traumatic to the intellectual national psyche that there is a fundamental shift in the intellectual elite. According to Louis Menand in *The Metaphysical Club: A Story of Ideas in America*, "[Oliver Wendell] Holmes, James, Peirce, and Dewey wished to bring ideas and principles and beliefs down to a human level because they wished to avoid the violence they saw hidden in abstractions. This was one of the lessons the Civil War had taught them."⁴¹

Hardened by the Civil War, the deaths and the destruction disillusioned most of the members of the intellectual elite, all created by a war driven by ideology. The men involved in the Metaphysical Club begin to look at the earlier part of the century as more of a mistake. The Metaphysical Club itself was a briefly existing small club that existed in Cambridge,

⁴⁰ Ibid., 277-401.

⁴¹ Menand, *The Metaphysical Club*, 440.

Massachusetts in 1872 that all the men (except Dewey) were a part of, but the book is much more than just the minutes of a club. It is a history of American thought, placing it in the context of late nineteenth century intellectualism. However, some have more difficulty than others overcoming their transcendental pasts. They combine everything from new science, to new medicine, to the aftereffects of the war, etc. to change the way that Americans think and act. You can see the impressive nature of this in the attempts to localize pragmatism as an American philosophy and place it squarely in the metaphysical club, at least among its members. Inspired by Charles Darwin's *The Origin of Species* and assurance that the Civil War happened due to ideologues led the group to believe that there could be no absolute truth, that philosophical and scientific ideas could be part of a philosopher's toolbox, was key. Pragmatism comes out of the idea that individuals devise a reality to cope with the world in which they find themselves and that these are part of that construction.⁴²

Mark Noll, a scholar of American Evangelicalism engages with the philosophical elements of the War by expanding on a series of lectures at Penn State University with his book *The Civil War as a Theological Crisis*. Investigating the build-up to the Civil War and touching on the religious context of John McCardell's work from a more national perspective, Noll asserts that the early republic had a clashing evangelical, capitalistic, and individualistic culture that was pushing itself apart. He argues that the different interpretations of the Bible and the understanding of the authority of the religious texts created a dangerous rift. This theological crisis necessitated a dramatic shift facilitated by the social-scientific progressivism of the late nineteenth century.⁴³

⁴² Ibid., IX-1.

⁴³ Mark A. Noll, *The Civil War as a Theological Crisis*, First Edition edition ed. (Chapel Hill, NC: The University of North Carolina Press, 2006); McCardell, *The Idea of a Southern Nation*.

2.2 Historiography of the Body

The intellectual transition mirrors the political use of the body as well. The scientific revolution that comes in the later part of the nineteenth century is one that carved by a brutal war and capitalist drive to view the body as a machine. In this complicated history of the body, Michel Foucault represents an indelible starting point. This work, *Discipline and Punish*, follows the trajectory of the history of crime as it represents dehumanization via the transfer of the power narrative. The intentions were to make the secret more public (since at the time the investigations were secretive, the public display was a form of justification). It was to show the effects of investigation on confession (if torture provided a confession, they assumed guilt, if the accused gave no confession, the judge proclaimed innocence, legitimizing each). The eye for an eye mentality of justice (they displayed the nature of the crime on the condemned). Finally, the transference of the crime to the sovereign who, injured by the crime creates justice. However, there are several unintended consequences, including the creation of the convict's body as a symbol of sympathy or martyrdom, the redirection of blame to the executioner, and the creation of a revolutionary body by polarizing the crowd against the state. The history of the body has existed outside of medicine due to the concept of the body politic. Foucault argues that the control of the subject's body represents the changing control of the state until the ultimate shift of power, the panopticon. The political body must exist because the increasing democratization led to a hidden power structure in terms of punishment.⁴⁴

In Thomas Laqueur's "Bodies, Death, and Pauper Funerals," Laqueur illustrates the transition of the body in terms of death. The funerary practices of the rich versus the pauper and the transition of the pauper grave over time. In this case, the role of the body changes in terms of

⁴⁴ Foucault, *Discipline & Punish*.

the relation to the state in death. The tradition ritual of Christian burial is linked to a transition to the afterlife and the mythos of ghosts often associated to the interference therein. Beginning in the sixteenth century, the churches paid for the funerals of the poor, primarily, and they buried on bodies church ground. These pauper graves were shallow and not well constructed. However, by the Victorian era, the transition to modern practices of the families of the poor began to occur, with very few relying on the state.⁴⁵

This 'othering' in terms of the dead expanded clearly to the living as well. Medical literature and teaching made clear racial distinctions, but physical perfection became defined as well. The idea of humans as specimens starts to develop in the late nineteenth century and the use of the deformed as spectacle does as well. Developing alongside the studies of eugenics and phrenology, the freak show became a dominant form of entertainment in the nineteenth century. Nadja Durbach, in her book *Spectacle of Deformity: Freak Shows and Modern British Culture*, looks at freak show acts at their British height in the late nineteenth century. The freak show offered an opportunity to reveal the superiority of the English person. While some medical deformities were at play, like John Merrick, the Elephant Man, some freak show subjects are merely racial in nature, such as the Hottentot Venus (Saartjie "Sarah" Baartman), whose curves and extended labia were the subject of fascination, and the hirsute girls like Krao Farini (called the 'Missing Link' for her hypertrichosis, dense hair covering her body like fur). These figures allow for the comparison of the otherness of the colonies leading to freak shows and human zoos. Durbach does challenge the notion that the Freak Show is inherently repressive, however. Again, with Merrick she illustrates that when on the road, he had agency and income, choosing

⁴⁵ Thomas Laqueur, "Bodies, Death, and Pauper Funerals," *Representations*, no. 1 (1983): 109-31.

to tour, and earning his way. However, when the doctors took over, he lost that power over himself, isolating him in the hospital for medical exhibition, and ultimately treated like a non-entity; he killed himself in the hospital via suffocation, but his cadaver remained in the museum as a specimen as does the Hottentot Venus with her genitals preserved specifically. To avoid such a fate, Farini saved money to have her body cremated. Rare in those times, many nations had it illegal until the massive death toll of World War I and the Spanish Influenza made cremation seem like a valid alternative. This air of superiority extends past people and to their domination of nature.⁴⁶

Likewise, in the American context, Rosemarie Thomson, *Extraordinary Bodies: Figuring Physical Disability in American Culture and Literature* lays the foundation in a literary critique narrative to look at disability through the eyes of English language, primarily American and British literature. Starting from a position of normalcy, the book looks at the literary constructs of disability as a form of minority; stating that assuming 'ableness' is the norm, disability, therefore, is minority. Looking at bodies from the Aristotelian mean, normalcy is key to the understanding of the human form. In so looking, she makes the assertion that looking at disability, especially in the chapter about freaks, exists especially in the Victorian era, because there is a desire to feel more normal and medicine is often far enough along to keep people alive, but not prevent birth defects. In an era in which repression of both the mind and body is the order of the day, 'freaks' exhibiting both physical and mental/moral deficiencies were ogled. In particular, Thomson looks at such examples as the Joice Heth (the purported 161-year-old black nursemaid of George Washington), Julia Pastrana (a hirsute woman), and Saartjie "Sarah"

⁴⁶ Nadja Durbach, *Spectacle of Deformity: Freak Shows and Modern British Culture* (Berkeley, CA: University of California Press, 2009).

Baartman (labeled the Hottentot Venus). In doing so, Thomson is able to point to the freak show as a way for Victorian Americans to look at these deformed/disabled/sexualized bodies as a form of moral apprehension. These bodies were examples to the public to show the normalcy of most in face of such immorality. However, not all of the disabilities on display were actual disabilities. Women of other cultures showing their otherness, such as tribal tattoos, piercings, lip discs, smoking, etc. with otherwise no physical disabilities presented alongside circus freaks with dwarfism, polydactylism, amputation, and the famous “what is it?” a microcephalic African-American Man, performed as either a higher order of monkey or lower order of man. Often times, these freak show acts were so famous that they were on display long after their death. Robert Wadlow, the world’s tallest man, ordered his body buried and his coffin encased in cement so that no one could disinter his body and display his skeleton.⁴⁷

As part of Victorian mortality, people earned respectable disability. Losing a leg in war, to lose a leg due to an industrial or farming accident, or to lose the ability to use a leg due to desiccation of age, theoretically are all the same ability, but lead to different treatment. Being born as a freak contextualizes the individual as an object of comparison whereas, in the latter half of the century, ‘waving the bloody shirt’ and reverence towards veterans will lead to respect. However, the freak show and medical oddity were reaching its height as an object of fascination.⁴⁸

For Susan Bordo, this represents a show of physical masculine strength. Bordo suggests a reading strategy for reading the male body through its vulnerability. This reading does not

⁴⁷ Thomson, *Extraordinary Bodies*.

⁴⁸ Ibid.

ignore male domination but exposes the ways in which this control shapes not only the female body, but also the male body as a site of guilt, self-hatred, and concealment.⁴⁹

In an interesting follow-up to Thomson's *Extraordinary Bodies*, John F. Kasson's *Houdini, Tarzan, and the Perfect Man: The White Male Body and the Challenge of Modernity in America* presents cultural examples of masculinity of the late nineteenth and early twentieth century. Eugen Sandow, Harry Houdini, and Edgar Rice Burroughs' character Tarzan come out of the late Victorian era and represent virility and strength, coupled with the ability to display such in public. A cultural replacement of the freak show with the archetypal perfection.⁵⁰

Starting with a picture of his great-grandfather flexing from the waist up, Kasson describes the late nineteenth century as filled with images of muscular men and exhibiting feats of strength in the public space and the fascination with such. The first body that he talks about is Eugen Sandow, a strongman and the "perfect man." Born in Prussia, Eugene (nee Eugen) Sandow became as known as an actor, showman, and as a strongman. Pictures of him bodybuilding and in classical poses such as the Dying Gaul, Apollo, and Hercules (often while nude) became world-renowned. What became key, though, is not just the strength, but the showmanship. He gains international fame about showing up, on stage, French strongman Sampson and claiming his mantle of "Perfect Man." This coincides with continuously upping his game and improving on acts and performances to assure that even knockoffs and plagiarists would not be able to compete. With this, he can show other men as inadequate and is able to sell treatments, exercise, muscle developers, etc. and become the representative of the ideal white

⁴⁹ Susan Bordo, "Reading the Male Body," in *Building Bodies*, ed. Pamela L. Moore (New Brunswick, N.J.: Rutgers University Press, 1997), 31–73.

⁵⁰ John F. Kasson, *Houdini, Tarzan, and the Perfect Man: The White Male Body and the Challenge of Modernity in America* (New York, NY: Hill and Wang, 2002).

European male. To Kasson, this is representative of an era of lost masculinity in which the culture exploited the male form to assert a lost manhood and combat the feminization and urbanization of the late nineteenth century. We see this seen in the expansion of international sport (among the whites) and even politics with Teddy Roosevelt. This is a cycle continued into the twentieth century with the development of bachelor masculinity to combat the feminization of urban spaces (according to Elizabeth Fraterrigo).⁵¹

Bordo contrasts this with a different kind of performer, the eastern European Jewish performer Harry Houdini, whom Kasson makes a metaphor for both escaping the ‘iron cage’ of Weberian bureaucracy and, in explaining the fame of his prison escapes, Kasson argues that Houdini was popular among people for escaping the government’s panoptic prisons, including Foucault yet again. Pulling himself and his family up from poverty after his rabbinical father died, Harry Houdini became famous for his feats of amazing strength. By his account, Kasson shows a man who was less like a magician, as we would expect him today, where there is some trick, some latch, or some hidden lever inside of the illusion. Kasson’s Houdini used strength to escape from his bonds. In an attempt to portray him as an escapist, Kasson focuses mainly on the early part of his career in the form of prison escapes and the latter part in terms of straitjacket and escapes.⁵²

2.3 Historiography of Civil War Medicine

The history of the body has been part of the historical landscape for decades and most fields of historical study have interpreted it. The development of this is crucial to the study of medicine. While the history of science is an established field, the effect it had on the Civil War is

⁵¹ Ibid., 3, 71; Elizabeth Fraterrigo, "The Answer to Suburbia: Playboy's Urban Lifestyle," *Journal of Urban History* 34, no. 5 (2008). *ibid.*

⁵² Kasson, *Houdini, Tarzan, and the Perfect Man*, 77.

only about two decades old. Beginning in 1993, Louisiana State University published two works to compare the relative care of the Confederates and the Union soldiers, *Doctors in Gray: The Confederate Medical Service* by Horace Herndon Cunningham and *Doctors in Blue: The Medical History of the Union Army in the Civil War* by George Worthington Adams. From these two works, we get the horrid description of the warfront and the tragic destruction of the individual. Both Cunningham and Adams agree that only one third of Union deaths came about because of battlefield injury. The pathogens were the real killers on the battlefield.⁵³

Cunningham focuses mainly on the Confederate Medical Department and considers them widely successful. Facing more than three million illnesses and wounds rendering soldiers unable to fight, the Confederate Army valiantly handled the struggle with “daily miracles of improvisation, organization, and sacrifice.” The book provides a fascinating insight into the expectations and the role of the thinly stretched doctors, performing surgery on the back of wagons, altars, or doors laid across barrels. With most of the medical schools in the North, the doctors learned in the field via an informal apprentice system that skilled doctors called mutilation; showing the grit and grime so often left from movies.⁵⁴

However, Adams wants to give credit to the doctors in the field. During the War, the Union army’s record of 400,000 wounds and 6,000,000 cases of illness leading to 300,000 deaths, make the Union Army the most medically successful army between 1814 and 1914.⁵⁵

While Cunningham defends the doctors and the Confederate medical department, he makes careful note that the doctors, unbeknownst to them, spread much of the illness. However,

⁵³ Adams, *Doctors in Blue*, xi-1; Cunningham, *Doctors in Gray*, vii-3, 360.

⁵⁴ Adams, *Doctors in Blue*; Cunningham, *Doctors in Gray*, 260-65.

⁵⁵ Adams, *Doctors in Blue*, 3, 253.

Adams has much less love for the Army Medical Department. Their meager beginnings put soldiers at risk. The army had only 98 doctors at first with only a six-month appropriation for a medical corp. For Adams, the army had an impressive learning curve after the initial fear and discord that echoed across the entire army, and by the end of the war, they boasted 11,000 doctors and a budget of \$20,489,000.⁵⁶

Unlike Cunningham's doctors in the field, improvising and saving lives, Adams' argument focuses on the growth of the federal government in the most advanced medical service in the world. Starting with the stories of the clashing army medical corps and the volunteer reformers, the book advances to talk about the major military army surgeons and reformers such as William Alexander Hammond, Jonathan Letterman, Joseph Barnes, etc. and the development of the ambulance system, the creation of the modern hospital, and the treatment of convalescents. He goes as far as claiming that the medical department had created a system of hospitals that was the best ever seen. The system of triage in place saved countless lives, the additional time to save lives allowed the wounded a greater chance of survival. He further contends that the army doctors discovered the effectiveness of disinfection and sanitary precautions.⁵⁷

Ultimately, Adams argues that the greatest legacy of the war is that the rural surgeons and doctors, working with the city specialists, developed into a medical corps that not only formed the foundation of the American Red Cross, but additionally created a competent modern medical system back home when they returned. Despite his glorification and general blind respect for the

⁵⁶ Ibid., 3.

⁵⁷ Ibid., 32, 33, 92.

United States Sanitary Commission, Adams puts together a solid argument as to the role of the doctors in the War.⁵⁸

Frank R. Freeman furthered the field by using his own point of view as a medical doctor and mired in the details of Civil War medicine in his work *Gangrene and Glory*, a more comprehensive follow up to his earlier work *Microbes and Minié Balls* (which is mostly historiography). By using colorful stories and an incredible wealth of description, including his own firsthand sensory information, Freeman assembles a well-written, intriguing survey of Civil War medicine. Freeman starts the colorful description of what a Civil War hospital must have smelled like. Sharing a modern concept, he likens it to the scent one might encounter upon returning home from vacation to discover that the refrigerator had died; imagining the faint odor as you approach to the putrid, near blinding smell as you approach in terror. However, the heavy work he does, as a medical historian is the development of active theories on the battle outcomes affected by illness and the overall transmission of the illness as player in the war.⁵⁹

From here, the historiography splits. On one path, there is the study of the medicine itself; how the developments in medicine and the training of medical staff affected outcome. The other is a more Foucauldian line of thought, involving the body and changes in interpretation. Looking at the medicine and doctors in this era shows incredible growth and development, though not always in a positive way. In his legal narrative, *Doctors, and the Law: Medical Jurisprudence in Nineteenth-Century America*, James Mohr gives us a compelling narrative on the development of medical professionalism. Pointing primarily to the development of its schools, medical jurisprudence, and key cases in medical jurisprudential history, Mohr tells the

⁵⁸ Ibid., 228-30.

⁵⁹ Frank R. Freeman, *Microbes and Minié Balls: An Annotated Bibliography of Civil War Medicine* (Rutherford, NJ: Fairleigh Dickinson University Press, 1993); *Gangrene and Glory*.

complex story that links medical history and legal history and the contentious relationship between them. However, by the first half of the nineteenth century there was a growing group of ‘regular physicians’ who began to offer courses in medical jurisprudence in the nation’s medical schools. A new idea at the time, these courses created legal courts of medical professionals to hold trials over another medical professional. In addition to their new research, writing, and attempted professionalization of the skill, they promoted the asylum movement and began studying the effects of poisons, now called toxicology. Additionally, the push to expand public knowledge became key. They began challenging public perceptions, such as women’s ability to prevent pregnancy during rape, because the assumption at the time was if a woman was pregnant, she had consented. The perception of doctors, to Mohr, reaches its low point in the Civil War. The public saw doctors as petty and corrupt. Their roles in evaluating men for the draft, squabbling among each other for rank, and the general medical outlook of the war, all separated doctors, public opinion, and the law. Mohr ends his work by showing the transition in the 1870s to a nation in which medical school became the required gateway to practice medicine.⁶⁰

There have been, in fact, many stories of the surgeons developing their practice and skills on their own, and their fights with their governments. One such study is Glenna R. Schroeder-Lein’s *Confederate Hospitals on the Move: Samuel H. Stout and the Army of Tennessee* that covers the Stout and his ascension up the ranks of the Confederacy from surgeon to being in command of 60 hospitals across Georgia, Alabama, and Mississippi. For the Union, we have the diaries of Jonah Franklin Dyer edited by Michael Chesson. Dyer complains about politicians, generals, and even the First Lady, but shows a visceral example of the war, giving graphic

⁶⁰ Mohr, *Doctors and the Law*.

discussions and frustrations. His descriptions provide an important glimpse into the war on the ground. His July 4, 1863, entry recorded the Union victory at Gettysburg: "Never in the history of the war has been known such a fiercely contested fight, or such slaughter." An entry late added, "There were none of us who did not fully appreciate the magnitude and importance of the engagement. Men fought with desperation, and each seemed to feel that here on the soil of the North was to be decided the great contest between freedom and slavery."⁶¹

This struggle does, however, lead to incredible improvements in medicine. In an attempt to explain the transition of American Medicine, Ira Rutkow combines the correspondences, surgical experiences, and professional publications of the surgeons in the Civil War in his work *Bleeding Blue and Gray: Civil War Surgery and the Evolution of American Medicine*. While engaging, the narrative style of the book makes emphasis complicated. The book focuses exclusively on the Union and has chronological themes, but the focus changes based on the digressions needed for the story. For example, he discussed some battles like First Bull Run and Fredericksburg in detail, while other extremely important ones like Shiloh and Vicksburg receive nary a mention. However, there is something of important note crucially missing from the desired narrative, the actual political medical struggles, and the wider effects. For example, while we get some in-depth description about the Union medical corps and the selection of military doctors (though late into the book), we get nothing of the Confederacy, let alone the selection process. The book mentions the regional issues between the Western Sanitary Commission and

⁶¹ Dyer and Chesson, *The Journal of a Civil War Surgeon*, 93-98; Clarence L. Mohr, *On the Threshold of Freedom: Masters and Slaves in Civil War Georgia* (Baton Rouge: Lsu Press, 2001); Schroeder-Lein, *Confederate Hospitals on the Move*.

the United States Sanitary Commission, but only in passing and the resolution is barely touched on.⁶²

On the other hand, *Learning from the Wounded: The Civil War and the Rise of American Medical Science* by Shauna Devine takes the much wider approach. Starting with an expanded view of the medical establishment as a whole, Devine first looks at the process of becoming a medical doctor in antebellum America. With next to no cadavers and very little hands on experience, the nineteenth century's medical corps was unprepared, medical schools were uncertified, doctors were unlicensed, and medicines were unregulated. While, by definition, the study of anatomy was the basis of medicine, Devine argues that the meaning of the body was inherently spiritual and nonscientific. She argues that one can see the transition in view from spiritual to this medical in the view of the body.⁶³

Before the war, Devine points out that not only did most students not get to study cadavers in their study of anatomy; in most states, it was illegal. Despite the superior training and supplies, the transition toward a modern view of anatomy happens in the North. When the government appoints Union Surgeon General William A. Hammond to his post, one of the first acts (in fact Circular Number 2) was the creation of the Army Medical Museum to collect the specimens from around the nation and world. It became one of the top medical research facilities in the nation. This notion that the bodies were for study, but further, for display shows the changing perception of the body as an object of scientific explanation.⁶⁴

⁶² Rutkow, *Bleeding Blue and Gray*, 416.

⁶³ Devine, *Learning from the Wounded*, 1-12.

⁶⁴ *Ibid.*, 13-52.

Rutkow also introduces us to the medical reformer of William Hammond, but in regards, primarily, to the development of the hospital pavilion system, creating the first major field hospital. While the example of the medical museum seems like an ideal training for the medical students of the war, it is not the most common occurrence. The typical training ground of the surgeon was the chaos of battle and after 1862 that took place in the medical pavilions. In chapter six, Rutkow shows this expertly. Writing in narrative style, Rutkow puts us in the surgeon's hospital tent as they perform an exsection, the removal of the damaged center of a bone, suturing together of the two, ending in a shorter arm as an alternative to alternative to the full amputation, which left the patient without a hand. This is immediately followed with a direct challenge to the medical wisdom of the procedure due to the considerable risk to the patient compared to the relatively safe amputation.⁶⁵

Rutkow's largest foray into the bigger medical reforms was the description of the Battle of Fredericksburg. While the Battle represented a significant strategic failure for the Union, the battle represented a medical revolution. Major Jonathan Letterman used a system of ambulances and triage for the first time, placing it in the upper echelons of importance in medical history.⁶⁶

The practices used have come up for scrutiny as well. In Brian Miller's *Empty Sleeves: Amputation in the Civil War South*, he uses amputation to analyze masculinity and the challenges of wounding in war. Selecting Confederate surgeons, doctors, and nurses, who in most previous works were seen as particularly unsuccessful in saving lives (primarily due to lack of proper training and equipment), and Miller tries to resurrect their image by describing the process,

⁶⁵ Rutkow, *Bleeding Blue and Gray*, 114-49.

⁶⁶ *Ibid.*, 150-63.

effects, and after effects of amputation, the operation probably most associated with the Civil War.⁶⁷

Miller does speak plainly. The book is often very graphic, bringing to life a feel for the overwhelming odds. There are not only descriptions of the surgery and tales of nurses and patients becoming nauseated and disoriented by the sight and smell of amputated limbs, but also stories of patients fighting off amputations by attacking surgeons and nurses to escape operating rooms, soldiers killing themselves following amputations, and the feeling of emasculation at their inability to perform duties as providers. However, Miller throughout the book fights the common misconceptions. The focus of the first chapter depicts surgeons as compassionate humanitarians. They not only use the tools available, but employ fairly modern surgical techniques, using ether and modern science. In some ways, a medical historian might find this almost jarring compared to other research at the time, but Miller does an excellent job explaining and proving his points.⁶⁸

The damaged man, though his injury came from the noble cause of fighting for the Confederacy, was emasculated. However, utilizing the quintessential story of General Stonewall Jackson, as well as John Bell Hood and others, Miller argues that this perception begins to change. A form of masculinity in war injury became part of the postwar South. Men who fought for their country and suffered wounds are heroic examples of Southerners. Quoting William C. Oakes, a Confederate that William McKinley asked to lead troops as a general in the Spanish-American war, Miller can show how this change in the perception of masculinity carries through. “The United States is now my government, and with one arm I will serve it as faithfully as I did

⁶⁷ Brian Miller, *Empty Sleeves: Amputation in the Civil War South*, ed. Stephen Berry and Amy Taylor, Uncivil Wars Series (Athens, GA: University of Georgia Press, 2015).

⁶⁸ *Ibid.*, 17-49.

the Confederacy. I now don the uniform and wave the flag upon which many times from 1861 to 1865 I ordered my command to fire. I am now a Yankee general, formerly a rebel colonel, right each time.”⁶⁹

The book further challenges the image or view of masculinity by investigating the women associated with the war. Miller illustrates both nurses in the field and women on the home front in this book. The people meeting men returning from war injured give a mixed reception. Some women see them as inferior and unable to work. Their inability to support a family is seen as weakness. This makes those who were unwed, unmarriageable. The married often became burdens on their family, leading many to kill themselves. At the time, the term did not exist, but Miller associates this with posttraumatic stress disorder, a relatively new entry into the field of medical history with such works as Michael Roper’s *The Secret Battle: Emotional Survival in the Great War*, which led to a fundamentally bigger question: whose responsibility is it to take care of these wounded warriors?⁷⁰

Two books summarize the lessons learned and the overall changes that developed: Vincent J. Cirillo’s *Bullets and Bacilli: The Spanish-American War and Military Medicine* and John S. Haller’s *Battlefield Medicine: A History of the Military Ambulance from the Napoleonic Wars Through World War I*. Cirillo’s book shows the way that the Civil War, only one fighting generation before, changed military treatment of illness and how far the military still had to come. Additionally, Cirillo changes the argument to one of a more democratic nature. In order to create support for the growing national expansionism, the government needed to address the death toll. Though the wounded survival rate improved from nearly 40% during the Civil War to

⁶⁹ Ibid., 50-90, 131.

⁷⁰ Michael Roper, *The Secret Battle: Emotional Survival in the Great War* (Manchester, UK: Manchester University Press, 2010).

95% during the Spanish American War, the illness outbreaks caused a public outcry as soldiers came home with typhus, typhoid, malaria, and yellow fever. President William McKinley created a commission as did Surgeon General George Sternberg, Congress threatened the military, and a major scientific breakthrough made the Panama Canal possible.⁷¹

While ideas of sanitation in surgical situations and germ theory had gained traction, the higher velocity of the bullets and better-trained physicians allowed wounds to heal quicker and also allowed safer treatments. Additionally, antiseptics and new x-ray technology allowed for safer and less invasive surgeries. Cirillo provides information to prove the lethality of these illnesses, as he shows even the most determined enemy was less lethal than the training facilities that led to 21,000 cases of typhoid and nearly 1,600 deaths, despite the availability of diagnostic testing to determine illnesses, including typhoid from other fevers. The narrative is an interestingly democratic one. “The problem,” Cirillo writes, “lay in convincing the line [officers] of the need for strict sanitary policing of the military camps.” Both the President’s Dodge Commission and the Surgeon General’s Typhoid Commission found that the common fly was the cause for the illness outbreak and that by disregarding the Surgeon General’s advice to not attack during the rainy season, the Army was at fault for the outbreak. “Medical officers ran into the same problem in Cuba when, against the surgeon general’s advice, the army invaded during the pestilent rainy season. By August, more than 75% of the soldiers had become unfit for service due to yellow fever, malaria, and typhoid. The sick and dead in the camps and the

⁷¹ Vincent J. Cirillo, *Bullets and Bacilli: The Spanish-American War and Military Medicine* (New Brunswick, N.J: Rutgers University Press, 2003); John S. Haller Jr., *Battlefield Medicine: A History of the Military Ambulance from the Napoleonic Wars through World War I* (Carbondale, IL: Southern Illinois University Press, 2011).

precipitous removal of troops from Cuba created a public relations disaster for the War Department and the Army Medical Department.”⁷²

John S. Haller describes the importance of military strategy in the development of medical practices. Haller, focusing primarily on the physical removal of the wounded from the battlefield, tracks the development of the ambulance system primarily from the Napoleonic Wars through World War I, but takes several unnecessary diversions into Greece and Rome. The book begins with the protocol changes in Napoleon’s army by Dominique-Jean Larrey during the Napoleonic Wars. It uses this to set up what amounts to a description of military strategy. Haller utilizes the descriptions of strategy to illustrate that the military’s development and evolution is what drives the changes to military technique. Rather than expanding the narrative, this seems to be an attempt to reintroduce military history as a standard narrative. The book follows through the Crimean War, the American Civil War, the Franco-Prussian War, and the Philippines Insurrection, and then climaxes with the trench warfare that defined World War I. Along the way, the book gives a brief interpretation of each, but merely shows how military strategy led to medical changes. However, this begs the question of the internal debates among the soldier and surgeons.⁷³

The interpretations of the medical consequences vary. The utilization of human history and recent developments in the history of the body have changed the interpretation of the War and its effects. To understand the greater human tragedy of the war, Margaret Humphreys’ *Marrow of Tragedy: The Health Crisis of the American Civil War* takes the scholarship since the

⁷² Cirillo, *Bullets and Bacilli*, 29, 147.

⁷³ Jr John S. Haller Haller, *Battlefield Medicine: A History of the Military Ambulance from the Napoleonic Wars through World War I*, 1 edition ed. (Carbondale: Southern Illinois University Press, 2011).

mid-90's and attempts to show the human cost in the war, in terms of not just numbers, but changing medical landscape. The Civil War represents the medical transition from not only the generation of new doctors and war-hardened surgeons, but also the general idea of medicine. In the antebellum United States, the idea of medical treatment lived in two extremes. The first was the convalescing patient at home, visited by doctors and taken care of by a live-in nurse and/or family member, primarily female, while the hospital and asylum system was for the poor, travelers, and sailors, and were places where people came to die. The War changes all that. With more than 750,000 soldier's dead, 50,000 civilians dead, 60,000 men lost limbs, and 56,000 soldiers died in prison camps, the Civil War became the greatest public health crisis in America's History. It redefines not only concepts nationalism and masculinity, but of personhood.⁷⁴

Since the medical historical research started, most research has been in the documents of surgeons, who were almost exclusively male. To broaden this tale, Humphreys tells the story of women in the medical corps, past the roles of nurses. This story broadens the medical narrative to include more sociological effects of hospitals, nursing, and the United States Sanitary Commission. This comes as part of the dialogue of the era, including women in the debate in disease prevention, hospital design, and the humanization of the War via the benevolent Unitarian movement that helps create the U. S. Sanitary Commission. Additionally, this and the Crimean War's carnage lead to the development of the Geneva Convention and the Lieber Codes.⁷⁵

The gendered approach, while limiting the narrative's breadth, is excellent in explaining the midcentury Victorian social stratification of the social and political classes, if not all

⁷⁴ Margaret Humphreys, *Marrow of Tragedy: The Health Crisis of the American Civil War* (Baltimore, MD: Johns Hopkins University Press, 2013).

⁷⁵ *Ibid.*, 271-90.

Americans. The necessity of the war brings the effects into the homes of the elites in ways not previously experienced. This expands to the role of women in a broad way. The power of women in organizations like the U.S. Sanitary Commission, the Red Cross, and the US Nursing corps were in crucial situations that fundamentally change the social structures.⁷⁶

In a very general way, the nineteenth century is the catalyst for modernity. While that statement is obvious in nature, it answers very little in the way of how we get to that point. Great political and economic changes transpired that took us from Revolution to the Civil War and beyond, but unifying this era is difficult. The century can be divided by the specter of the Civil War, which creates for us a sense of nationhood, by force. The democratic movement in the United States took us from the revolutionary era to the Civil War, but even the democratizing of America needs interpretation.⁷⁷

Similarly, in what is more effectively an anti-war screed than an actual monograph, *Living Hell: The Dark Side of the Civil War*, Michael C.C. Adams merely uses people and the grizzly violence as a scene in his sermon, his second such book; the first being a similar morality tale against World War II. In this book, Adams presents the Civil War as a grim reality, explaining the brutal nature of death in the Civil War which provided seven times the death compared to the population than even World War II. Based around vignettes, the book gives descriptions of Corporal James Quick shot through the left side of his jaw and Lieutenant William Taylor hit in the neck with a round that severs his windpipe but misses the arteries. The book coalesces to show the loss of individuality, safety, general misery, exhaustion, and

⁷⁶ Ibid., 48-76, 103-31.

⁷⁷ Ibid., 152-84.

deprivation, all to leverage the disunity of the nation to show that there is minor difference between the tyranny we fought and the tyranny of the government.⁷⁸

2.4 Historiography of the Aftermath

While the war itself is the focus of the material and the ability to fight affecting the battle, the impact the war has medically and mentally is starting to develop as a field. In a broad way, the book *Homesickness: An American History*, by Susan Matt, highlights this. From slaves missing Africa and natives relocated from their homeland, to the English puritan sense of deliverance meaning homesickness as weakness, to the sense of family replacing place in the term of homeward feeling as seen in wave after wave of immigrants and westward expansion, it is with this that Americans reassert emotions in the Victorian era and such information became available. In a world under which soldiers left home for months at a time, in the Confederacy especially, leaving a home which may be destroyed or conquered, it intrigued me to find references in *Gangrene and Glory* to people dying of ‘nostalgia,’ but in Matt’s world this makes perfect sense. The soldiers dying in prisoners of war camps hundreds of miles from home and the general sense of hopelessness with all the death and destruction makes depression and loss more real. This starts to lead to the change in military policy to allow furloughs and to allow letter writing on a previously unheard-of level.⁷⁹

In a complex analytical work, Jim Downs’ *Sick from Freedom: African-American Illness and Suffering during the Civil War and Reconstruction* attempts to quantify the civilian casualties of war among the freedman community. Highlighting shocking mortality rates among the newly freed through outbreaks and deplorable conditions, Downs attempts to find the cost of

⁷⁸ Michael C. C. Adams, *Living Hell: The Dark Side of the Civil War* (Baltimore, MD: Johns Hopkins University Press, 2014), 79, 96.

⁷⁹ Matt, *Homesickness*.

freedom during Reconstruction when the government's investment in health care is rapidly drying up. In an interesting question of personhood and citizenship, Downs investigates the treatment of the freedmen in their nebulous state between property, seizures of war, and citizens. This complicates the incorporation of freedmen into the army and what that entails, the collapse of the plantation system, and the medical concepts of the racial differences in anatomy and health.⁸⁰

The problem of freedmen in the army is a question of poverty and planning. To redirect the message of the war, the Emancipation Proclamation had allowed freedmen to fight in the military and all slaves that the Union Army came across to become a seized property of war. This transaction, then, allowed the now-freed slaves to join with the Union army. However, fear of reprisals and lack of infrastructure or a kin relationship placed many of the former slaves in the custody of the Union army, including family members, like women, children, the elderly, and the infirm, without the ability to fight, and requiring resources. This, combined with ingrained racism in the soldiers, led to the deaths of hundreds of family members of people who joined the army.⁸¹

However, the issue of the 'contraband of war' was not the only issue. Slaves traveled hundreds of miles to reach the front to escape into freedom, often without adequate food or supplies. However, in the post-war Reconstruction era, the situation became even more complicated. On the top level is the transition from the paternalistic Southern economy to a traditional nineteenth century capitalist economy. This transition takes away the protection of the slaves no longer able to work, by giving them childcare duties and instead forcing them out into

⁸⁰ Downs, *Sick from Freedom*.

⁸¹ *Ibid.*, 18-41.

the world. As the Freedmen's Bureau came in, the goal was to fill the institutional vacuum left by the plantation system and redefine the slaves as citizens. However, the Freedmen's Bureau was responsible for assuring a strong replacement workforce; Downs goes as far as stating the goal is to replace the slave system with free labor. The freedmen often remained on the same plantations without any support; women especially were unable to advocate for themselves and would find themselves in court/prison over contract disputes for contracts they never agreed to. The almshouses, hospitals, and schools founded by the Freedmen's Bureau were only to assure a healthy workforce, classifying people as unfit to work and closing all the hospitals due to racially driven reasons.⁸²

As mentioned above, the racial politics of the era allowed for little aid given to the freedmen; even those in the army received inferior supplies and rations, leading them to have greater instances of illness during the war and making them more susceptible to death from the great killers of the war like cholera and dysentery. What made the illnesses more profound, though, is the assumption by many Freedmen's Bureau doctors that the freedmen were somehow immune to diseases like malaria and that outbreaks of others, such as smallpox, were due to the unclean living of the slaves. This led to one of the most fascinating sections of the book, and the part I was most ignorant of, the Smallpox Epidemic of 1862 to 1868. The tragedy of the outbreak is that effectively it was man made. The federal government ignored the standard practices of western medicine, such as quarantine, which had worked so well in other outbreaks on the local level. Thus, the epidemic grew for years. This led Downs to call the Civil War the "largest biological war of the nineteenth century."⁸³

⁸² Ibid., 42-64.

⁸³ Ibid., 42-62.

Downs contends that we underestimate the total cost of Emancipation and Reconstruction because the medical casualties of the African American community have not been addressed. He conjectured that the white authors of the emancipation narratives highlight only the positive aspects to assure that the pro-slavery supporters in the immediate aftermath of the war would remain silenced. However, we find the more accurate and bleaker version of events in the letters of the freedmen and the missionaries rather than the Freedmen's Bureau and the Military Reconstruction officials. It also strips away the narrative of the landownership and equal wages, by showing that the contra-band camps functioned more like concentration camps and spread diseases like the Smallpox Epidemic listed above and that the high death count due to poor sanitation often lowered life expectancy lower than enslaved levels. This is an interesting look at the role of the Federal State in the failures of Reconstruction.⁸⁴

As Elaine Scarry points out, the numbers game that the army is in is one of injury. The point of war is to out injury the other side. She argues that the nature of injuring to create a sense of disarming, making invisible by either omission or description. Though she calls the difference semantic, "Redescription may, for example, be understood as only a more active form of omission: rather than leaving out the fact of bodily damage, that fact is included and actively canceled out as it is introduced into the spoken sentence or begins to be recorded on a written page. Alternatively, omission may be understood as only the most successful or extreme form of redescription where the fact of injury is now so successfully enfolded within the language that we cannot even sense its presence beneath the surface of that language or point to the phrase or clause where (as in redescription)." In Downs, this factors into the classification of the workers by the Freedmen's Bureau. Downs does allude to the notion that the creation of the Medical

⁸⁴ Ibid., 62-119.

division of the Freedmen's Bureau does create a precedent for federal medical department and compares this to the western expansion and Indian campaigns for comparison, though the Bureau drops this pretty quickly. However, the notion of the bureaucracy of the healthy person has interesting implications here. By nature, it places Scarry's war ratios of invisibility in the realm of Reconstruction.⁸⁵

The sheer number of the dead changes the conceptions of life in the post-Civil War era. Drew Faust's book *This Republic of Suffering: Death and the American Civil War* is a fascinating work on the nature of death in the Civil War. However, the death itself is not what is on the table, it is the interpretation of that death which is at stake. In this remarkably digestible work; Faust lays out the toil of the death in the war quite simply, while using the amazing tools at her disposal to tell a very complete story.⁸⁶

In her general argument, death became so prevalent in the era that it fundamentally changed the way we thought about death and handled death. The Confederate states lost a bigger percentage of their population, per capita, than any region in World War I and all regions except the two bloodiest of World War II. This was coupled with the grit and viscera of the medical tents, the bodies on the fields, and the distance and lack of ability to really track the deaths. The nature of the Civil War created a different kind of dead. Faust points to the development of new explosive rounds as creating a byproduct of war, which, alongside the amputations, presents the true violent matter of the war. Coping with the dead became a nation-forming and changing event. Faust points out that the scope of the war is so much greater than either side imagined, that they could not really keep track of the men in either army. In a time before dog tags, it often not

⁸⁵ Elaine Scarry, "Injury and the Structure of War," *Representations*, no. 10 (1985): 1-51; Downs, *Sick from Freedom*, 146-70.

⁸⁶ Faust, *This Republic of Suffering*.

until the end of the battle, in which a roll call could take place, but the chaos of battle made it unclear who had been injured, deserted, died, captured, or merely left with a different command. At least 40% of the Union and many more Confederates died as Unknown Soldiers due to their complete lack of records of any sort.⁸⁷

Furthering this problem was the sheer number of dead and two nation-states, which could not create a unified system of graves and cemeteries. They often left the dead to rot and never buried them, especially Union dead left by the Confederate troops and civilians. The ones that were buried were often in makeshift plots, which were often mass graves, unlabeled graves, covered only in a uniform or blanket, and often with biodegradable headstones, like pieces of wood and cloth. Worse still was the condition of the corpses that the Union and the Confederacy found themselves. Southerners were known to disinter bodies, refuse removal of bodies to the North, and use them as cadavers in medical schools. In some ways, this harkens back to the pauper funerals of Laquer. The poor were piled in the trenches and buried en-masse, with little hope of being able to be recovered while the wealthy were able to pay for the return of loved ones and often their embalming.⁸⁸

After the war, philanthropists founded societies with the mission of finding the dead. Leaders in the field of medicine and veterans care, like Dorothea Dix and the United States Sanitary Commissions started to raise substantial amounts of money in the North to pay to move corpses to cemeteries in the North and groups like the Daughters of the Confederacy moved the few bodies in Pennsylvania back to the South while individual state associations squabbled over moving bodies within the states. This comes to us in Northern Georgia in the Confederate

⁸⁷ Ibid., 32-60.

⁸⁸ Laqueur, "Bodies, Death, and Pauper Funerals," 109-31; Faust, *This Republic of Suffering*, 61-101.

cemetery in Marietta which Faust mentions directly as forbidding Union troops from burial on the grounds. Further, like most other Confederate cemeteries, it celebrates Confederate Memorial Day and additionally buries people by state, separating those who died often together. The grisly effects of these practices are analyzed separately between the how to die properly and how to mourn properly.⁸⁹

Faust goes toward describing the way people died and were mourned. In the Victorian sense, it was important to have a ‘good death,’ to look bravely into the bleakness and be strong. Walt Whitman, visiting the wounded and dead, would help to eulogize these brave dead, assuring family in letters home that the youths had died good deaths. Letters from the wounded and dying written by men in their last moments, nurses and poets assured that their families thought them brave in the end as they clutched daguerreotypes and lockets. However, the men on the field were only part of the culture of death; this pairs with the proper way to mourn by family in the North.⁹⁰

Death was so frequent that the fashion of death became part of the story. With a cultural wavering between the traditional Victorian death in the parlor and the war leading to death and burial in the field, the traditional mourning clothing of black and crepe cloth were a fashionable scene with stores like Lord and Taylor opening up mourning sections.⁹¹

However, Faust manages to tie together all this complexity with ongoing discussions of death and religion. The overwhelming numbers and indifference to the nature of the person, led to questions about the nature of Heaven and the benevolence of God. Faust fills the book with

⁸⁹ *This Republic of Suffering*, 211-49.

⁹⁰ *Ibid.*, 171-210.

⁹¹ *Ibid.*, 137-70.

death and destruction but punctuated with the sermons of preachers who have buried hundreds. The book's complex narrative on death shows how the war ended the vestiges of American Romanticism (transcendentalism) and planted us into pragmatism in the 1870s.⁹²

2.5 The Material as it Stands

The development of the historiography of Civil War medicine provides an interesting niche for my research. The narrative of the nineteenth century as hammered out by Wilentz, Howe, and Sellers creates an intellectual framework that pits the pre-Civil War public sphere of aggressive ideology preparing the way for Menard's pragmatic intellectual revolution. This shift, evident in the medical professionalization of the Civil War and post-Civil War era, is the intellectual basis for my research.

While there are books that look at the medicine of the Civil War, they generally fall into two camps; ones that use the illness to explain the war and its casualties or ones used to describe how these advantages led to success in the war. For the most part, these works neglect the importance of the effect the war and the military's on-going development have on the aftermath of the war effort. This gap in material is where I will focus my effort. The loose organization of nurses and doctors, the informality of training and their hospital facilities, and the overall lack of uniformed understanding of medicine fades with the Civil War. The medical environment of post-Civil War America is professionalized, standardized, sanitized, and hospitalized and the cataract of war is the cause.

⁹² Ibid., 266-72.

3 CREATING DOCTORS

Don't be discouraged. There is no doubt about our losing many opportunities because of our sex, but you must also bear in mind the disadvantages all students labour under, unless in exceptional cases. Crowded together in masses, they only see at a distance the most interesting cases; the complete study is reserved for the physician or his constant attendant.⁹³ – Elizabeth Blackwell.

In discussions of the medical infrastructure of the American Civil War, it is natural to start with the medical professionals; doctors and nurses. Distinguishing the roles is important, however. In the 19th century there were stronger distinctions, than even today. In period pieces, one sees images of bloodied doctors, desperate to save lives and mired in amputations, bullet wounds and death. While that image is incomplete, it is a good place to start. The doctors of the era had a wide range of skills and training. Investigating medical school curriculums of the era, one finds very little similarity and no cohesiveness. While some knowledge was standardized and the beginning of accepted medical texts had started to form (such as *Gray's Anatomy* and Erichson's *The Science and Art of Surgery*), the Americans did not accept germ theory and were only beginning to dabble with anesthetics.⁹⁴

⁹³ Elizabeth Blackwell, *Pioneer Work in Opening the Medical Profession to Women: Autobiographical Sketches* (London, UK: Longmans, Green, and Co., 1895), 201-02.

⁹⁴ William J. Campbell, "Lectures on Anatomy," Medical School (University of Pennsylvania Archives: University of Pennsylvania, 1867); William J. Campbell, "Lectures on Hygiene Delivered in the Central High School, to the 49th Graduating Class by Prof. Henry Hartshorne M. D. Vol. 1," University Archives (Philadelphia, PA: University of Pennsylvania 1869-70); Dennis N. Conner, "Dennis N. Conner Papers," (Philadelphia, PA: University of Pennsylvania, 1867); Benjamin Woolsey Dwight, "Admission Tickets," (Philadelphia, PA: University of Pennsylvania, 1801); Maurice S. Albin, "The Use of Anesthetics During the Civil War, 1861-1865 " *Pharmacy in History* 42, no. 3 (2000); Fenster, *Ether Day*; Henry M. Lyman, *Artificial Anæsthesia and Anæsthetics*, Wood's Library of Standard Medical Authors (New York, NY: W.

However, with the Civil War, all this started to change. The medical profession (especially in the North) went from being informal and uneven, to being professionalized and formally educated. Techniques and surgery became more of a skill of preciseness and patience over speed and strength. The gender wall even started to shift from the medical study of female anatomy being taboo to a large number of women being trained as doctors and nurses. The War modernized medicine and created a formal medical corps out of necessity, and the change would be permanent and significant. In order to show this, we will follow the training of doctors, including two specific cases, their role in the army, and finally how they fared in battle.

3.1 Doctors Defined

Nurses and doctors start out very different etymologically. Nursing, as an idea, stems from the idea of breast-feeding. In fact, the noun ‘nurse’ comes from the person of the wet-nurse, the person who breast-feeds additional children as part of group (a term the Oxford English Dictionary traces to 1325). As a term, ‘nurse’ meant the person who took care of and tended to the children. In fact, terms like wet-nurse and dry-nurse (to signify caretaker of children, instead of breast-feeder) did not enter the lexicon until 300 years later and even then, the term nurse as a noun meaning solely wet-nurse existed well into the 19th century. Linguists credit Shakespeare with extending the metaphor of ‘nursing’ from taking care of someone to a person who does so in 1616 in *A Comedy of Errors*, thus changing the term from a verb to a noun. By the early 18th century the “Nurse” (always capitalized in this context) aided in care and assisted doctors. By the

Wood & company, 1881); U. S. Army Surgeon General's Office, *The Medical and Surgical History of the War of the Rebellion. Part Iii, Volume Ii. (3rd Surgical Volume)* (Otis Historical Archives, National Museum of Health and Medicine, 1883); Henry Gray and Timothy Holmes, *Anatomy, Descriptive and Surgical*, 1st ed. (London, UK: Longmans, Green, and Co., 1858); John Eric Erichsen and John Ashhurst, *The Science and Art of Surgery. Being a Treatise on Surgical Injuries, Diseases, and Operations* (Philadelphia, PA: H.C. Lea, 1853).

mid-18th century, the medical community considered nurses fully “assistant(s) to the medical professional.”⁹⁵

The term doctor generally meant the expert in the a field or specific branch of knowledge (1325), as developers of the Church theology, as in Doctors of the Church/Faith (1300), as person who has attained the highest knowledge in the field in the school (1377), kingdom (1400), or the region (1450), as Patron Saint (1387), as advisor to the King (1400), in scientific tools (in this case the Astrolabe, 1400), or an artform (1587). The term Doctor encompassed medicine as well, as early as the prologue to the *Canterbury Tales* (written 1387–95, from the 1405 edition) where Chaucer describes a person as Doctor of Physic (which comes from the Latinate *physicum/physica*) and other writing around that time. Once again, Shakespeare describes in his *Merry Wives of Windsor* a ‘Doctor’ as a medical professional providing medicines (potions) in 1602 and captains and patrons established doctors as part of a ship’s crew as “Doctors themselves, so we call the Surgeons at Sea,” by 1702.⁹⁶

The surgeon/surgery aspect developed alongside ‘doctor.’ Both French in origin, Surgeon (one who manually fixes the body), appears around 1300 and its opposite, Physician (one who provides medicine), which appears in 1225, but used in opposition to surgery around 1300 as well. Medicine also traces itself back to 1225. Doctors who specialize in medicine and anatomy generally become the experts of medicine as in ‘Doctors of Physic’ or physicians. Surgeons and surgery associated with barbers (which share a root with barbaric and barbarous, letting you know both the visceral nature of surgery and quality of haircuts at the time). References to the

⁹⁵ Catherine Soanes and Angus Stevenson, "Nurse," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009).

⁹⁶ "Doctor," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009).

barber surgeon appeared as early as 1384; they incorporated by decree of the King as the “Company of Barbers and Surgeons” in 1461 by Edward VI and banned to only doing dentistry by 1761, when Medical Doctors incorporated surgery fully into their curriculum.⁹⁷

In this chapter, the focus will be on doctors (profession)/surgeons (rank). In order to give a full picture of the role of both doctors and nurses in the Civil War, the following chapter will focus on nurses. Doctors, generally, provided the dramatic and immediate care, which, due to its necessary and stark nature, helped raise doctors to the level of professionals. First, I will do a brief overview of American Education concerning doctors. I will follow this by showing the spectrum and range of these professionals, rich/poor, North/South, male/female, American educated/European educated, I will focus attention on the biographical and political history of Elizabeth Blackwell and Samuel Hollingsworth Stout. Blackwell was the first female medical doctor in the United States, a staunch antislavery advocate, and the trainer of countless nurses for the Union Army. Stout, on the other hand, had influence across the Confederacy and especially the Deep South where, during the Civil War, he began as a surgeon in the Army of Tennessee. Proving himself quickly, he moved up the ranks and ultimately, by August 1864, the Confederacy appointed him command of all hospitals in Georgia, Alabama, and Mississippi; sixty hospitals in total.⁹⁸

⁹⁷ "Barber," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009); "Surgeon," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009). "Barbaric," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009).

⁹⁸ Schroeder-Lein, *Confederate Hospitals on the Move*, 236; Regina Morantz-Sanchez, "Feminist Theory and Historical Practice: Rereading Elizabeth Blackwell," *History and Theory* 31, no. 4 (1992): 51-69.

3.2 A Medical Education

The training for doctors and surgeons was more comprehensive than that of nurses, though still brief by today's standards. To enter medical school, one had to be a white male. It was unnecessary, but beneficial to read Latin or Greek (European medical schools required fluency in Latin). Over the early decades of the 19th century, the education of doctors varied in quality and content. The education of Benjamin Woolsey Dwight, a medical graduate of the University of Pennsylvania, represents the basic curricula of the century. During November 1801, Dwight took lectures on Anatomy, Surgery, and Midwifery and "paid eight dollars for the use of the hospital, (Dwight) is entitled to the privilege of attending the Practice thereof and the use of the Library." By the 1850s, American doctors took one series of lectures over a six-month period, and a year later schools expected students to take the same lectures again to graduate.⁹⁹

By the 1860s, the curriculum expanded in knowledge, but not by much. In order to graduate, Dennis Conner took courses in "Clinic," Materia Medica (collected knowledge about the therapeutic properties of any substance used for healing), Anatomy, 'Women and Children' (this is primarily obstetrics, midwifery and pediatrics; however, gynecology was called obstetrics as well and this was taught as a part of the anatomy curriculum), Chemistry, The Institutes of Medicine (effectively, how hospitals are run), Surgery, the Theory and Practice of Medicine (how various illnesses and conditions are treated) and had to repeat them the following year. Each year he chose one elective; Practical Anatomy (anatomy in the clinical setting) the first and microscopy the second.¹⁰⁰

⁹⁹ Dwight, "Admission Tickets."

¹⁰⁰ Ibid., 5; Campbell, "Lectures on Anatomy," 436; Conner, "Dennis N. Conner Papers."

However, it is worth noting here that the studies of several of these fields were in their infancy for societal norms as well. Generally, medical schools taught midwifery, obstetrics, and gynecology, but the fields' taboo nature delayed their development. The common medical book, *The People's Common Sense Medical Advisor* by R. V. Pierce, in 1876, described the female genitalia as follows. "Just underneath the bone in front is revealed that sensitive organ, the clitoris, a facsimile of the male organ in miniature, the head of which protrudes, while the body is covered with tissue, but is readily traced with the finger." It is worth noting that the edition that was rescued from the recycling and uploaded by the San Francisco public library to archive.org found this so distasteful that these pages are missing and the quoted material comes from the 1888 and 1896 editions, where the editor removed such material from the index.¹⁰¹

Further, the inherent discomfort with the female anatomy or general immodesty was clear. René Laennec invented and Arthur Leared and George Philip Cammann developed into binaural the stethoscope as a way to put separation between doctors and women's breasts lifted due to corseting in the 19th century and even during childbirth, the expectation was that doctors did not to look at the vagina of their patient. In the 1863 *Hammond Gazette*, there was a story about such sexual discomfort, "A Case of Modesty - An exchange paper very gravely informs us that a young man who was recently bathing in the Missouri river, seeing a number of ladies approach; drowned himself from motives of delicacy."¹⁰²

¹⁰¹ R. V. Pierce, *The People's Common Sense Medical Adviser in Plain English, or, Medicine Simplified*, 35th ed. (Buffalo, NY: World's Dispensary Printing Office, 1895); *The People's Common Sense Medical Adviser in Plain English, or, Medicine Simplified*, 13th ed. (Buffalo, NY: World's Dispensary Printing Office, 1876), 217; *The People's Common Sense Medical Adviser in Plain English, or, Medicine Simplified*, 22nd ed. (Buffalo, NY: World's dispensary printing office and bindery, 1886).

¹⁰² "A Case of Modesty," *Hammond Gazette*, Nov. 25, 1863 1863, 1; Emmett FitzGerald, *The Stethoscope*, podcast audio, 99% Invisible, 21:452017, <https://99percentinvisible.org/episode/the-stethoscope/>.

Elizabeth Blackwell, addressing her female students in a lecture on anatomy went into the details of the parts of the vulva and internal female genitalia. Starting with labia majora, minora, and clitoris, their description and purpose not unlike a sex education class. As an introduction to this discussion she states;

we find that the Creator in his Supreme Goodness, while endowing us with. .
 .communication with the external world and afford the means of indefinite intellectual
 development, [we generally do not talk nor learn about this part of the anatomy,
 However,] with the proper exercise [of education by] those handed an enjoyment which
 would only increase by right education. When the eye hits upon a beautiful flower and
 the gorgeous light of the setting sun...what an intense feeling of delight!

Therefore, she argues, they must not hide such knowledge from themselves.¹⁰³

She goes on to state that the doctors she is teaching needed to find the beauty in the body, especially for the parts “of the deep meaning hidden in this arrangement.” “I shall speak...freely ...in this lecture...because it will add a profound interest in the prudent examination of the structure of these parts,” and then she went into the discussion of the female reproductive organs. It is worth notes of comparison here. Unlike Pierce’s work, she describes the clitoris, for example, as “this organ has a specials function. . .that of stimulation which it improves in communion with these parts” and continues to state that these are uniquely female and like the mammary glands, men only contain ‘rudimentary forms.’ In the decades after the Civil War, these topics actually varied in their discussion. The new wave of female doctors started to make

¹⁰³ Elizabeth Blackwell, "Anatomy," in *Blackwell family papers, 1759-1960 (bulk 1845-1890)*, Manuscript (Washington, DC: Library of Congress, 1870), 14.

efforts to change the dialogue, but there was significant pushback against this by the established male doctors.¹⁰⁴

Very little actual professionalization of the doctor occurred in medicine before the Civil War. Medical training included no real formalized apprenticeship of any sort and no form of certification. The best practitioners felt they could receive a full education only in Europe. Most medical schools in the United States followed the guidance of Dr. Benjamin Rush, a patriot, signer of the Declaration of Independence, and a turn of the century expert physician and a founder of the University of Pennsylvania medical school (then called The College of Physicians of Philadelphia), which by the middle 19th century had professors in every field, while smaller schools had professors teaching multiple subjects. Further, many medical schools did not pay professors, so they made income charging students for their notes.¹⁰⁵

These problems trickled out even at the University of Pennsylvania, where students did not even perform dissections. A professor performed a dissection in a surgical amphitheater and made explanations. The classes were so full, sometimes bordering on over 400, that the professor would explain things four times, once facing each direction. If students wanted to dissect on their own, such courses were optional at nearby schools and hospitals. Doctors and workers took cadavers from cemeteries at night, especially from the shallower graves of the poor and African-American. In fact, in that era, it was common to pay someone to guard the graves for the first

¹⁰⁴ Ibid., 15-18.

¹⁰⁵ Schroeder-Lein, *Confederate Hospitals on the Move*, 26-30; Katherine Stout, "Biographical Sketch," in *Samuel Hollingsworth Stout papers, 1800-1899* ed. Emory University (Atlanta, GA: Stuart A. Rose Manuscript, Archives, and Rare Book Library, 1903); Freemon, *Gangrene and Glory*, 24-26; Mütter Museum, "The Benjamin Rush Medicinal Plant Garden," Mütter Museum, <http://muttermuseum.org/exhibitions/the-benjamin-rush-medicinal-plant-garden/>.

few weeks for putrefaction to set in, rendering the bodies unusable. Thus, the poor, unable to pay for the service of protection or depth was victim of the Resurrection Men.¹⁰⁶

This mixture of politicization and inconsistency made doctors untrusted. The doctors of the era knew their clients and towns; they had little pull outside of their communities, especially without standardization of the medical care. Medical schools before standardized curricula for medical education were a pop-up of money-making potential not unlike the for-profit colleges of today. In an article in *Atlantic Monthly* at the turn of the century, Abraham Flexner complained that medical schools were popping up everywhere, without much skill behind them. “Between 1810 and 1840, twenty-six new medical schools sprang up; between 1840 and 1876, forty-seven more; and the number actually surviving in 1876 has been since then much more than doubled.” Within a century, between the United States and Canada, 447 new schools were founded most failed and “perhaps fifty still-born. One hundred and fifty-six survive to-day.” Further, most of these were out west, in the rapidly growing Midwest, where (with a good dose of condescension) the schools were not seen as good of quality as the east coast. In Illinois 39 were founded (fourteen in Chicago alone); 42 in Missouri (ten of them still ‘going’ concerns); “The city of Cincinnati brought forth about twenty, the city of Louisville eleven.” It is this prevalence of medical schools that, post-Civil War pushes toward standardization and certification, but during the war led to doctor examinations.¹⁰⁷

In an effort to show the process for becoming a doctor, two cases serve as a significant examples. Elizabeth Blackwell’s case is unique in many ways. She was the first female medical

¹⁰⁶ F. D. Moore, "Two Hundred Years Ago: Origins and Early Years of the Harvard Medical School," *Annals of Surgery* 196, no. 5 (1982): 525-35; Schroeder-Lein, *Confederate Hospitals on the Move*, 236.

¹⁰⁷ Abraham Flexner, "Medical Education in America," *The Atlantic*, June 1910 1901.

doctor in United States history. However, her prominent path to medicine is representative of the economic Northern elite. After training in New England, she studies in Europe, setting up a training facility in the North during the war, (military rank being unavailable to her based on her gender). Samuel Stout came from locally prominent, but not upper class means. Representative of the Southern physician in the era, a ‘gentleman scholar’ doctor, he made income off his slave-worked farm and several investments/businesses. Training in New England as well, but never training abroad, his medical experience in the War was not in training, but in logistics. Ultimately, ran hospitals in several states during the war.

3.3 Elizabeth Blackwell’s Happy, but Rocky Youth

Elizabeth Blackwell was born in Bristol, England on February 3, 1821, daughter to a wealthy sugar refiner named Samuel Blackwell and Hannah (Lane) Blackwell. Her childhood was generally a happy one. She had two older sisters, Anna and Marian, and would help raise six younger siblings, Samuel (who later married Antoinette Brown), Henry (who would later marry Lucy Stone), Emily (third woman in the United States to get a medical degree), Sarah, John, and George.¹⁰⁸

Though Blackwell was happy, and her earliest memories were of Bristol, the Whig Reforms of the 1830s threw her life into chaos as commerce and economic reforms wiped out the family fortune. Threatened by the Reform Act of 1832, Samuel Blackwell moved his family to New York that summer, where once again he began refining sugar, setting up the Congress Sugar Refinery. While in New York, the Blackwells joined Samuel Hanson Cox's Presbyterian congregation and became active in the 19th century Reform Movement, including inviting abolitionist leaders such as William Lloyd Garrison and Theodore Weld to stay at the Blackwell

¹⁰⁸Blackwell, *Pioneer Work in Opening the Medical Profession to Women.*, 1-2.

residence regularly. However, when the New York refinery burned down in 1836 and the economic crisis chased him across the Atlantic, leading to the Panic of 1837, it became impossible for Samuel Blackwell to rebuild. This ruined Blackwell as well as many of his clients. Striking out again, he moved west, settling his family in Cincinnati, Ohio to grow sugar beets with German laborers; who were the primary paid laborers of the area. However, Blackwell soon came down with a biliary (liver) fever, killing him at age 45, leaving his family of nine children behind.¹⁰⁹

While there was a network of support for the Blackwell family, the children made sure to pay off the debts that had caused their father to run across the country to its hinterland. Of his nine children, the three oldest daughters took over the household and the two oldest sons left their schooling and took jobs as clerks. The four youngest children were still too young to work and the mother no longer left the home after the death of her husband.¹¹⁰

To support the family, the older sisters eventually opened a boarding school for young women, "The Cincinnati English and French Academy for Young Ladies." Steeped in their father's benevolence and work ethic and finding support in the liberal culture of Ohio, their vigorous work found the Blackwell sisters many patrons and financial aid for their school. The school survived for six years until all the younger siblings aged out of the house and the school closed. However, further inspection makes this version of the story a tad rose-colored.¹¹¹

The introduction of William Henry Channing's Transcendental form of Unitarianism hit Cincinnati in 1838 and pushed the community to be more liberal. This swing made the

¹⁰⁹ Ibid., 3-20.

¹¹⁰ Mary Putnam Jacobi, "Chapter VII: Woman in Medicine," in *Woman's Work in America*, ed. Annie Meyer (New York: Henry Holt and Co, 1891), 149.

¹¹¹ Ibid., 150.

Blackwell family and the liberal reform message of the school more welcome. Even the Blackwells converted from Episcopalianism. However, after six years, the political pendulum swung back and a hard-conservative swing hurt the student numbers. While they were unable to fill seats, they were able to close the school and go separate ways with their siblings old enough to leave the house.¹¹²

3.3.1 *A Medical Curiosity*

Setting out on her own, Elizabeth Blackwell left to study medicine in New England. There were medical schools and doctors of note who would allow apprentices; however, by the mid-19th century (in urban areas, at least), the majority of doctors received some formal training, often minimal. Professors were unpaid, so in an effort to make money, they sold their notes. There was no apprenticeship attached to medical school and no form of certification. In the countryside, there were only apprentice-like agreements and no formal training. The best practitioners felt they could receive a full education only in Europe and those who had studied in Europe would have incredible power in America as medical experts.¹¹³

One of the biggest distinctions at the time was in pharmacology. Though there were few true medicines, the effort to develop them was beginning in this era. Most doctors in the United States considered pharmacology an improper science because of lack of consistent medication. Thus, doctors applied medications until reaching desired effects. This led to a great deal of overdosing and over bleeding, and by the 1870s led to the first opioid epidemic in the United States.¹¹⁴ By the 1860s, the medical schools had produced a glut of doctors (in 1860 roughly

¹¹² Blackwell, *Pioneer Work in Opening the Medical Profession to Women*, 3-20.

¹¹³ Freemon, *Gangrene and Glory*, 24-26.

¹¹⁴ David T. Courtwright, *Forces of Habit: Drugs and the Making of the Modern World* (Cambridge, MA: Harvard University Press, 2002).

5,183 were in medical school) in the North. These doctors believed that bleeding patients was bad and that medicine should incorporate botany and early nutrition.¹¹⁵

However, the glut in the North made it difficult for Northern doctors to begin practices and they quickly started to move to the countryside or further west. On the other hand, in the South, there were fewer medical schools and doctors were not only scarcer, but rarely went into private practice. Plantations paid doctors an annual fee and so they would be on call for an entire plantation, including slaves. This all changed when the war came.¹¹⁶

The process for a woman to get into medical school was stunningly difficult, if not impossible. To get in, Elizabeth Blackwell wrote for admission or apprenticeship to six different physicians in the area and all of them rejected her because they “all agreed that it was impossible for a woman to get a medical education.” While it is not unusual today for a prospective student to apply to many more schools than six, Blackwell considered this an insult, especially for a family as well known in the community as the Blackwells were. However, there is an important aspect of cultural hesitancy of women to interact with the violently ill. Traditional cultural norms lent women in medicine to jobs as caretakers and midwives, with men as doctors and nurses; for the most part.¹¹⁷

Her resolve was strong, however, and she soon took charge of a small Kentucky school to earn money for medical school. By 1845 she moved to Charleston, South Carolina to teach music and to study Latin. While there, she started to train as an ‘office-student’ under Dr. Samuel Henry Dickson. With this experience, by 1847, she applied to the Philadelphia Medical

¹¹⁵ Freemon, *Gangrene and Glory*, 26.

¹¹⁶ Ibid., 24-26.

¹¹⁷ Blackwell, *Pioneer Work in Opening the Medical Profession to Women*, 58-90.

School, but her gender closed both the college and the hospital to her despite her apprenticeship experience. This pattern repeated at another dozen schools; she applied to schools, they all refused to admit her and attacked her unladylike actions. After acceptance by the faculty of medical programs in Geneva Medical College, in Geneva, New York (now called Hobart College), the faculty balked on full acceptance, so the current class of medical students voted to endorse the admission of Elizabeth with the class of 1849 as student 'no. 130' on the register.¹¹⁸

Hospitals, doctors, and other schools viewed Blackwell's graduation as a spectacle and a novelty. Before long, she realized despite graduating as a medical doctor, other institutions in the United States still refused to take the idea of a female doctor seriously. So, she traveled to Paris, France, where Blackwell had a residence at the famous Hôpital de la Maternité, after months of waiting in the city for acceptance. In her mind, this was a good fit; the medical community deemed women as capable as midwives, and this could be her stepping off point to be a surgeon or doctor in other fields. Her success in Paris as a medical resident earned her welcome in many other hospitals and medical schools proving she was competent as a doctor. However, training as a surgeon was not to be.¹¹⁹

On November 4, 1849, while treating an infant with an aggressive form of neonatal conjunctivitis, Blackwell accidentally sprayed some contaminated solution into her eyes, blinding her in the left eye and precluding her from becoming a surgeon. After recovering from the incident, Blackwell returned to her studies undaunted. She took in lectures and lessons under many tutors, including James Paget. A father of the study of Pathology and discoverer of Paget's

¹¹⁸ Ibid., 66. "Diary of Elizabeth Blackwell," in *Blackwell Family Papers*, ed. Grover Batts, et al., Manuscript Division (Washington, DC: Library of Congress, 1851-1870).

¹¹⁹ "Diary of Elizabeth Blackwell.," *Pioneer Work in Opening the Medical Profession to Women*, 110.

disease, was working in residency at St. Bartholomew's Hospital in London, England. Having given up on the idea of becoming a surgeon after damaging her sight, Blackwell focused instead on non-surgical treatments and, what we would now call internal medicine, putting her at the forefront of Germ Theory.¹²⁰

3.3.2 *A Return to America*

In 1851, Blackwell moved back to the United States to open a private practice in New York. At first, she faced serious opposition; however, support from the *New York Tribune* and the Society of Friends (Quakers), among others, earned her licensure to open a practice. However, she had very few patients. Blackwell blamed her lack of patients on the presumption that female doctors were abortionists. To combat this stigma, she began writing and delivering a series of lectures entitled *The Laws of Life with Special Reference to the Physical Education of Girls*, which reinforced her stance against contraception and abortion and her endorsement of the rhythm method of birth control. She herself never married or had children. By 1853, she opened a dispensary (pharmacy) near Tompkins Square and took on her first internist, a German woman named Marie Zackrzewsk who was pursuing a medical degree. With the addition of her sister Emily, who had become the third woman to earn her medical degree in the United States, Blackwell opened the New York Infirmary for Indigent Women and Children, expanding out of the dispensary in 1857 and becoming the only women's only hospital in New York at the time. The Infirmary became a tremendous success with the three women as doctors on the board of

¹²⁰ Called ophthalmia neonatorum today, if the mother has gonorrhea (*Neisseria gonorrhoeae*) or Chlamydia (*Chlamydia trachomatis*), it passes to the baby. Today a drop of Erythromycin or silver nitrate in all newborn eyes treats/cures it, otherwise it will cause blindness.

"Diary of Elizabeth Blackwell."; *Pioneer Work in Opening the Medical Profession to Women*, 154.

trustees, attending physicians, and leading the executive committee. The patient load doubled year over year and it became a highly successful nursing school.¹²¹

In 1858 and 1859, Blackwell returned to England to give a lecture tour through Birmingham, Liverpool, and London on her *The Laws of Life with Special Reference to the Physical Education of Girls*. In 1859, the registry of English physicians honored Blackwell by listing her among their number, the first woman to be so honored. However, in 1859, she returned to the United States to find the country tearing itself apart.¹²²

3.4 Samuel Hollingsworth Stout: One of the Best Medical Educations Available

Samuel Hollingsworth Stout's history follows a much more typical course for doctors of his era. Stout came from solid 19th century middle class roots, and he earned a sterling reputation as a doctor and businessman. When war broke out, he proudly joined the Confederacy, became a surgeon, followed by the head of a hospital, ultimately becoming the head of all hospitals in several states. Post War, he taught at Atlanta Medical College (currently the Emory University School of Medicine) and practiced medicine in Georgia and Texas, where he was the inaugural Dean of the Baylor School of Medicine. Though Stout himself is extraordinary in what he accomplished, his origins and movement towards how he ended up as a surgeon in the military is less so; thus, he shows the perspective of a man becoming a doctor in the 19th century.¹²³

¹²¹ *Pioneer Work in Opening the Medical Profession to Women*, 155, 201; "Diary of Elizabeth Blackwell."; October 21st, 1855 1855; Elizabeth Blackwell, Lucy Stone, and National American Woman Suffrage Association Collection (Library of Congress), *The Laws of Life with Special Reference to the Physical Education of Girls* (New York, NY: G. P. Putnam, 1852).

¹²² Blackwell, *Pioneer Work in Opening the Medical Profession to Women*, 195; "The Medical Education of Women—Lecture by Dr. Elizabeth Blackwell," *Daily Evening Bulletin*, 05/04/1867 1867; "Diary of Elizabeth Blackwell."; Blackwell, Stone, and National American Woman Suffrage Association Collection (Library of Congress), *The Laws of Life with Special Reference to the Physical Education of Girls*.

¹²³ Schroeder-Lein, *Confederate Hospitals on the Move*, 24-40.

In what would become important to Samuel Hollingsworth Stout's post-Civil War image and attempts to claim the 'Lost Cause' mantle, Stout could trace his lineage back over two hundred years. Richard Stout, son of John Stout of Nottinghamshire, England, came to America and was in New Amsterdam for several years before marrying Penelope Van Princes in 1648. Jonathan Stout, one of their ten children, founded Hopewell, New Jersey as a minister. Jonathan's son Samuel (born 1709), was the great-great grandfather of the Samuel H. Stout was the first of many Samuels in the family, including his only son (1732-1803) who married Ann Van Dyke in 1753. Abraham Stout (1754-1821), the oldest of their 12 children, enlisted in the Continental Army from New Jersey in February of 1776. Promoted to the rank of captain, Abraham Stout spent two-and-a-half years as a prisoner of war before his release in time to fight in the Virginia campaign. His children were proud that he was a founding member of the Society of Cincinnati (an organization of the officers of the American Revolution, including Americans and the French). After the Revolution, Abraham Stout moved to Pennsylvania and had three sons, the oldest was Samuel Van Dyke who had moved from Kentucky to Nashville by 1811 where he married Catherine Tannenhill in 1813.¹²⁴

Samuel Hollingsworth Stout was born in 1822, the fourth of five children named Samuel after family tradition and 'Hollingsworth' the last name of the uncle of his mother. Not much is known of Stout's youth, as he barely spoke of it, except to say that he and all, but the youngest sibling survived to adulthood and with so many other Samuels around, his friends and family, at this time called him 'Holl.' The family carriage-building business was booming throughout his childhood, building carriages, and building political capital. His father would build the carriage

¹²⁴ Samuel H. Stout, "Some Facts of the History of the Organization of the Medical Services of the Confederate Armies and Hospitals," *Southern Practitioner* 24, no. 3 (1902); Stout, "Biographical Sketch," 3; Schroeder-Lein, *Confederate Hospitals on the Move*, 24-26.

that Andrew Jackson rode to Washington DC in for his inauguration. Stout won the election for City Jail Commissioner and served on the city council for sixteen years. Otherwise, Stout's only story of his youth was seeing his political and personal hero Davy Crockett in church and the cholera epidemics in 1833 and 1835.¹²⁵

His father had received little education, but the family business had made them wealthy; before his father had died, the census listed thirteen slaves and an estate valued at \$25,000. This allowed the Stout children an education. Samuel H. Stout received college preparatory training at Moses Steven's Classical and Mathematical Seminary in Nashville before attending the University of Nashville at thirteen and earning his A. B. in 1839 and an A. M. in 1842. Impressed by his former pupil, Moses Stevens offered Stout a teaching position, during which he studied medicine under his brother Josiah, who had graduated from the Medical Department of the University of Pennsylvania.¹²⁶

3.4.1 Stout's Medical Education

The only chemistry taught to Stout and the other University of Pennsylvania Medical students was inorganic chemistry. The Chemistry Professor was Robert Hare, who thought it unnecessary for doctors to know chemistry and preferred to teach introductory and inorganic chemistry instead of 'animal chemistry,' which is the type useful to the body. While apparently dull, Hare's experiments always worked. Thus, he donated the equipment, which he had purchased and designed, to the Smithsonian on his retirement. Other professors at this

¹²⁵ *Confederate Hospitals on the Move*, 26-28; Stout, "Biographical Sketch," 2; Stout, "Some Facts of the History of the Organization of the Medical Services of the Confederate Armies and Hospitals," 174.

¹²⁶ Schroeder-Lein, *Confederate Hospitals on the Move*, 27-32; Stout, "Biographical Sketch," 4; Stout, "Some Facts of the History of the Organization of the Medical Services of the Confederate Armies and Hospitals," 1902; "An Address," *The Southern Practitioner* (1902).

prestigious institution were not without issues; the professor of obstetrics and disease of women was Dr. Hugh Hodge, who had retired because of bad eyesight, so was unable to perform surgery. Though popular, Dr. Samuel Jackson's (professor of the Institutes of Medicine) knowledge was out of date, even for the time. Finally, Dr. Gordon Wood, a professor of materia medica (medicine), was popular and skilled, with his books on medical botany running fourteen editions, but at the time, the medical community was skeptical of pharmacology, considering it an improper science, mainly because a lack of consistent quality medication. Doctors would apply medication until they achieved the desired effect. This led to a great deal of overdosing and over bleeding. Though doctors performed experiments in anesthetics, such information barely trickled out until later; thus, the faculty turned against him and did not grant the title of professor of medicine until years later.¹²⁷

Stout chose the only other option; in January 25th, 1848, he applied to take the officer's exam to become an assistant surgeon in the United States Navy. For Stout, the goal was experience; he had done a thesis to graduate, but had used only texts to complete it, as he was unable to conduct experiments or research. Subsequently, when told he had passed the exam and he graduated at the top of the exam pool, but he rejected his commission as by March 2nd. By the time the examiners told him, the Mexican-American War had ended, so he would not get the experience he desired; however, there was another reason. Just a week after sending his response, Stout married Martha Moore of Giles County, Tennessee on April 6th, 1848.¹²⁸

After their marriage, the young couple moved to Nashville to aid his brother in treating the cholera epidemic of 1848-49. A part of the historical community there, Stout published a

Correspondence, 1847-1861 1847; Schroeder-Lein, *Confederate Hospitals on the Move*, 236.

¹²⁸ *Confederate Hospitals on the Move*, 30-36; Stout, "Biographical Sketch."

paper on the “The Asiatic Cholera Epidemic in Nashville During the Present Year,” for the Tennessee Historical Society in Nashville, but he was not to stay much longer. In 1850, when Stout’s brother Josiah moved back California for the gold rush, the Stouts moved to Giles county to live with Stout’s father-in-law and settle onto 155 acres where they would build a home called Midbridge. They would have five children before the break out of the war, though one, Wilkins Tannehill, died in childhood.¹²⁹

To make income for his family, Stout began farming his land with ten slaves. At the time, with the exception of the elites (mainly those who trained in Europe), most doctors could not survive as doctors alone and with the glut, they had to keep fees low. He would, after the war, look back on this more fondly with a bit of a nostalgia for the gentleman-farmer idea. He combined his plantation with the practice of medicine making him wealthy. As Schroeder-Lein states, “Practicing for his neighbors of all classes, both rich and poor, he was a friend to all, and in general an adviser, in regard to social matters, educational, and political.” He was a Mason, a secretary of the Giles County Fair Association, was on the board of directors for the Central Southern Railroad, and possibly the Nashville and Decatur Railroad.¹³⁰

By the outbreak of war, Stout had amassed a personal wealth of \$21,885 and land valued at \$21,300. He was a pillar in his community. However, the war would define his life and future. Not much is known about the training he received to become such a successful administrator, but when the war came, he was ready and well read.¹³¹

¹²⁹Schroeder-Lein, *Confederate Hospitals on the Move*, 34-36.

¹³⁰ John Duffy, *The Healers: The Rise of the Medical Establishment* (New York, NY: McGraw-Hill, 1976), 177-79.

¹³¹ *Schroeder-Lein, Confederate Hospitals on the Move*, 36-39.

3.5 Doctors in Need and the Structure of the Union Medical Corps.

When the war broke out, both the Confederate and Federal government were completely unprepared for the mobilization. The peacetime Union army had 15,000 soldiers. The problem was worse the further west one went. While there were soldiers on the frontier. Most places west of the Mississippi felt little federal presence. The lack of medical expertise in the military should have come as no surprise. The need was great and dire. When the war began, the army had one surgeon-general with the rank of colonel, thirty surgeons with the rank of major, and eighty-four assistant surgeons with the rank of first lieutenant for the first five years of service, and thereafter with the rank of captain, until promoted to the grade of major composed the entire Medical Department of the Union army. Further, the army's core of 115 medical officers was not only under supplied, they also were weak in loyalties. With the outbreak of war, 27 of them resigned from the military related to Southern sympathies; with three entering private practice and the remaining 24 joining the Confederacy. Those 24 would make most of the upper echelon of the Medical Department of the Confederacy. Their leadership would attempt to make the Medical Department of the Confederacy similar to the Union, including mimicking paperwork and supplies, but the fractional nature of the Confederate government and military would diminish their power.¹³²

In the Navy, Dr. William Whelan was the Chief of the Bureau of Medicine and Surgery (BMS). He was a senior surgeon and had 61 surgeons, 25 passed assistant surgeons (meaning they had been the rank of assistant surgeon, the military had not promoted them to the next rank of Surgeon), and 45 assistant surgeons. They would lose about 41% in the first year who did not

¹³² John S. Lynch, "Civil War Federal Navy Physicians," *Military Medicine* 168, no. 12 (2003): 1040-43..

reenlist. There was no hospital corps; soldiers assigned to medical duty temporarily provided the necessary work of aiding in surgery and first aid. Given no training and often assigned to the weaker soldiers so that stronger soldiers could continue to fight, the system created a subpar situation.¹³³

In the Union, there was a medical structure in place for the military. The military evaluated all practitioners. The army awarded the title Surgeon to those evaluated as Master Doctors, below them were assistant surgeons. According to the U.S. Army regulations; “Each regiment of infantry shall consist of one colonel, one lieutenant-colonel, one major, one surgeon, one assistant surgeon, and ten companies.”¹³⁴ The BMS structured the medical ranks of surgeons/physicians. Physicians in January 1861 were experienced officers. On average, assistant surgeons had six years in grade (range, one to 23 years); passed assistant surgeons had fourteen years of service (range, six to 32 years) with six years as assistant surgeons and seven years as passed assistant surgeons; and surgeons had 27 years of service (range, two to 49 years) with eight years as assistant surgeons, seven years as passed assistant surgeons, and seventeen years as surgeons.¹³⁵

To shore up numbers, the Union military needed to recruit and enlist physicians. Without knowledge of their work and in an era before certifications and boards, the military gave examinations. On one such exam, for Dr. George M. Snow, asked the following: “Describe the muscles, arteries, and nerves of the hand.” “What is Abscess and how is it treated?” “What are the principal sources from whence is derived the blood?” “Describe the therapeutic effects and

¹³³ Ibid., 1043-44.

¹³⁴ Freemon, *Gangrene and Glory*, 28.

¹³⁵ Lynch, "Civil War Federal Navy Physicians," 1044.

therapeutic application of aloes.” “Give the treatment of knee, shoulder, and back presentations (during labor).” “Under what circumstances of difficult labor are anesthetics, ergot, and instruments used?” “What are the chemical tests for arsenious acid?”¹³⁶ “What are the constituents of healthy pus? (Health pus is inodorous, of a yellow color, and possesses a sweetish taste).”¹³⁷

If they passed the exam, doctors received rank from the army, medical/surgical supplies (but most had their own as a symbol of the profession), and a copy of the British surgical manual, *The Science and Art of Surgery*, by John Eric Erichsen. To continue shoring up these numbers, the government and intrepid entrepreneurs set up several rapid movement medical schools, doing the same sort of medical training as the universities, but at a more consistent rapid pace. The main medical schools stepped up as well.¹³⁸

The Confederates emulated the United States Military Regulations entirely.

Unfortunately, when the typesetter for the Confederate Congress copied the document, he forgot

¹³⁶ Yes, this is arsenic. They used arsenic in everything from candles to rat poison and could, of course, can kill. The fine white powder was dangerous and even led to more than one mass poisoning when an amnesiac baker (accidentally?) mixed it in candy and killed children in Paris when confused. In medical circles, apothecaries and doctors used it as a medicine on occasion, particularly for malaria, as experts at the time deemed tiny amounts safe. However, we know better now. Used for its fair share of murders, the risk and old fashion nature of arsenic most like it is the reason it is on the exam, it was difficult to tell accidental or deliberate death unless trained as poisoning mimicked cholera and, as such, doctor considered many deaths by arsenic, natural.

¹³⁷ George Snow, "Navy Medical Written Exam for Applicant George Snow," ed. United States Navy (Washington, DC: American Civil War Medicine & Surgical Antiques, 1861).

For complete exam and responses, see Appendix G.

¹³⁸ Erichsen and Ashhurst, *The Science and Art of Surgery. Being a Treatise on Surgical Injuries, Diseases, and Operations*.

John S. Haller, *American Medicine in Transition 1840-1910* (Urbana, IL: University of Illinois Press, 1981), 7-37.

the surgeons. This oversight took months to repair. The task of correcting this oversight fell into the hands of Dr. David C. DeLeon, the new Confederate Surgeon General. The Confederate Medical Corps would become a disaster. To match the Union salary and draw doctors, the Confederacy matched the pay of the Union at \$162 per month for surgeons and \$110 per month for each assistant surgeon. However, their annual budget for one year of service was only \$350,000. Thus, it only paid for 107 pairs of surgeons. All areas of military and civilian life saw monetary and funding deficiency in the Confederacy, especially as the war dragged on. Yet the lack of financing of the medical corps may have been the biggest downside for the Confederacy.¹³⁹

This shortage led to rapid promotions on both sides, as they surged to fill ranks. In the Union alone, by August of 1861 the military promoted all of the passed assistant surgeons to the rank of surgeon. By December of 1861, the military promoted six surgeons to passed assistant surgeon (the military further promoted four of them to surgeons within months). The military further promoted nine assistant surgeons directly to surgeons by the end of 1861.¹⁴⁰

This does nothing to explain the chaos of the nursing corps, which was in even more disarray. The initial nursing shortfall comes the desire to move the male attendants through the process to become doctors or soldiers, leaving a vacuum, on top of the already divided resources as the nation divided.

¹³⁹ Freemon, *Gangrene and Glory*, 28; Confederate States of America. Army Medical Department, "Regulations for the Medical Department of the Confederate States Army," ed. Medical Department. (Richmond, VA: Ritchie & Dunnavant, printers, 1861).

¹⁴⁰ Haller, *American Medicine in Transition 1840-1910*, 7-37.

3.6 The Confederacy Struggles

At the outbreak of the war, most of the established medical schools in the Confederacy converted into hospitals; only the Medical College of Virginia remained and most of the medical faculty and students joined the Confederate army along with their colleagues and peers from other medical schools across the South. In Georgia, when the Confederate States of America (CSA) declared war, the newly opened Atlanta Medical College, the Medical College of Georgia in Augusta, and the two medical schools in Savannah suspended all classes.¹⁴¹

This shortage led to a scramble to attract and certify more doctors, leading to an overall immediate decline in quality. In Georgia, in an effort to push more doctors to the frontlines, the Georgia State Legislature created the “Eclectic Board of Physicians” in 1861, “to examine and license men to practice medicine upon the ‘eclectic system,’” and governments established this in tandem with city/regional certification boards, established in Atlanta, Athens, Savannah and Milledgeville (who called it the Allopathic Board of Physicians). The Georgia Code (Chapter 4, Section 1338) established them as to grant “Any white person who has received a diploma from any medical school or medical college of the Confederate States without re-gard to the school is authorized to practice medicine to the extent of the powers given in said diploma subject to the provisions hereinafter set forth.”¹⁴²

¹⁴¹ Evelyn Ward Gay, *The Medical Profession in Georgia, 1733-1983* (Atlanta: Auxiliary to the Medical Association of Georgia, 1983), 243; John Duffy, *The Healers: A History of American Medicine*, Illini Books ed. (Urbana, IL: University of Illinois Press, 1979), 215. 215

¹⁴² Allopathic, as opposed to homeopathic, uses medicines and surgery to cure disease. *Healers*, 215-20; J. S. Wilson, "Atlanta as It Is," *Southern Medical and Surgical Journal*, no. 11 (1851): 1044; Gay, *The Medical Profession in Georgia, 1733-1983*, 241-44; John Campbell Butler, *Historical Record of Macon and Central Georgia* (Macon, GA: J. W. Burke Co., 1958), 259-60.

This lack of oversight led to several incredible tales of doctors. Dr. Tomlinson Fort Brewster, for example, started to call himself ‘Doctor’ soon after the 1854 decision by the Georgia Legislature to give doctors the right to practice with examination and regardless of training. Brewster was nineteen at the time and they allowed him to practice because, by his own account, he had already served an apprenticeship under a relative and was on leave from Jefferson Medical College, in Philadelphia. Now practicing doctor, Jefferson Medical College accepted him, and he graduated in 1856 to get married and build a practice in Harris County. During the War, he was a First Lieutenant in Company H in the Georgia 54th Infantry of Volunteers. While there and stationed at Beaulieu, his commanding officer Colonel Charlton W. Way accused him of “wanting to quit the service for fear of a bullet and love of a dollar.” Brewster called the Colonel a liar and attacked him. For the attack on a superior officer, he was arrested and brought up on charges in late 1863 at a military courthouse in Charleston. A military court found him guilty of “mutinous and insubordinate conduct,” stripped him of his commission, and court-martialed him. The CSA had such a shortage of doctors that by early 1864 the military reassigned Brewster as a hospital steward. By the end of 1864, the CSA promoted Brewster back to assistant surgeon at Walker Hospital in Columbus and appointed him to investigate all men on whether or not they were ready to return to active service.¹⁴³

In the South, the medical corps relied more on the local knowledge of the doctors. They were constantly short staffed and under supplied. To Stout, this was a sign of their success. As he put it:

When it is remembered that early during the conflict the Federal authorities declared medicine and surgical instruments and appliance contraband of war, a

¹⁴³ Gay, *The Medical Profession in Georgia, 1733-1983*, 250-55.

declaration barbaric in its spirit, is it not wonderful with what success the medical officer practiced their profession?

To one acquainted with the personnel of their branch of the military service and the organization of that service it is not surprising.

For in general they were well informed in regard to the flora of the Southern States, and therefore were well able to substitute successfully many well-known domestic remedies for those of foreign growth. Being rural practitioners, generally well educated, they were accustomed from necessity to studying accurately the diagnosis of their cases and to the simplifying of their prescription of drugs. They were compelled to load their saddlebags as lightly as possible and to carefully study the diagnosis and prognosis of every disease and surgical cue they treated. They could not so frequently visit their patients as the city practitioner.

The rural practitioners of the South practiced their profession among neighbors and friends. The medical officers of our armies according to accessible statistics, were more resourceful and therefore, more successful than the Federal medical officers.

In the history of medical progress of North America in the latter three-quarters of the nineteenth century, most of the advanced ideas touching medical science and surgical operations and procedure were suggested by Southern medical practitioners. For the circumstances of their field of practice compelled them to

originality of thought and frequently to resort to modes of practice unthought of by members of their profession in the so-called medical centers of the world.”¹⁴⁴

3.7 The Structure of the Confederate Medical Corps

As mentioned above, the Union Army organized the military corps based on previous conflicts and modified it for this conflict, including the inclusion of the United States Sanitary Commission, which Chapter Four will discuss. However, the Confederate Army Medical Corps, like many of its governmental organizations evolved due to the rapidly changing situation on the ground.¹⁴⁵

The Regulations for the Medical Department of the Confederate States Army depicted the *Structure of the Confederate Medical Corps*, which had three editions between 1861, 1862, and 1863 (See Appendix A, the differences between the 1861, 62, and 63 editions are compared there directly). The changes represent changes in the government and the changes in fortune in the Confederate Armies victories and supplies. LeRoy Pope Walker most likely approved the first edition in his early interim as Secretary of War, before leaving to become a mediocre general.¹⁴⁶ The CSA mostly cribbed the regulations from the American edition during the Mexican American War with the addition of the allowing for officers to bring slaves. Judah Benjamin briefly started making revisions before switching become to Secretary of State; he completed the regulations and published on April 10, 1862 with significant changes by George W. Randolph.

¹⁴⁴ Samuel H. Stout, "An Address," *The Southern Practitioner* 1902, 435-38.

¹⁴⁵ Confederate States of America. Army Medical Department, "Regulations for the Medical Department of the Confederate States Army," ed. Medical Department. (Richmond, VA: Ritchie & Dunnivant, printers, 1863); "Regulations for the Medical Department of the Confederate States Army," ed. Medical Department. (Richmond, VA: Ritchie & Dunnivant, printers, 1862); "Regulations for the Medical Department of the Confederate States Army."

¹⁴⁶ There is no authorship or date attributed.

Randolph even removed the use of ‘servants.’ After his sudden death, James Seddon stepped in and published another edition in March 25, 1863 (which mainly contains rewordings rather than changes.)¹⁴⁷

At the top of the hierarchy was the Surgeon General, who was charged with administration of the medical department “the government of hospitals, the regulation of the duties of surgeons and assistant surgeons, and the appointment of acting medical officers, when needed, for local or detached service.¹⁴⁸” Below them were the Medical Directors, who were initially appointed by the government, but by 1862 they were appointed by the Surgeon General, and had control of hospitals and medical officers. The Medical Director would appoint the medical head of a division (the Chief Surgeon of Division, who were relieved from duty.) The Chief Surgeon of Division chose, and the Medical Director approved Senior Surgeon of Brigade (who were not relieved from duty) to run the brigade’s medical corps. The Medical Director, Chief Surgeons of Divisions, and Senior Surgeons of Brigades would inspect the hospitals under their control and “see that the rules and regulations with regard to them and the duties of the surgeons and assistant surgeons,¹⁴⁹ are enforced, and the duties of the Surgeons and Assistant Surgeons are properly performed.” Otherwise, they kept track of the dispersal of medical supplies, illnesses, and those wounded. Medical Purveyors distributed supplies to Quartermasters

¹⁴⁷ Department, "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."

¹⁴⁸ In 1863, the Secretary of War simplified the wording as “The Surgeon General is charged with the administrative details of the Medical Department; the government of hospitals; the regulation of duties of the medical officers, issuing orders and instructions relating to their professional duties; and the employment of acting medical officers when needed.”

¹⁴⁹ “with regard to them and the duties of the surgeons and assistant surgeons,” was removed in 1863

and then to the medical disbursing officers (updates to the regulations made this more difficult in 1863, showing the 1862 inclusion of this led to corruption). However, chapter five will cover this further.¹⁵⁰

Such disarray led to disfunction. The lack of medical organization caused utter chaos in the ranks. Subsequently, adjustments had to be made to lower casualties. "The senior medical officer of each post, regiment, or detachment, will, with the approbation of the commanding officer, select a suitable site for the erection of a hospital, or of hospital tents," which is a response to the irregular nature of the responses of the treatment of the wounded. After the First Battle of Bull Run, General B. G. T. Beauregard's wound lay on the ground for up to two weeks. Chapter five will cover this as well.¹⁵¹

As stated earlier, the Confederate Army had a challenging time getting surgeons.¹⁵² Doctors were often poorly trained or unavailable. In order to fill their ranks, there were generally two sorts of doctors they attracted: recruits and private physicians. While nurses, cooks, and other hospital attendants were generally privates volunteering for higher paying service elsewhere in the brigade, the officer's rank of surgeon was difficult. According to the regulations, the Secretary of War would (from time to time) appoint a board of at least three medical officers "to examine applicants for appointment of assistant surgeons in the regular army, and assistant surgeons for promotion. And no one shall be so appointed or promoted until

¹⁵⁰ Department, "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."

¹⁵¹ "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."

¹⁵² Note here for clarity: At this point, doctor is generally a title, physician is the practice, and surgeon is the rank in the military.

so examined and found qualified.” They also had the right to “scrutinize rigidly the moral habits, professional acquirements, and physical qualifications of the candidates,” and investigate behavior for promotion. They were to be between 21 and 25 years of age and if they passed, “they will receive appointments and take rank in the medical corps.” The government always approved the appointment of this position. If a candidate failed the first, the military could retest him, but “never a third time.” After five years, an assistant surgeon went before a review board for promotion; if he declined or failed review, the military released them. However, with numbers as low as they were promotion tended to come much faster.¹⁵³

Private physicians provided much needed care, but also many problems. Like the wayside hospitals mentioned elsewhere in the chapter, the CSA needed private physicians to fill short supplies especially after battles, many of which happened near towns. In such cases, the Medical Director (or if unavailable commanding officer) could issue contracts. These ranged from generous to forced (especially when it came to medicines). This came up as early as 1862 and the CSA offered these private doctors “at a stated compensation, not to exceed \$50 a month when the number of officers and men, with authorized laundresses, is 100 or more; \$40 when it is from 50 to 100, and \$30 when it is under 50.” The military offered doctors a bonus up to \$80 per month if required to give up their practice/business and \$100 per month if they provided their own transportation. The military also protected doctors from having to accompany troops on marches “except by orders from the War Department, or, in particular and urgent cases, by the order of the officer directing the movement; when a particular statement of the circumstances which make it necessary, will be appended to the contract.” When they provided their own

¹⁵³ Department, "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."

medicines, the military offered doctors between 25-50% on top of liquidated pay (updated to ‘in addition to’ in 1863, because no one else knew what liquidated pay was back then either).

However, this created a system for corruption; allowing the Confederate Army to force doctors to serve the Confederate Army, their supplies seized and then maybe paid back its value.¹⁵⁴

In the end, the general disorganization and chaotic nature of the Confederate Army may have been the biggest detriment to the medical care of Confederate soldiers. Samuel Stout wrote while Medical Director of Hospitals in Marietta, GA, that medical directors of local hospitals were being removed from commands in his hospitals and moved to other hospitals without his knowledge or permission. Documents were not sent to him, leaving him “unable to track the wounded and sick.” Food was so limited that officers would seize potatoes from farmers under the new ‘tax bill’ and then not keep track so farmers would be reimbursed. Supplies might not end up in hospitals despite his pleas.¹⁵⁵

3.8 The Role of Doctors

The Medical officers could be doctors or not; if doctors the army listed them as Senior Surgeon or as Medical officer. Since they were the backbone of the medical service and surgeons were in needed supply, by the 1862 edition of the Regulations, the military gave the officers more power, and by 1863, significant power without the oversight of Senior Surgeons. They were to attend to enlisted men, officers (and servants until 1862) and the laundresses. They were

¹⁵⁴ "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."

¹⁵⁵ Samuel Preston Moore, "Circular on Vaccinations," ed. Office of the Surgeon General (Richmond, VA: Confederate States of America, 1863); Samuel H. Stout, "Circular 11," ed. Office of the Medical Director of Hospitals (Marietta, GA: Confederate States of America, 1863). "Circular 12," ed. Office of the Medical Director of Hospitals (Marietta, GA: Confederate States of America, 1863).

to distribute medicine “dispensed to the families of officers and soldiers, and to all persons entitled to medical attendance; hospital stores to enlisted men.” The army further required them to certify patients as disabled and unable to fight. General illness or war wounds were easy, but the army warned doctors to look out for “in [cases of] epilepsy, convulsions, chronic rheumatism, derangement of the urinary organs, ophthalmia, ulcers, or any obscure disease,” which were “liable to be feigned or purposely produced; and in no case shall such certificate be given until after sufficient time and examination to detect any attempt at deception.”¹⁵⁶

When a recruit was conscripted or volunteered, the medical officer was to “examine him stripped; to see that he has free use of his limbs; that his chest [was] ample; that his hearing, vision and speech are perfect; that he has no tumors, or ulcerated (unhealed wounds) or extensively cicatrized (healed by scarring) legs; no rupture, or chronic cutaneous affection; that he has not received any contusion, or wound of the head, that may impair his faculties; that he is not a drunkard; is not subject to convulsions, and has no infectious disorder, nor any other that may unfit him for military service,” and then vaccinate him. Otherwise, they kept a report of the ill and wounded, updated to monthly in 1862, take a morning report after the surgeon’s call (the morning roll call to assess for any sick or wounded men), and keep track of leaves of absence.¹⁵⁷

The efforts of doctors, of course, were more compelling than just remaining behind the lines to save lives. As the Atlanta Medical College evacuated in July of 1864, it left a Frenchman named Dr. Noel D'Alvigny, a professor at the school and curator of the medical museum, to

¹⁵⁶ Department, "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."

¹⁵⁷ "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."; "Regulations for the Medical Department of the Confederate States Army."

remove the wounded from the makeshift wayside hospital that sprang up in the school after Sherman issued the order to burn the city. Having issued the order to evacuate, Sherman's men were to start the fires on the night of November 14, 1864.¹⁵⁸

While the citizenry fled, the state of the building and the hospital concerned D'Alvigny. Made mostly of wood, with the wounded lying on straw mattresses, the hospital was a tinderbox. Terrified that Sherman would destroy the hospital with the wounded inside, the commanding officers convinced the Confederate government that D'Alvigny needed to move the men to another town, sure that the Union would kill the wounded. He responded that "he had been in three armies in his lifetime, and he had never seen sick and wounded men deliberately burned in their beds." Thus, in an intriguing move, he moved the wounded from the main floor up to the top floor and roof so the approaching army could hear their pleas and agony. This so embarrassed the Confederate officials remaining behind that they extended the ultimatum for D'Alvigny to leave until the evening of the November 16th. However, by the morning of the 16th, Sherman's army had moved on toward Savannah, sparing the Atlanta Medical College.¹⁵⁹

As Sherman approached, Confederates destroyed parts of Atlanta. As Union Lt. Col. Charles Fessenden Morse put it, as he watched from a rooftop in what is today Buckhead. "It was a 'magnificent and awful spectacle,' he wrote later to his brother Robert. "For miles around the country was as light as day, ... the flames shooting up for hundreds of feet into the air." Earlier, over the roar and crackle of the flames, Morse had heard the 33rd Massachusetts band serenade Gen. William Tecumseh Sherman, who ordered sections the city torched. "It was like fiddling over the burning of Rome." The next morning, Morse reported that "you could hardly

¹⁵⁸ Gay, *The Medical Profession in Georgia, 1733-1983*, 280, 85, 88-89, 92, 98. 254

¹⁵⁹ *Ibid.*, 300-05, 08.

find a vestige of the once splendid R.R. depots, warehouses, &c. It was melancholy," Morse lamented, "but it was war, prosecuted in deadly earnest." For D'Alvigny this meant caring for the wounded in what had become an abandoned wasteland.¹⁶⁰

3.9 The End of the War and the Changes to the Profession

As the war ended, the Deep South struggled more with rebuilding than with health. While many of the improvements to the medical establishment created by the American Medical Association, the Red Cross, and the Sanitary Commission were developing in the North, the South still distrusted bureaucracy. Training of doctors was still often slapdash. Several of the vaguely qualified eclectic schools reopened after the war and the medical schools of Georgia remained small, unfocused, and of generally poor-quality teaching outdated methods. Bigger schools that the legislature had approved found reopening impossible such as the Middle Georgia Medical College at Griffin and Medical College of Dalton which, though temporarily revived in 1866 by a consortium of doctors and a state charter soon reclosed.¹⁶¹

Many of the schools had faculty issues. For example, after the war ended, the Medical School in Augusta reopened in November 1865. Most of the faculty and former students were gone, so 44 Southerners and three Union soldiers left to occupy the region made up the first class. Faculty members were often unqualified; for example the professor of Chemistry and Pharmacy was not a doctor. Prof. J. Rains was an officer who graduated from West Point who

¹⁶⁰ Ibid., 325-30, 80, 86-87; Megan Kate Nelson, "The Burning of Atlanta," *New York Times*, 11/10/2014 2014; Charles F. Morse, *Letters Written During the Civil War, 1861-1865* (Boston, MA: Private Print, 1898).

¹⁶¹ Gay, *The Medical Profession in Georgia, 1733-1983*, 257-58.

Drs. Jesse R. McAfee, Charles P. Gordon, Baxter B. Brown, Samuel W. Fields, Moses Quinn, E. C. Cochran, L. P. Gudger, John K. Osborn, F. A. Ruschenburg, Henry W. Renfrow, and David Emerson.

ran a steel mill before the War. When War broke out, Rains resigned from the Union Army and joined the Confederacy. It would be months until medical professionals Dr. L. D. Ford teaching anatomy and Dr. Edward Geddings teaching physiology filled out the faculty and added back credibility. Hiring of Dr. Henry F. Campbell, the faculty offered operative surgery and surgical anatomy beginning in 1867.¹⁶²

By 1873, the Medical School in Augusta appointed Rains to be the Dean and after years of negotiating, the Medical School in Augusta joined the University System of Georgia along with the University of Georgia. Allowed to keep its own Board of Trustees, the City Hospital and the Freedmen's Hospital in Augusta would be the teaching hospitals of the program and the faculty would control the city dispensary.¹⁶³

By this time, the university started to train more and more competent doctors, along with the larger medical schools remaining in Atlanta and the reopened university in Savannah. However, though Sherman's army spared the school in Atlanta, it was still in desperate need of repair. The board of trustees put Dr. Powell in charge after the war ended and granted \$5,000 to repair the school. His colleagues, unhappy with his use of the money, reported him to the Board of Trustees. Led by Dr. John G. Westmoreland and his brother Dr. Willis F. Westmoreland, the faculty removed Powell and replaced him with a Dr. H. V. M. Miller of Rome, an expert in obstetrics. However, the issues remained until 1872, when the University asked the Medical Association of Georgia to arbitrate. Powell went on to sit on the Medical Association of Georgia, Atlanta Board of Education, and Atlanta Board of Health. In 1876, he aided Savannah where

¹⁶² Ibid., 258-62.

¹⁶³ Ibid., 258-60.

citizens suffering from Yellow Fever. Dr. John G. Westmoreland was the editor of the Atlanta Medical and Surgical Journal.¹⁶⁴

The Atlanta Medical College, not unlike the Medical School in Augusta, was pushing for another university to absorb them. Rev. John S. Wilson of Oglethorpe College in (founded in Milledgeville, closed during the Civil War, but reopened as Oglethorpe University in Atlanta in 1913), suggested a merger before the War, but Atlanta Medical College rejected this. However, in 1878 it merged with the rival school, the Southern Medical College and 1905 with the Atlanta School of Medicine, ultimately becoming Emory University in 1915 (which had existed as an Episcopal school in Oxford since 1836).¹⁶⁵

These schools joined with others across the South to form the Conference of Southern Medical Schools, with Atlanta Medical College represented by Dr. W. F. Westmoreland. The Conference of Southern Medical Schools would ultimately disappear in favor of the American Medical Association's certification of medical schools.¹⁶⁶

The larger trend of organization had affected the state publicly as well. In February 1875, the Georgia Assembly created the State Board of Health to "for the protection of life and health and to prevent the spread of disease." To the chagrin of the burgeoning pharmacy profession (see chapter 6), the board contained only doctors and no pharmacy groups. The first board was made up of, "Dr. J. G. Thomas, of Savannah, president; Dr. Benjamin M. Cromwell, Albany; Dr. George F. Cooper, Americus; Dr. F. A. Stanford, Columbus; Dr. Joseph P. Logan, Atlanta; Dr. G. E. Sussdorf, Macon; Dr. G. W. Holmes, Rome; Dr. Henry F. Campbell, Augusta;

¹⁶⁴ Ibid., 260-62.

¹⁶⁵ Ibid., 260-64.

¹⁶⁶ Ibid., 262-68.

Dr. H. H. Carlton, Athens. Dr. V. H. Taliaferro, of Atlanta, was named secretary at a salary of \$1,500 a year. Also, on the Board were: N. J. Hammond, attorney general, of Atlanta; W. L. Goldsmith, comptroller general, Atlanta; George Little, state geologist, Atlanta," ten physicians with one from each congressional district to act as representatives and sanitary commissioners for their area. Their duties included "to make inquiries in respect to the causes of death, and especially epidemics, and investigate the sources of mortality, and the effects of localities, employments, and other conditions upon the public health," and maintain records of deaths, births, and marriages, inspect health establishments and anything that could spread diseases.¹⁶⁷

A prominent group of New York City doctors founded the American Medical Association in 1846. After seven years when they met at Bleecker Street Presbyterian in New York, Chairman of the Committee of Arrangements and Reception cheered the attendance of 573, the representation of 30 states and territories, the District of Columbia and American Medical Society of Paris. However, Dr. Nathan Smith Davis, the Chairman of the Committee on Medical Literature and one of the founders, expressed frustration that many members failed to formally connect the organization to the medical profession, let alone the American public. Thus, by 1855, the AMA started to address issues of medicine publicly starting with responding to the University of Michigan appointing a chair of Homeopathy. The AMA issued a statement stating that "any such unnatural Union as the mingling of an exclusive system, such as homeopathy, with scientific medicine in a school...cannot fail by the destruction of Union and confidence and the production of confusion and disorder...impair(ing) the usefulness of teaching as to render

¹⁶⁷ Ibid., 258-62.

every school adopting such a policy unworthy of the support of the profession.” This resolution passed unanimously.¹⁶⁸

Between 1858-1860, there was no discussion of the bubbling Civil War on the horizon, in fact, almost awkwardly so. Most reports from the organization show frustration at the slow development of the standards of medical education and the lack of scientific development of the United States compared with the European schools and organizations. With the 1859 inclusion of Louisville in the AMA, the two libraries of the association top 4,000 and 8,000 books and in 1859 and 1860, the organization made calls for state legislatures to pass laws against illegal abortions.¹⁶⁹

However, the war forced the cancelation of the 1861 and 1862 conferences, with most of the members serving in the military of one side or the other. In fact, the AMA had scheduled the 1862 conference a week after the Battle of Shiloh and with casualties at a high, the AMA again delayed its conference. The conference in 1863 was a somber affair, mainly responding to actions of the Surgeon General who had banned the use of calomel and antimony (he found them too dangerous for use on malnourished soldiers) and whether or not smallpox vaccination should be mandatory nationwide. By 1864, the AMA had elected Dr. Davis president, and despite some concerns by the membership, he decided to be more active and he strengthened the organization. He issued a statement on behalf of the AMA demanding that the government remove all medical

¹⁶⁸ Morris Fishbein, *A History of the American Medical Association, 1847 to 1947* (Philadelphia, PA: Saunders Press, 1947), 58-59, 62-63.

¹⁶⁹ What this means, though often repeated, is vague. Throughout the United States, doctors and other pseudo-medical professionals performed abortions. It was in 1821 that Connecticut passed the first true anti-abortion legislation which banned chemicals which caused miscarriage. Generally, the laws passed in this era were not against doctors who performed such procedures, but the selling of widely available concoctions that cause abortions or unlicensed individuals from practicing them.

supplies and medication from the list of contraband and insisted that all members be neutral in the war efforts to move to make the “reestablishment of kindly feelings.” The AMA voted to table this indefinitely.¹⁷⁰

The war had developed a well-trained medical corps of doctors. When the war ended, this new generation of medical professionals would be more willing to embrace new techniques and work in hospital settings. The men whose lives were saved by these experts would be more willing to trust doctors and hospitals in the future. This was not in small part due to the formalization of the medical profession, the power of the AMA, and the proximity to life saving medicine on the battlefield.

4 TRAINING NURSES

God made the nurse, woman; and from the beginning the practice of this art has never reached perfection in any other hands. I speak advisedly as, for the last quarter of a century, it has been part of my duty to train men of the hospital corps to care for the ill and injured of our army. Training in anything, of course, adds greatly to efficiency; but the calling must be congenial if the best results are to follow. Man has no real vocation as a nurse. Some there are who adopt nursing as an occupation and acquire considerable tact in it; and in the army there must be men trained in nursing, but they never have the divine touch which marks woman as especially chosen for this work.

-Colonel John Van R. Hoff, *The Soldier Nurse*¹⁷¹

¹⁷⁰ Fishbein, *A History of the American Medical Association, 1847 to 1947*, 63-68.

¹⁷¹ John VanR. Hoff, "The Soldier Nurse," *The American Journal of Nursing* 11, no. 5 (1911): 4.

It is difficult to overstate the importance of the nurses in the war for they constituted the core of the medical establishment that cared for patients. However, the transition to the medical mainstream is complicated. As mentioned the previous chapter, people often mentioned surgery and butchery together in the same breath. While people had identified themselves as doctors and nurses for centuries prior to Civil War, the modern notion of professional training or certification remained relatively new. This period saw the transition from a traditional form of what is effectively medical apprenticeship to a modern medical corps trained in approved universities. The need to take care of an unprecedented number of wounded spurred this transition.¹⁷²

During the Civil War, untrained privates were the primary volunteers who cared for the sick and wounded. Before the war there were no professional nursing schools, so most nurses learned their skills on the battlefield. Male soldiers did the majority of nursing as part of their tour of duty or while convalescing; the more able among the wounded soldiers were expected to aid in the care of their wounded brethren.¹⁷³

It is important to understand the roles of these medical professionals as well. Doctors, who in peacetime may have provided some preventive care and ‘curative’ care, during the war became primarily surgeons. They removed bullets, amputated limbs, and attempted to save lives. Nurses provided most of the care. They worked primarily in hospitals applying and changing bandages, cleaning wounds, and, until the standardization of ambulances, nurses pulled bodies from the battlefield. Their care could mean life and death; there were diseases like gangrene, which infected wounds and amputations; dysentery, which rendered men unable to fight; and many more. The ability to provide food and change bandages was crucial to saving lives. In

¹⁷² Freemon, *Microbes and Minie Balls*, 19-27; Glenna R. Schroeder-Lein, *The Encyclopedia of Civil War Medicine* (Armonk, NY: M.E. Sharpe, Inc., 2008), 234-36.

¹⁷³ *The Encyclopedia of Civil War Medicine*, 234-40.

peacetime and in previous wars, nurses were nearly exclusively men. However, as fighting forces diminished, nurses fell into short supply. These male soldier-nurses were untrained, and the convalescing nurses slowed down their own recovery. In order to combat these deficiencies, women entered the fray.¹⁷⁴

Nursing was grueling and often dangerous work. Injuries common among nurses; pulling soldiers from the battlefield, catching illnesses from the sick, and general exposure to the worst conditions and wounds often left mental scars. In response, pay was fair to great for women of the era. A soldier who was giving nursing duty, would receive an extra \$7.50 per month pay. This was a good motivator for privates who were paid a base pay of \$13 per month. Female Union nurses earned \$12 per month if white and \$10 per month if black, plus a daily ration. However, this was always a struggle. When, to raise recruiting, the military raised pay to \$18 a month, miserly government officials quickly returned them to \$12. However, even this was uneven, with some nurses never received pay until after the war, while many more received it late. In the Confederacy, they used this as a recruitment tool advertising that, by 1864, white and free black Southern women working at Chimborazo Hospital in Richmond were earning \$40 per month. However, due to the rampant inflation of the Confederate dollar, this meant little. Of course, a great deal of the medical staff on both sides worked as volunteers saving countless lives entirely without pay.¹⁷⁵

¹⁷⁴ Jane E. Schultz, *Women at the Front : Hospital Workers in Civil War America*, Civil War America (Chapel Hill: University of North Carolina Press, 2004), 11-44; Mary Denis Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*, Contributions in Women's Studies (New York, NY: Greenwood Press, 1989), 2-6; Schroeder-Lein, *The Encyclopedia of Civil War Medicine*, 234-36; Lynch, "Civil War Federal Navy Physicians," 1044.

¹⁷⁵ Schroeder-Lein, *The Encyclopedia of Civil War Medicine*, 234-36.

In the Confederacy, slaves often did nursing, either hired from their owner or impressed. Slave women had generally already trained to care for the master's family and this skill spread to the battlefields. By the end of the War, women treated many Confederate wounded in their homes, opening them as temporary hospitals. Before the War started, the only trained nurses in the Union were the Sisters of Charity, a Catholic nursing order. However, societal norms pushed women outside of the medical community. At the time, it was societally improper, if not immoral, for women to take care of men not related to them. Doctors rejected women nurses from hospitals and the officers tried to keep them from the battlefield.¹⁷⁶

Though the Civil War took place a dozen years after the Seneca Falls Convention, the traditional narrative of the nineteenth century woman of the dual concept of the "Separate Spheres" and the "Cult of Domesticity" had not changed. The former refers to the notion that the genders were inherently specialized to certain tasks. For men, this role was outward, including work, business, and politics. Conversely, for women, the focus was the home, childrearing, and, when working, it was delicate work with children or textiles. This concept became culturally codified by the idea of the "Cult of Domesticity;" that a woman should be focusing on the domestic realm and that the grit of politics or the visceral nature of medicine or war was beyond their gender. Traditionally, 'true women' held these four virtues: piety, purity, submission, and domesticity.¹⁷⁷

¹⁷⁶ Ada W. Bacot and Jean V. Berlin, *A Confederate Nurse: The Diary of Ada W. Bacot, 1860-1863*, *Women's Diaries and Letters of the Nineteenth-Century South* (Columbia, SC: University of South Carolina Press, 1994), 199; Schroeder-Lein, *The Encyclopedia of Civil War Medicine*, 234-36.

¹⁷⁷ Henry Mills Hurd, *The Institutional Care of the Insane in the United States and Canada* (Johns Hopkins Press, 1916); Bart Landry, *Black Working Wives: Pioneers of the American Family Revolution* (Berkeley: University of California Press, 2000), 22-23.

In this era of suffrage and first-wave feminism, women expressed their desire to become active citizens. This idea became important to the idea of identity. The Civil War, for the most part, was a war of citizen-soldiers. The ideal of the *citizen-soldier* is fundamental to the idea of the United States. Since the Revolutionary War, the citizen asked to lay down the plow and take arms to defend one's country became the symbol of our participatory democracy. Our biggest mobilization to that time, the Civil War defined generations. As Drew Faust puts it, "Citizen soldiers snatched from the midst of life generated obligations for a nation defining its purposes and polity through military struggle. A war about Union, citizenship, freedom, and human dignity required that the government attend to the needs of those who have died in its service." The drafting of these able-bodied men helped to develop modern citizenry as the United States itself is entering the age of nations. For the women, this creates an interesting dichotomy.¹⁷⁸

There was an expectation that men would fight for their nation when drafted which represented both the promise and agreement of citizenship, but as women could not fight in the army, there was not an assumption of citizenship. However, the development of the nursing corps started to change this. The war gave women a form of power and education that they had not had before. The first female doctors began to practice in the United States with Elizabeth Blackwell, followed soon after by her sister Emily (the third in the nation). Women slowly became a significant component of the nursing corps. During the Civil War, concerned women organized the Woman's Central Association of Relief in New York City in April 1861 to prepare women nurses for service. Secretary of War, Simon Cameron pushed Congress to appoint Dorothea Dix from the Sanitary Commission to be the Superintendent of Army Nurses (one of the first women to lead at the Federal level). Women led several important support groups,

¹⁷⁸ Faust, *This Republic of Suffering*, 229-32.

including various divisions of the United States Sanitary Commission and dozens of hospitals. This post-war period also saw Clara Barton found the American Red Cross, and hundreds of nuns care for the wounded. However, the war also divided them.¹⁷⁹

Unlike African-Americans whose role on the battlefields of the Civil War helped push for the Thirteenth, Fourteenth, and Fifteenth amendments, and in World War II helped pave the way for Civil Rights Reforms, almost none of the leaders of the Suffrage movement became nurses and the passage of the Fourteenth and Fifteenth amendments split the movement itself. It would not be until the inextricable role of women in World War I that they would receive rights like African Americans received after the Civil War. Subsequently, after the war, they moved toward suffrage. Some northern women including Clara Barton became a suffragists, as did Louisa May Alcott (who nursed), Mary Livermore, Mary Anne Bickerdyke and others. In the South, this was not as true. The desire to return to the antebellum social norms (similar to the Black Codes), overwhelmed the push for such rights.¹⁸⁰

As we would later see during mobilization efforts for World Wars I and II, women gained recognition as reformers and took leadership roles because of the chaos on the ground. They were not only able to succeeded where others failed, and actually became leaders on the national stage and, eventually, officials in the national government. Dorothea Dix, who came from the

¹⁷⁹ Rutkow, *Bleeding Blue and Gray*; Schroeder-Lein, *The Encyclopedia of Civil War Medicine*, 234-36.

¹⁸⁰ Thomas Bender, *A Nation among Nations: America's Place in World History* (New York: Hill and Wang, 2006), 141; Faust, *This Republic of Suffering*, 346; John Sanford Hart, "The Demise of the Citizen-Soldier and Its Implications for the Role of the American Army" (Honors, University of Vermont, 2014), 91; Jean H. Baker, *Sisters: The Lives of America's Suffragists* (New York, NY: Hill and Wang, 2005), 277; Sally McMillen, *Seneca Falls and the Origins of the Women's Rights Movement*, Reprint edition ed. (Oxford: Oxford University Press, 2009), 322; Wendy Venet, "Faithful Helpmates and Fervent Activists: Northern Women and Civil War Memory," in *Women and the American Civil War: North-South Counterpoints*, ed. Judith Ann Giesberg and Randall M. Miller (Kent, OH: The Kent State University Press, 2018).

Sanitary Commission following many years of mental health reform, Elizabeth Blackwell, pioneering woman doctor and administrator, and Clara Barton, heroic nurse, and leader of the American Red Cross, ascended to positions of great power by the end of the nineteenth century. Thousands of women trained on top of the hundreds of nuns who already were. Their story is important in the greater context of the medical corps and the development of professionalism.¹⁸¹

4.1 Clara Barton, Elizabeth Blackwell, and Dorothea Dix in Context

Over the past 150 years, Dorothea Dix, Elizabeth Blackwell, and Clara Barton have become icons of early successes of women in power. Dix's reforms and Blackwell's successes are cornerstones of the reform movement and crucial moments of the nineteenth century, showing not only the evolution of women's rights in the era, but also the changes to the medical profession. Barton's commitment to human rights and development of a medical bureaucracy modernized the medical system. However, attempts to claim these women as part of the women's rights movement of first wave feminism have whitewashed their true past to make them seem more upstanding members of the women's rights movement.¹⁸²

While it is understandable that biographies change perspective over time, Thomas Brown's, *Dorothea Dix: New England Reformer* makes direct references to the previous biographies of Dix in his work. Referenced throughout the book are the earlier biographies by Francis Tiffany (1890) and Helen E. Marshall (1937) which Brown sees as overwhelmingly positive. Further, especially Tiffany's biography rewrites history to make Dix seem more

¹⁸¹ Brown, *Dorothea Dix*, XI-1.

¹⁸² Nancy Sahli, "A Stick to Break Our Heads With: Elizabeth Blackwell and Philadelphia Medicine," *Pennsylvania History* 44, no. 4 (1977): 335-47; Brown, *Dorothea Dix*, xi-1.

ladylike in the nineteenth century context, especially regarding her femininity. Subsequently, since this work were references to biographies and journal articles used more psychodynamic concepts and became more critical of Dix. However, Brown goes farther in his critique. While he adds little to the volumes of information of Dix as a person, he attacks previous works on Dix for their over focus on her professional résumé. As he puts it, they missed the central element of her life, Dix's desire to present a broadly applicable model of moral discipline. According to Brown, early biographers edited her personal life to make Dix seem more proper in keeping with nineteenth century social norms. Brown argues her violation of the orders of the Department of War by treating Confederate led to her unceremoniously losing power and resigning from the job in disgrace, but it is those same actions which help her memory today.¹⁸³

On the other end of the spectrum, Elizabeth Blackwell appears more as a minor side note than a character in the reform era. Most of the books on Blackwell are less rigorous scholarship, and more a motivational tool for young women. As the nineteenth century ended, scholars began to mention her in the context of medicine. The massive work *American Women* (1897) tends to whitewash all of Blackwell's failures (near bankruptcies, family troubles, and disinterest in women's movements) in favor of entries more in line with the current suffrage movement. Even sections on medicine gloss over her conflicts with Dix during the Civil War and battles over nursing, addressed later in this chapter. Eventually, most sources gloss over her massive war effort and successes in training nurses due to her anti-Southern sentiment after the war. She became a victim of the Lost Cause.¹⁸⁴

¹⁸³ *Dorothea Dix*; Helen E. Marshall, *Dorothea Dix, Forgotten Samaritan* (New York: Russell & Russell, 1967); Francis Tiffany, *Life of Dorothea Lynde Dix* (Boston, Houghton, Mifflin Company, 1890).

¹⁸⁴ "Blackwell, Miss Elizabeth," in *American Women - Fifteen Hundred Biographies with over 1,400 Portraits: A Comprehensive Encyclopedia of the Lives and Achievements of American*

Finally, there is Clara Barton. In many ways, Barton's sacrifice and power are probably the best known. Her inspiration from the Red Cross and the work of Florence Nightingale led to a massive fundraising effort that, while beginning in the Civil War, extends into future wars and natural disasters, with her at the helm, until her death. These women are part of a larger story of women providing the traditionally maternal care of "nursing," extending to Dix's trainees, Blackwell's nurses, the Sanitary Commission, convents, hospitals, and the battlefield.¹⁸⁵

4.1.1 Dorothea Dix in her Youth

Dorothea (nee Dorothy) Lynde Dix was born April 4, 1802, the first of three children to Joseph Dix and Mary Bigelow in the town of Hampden, Maine. Dix spent many of her formative years in Worcester, Massachusetts and in her wealthy grandmother's home in Boston, her family having had a connection to the region since the Massachusetts Bay Colony. Her father, an itinerant worker, was frequently drunk and abusive. Dix's victimized mother was unable to cope, leaving Dorothea to take care of her younger siblings, Joseph, and Charles, and leading her to state that "she never knew childhood." At age twelve she ran away with her siblings to her grandmother's house. Thanks to her grandmother's wealth, Dix led a more comfortable life, but never liked the expectations of lady-like behavior that this required.¹⁸⁶

By age fifteen, she opened a school with the help of her older cousin Edward Bangs. Bangs was fourteen years older than Dix and a successful Boston attorney, Bangs encouraged Dix to open a 'little dame school,' since the public-school system in Boston was male only. This

Women During the Nineteenth Century, ed. Mary Ashton Rice Livermore and Frances Elizabeth Caroline Willard (New York: Mast, Crowell & Kirkpatrick, 1897), 60-62, 91-92, 245-46; Jacobi, "Chapter Vii: Woman in Medicine."

¹⁸⁵ Burton, *Clara Barton*.

¹⁸⁶ Brown, *Dorothea Dix*, 1, 6, 11.

school grew quickly with twenty pupils between ages six and eight and Dix serving as the lead teacher. Throughout this time, Bangs would visit her often and after three years, he proposed marriage. This startled and surprised Dix, as her only knowledge of marriage was the violent, drunk, and abusive marriage of her parents. The engagement may have lasted for three years until age 21, when her father died working and nearly destitute in New Hampshire. With that, Dix returned the engagement ring and dedicated her life to teaching. However, this story, in fact, may be apocryphal. Brown states there is no evidence in Bangs' diaries or Dix's letters on this topic, and it may have, in fact, been a creation to color Dix's sexuality in a more normative light.¹⁸⁷

Educated with her grandmother's generosity and further self-educated with her grandfather's textbooks from Harvard University, Dix desired to open another school, a much grander one. Her vision was to open a school for the poor at the Dix manor of her grandmother. In order to fund it, Dix planned to run a school for wealthy girls in another room. Fearing her grandmother's reaction, she planned for months in secret. However, her grandmother accepted the school and it opened to wide success running from 1822-1836 with an intermission in 1830 when Dix became very ill. During this time, from 1830-31, Dix worked as a private tutor with the Channing family in St. Croix, so she could rest. Upon her return, she arrived at news that her friend General Levi Lincoln and her former fiancée Edward Bangs won elections to Governor and Secretary of State, respectively. These men would prove useful in Dix's fight for political reform, which would catapult her to national political office.¹⁸⁸

¹⁸⁷ Ibid., 11, 14, 15; Tiffany, *Life of Dorothea Lynde Dix*, 387.

¹⁸⁸ *Life of Dorothea Lynde Dix*; Brown, *Dorothea Dix*, 28.

Her health became poor starting from 1824; finally in 1830 she gave up running the her school. To cope, she began staying home and writing books for children and devotionals. Her *Conversations on Common Things* had reached its sixtieth edition by 1869. Her return to the school led it to become a model of education in Boston, until first her grandmother got sick and ultimately, Dix became sick in 1836. Exhaustion brought on by the pressures of running the school and caring for her ailing grandmother led to a mental breakdown and hemorrhages (most likely tuberculosis). For treatment, Dr. Channing sent her to England for respite. There, Dix's grandmother, then her mother died. With nothing to return home to, she remained in England until 1841 living with the Rathbone family in Liverpool. The Rathbones were prominent Quakers with an ancestral home named Greenbank. Their social activism introduced Dix to the British Lunacy Reform Movement focused on the treatment of the mentally ill and the transition from imprisonment to asylums. She became involved in the inspection of these facilities, which led to her teaching Sunday school at a women's asylum in 1841. During this period, she found her voice, contributing to a report to the House of Commons and returning to the United States to investigate the Penal System of Massachusetts.¹⁸⁹

From here, Dorothea Dix's life focused on the asylum reform movement, which we will return to in Chapter Five. By 1855, after a failure to get national asylum reform passed (Chapter Five also has a discussion of Franklin Pierce's veto of the bill), Dix left the national stage frustrated. However, at the moment, it is important to focus on the nursing. By this point,

¹⁸⁹ Frank B. Norbury, "Dorothea Dix and the Founding of Illinois' First Mental Hospital," *Journal of the Illinois State Historical Society* (1998-) 92, no. 1 (1999): 13-29; J. David Greenstone, "Dorothea Dix and Jane Addams: From Transcendentalism to Pragmatism in American Social Reform," *Social Service Review* 53, no. 4 (1979): 527-59; Brown, *Dorothea Dix*, 176-94; Dorothea Dix, *Conversations on Common Things; or Guide to Knowledge with Questions. For the Use of Schools and Families* (Boston: Munroe and Francis, 1824).

Elizabeth Blackwell had returned to America from training in Europe and proved herself medically and financially. By 1860, Dix is gained political momentum once more.¹⁹⁰

4.1.2 Clara Barton Joins the Fray

Born on Christmas Day, 1821 in North Oxford, Massachusetts, to Captain Stephen and Sarah (Stone) Barton, Clara Barton started nursing at age 11 to bring her brother David back to health after an injury raising a barn. Her father, impressed by her compassion and intellect, sent her to a boarding school and while she was able to keep up academically, her anxiety impacted her health. As she withdrew, her mother took her to a phrenologist, who recommended she become a teacher to overcome her shyness. She began teaching in 1838, advancing education reforms such as refusing to administer corporal punishment. Over the subsequent decades, she furthered her own education at the Clinton Liberal Institute and set up several schools, until she moved to Washington, D.C. to become the first female patent clerk in the United States.¹⁹¹

When the Civil War began, Barton was almost immediately thrust into it. On April 19, 1861, a group of Confederate sympathizers attacked the 6th Massachusetts Regiment stationed in Baltimore. In what would be known as the Baltimore Riot, the Confederate sympathizers killed many soldiers and civilians. Barton, knowing many in the 6th Massachusetts from her hometown, left her job at the patent office so she could attend to them at the makeshift hospital. Collecting supplies, medicines, food and clothing, Barton used her connections in Boston, New York, and New Jersey to raise supplies, money, and volunteers. This would form the base of her network for the duration of the war. By the First Battle of Bull Run in Virginia, Barton established the

¹⁹⁰ Brown, *Dorothea Dix*, 176-98.

¹⁹¹ Burton, *Clara Barton*, 1-25; Stephen B. Oates, *A Woman of Valor: Clara Barton and the Civil War* (New York, NY: Free Press, 1994), 1-55.

first true hospital on the scene. By the Peninsular Campaign through Virginia in 1862, she was meeting the hospital transport ships on the docks to tend to the wounded.¹⁹²

After a brief trip home to tend to her dying father, Barton returned to Washington to petition the government to allow her to set up hospitals and send supplies directly to the battlefield, rather than waiting until after the army left; the neglected wounded after Bull Run had haunted her. On August 3, 1862, the military gave Barton permission at the Battle of Cedar Mountain, Virginia to set up a hospital. On September 1, she aided with the wounded from the Second Battle of Bull Run from a hospital she set up in Fairfax Station, and on September 14th she set up further hospitals in preparation of the Battles of Harpers Ferry and South Mountain.¹⁹³

As the Battle of Antietam approached, Barton prepared, arriving in Sharpsburg, Maryland with four wagons of supplies before the fighting began to resupply the surgeons. As the bloodiest one-day battle in American history unfolded, Barton was on the battlefield in her hospital, tending to the wounded on both sides, which would become her legacy as she went on to found the Red Cross. During treatment, a bullet that grazed her killed the man she was attending. Similarly, in December of the same year, at the Battle of Fredericksburg, she was applying a tourniquet to a wounded soldier when “a shell destroyed the door of the room in which she was attending to wounded men,” recalled co-worker Rev. C.M. Welles. “She did not flinch but continued her duties as usual.”¹⁹⁴

¹⁹² Burton, *Clara Barton*, 25-56; Oates, *A Woman of Valor: Clara Barton and the Civil War*, 56-135; Clara Barton, *Clara Barton Papers*.

¹⁹³ Oates, *A Woman of Valor: Clara Barton and the Civil War*, 56-135; Burton, *Clara Barton*, 25-63; Barton, *Clara Barton Papers*.

¹⁹⁴ Oates, *A Woman of Valor: Clara Barton and the Civil War*, 55-135; Anonymous, "Clara Barton National Historic Site," ed. U.S. Department of the Interior (Washington, DC: National Park Service, 1981).

Of the battle of Fredericksburg, she wrote, “[I] went to the old national hotel, found some hundreds, perhaps 400, western men sadly wounded all on the floors; had nothing to eat. I [brought] a basket of crackers and gave two apiece as far as they went and [some] pots of coffee. They had had no food that day. . .there was none for them. I saw them again at 10 o'clock at night, they had had nothing to eat. A great number of them were to undergo amputation sometimes, but no surgeons yet.”¹⁹⁵

In April of 1863, Barton established the field hospitals ahead of the bombarding of Charleston, setting up in Hilton Head with the aid of her brother David, an Army Quartermaster, and her nephew Steven, who was a telegraph operator. By June of 1864, her network and renown had grown so vast, that she was appointed to be the head of nursing and diet at the X Corps hospital by James Commander Major General Benjamin F. Butler.¹⁹⁶

On March 11, 1865, after returning from a hiatus to tend to her dying brother, Barton received an appointment from President Abraham Lincoln to find missing prisoners of war as she was known to have kept track of the dead since noticing, in the chaos of feeding the wounded, that the doctors were not doing so in Fredericksburg. To do this, she formed the “Friends of the Missing Men of the United States Army.” Paying for this herself and using members of her growing network of volunteers, she created rosters and publications listing the deceased and recovered. The publications were a way to further bring witnesses out of the woodwork. This

¹⁹⁵ Clara Barton, "Clara Barton Papers: Diaries and Journals: 1862, Dec.," in *Clara Barton Papers, 1805-1958 (bulk 1861-1912)*, Manuscripts (Washington, DC: Library of Congress, 1862), 2.

¹⁹⁶ Burton, *Clara Barton*.

effort soon turned to the job of identifying graves. Thanks to her efforts, Barton's researchers identified 22,000 men.¹⁹⁷

After the war ended, in June of 1865, Dorrance Atwater contacted Barton. The Confederates had imprisoned Atwater at Andersonville Prison, Georgia where he buried the dead. In doing so, he had kept a secret ledger of the dead and, with the help of Barton, he successfully petitioned Edwin Stanton, the Secretary of War, to add an additional 13,000 grave stones to bodies buried in mass graves. Barton considered this work so important, that she invested over \$15,000 of her own money, which Congress reimbursed her for and the Freemasons further funded the expenditure.¹⁹⁸

4.2 The Sisters of Charity

Clara Barton is such a beloved and popular figure today that it is difficult to fully appreciate what a controversial figure she was in her era. The idea that Barton was raising funds to help wounded Confederate soldiers is easy to grasp in the context of the humanitarian mission of the International or American Red Cross, but in a private nursing corps it was highly unusual. The role of various religious groups added an additional layer to the unusual nature of the situation. As mentioned in the historiography, there are some significant religious debates

¹⁹⁷ Ibid.; Oates, *A Woman of Valor: Clara Barton and the Civil War*; Clara Barton, "Rolls of Missing Men," *Bangor Daily Whig and Courier*, 1865/06/24/ 1865.

¹⁹⁸ "We Hear That Miss Clara Barton, Daughter of Judge Barton, of Worcester, Mass., Who Has Obtained National Repute by Publishing a List of Missing Soldiers, and by Her Heroic Deeds to the Wounded in Battles, and Even under Fire Left This City on Friday, on a Government Vessel, with a Party, for the Purpose of Enclosing the Area of Ground at Andersonville Where So Many Federal...", *National Intelligencer*, 1865/07/10/ 1865; "Grounds at Andersonville, Georgia, Where Are Buried Fourteen Thousand Union Soldiers, Who Died in Andersonville Prison," (1865); Burton, *Clara Barton*; B. B. French, Robert McMurdy, and George C. Whiting, "To the Masonic Fraternity in the United States," news release, 1865; Wendell Phillips, "We Hear That Miss Clara Barton, Daughter of Judge Barton, of Worcester, Mass., Who Has Obtained National Repute by Publishing a List of Missing Soldiers," *National Intelligencer*, 07/10/1865 1865.

involving the role of slavery and the war. This is generally outside my scope here; however, the justification aside, the religious call to aid is interesting.¹⁹⁹

One particularly interesting case is the Sisters of Charity, a national order of Catholic nuns. While today, Roman Catholics are the plurality Christian denomination in the United States with 17,157,118 adherents in the last national census, it is important to remember that in the nineteenth century, not only were Catholics a minority, but often a despised one. Books like *Maria Monk's Awful Disclosures of the Hotel Dieu Nunnery in Montreal* were fictionalized accounts depicted as factual accounts about the sexual abuse of nuns by priests and the murder and burial of the children conceived by cloistered religious. The book portrayed the main character Maria Monk as a Sister of Charity and given as an example of the horrors of Catholicism for years. Though disproven almost immediately by editors (even by a Protestant paper), the book became the basis of anti-Catholic literature; this comes from the Justin Dewey Fulton's *Why Priests Should Wed* (which begins "Can we uncover the corrupt practices of Romish priests?").²⁰⁰

This is aside from more mainstream works like the aggressive anti-Catholic themes in Mark Twain's classic *A Connecticut Yankee in King Arthur's Court*, violent screeds by nativists

¹⁹⁹ Noll, *The Civil War as a Theological Crisis*; Faust, *This Republic of Suffering*; Howe, *What Hath God Wrought*; Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*.

²⁰⁰ J. Jones, *Awful Exposure of the Atrocious Plot Formed by Certain Individuals against the Clergy and Nuns of Lower Canada* (New York, NY 1836); United States. Economics and Statistics Administration. and U.S. Census Bureau., *United States Summary, 2010: Population and Housing Unit Counts* (Washington, DC: U.S. Dept. of Commerce, Economics and Statistics Administration, U.S. Census Bureau, 2012); Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*.

like Horace Bushnell and Lyman Beecher against Catholic immigrants washing up on their shores.²⁰¹

Attacks like these led to pogroms against the Catholics, primarily anti-Irish, and fueled the rise of the Know-Nothings who unsuccessfully ran former President Millard Fillmore for President in 1856 and encouraged the belief that the church was the Whore of Babylon from the Book of Revelation.²⁰²

It is in this context that the Sisters of Charity volunteered to nurse the sick. They were among 600 Roman Catholic nuns who were nurses from 12 different orders and 22 convents. In a period when the Confederacy was constantly facing shortages of nurses, Confederate nurse Kate Cumming stated, "It seems strange that [the Sisters of Charity] can do with honor what is wrongs for other Christian women to do." Despite this, Dix's own anti-Catholic sentiments led her to release Catholic nuns from the nursing corps, when not rejecting them outright. This led them to form independent nursing staffs.²⁰³

The majority of women who volunteered for the war effort worked for the various non-profit organizations that sprang up during that era. This includes groups aiding the Union, such as the Christian Commission and the well-known U.S. Sanitary Commission, wherein the women primarily scraped lint to make bandages, raised money, sewed, and cooked. However,

²⁰¹ Lyman Beecher, *A Plea for the West*, Second Edition ed. (New York, NY: Truman & Smith; Leavitt, Lord & Co., 1835), 79.

²⁰² Terry D. Bilhartz, *Urban Religion and the Second Great Awakening: Church and Society in Early National Baltimore* (London, UK; Cranbury, NJ: Fairleigh Dickinson University Press, 1986); Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*.

²⁰³ Ann Doyle, "Nursing by the Religious Orders," *The American Journal of Nursing*, July-Dec 1929 1929, 775-86, 959-69, 1085-95, 197-207, 331-343, 466-484; Kate Cumming and Richard Barksdale Harwell, *Kate: The Journal of a Confederate Nurse* (Baton Rouge, LA: Louisiana State University Press, 1998); Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*; Brown, *Dorothea Dix*.

about 9,000 women served the Union as nurses and 1,000 served the Confederacy. The government divided nurses into seven classifications by the chief clerk in the Surgeon-General's office in response to an 1890 bill in congress that would offer back pay to the nurses.²⁰⁴

The first category are the nurses that Dorothea Dix appointed and trained, 3,214 according to the records of the United States Sanitary Commission. However, the carded record service in the National Archives only lists 582, meaning 2,632 were either never commissioned by the military, deserted, the USSC fudged numbers to make Dix look more successful, or most likely, the USSC sent nurses to the war so quickly, they had not completed their paperwork. These official and trained nurses make up the bulk of the official military nursing corps. Despite the discrepancy in numbers, they paid nurses a standard military rate of 40 cents and a ration. The second category were the Sisters of Charity (paid 40 cents a day). These women would also receive federal pensions. The third category (roughly 4,500) did the cleaning, cooking, and negotiated their own pay. African American women were hired under General Orders in 1863-64 and compensated \$10 per month defined the fourth category. The fifth category were unpaid volunteers. The sixth group were camp followers who "accompanied regiments." The final group was comprised of women from groups like the U.S. Sanitary Commission (after Blackwell took nurse training within it) and the Western Sanitary Commission.²⁰⁵

4.3 The Sanitary Commission

A group of concerned citizens founded the U.S. Sanitary Commission on June 18, 1861 to support the sick and wounded soldiers of the United States (Union) Army. Modeled on the

²⁰⁴ Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*; Schultz, *Women at the Front : Hospital Workers in Civil War America*.

²⁰⁵ Association of Military Surgeons of the United States, "Journal of the Association of Military Surgeons of the United States," (Carlisle, PA: The Association, 1922); Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*.

British Sanitary Commission during the Crimean War, it collected supplies and money to distribute to the Union Army. It collected money nationwide, with all the branches, donations, and transportation given for free “cannot be less than twenty-five million dollars.” Though some money came from the state taxes, such as Ohio, led by Democrat David Tod, most came from private donations. This includes donations from the west, including the very powerful Sanitary Commission in California which raised \$1,233,831.31, but also smaller commission \$107,642.96 from Nevada, \$79,371.19 from Oregon, from Washington Territory \$20,918.92, from the Sandwich Islands (Hawai’i) \$15,968.15, from Idaho \$5,301.31, Colorado \$1,025.00, from Vancouver's Island \$2,195.61, Santiago de Chili \$5,066.62, from Peru \$2,002.00, and from Costa Rica \$84.00. This paid for one and a half million meals, one million nights of sheltered sleep, and medicines and medical supplies.²⁰⁶

Henry Whitney Bellows (the only man to serve as its President) founded the U.S. Sanitary Commissions (USSC) along with George Templeton Strong who served on the Executive Committee and as Treasurer, and landscape architect Frederick Law Olmsted who served as executive secretary. They petitioned the Secretary of War, Simon Cameron to be of aid to the army. In response, Cameron petitioned (with great satisfaction) Lincoln stating that at the suggestion of the Medical Bureau, that they should choose to associate with, "A Commission of Inquiry and Advice in respect of the Sanitary Interests of the United States Forces, and without remuneration from the Government." Seeing this a “patriotic proposal,” Cameron “directed the acceptance of the services thus generously offered.” Granting them the “inspection of recruits and enlisted men; the sanitary condition of the volunteers; to the means of preserving and

²⁰⁶ Charles J. Stillé, *History of the United States Sanitary Commission, Being the General Report of Its Work During the War of the Rebellion* (Philadelphia, PA: Lippincott, 1866), 241, 95, 490.

restoring the health, and of securing the general comfort and efficiency of troops; to the proper provision of cooks, nurses, and hospitals; and to other subjects of like nature.”²⁰⁷

After the First Battle of Bull Run, the USSC received the first assignments to their new Central Office near the Executive Mansion (White House) in Washington, DC. Requests started to rush in. In preparation for the battle, water-beds (in medical settings doctors used waterbeds in this era as a way of preventing bed sores.) and surgical gowns were requested. After the battle commenced, there was a follow-up: "That the following articles be procured for immediate use in the general hospitals: 100 small writing tables for writing in bed, 100 iron wire cradles for protecting wounded limbs, 30 boxes of dominoes, 30 checker-boards, 5lbs of Delphium (or Stavesacre is a foul-smelling flower that was used to treat head lice and, when made into a salve, also treated nerve pain).”²⁰⁸

In an effort to keep up with the growing demand, the Sanitary Commission expanded the executive committee and expanded its regional operations. Dr. William Holme van Buren, George Templeton Strong, Rev. Dr. Henry Whitney Bellows, Dr. Cornelius R. Agnew and Prof. Wolcott Gibbs made up the Executive Committee, but the group was growing on the ground level. Not unlike their own beginnings, similar groups started to spring up. The United States Christian Commission formed after the Battle of Bull Run to meet the need of wounded soldiers at a meeting of the Young Men’s Christian Association (YMCA) by Vincent Coyler and George Stuart to provide medical care and protestant ministers to the Union Army, finally founding hospitals and distributing more than six million dollars’ worth of goods. There was the Western

²⁰⁷ Ibid., 532-33.

²⁰⁸ United States Sanitary Commission, *The Sanitary Commission of the United States Army; a Succinct Narrative of Its Works and Purposes* (New York, NY: Published for the Benefit of the United States Sanitary Commission, 1864), 14-16.

Sanitary Commission which John C. Frémont, the hero of the Bear Flag Revolt, the first Republican candidate for President and ardent abolitionist, founded. While it would ultimately focus on the care of the freedmen, during the Civil War, the Commission's job was care of the soldiers as well. Eventually it set up four hospitals with over 2,000 beds and provided significant contributions west of the Mississippi river. However, these groups stayed relatively separate, though driven by the same goals, except for the Women's Central Relief Association of New York.²⁰⁹

Similarly inspired by the British Sanitary Commission, the Women's Central Relief Association of New York raised money, distributed supplies, trained nurses and ultimately became associated with the USSC. It is from this position that Secretary of War Simon Cameron appointed Dorothea Dix the Superintendent of Nursing after she successfully lobbied to have women help in military hospitals. Over 15,000 women volunteered to this organization, to do everything from treat soldiers to run their "Sanitary Fairs." The Sanitary Fairs were fund raisers for the Commission. The first, in Chicago, raised over \$100,000 as people came to see the exhibits, parades, and art. Led by Mary Livermore, the Northwestern Branch (based in Chicago)

²⁰⁹ Matthew Brady, *Executive Committee of the U.S. Sanitary Commission. Left to Right: Dr. William Holme Van Buren, George Templeton Strong, Rev. Dr. Henry Whitney Bellows (Commission President), Dr. Cornelius R. Agnew and Prof. Wolcott Gibbs, Brady-Handy Collection* (Washington, DC: Library of Congress Prints and Photographs Division, 1862), LOT 4180-A; W. S. Rosecrans, "Annual Report of the Western Sanitary Commission for the Years Ending July, 1862 and July, 1863; Circular of Mississippi Valley Sanitary Fair, to Be Held in St. Louis, May 17th, 1864," *The North American Review* 98, no. 203 (1864); Edward Parmelee Smith, *Incidents of the United States Christian Commission* (Philadelphia, PA: J. B. Lippincott & CO., 1869).

of the USSC became a powerhouse of fundraising, with the Northwestern Fair being one of their top fundraisers.²¹⁰

Other fundraising efforts of note include Reuel Colt Gridley and his sack of flour. In 1864, he bet a Republican shop owner a Democratic candidate would win the mayor's race of Austin, NV, and agreed the loser would carry a 50 lbs. sack of flour through town. When Gridley lost, he paraded through town with the flour and auctioned it off to raise money for the USSC. After an auction for the flour netted \$250, the winner refused to take it and it was reauctioned. Going town to town and reauctioning the flour, Gridley went to San Francisco, Sacramento, Virginia City, Nevada (where he met Mark Twain), and east to St. Louis, before going back west. Over the next 12 months, the auctions would raise \$275,000 before bakers turned the famous flour into cakes for a USSC Sanitary Fare Bake Sale. Twain told the story in the book *Roughing It*.²¹¹

However, most funds were raised by donations promoted through newsletters and rallies. *The Sanitary Commission Bulletin* was published to inspire fundraising. Filled with stories from the battlefield to show the bravery of the men despite a lack of supplies. *The Bulletin* included, such as this excerpt from a letter: "The earthworks thrown up by our troops under fire, and begun with the use of tin cups and shingles instead of the pick-axe and spade, are a wonderful monument of the daring and efficiency of our veteran troops." Songs and poems designed to inspire hope or pity like this: "Suggested by the remark of a mother, one of whose sons had died

²¹⁰ Commission, *The Sanitary Commission of the United States Army; a Succinct Narrative of Its Works and Purposes*, 40-62; Wendy Venet, *A Strong-Minded Woman: The Life of Mary Livermore* (Amherst: University of Massachusetts Press, 2005), 78, 115-17, 32.

²¹¹ Mark Twain, *Mark Twain's Roughing It*, *The Writings of Mark Twain* (Hurley, N.Y.: Jerry's Books, 1993); Dave Anthony, *America's Greatest Sack of Flour*, podcast audio, The Dollop2016, <http://thedollop.libsyn.com/162-americas-greatest-sack-of-flour>.

of starvation in a rebel prison; “I hardly expected my boys would return to me unharmed, but I never dreamed one would be starved to death.”²¹²

4.3.1 *The War Changes them.*

While it is difficult to state exactly why someone is successful or not, there are certain aspects of Dix, Barton, and Blackwell that made them more likely to succeed in the nineteenth century United States. In general, though the revisionism of the late 19th and early 20th century feminist writers will try to change them, neither Barton nor Dix felt particularly strongly about women’s rights or suffrage and Blackwell, though she was affected by the sexist sentiment and she conversed with Lucy Stone on the merits of suffrage, chose to focus on medicine and abolition. Dix found herself more powerful as a moralist who respected societal rules. Her embracing of slavery allowed her free access to the North and South. Blackwell preferred to be good at being a doctor to convert people, though she bemoaned her difficulties upon applying to schools and opening her practice, however, once she found her patients among the Society of Friends, Blackwell found satisfaction working within the system. However, her growing celebrity would cause her abolitionist political views to become an issue. There are two things that set the women apart and led to the memory of Dix surpassing her failures over Blackwell’s successes; moralizing and abolition.²¹³

While business frustrated Blackwell repeatedly, looking to expand her struggling practice, and looking for funding and patients, Dix could not be in more demand. On the slavery

²¹² Minnie Mintwood, "Starved to Death!," *Sanitary Commission Bulletin*, 5/1/1865 1865; J. W. Page, "Letter from Newbern, Nc," *ibid.*, May 1, 1865.

²¹³ Brown, *Dorothea Dix*, 165-68; Blackwell, *Pioneer Work in Opening the Medical Profession to Women*, 27-58, 190-95.

issue, as mentioned above, Dix was indifferent. Though her comments seemed uncaring or cruel, it was not her purview. This granted her much more access to the South.²¹⁴

In the Union, Dix and Blackwell finally collided when the Civil War first broke out. Dix seized on her political mobilization skills to advance. Dix had become a strong campaigner, and this had helped earn her the position of Superintendent of the Army Nurses in the Union Army, a position that for which Blackwell had been heavily campaigning and seriously considered. Dix was popular among legislators and well known nationwide. Since, politicians ignored the issue of slavery in the early months of the War, this made the decision easier. However, the politicking and moralizing that earned Dix so much respect in Washington turned out to hurt her in the field.²¹⁵

From the beginning, the Union nursing corps had issues. The biggest initial problem was that the government could not provide enough nurses to the armies quickly enough, so Dix, now part of the USSC Women's Auxiliary, campaigned for the creation of a federal post to recruit and train nurses, based on her ability to raise donations and mobilize volunteer support. However, there was little of this in her earlier campaigning for the asylums. In fact, when she had been in her position less than a week, when the army requested 500 surgical gowns, Dix was so ill prepared that she purchased them out of pocket. It was at this time that Dix first came into direct conflict with Elizabeth Blackwell.²¹⁶

When the war broke out there was no question that the members of the Blackwell family would support the Union. Their abolitionist tendencies were so strong that they had threatened to

²¹⁴ Brown, *Dorothea Dix*, 259, 80-87.

²¹⁵ *Ibid.*, 281.

²¹⁶ *Ibid.*, 282.

leave the United States had the Union waived on the slavery issue. This endeared Elizabeth Blackwell to the Radical Republicans who pushed for her to be in charge of all nursing, but Congress selected Dix as a compromise candidate.²¹⁷

While coordinating between the various charitable organizations in the North, Dix came upon the Women's Central Organization of Relief, an organization founded by Elizabeth and Emily Blackwell and Marie Elizabeth Zakrzewska out of their infirmary. They had designed the organization to collect medical supplies and train a volunteer nursing army. However, for Dix, medical training was secondary.²¹⁸

Dix set up qualifications for nurses that inherently handicapped the selection. All nurses had to be between 35 and 50 years of age and 'plain looking,' There were to be "No young ladies should be sent at all, but some who . . . are sober, earnest, self-sacrificing, and self-sustained; who can bear the presence of suffering, and exercise entire self-control of speech and manner; who can be calm, gentle, quiet, active, and steadfast in duty." Dix also established a strict dress code. She argued that this was to protect younger women in the hospitals, but this tended to discriminate against a substantial portion of the nursing population who was younger. This corresponds with the moral compass that guided Dix throughout her career. She used thousands of Catholic nuns as nurses, but distrusted them as well, causing rifts between her and the Irish and German communities. Since Blackwell, now reinforced by the United States Sanitary

²¹⁷ Ibid., 282-87; Blackwell, *Pioneer Work in Opening the Medical Profession to Women*, 236-37.

²¹⁸ Brown, *Dorothea Dix*, 283.

Commission, was training all volunteers, Dix considered many of them unqualified and Dix would fire nurses at random.²¹⁹

While her nomination to the position of “Superintendent of Women Nurses” during the Civil War was the “first position of federal executive authority to be held by a woman in American history,” it was also the move that ruined her reputation. She was so brutal and authoritarian that the Blackwell called her the “meddler general” and American satirist, publisher, and abolitionist Jane Grey Swisshelm referred to her as a “self-sealing can of horror tied up with red tape.” Her moral rigidity, icy personality, and dictatorial ways earned her the caricature of “Dragon Dix.” General George B. McClellan even wrote to the War Department, along with a comprehensive reorganization plan, a complaint that the Catholic nurses were so preferable to Dix’s nurses that he wished that no more of Dix’s nurses assigned to him. She was now known as the “deaf and despotic maiden lady of an uncertain age.”²²⁰

To combat Dix’s power and mishandling of the medical corps, the U.S. Sanitary Commission expanded its scope. Bellows put Blackwell in charge of New York, the core region, while he went to Washington to lobby. With encouragement from Blackwell, Bellows appointed Mary Livermore to lead the Chicago office. Their constant lobbying and successful training of nurses allowed for the exploitation of a loophole in the commissioning of nurses. Dix had become so divisive and unpopular with her assignments, that Dix started to attack the doctors. The U. S. Sanitary Commission highlighted this and since doctors were officers in the military, it infuriated the Department of War. Thus, the Secretary of War issued Military Order 351 to

²¹⁹ Ibid., 293-95; Dorothea Dix, "Letter from Dorothea L. Dix to Luisa Lee Schyler, April, 29, 1861," in *Notable Women of the North*, ed. Sylvia G. L. Dannett (New York: Thomas Yoseloff, 1959), 62-63.

²²⁰ Brown, *Dorothea Dix*, 296, 303, 11-12.

assure that Dix would become only a figurehead. It allowed both she and the General of Surgeons to appoint nurses; now all of Dix's appointments required medical directors to cosign which allowed doctors, hospital administrators and matrons to select their own nursing staff. Dix quietly resigned as the war was ending in August 1865.²²¹

The catastrophe of care during the Civil War and the bureaucratic infighting and general failing of the nursing corps under Dix pushed Blackwell to start training her own nurses, with support of other sections of the USSC and it allowed for neutral bodies like the American Red Cross and several groups of Catholic nuns to begin to offer care as well; though they would ultimately give aid to both sides of the conflict.²²²

4.4 The Recruitment and Training of the Nurses

As mentioned above, male soldiers performed the majority of the traditional nursing, following the orders of the commanding officers. While the most numerous, they were the less desirable option. They lacked training and the rigors of medical treatment often left those with the most need vulnerable. With this demonstration by the Generals and pushing by the USSC, Abraham Lincoln issued a call for volunteers. Speeches and sanitary fairs, which also raised funds, further inspired women, and increased recruitment.²²³

With the orders given and recruitment growing, Dorothea Dix started to evaluate recruits with a more discerning eye. She considered recruits qualified with they were between 25-50

²²¹ United States War Dept, Oliver Diefendorf, and Thomas M. O'Brien, "General Order No. 351," in *General Orders of the War Department, Embracing the Years 1861, 1862 & 1863: Adapted Specially for the Use of the Army and Navy of the United States. Chronologically Arranged ... With a Full Alphabetical Index* (Derby & Miller, 1864), 568; Venet, *A Strong-Minded Woman*, 74.

²²² Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*.

²²³ Commission, *The Sanitary Commission of the United States Army; a Succinct Narrative of Its Works and Purposes*.

years old, in good health, of good constitution, and have good endurance. Further “they should be free from levity and frivolity, of an earnest but cheerful spirit. . .that they should be persons of good education; and, that they should be recommended by at least two responsible persons, (their clergyman and physician being preferred,) as to their fitness for this service.” The Surgeon General, William Hammond, issued orders that there should be one nurse for every 20 beds.²²⁴ However, as mentioned above, the recruitment became very contentious. As *Woman's Work in the Civil War: A Record of Heroism, Patriotism, and Patience* (an early history of the USSC published in 1867, most of the sourcing comes from Dr. Henry Bellows, President of the USSC) recalls the issue. “Of the thousands of applicants for the position of Hospital Nurses, the greater part were rejected promptly by the stern, but experienced lady, to whom the Government had confided the delicate and responsible duty of making the selection.” Dix rejected candidates she deemed too young and pretty. For fear they “mingled in some instances, perhaps, with romance, which had prompted the offer, would often falter before the extremely unpoetic realities of a nurse's duties.”²²⁵

Despite the euphemistic language above, the author turns on her before long and General Hammond had to increase the number of beds to nurse from 20 to 30. *Women's Work* continues, “Yet "to err is human," and it need not surprise us, as it probably did not Miss Dix, to learn, that in a few instances, those whom she had refused to commission on account of their youthfulness, proved in other fields, their possession of the very highest qualifications for the care of the sick

²²⁴ Jacob Gilbert Forman, *The Western Sanitary Commission; a Sketch of Its Origin, History, Labors for the Sick and Wounded of the Western Armies, and Aid Given to Freedmen and Union Refugees, with Incidents of Hospital Life*, 1 vols., vol. 1, Published for the Mississippi Valley Sanitary Fair (St. Louis, MO: R. P. Studley & CO, 1864).

²²⁵ L. P. Brockett and Mary C. Vaughan, *Woman's Work in the Civil War: A Record of Heroism, Patriotism and Patience* (Philadelphia, PA: Zeigler and R.H. Curran, 1867).

and wounded.” It was at this point that Dr. Blackwell and her Woman's Central Relief Association started to train nurses as well.²²⁶

The training that nurses received varied greatly. Generals like George McClellan considered the Sisters of Charity the best trained and most desirable of the nurses around. The rest went through different types of trainings and despite the overall bureaucratic nature of the USSC, the regimen of training seemed to vary a lot from the minor to rigorous. Nurses trained under Dix had the least training and were generally older. They learned how to make and administer basic medicines and tinctures, clean and dress wounds, clean bandages, and the telltale signs of major illnesses and infections. The nurses trained by Blackwell went further in learning how to aid in surgery and basic anatomy, even being able to do basic diagnosis. The nuns, overall, went the furthest, teaching nurses almost to the level of doctors of the era, some could (and did) even perform minor surgeries.²²⁷

It is worth note that the women of the USSC looked down upon Southern women (as an admittedly biased source). While the Northern women had made a case as nurses, the CSA still fought against their inclusion, with the exception of the wayside hospitals. *Woman's Work* put it this way, “At first, indeed, Aid Societies were formed all over the South, and supplies forwarded to their armies; but in the course of a year, the zeal of the Southern ladies cooled, and they contented themselves with waving their handkerchiefs to the soldiers, instead of providing for their wants.” Therefore, it argues there was no one in the defeated South more bitter than the ‘great mass of Southern women.’ According to *Woman's Work*, the Confederate armies constantly complained that the Southern women did nothing for their comfort. These complaints

²²⁶ Ibid.

²²⁷ Ibid., 91.

were exaggerated clearly, as there were hospitals and aid stations run by women. One wonders if the cultural difference between the support of women in the North versus the South led to an embarrassment and establishment of Ladies Memorial Association and the United Daughters of the Confederacy to start to push their own nobility in the Lost Cause and Confederate monuments.²²⁸

4.4.1 Nursing in the Confederacy

The Southern Cause in the war forced many southern women outside of their tradition Antebellum roles, challenging the social status of white female purity and subordination to the male planter class. Like the members of the Red Cross and the United States Sanitary Commission, Southern women took social risks by such direct interaction with soldiers. Regardless, there was plenty of access. The war, taking place predominantly on Southern soil, left the wounded strewn among Southern towns. Women would work in built hospitals, but often even in their own homes.²²⁹

Though the records of the Confederate Surgeon General were lost in the fires started by the fleeing Confederate army in Richmond, we do know some basics about the Confederate Medical Department. Female medical assistants were authorized by law in September 1862. Called matrons (rather than nurses), estimates have placed them at around 1,000. Ward matrons made \$30 per month, assistant matrons \$35, and chief matrons \$40, with the Confederate budget allocating \$490,000 in 1863 and \$700,000 1864. These numbers ignore the women who

²²⁸ Katherine P. Wormeley, *The United States Sanitary Commission: A Sketch of Its Purposes and Its Work* (Boston, MA: Little, Brown, 1863); Forman, *The Western Sanitary Commission; a Sketch of Its Origin, History, Labors for the Sick and Wounded of the Western Armies, and Aid Given to Freedmen and Union Refugees, with Incidents of Hospital Life*, 1.

²²⁹ Libra Rose Hilde, *Worth a Dozen Men: Women and Nursing in the Civil War South, A Nation Divided: Studies in the Civil War Era* (Charlottesville, VA: University of Virginia Press, 2012), Introduction.

volunteered, never commissioned (earned the rank of matron), or simply took care of wayside hospitals on their own (see Chapter Five). This does not preclude traditional hospitals.²³⁰

The largest hospital in the Confederacy (and near the end of the war, the largest in the world) was Chimborazo Hospital in Richmond, Virginia. At its height, on the outer fringe of town, it had 150 wards, each thirty feet wide and 100 feet long and housing anywhere from 40 to 60 patients. Phœbe Pember was assigned to one of five divisions. She was an ideal matron candidate, she was thirtynine and a widow and from a prominent (and interestingly Jewish) family and entered the service of her country. However, similar to the issues of the Confederate doctors, she had no skills and there was little training in the South. Thus, much her training was on the job. Of her time, she stated, “In the midst of suffering and death, hoping with those almost beyond hope in this world; praying by the bedside of the lonely and heart stricken; closing the eyes of the boys hardly old enough to realize man’s sorrows, much less suffer man’s fierce hate, a woman must soar beyond the conventional modesty considered correct under different circumstances.” During her time at the hospital, she personally cared for 15,000 troops, caring for Union troops as they came through. When the War ended her pay as chief matron was useless and made her money back writing for *The Atlantic* and selling her autobiography. However, as Libra Rose Hilde describes the writing as “fraught with internal contradictions and some outright falsehoods, and her observations frequently counter those of her peers.” Despite these shortcomings, Pember remains useful. She describes the vagaries of hospital life in the

²³⁰ Bacot and Berlin, *A Confederate Nurse: The Diary of Ada W. Bacot, 1860-1863*, 199; Hilde, *Worth a Dozen Men: Women and Nursing in the Civil War South*, Introduction.

Confederacy. However, any discussion of hospital work in the South during the war is complicated by the substantial contributions these nurses made to the Lost Cause narrative.²³¹

Because it functioned as the center of the Confederacy, Richmond offers many examples, but they are often fraught. The government's power was strongest there, and thus, supplies and trained staff were the most significant. For Sally Tompkins, who had witnessed the First Battle of Bull Run first hand, she saw this as an opportunity to provide aid. Opening the nearby home of Judge John Robertson for the wounded, she founded the Robertson Hospital, with women from the nearby Saint James Episcopal Church aiding in the care. For her quick work, President Jefferson Davis commissioned her a captain in the Confederate Army. By the end of the War, she had treated 1,334 men, losing only 73; the lowest mortality rate of any hospital in the War; leading Mary Chesnut to write (as frequent visitor to the hospital), "Our Florence Nightingale is Sally Tompkins."²³²

It may be impossible to talk about the intricate nature of Southern life during the war without mentioning Mary Chesnut. A member of the South Carolina and Southern elite her family owned over 1,000 slaves. She was the wife of a US Senator (later Brigadier General) James Chesnut J and her friends included Confederate Generals John Bell Hood, John S. Preston, Wade Hampton III, and Louis T. Wigfall. Jefferson Davis and his wife Varina Howell were close to Chesnut and her husband. During the war, she would tour hospitals, tend to wounded. Working at a Wayside Hospital in Columbia, SC, from July 6, 1864 - January 17, 1865, on August 19th, she began working their full-time, feeding men who were mobile breakfast and

²³¹ Phœbe Yates Pember, *A Southern Woman's Story* (New York, NY: G. W. Carleton & Co.; , 1879), 1-10, 192; Hilde, *Worth a Dozen Men: Women and Nursing in the Civil War South*, Introduction.

²³² Ron Maggiano, "Captain Sally Tompkins: Angel of the Confederacy," *Organization of American Historians* 16, no. Winter 2002 (2002).

“The badly wounded remain in wards prepared for them, where their wounds are dressed by nurses and surgeons, and we take bread and butter, beef, ham, and hot coffee to them.” In her trademark way, Chesnut is able to explain the South with the description of an individual she met. Coming across a man with hair ‘as long as a woman’s’ because of a vow he made, the man had sworn with three friends to not cut their hair until the war was over and the South was free. “Four made this vow together. All were dead but himself... This poor creature had had one arm taken off at the socket. When I remarked that he was utterly disabled and ought not to remain in the army, he answered quietly, "I am of the First Texas. If old Hood can go with one foot, I can go with one arm, eh?²³³”

However, the majority of the nursing working in the Confederacy was not done by the women. Like the Union, the male soldiers did most of the nursing work. In her book *Mothers of Invention: Women of the Slaveholding South in the American Civil War*, Drew Gilpin Faust argues that rather than armies of white women such as in the North, the majority of non-military care was given by slaves and freed black men and women. Unlike the North, such a relationship was marred by the racism and gender stereotyping at the governmental level (let alone a personal level). Thus, like Dix’s resistance to nurses for moral reason, the South was hampered on racial ones. This left the nursing corps in the South at a severe disadvantage and subsequently, minimal and generally untrained, they make less of an impact after the War.²³⁴

²³³ Mary Boykin Miller Chesnut, Isabella D. Martin, and Myrta Lockett Avary, *A Diary from Dixie*, The Barnes & Noble Library of Essential Reading (New York, NY: Barnes & Noble, 2006), 321; Sarah E. Gardner, *Blood & Irony: Southern White Women's Narratives of the Civil War, 1861-1937* (Chapel Hill, NC: University of North Carolina Press, 2003), 128–30.

Chapter Seven and Appendix F go into Confederate diet while being treated in hospitals

²³⁴ Drew Gilpin Faust, *Mothers of Invention: Women of the Slaveholding South in the American Civil War*, Fred W Morrison Series in Southern Studies (Chapel Hill, NC: University of North

4.4.2 *The Struggles of Nursing*

During combat itself, the nursing corps dealt with everything. While most of the work was treating the ill and recovering, there is evidence of other care. Sister Anthony O'Connell is one of the few documented nurses (and only nun) who was an assistant to surgery. Handling surgical instruments, dressings, aiding with the anesthetic, and holding down limbs; she would act as assistant surgeons. For example, after the Battle of Shiloh, while the other young surgeons 'off on a kind of lark, as they called it, to prevent blue mal.' Sister Anthony O'Connell aided Dr. Blackman as assistant in surgery for the day. "He expressed himself well pleased with the manner in which I performed this duty and indeed I was well pleased to be able to alleviate in any degree the sufferings of these heroic souls."²³⁵

All of these responsibilities fell under the heading of hospitals. On the battlefield's dirty grounds, there was little in terms of sanitation (though the era's understanding of such things was minimal). However, what little care there was, nurses provided. The development of the field hospitals and their standardization will come in a later chapter, but nurses ran hospitals on the ground level. This places among their duties laundering bedding and bandages, cooking the food, and cleaning. While fighting, soldiers ate standard rations of hardtack, coffee, and whiskey. The sick and wounded were in the hands of the nurses and fed cooked meals, based mostly on donated foods.²³⁶

Carolina Press, 1996), 92-111; Hilde, *Worth a Dozen Men: Women and Nursing in the Civil War South*, Introduction.

²³⁵ Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*; Anthony O'Connell, *Memoirs of Sister Anthony O'Connell* (Cincinnati, OH: Archives of Sisters of Charity of Cincinnati 1917).

²³⁶ Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*, 113-14.

For example, the Sisters of Mercy from Vicksburg took over the overrun Mississippi Springs Hospital which was in terrible condition; the steward started rumors of smallpox to scare away guests so that the hospital could be properly cleaned. The Sisters of Providence took charge of the military hospital in Indianapolis to the adulation of the *Indianapolis Daily Journal* which in 1861 praised their “unpleasant, but noble duty.” By 1864, the paper reported them laundering and pressing 500 sheets and 1000 garments a week. After Gettysburg, the Daughters of Charity, led by Sister Angela, did laundry at the Satterlee Hospital in Philadelphia which housed 7,000 with a staff of 30. When the head surgeon demanded that a man replace her, as the sisters report, “It became in a few days a kind of Bedlam, dancing, singing, quarreling, and fighting constituted a large part of each day's work and at the end of the first week, doctors, druggists, clerks, Ward Masters looked for their clothes in vain. All were mixed together and everything in confusion.” Sister Angela returned to her laundering position within the week. Other nurses spread around with similar tasks of laundering and distributing care and supplies. Sister Stanislaus, a Sister of Charity of Our Lady of Mercy, distributed linens in the Confederate hospital in West Virginia. While in Mound City, IL, the Sisters of the Holy Cross were in linen rooms and asked to check the community for the sick and wounded.²³⁷

As for the dietary concerns, the nuns and the other nurses were crucial to the health as well. They developed the diets for the hospitals they ran, leading to higher than average recovery rates during the day to day of feeding thousands of sick the role of the nursing grew. In fact, the St. Joseph's Government Hospital, Central Park, New York one year after the declaration of the

²³⁷ Ibid., 112, 13-14.

holiday by Lincoln, the nurses requested and then prepared a “Thanksgiving Meal” for the soldiers in 1864.²³⁸

4.5 End of an Era

Following the Civil War, Dix’s damaged reputation closed many avenues to her save her compassion over the mentally ill and prisoners. Though her treatment of 5,000 Confederate Soldiers at Gettysburg earns Dix a place in the “Lost Cause” Southern noble narrative history, (pushing aside the strongly abolitionist Blackwell), documents show her tenure generally as a failure. During Reconstruction, Dix toured the South investigating prisoners of war and hospitals. In 1881, she moved into the New Jersey State Hospital where the legislature had designated a private suite for her, as long as she lived. She died on July 17, 1887. Blackwell, on the other hand was on the rise. After a failed attempt in 1866, she opened a medical school for women in 1868 in New York. However, this led to issues with her sister. Feeling like the U.S. women’s medical movement was failing, Elizabeth left the school to her sister Emily and moved back to England where she founded the National Health Society in 1871, the London School of Medicine for Women in 1875, and toured Europe and fought for reform for the rest of her life, being most active from 1880-1895.²³⁹

The chaos and death of the Civil War is not only a sign of the horrible violence, but of mismanagement. Dorothea Dix, compassionate reformer for the mentally ill, Elizabeth Blackwell, pioneering medical professional, and Clara Barton, the angel of the battlefield, are women whose lives the needs of women’s movements molded, but their actual lives and

²³⁸ Ibid.

²³⁹ Cornelia Hancock, *South after Gettysburg: Letters of Cornelia Hancock from the Army of the Potomac, 1863-1865* (Philadelphia: University of Pennsylvania Press, 1937), 7; Faust, *This Republic of Suffering*; Brown, *Dorothea Dix*, 280-323.

struggles led them to save the lives of many men. The nursing controversy tarnishes their legacy, but their importance is unquestioned.

4.6 The Effects of the National Medical Corps, Both Neutral and Not

After the war, the nursing corps disbanded. The once powerful Dorothea Dix retired quietly (her legacy and the asylum movement will be described in the next chapter), while Elizabeth Blackwell continued to train new doctors at her school. During the Reconstruction period, nurses generally went home to take care of the wounded hundreds of thousands of men who were trying to settle into normal life; many returning with mental illness and wounds that would fester and require further and further treatments.²⁴⁰

Despite their incredible contribution to the Civil War, the American Nursing Association has no mention of nursing during the Civil War as part of its official history; only mentioning that “Dix established such an impressive record of organizational skill in her humanitarian crusade that she was appointed superintendent of the female nurses of the Army by secretary of war, Simon Cameron, in 1861. Her tireless efforts led to the recruitment of more than 2,000 women to serve in the Union Army during the Civil War. At the end of the war, she returned to her lifelong crusade in psychiatric reform,” and no other nurses who even served were mentioned (including Clara Barton).²⁴¹

The American Nurses Association, modelled on the American Medical Association, only came into being in 1896 when delegates gather at Manhattan Beach Hotel, and by their convention two years later over 10,000 nurses attended. Strangely, the only nurse they mention in their history is a Florence Nightingale-inspired British nurse named Alice Fisher, who was

²⁴⁰ Faust, *This Republic of Suffering*.

²⁴¹ American Nurses Association, "The History of the American Nurses Association," American Nurses Association, <https://www.nursingworld.org/ana/about-ana/history/>.

only in America from 1884, where she helped to organize the Philadelphia City Hospital, until her death in 1888. As an organization, American Nurses Association did not come into its own until the Spanish American war but, it came into conflict with Clara Barton repeatedly fighting against her treatment of all wounded and the structure of the Red Cross. Ultimately, by 1903, the American Nurses Association advocated for laws registering nurses, finding their first successes in North Carolina, New York, New Jersey, and Virginia.²⁴²

The opinions people held about the Catholic nuns who had served as nurses during the war was much more divided. In 1871, the Sisters of Charity of Our Lady of Mercy requested money from Congress to rebuild their orphanage, which had been destroyed in the War. Congress moved forward with this, due to the Sisters' care for both Union and Confederate troops, but a Senator from Vermont filibusted the funding claiming "any patriotic citizen would have done as much." Though the orphanage was rebuilt, it would not be until 1921 that the Sisters of Charity were fully recognized for their efforts in the Civil War. Congressman Ambrose Kennedy of Rhode Island declared them the "Nuns of the Battlefield," whose "services were not only conspicuously national; they were also singular and unique." The monument he championed was erected at the corner of Connecticut Avenue and Rhode Island Avenue in Washington DC. Using bas-relief, it depicted nuns from the twelve different orders and 22 convents who served during the war.²⁴³

Despite the omission by the American Nursing Association, the nation lauded Clara Barton in her time (to an extent). Her organization aided in the Spanish American War, the Great

²⁴² Ibid.

²⁴³ Maher, *To Bind up the Wounds: Catholic Sister Nurses in the U.S. Civil War*, 1; "The Congressional Globe, 1833-1873," (Washington, DC: United States Congress, 1871).

Galveston Hurricane, and the San Francisco Earthquake among other national disasters. Though there was usually a backlash to against the large number of donations and the little oversight she received, the nation and government supported her. In a speech given to Congress to approve the Red Cross Treaty and accept the American Red Cross, President McKinley stated that from the fields of battle to the hospitals in Cuba, Barton handled the donations, service and coordinated the groups and donations from the many state organizations: “The Red Cross has fully maintained its already high reputation for intense earnestness and ability to exercise the noble purposes of its international organization.”²⁴⁴

The dramatic change in nursing signifies an important change to the medical community in the United States. On one hand it shows the changing dynamic of the role of women, allowing them not only a job outside the house, but one in which they are seen as superior. Blackwell’s school continued to function training both doctors and nurses further Bellevue in New York began nursing programs as well. On the other hand, it also shows the developing complexity of American medicine. The professionalization of nursing shows that the ability to care for someone in this setting had grown outside the ability of the family matriarch or eldest female child taking care of the ill. As nurses and hospitals replaced home caretakers, this shift represents a permanent and growing change in the professionalism and impersonality in nursing.

5 HOSPITALS AND AMBULANCES

Spend a good part of the day in a large brick mansion on the banks of the Rappahannock, used as a hospital since the battle—[It] seems to have receiv'd only the worst cases. Out doors, at the foot of a tree, within ten yards of the front of the

²⁴⁴ Clara Barton, *The Red Cross in Peace and War* (Meriden, CT: The Journal Publishing Co., 1906), 2; Erik Larson and Isaac Monroe Cline, *Isaac's Storm: A Man, a Time, and the Deadliest Hurricane in History*, 1st ed. (New York, NY: Crown Publishers, 1999), 234, 44-45, 56.

house, I notice a heap of amputated feet, legs, arms, hands, &c., a full load for a one-horse cart. Several dead bodies lie near, each cover'd with its brown woolen blanket. In the door-yard, towards the river, are fresh graves, mostly of officers, their names on pieces of arrel-staves or broken boards, stuck in the dirt.” -- Walt Whitman, FALMOUTH, VA., opposite Fredericksburgh, December 21, 1862.²⁴⁵

Today, Americans have a complicated relationship with hospitals. The current debates over healthcare are scary enough, but it seems like hospitals, where we go for treatment from illness oo injury, are trying to kill us. The World Health Organization claims the Methicillin-resistant *Staphylococcus aureus* (MRSA) bred in hospital environments due to antibiotic prescriptions pose a bigger threat than Zika or Ebola. The Centers for Disease Control and Prevention’s *Morbidity and Mortality Weekly Report* states that medical errors are the third cause of death in America. According to the study, “Complications of medical and surgical care” is 129th after accidental discharge of firearm and accidental strangulation in bed. The medical error includes all medical conditions along with overdose of medication. However, this does not prevent one questioning their hospitals, a fear that dates back centuries.²⁴⁶

Going back to the first hospitals in eighteenth century America, stories of hospitals as spreaders of disease and those diseases (smallpox, dysentery, and cholera) being medically untreatable echo today in reports on medical errors and antibiotic resistant

²⁴⁵ Walt Whitman, *Complete Prose Works: Specimen Days and Collect, November Boughs and Goodbye My Fancy* (Boston, MA: Small, Maynard & Company, 1907).

²⁴⁶ Steven Sternberg, "Medical Errors Are Third Leading Cause of Death in the U.S," *U.S. News & World Report*2016; Donald G. McNeil Jr, "Deadly, Drug-Resistant ‘Superbugs’ Pose Huge Threat, W.H.O. Says," *New York Times*, 02/27/2017 2017; David Oliver, "Health Buzz: More Nurse Practitioners Practice in Low-Income Areas, Study Reveals " *U. S. News and World Report*2018.

infections that are creating a growing perception that hospitals are places to die rather than places to recover. This perception is so prevalent in the 1990s that New Zealand funded a study to override the idea that hospitals were more dangerous than helpful. However, the fear is common across the United States as well. Movements to have the elderly die at home and the *New York Times* providing helpful hints on turning your home into a hospital all gaining momentum. A move that the wealthy had attempted to accomplish for most of the eighteenth and nineteenth century, where the rich ideal was treatment (and even operations on) in the home; public hospitals were for the poor.²⁴⁷

These struggles are part of a continuum. While, medically speaking now is the best time to live in history, there are still pervasive fears. This fear is nothing new. This chapter explores the development of the modern hospital and the role played by the American Civil War. Starting with the humble beginnings, hospitals go from places where Philadelphia hides their destitute and ill to a system that encompasses the entire south. The Civil War further begins the change of perception to one where the hospital is at the center of the medical system.

5.1 The Origins of American Hospitals

The American hospital can trace its roots to the Pennsylvania Hospital located in Philadelphia (now associated with the University of Pennsylvania). Founded on May 11, 1751, and finishing initial construction in 1756, Thomas Bond and Benjamin Franklin developed and boosted the idea. By the American Revolution, the hospital would also have on staff Benjamin Rush (a revolutionary, one of the editors of Thomas Paine's *Common Sense*, and doctor to many

²⁴⁷ Susan Seliger, "Preparing for a Loved One to Die at Home," *New York Times*, January, 13 2013 2013; Margaret Hughes, "Hospital-a Place to Die or a Place Where You Go to Get Help?," *Nursing New Zealand* 17, no. 9 (1995).

of the Founding Fathers) and Philip Syng Physick (the father of American surgery; developer of the stomach pump, modern cataract surgery, needle forceps, splints for dislocations, guillotine/snare for tonsillectomies, and, according to medical files, doctor who removed 1,000 kidney stones from Chief Justice John Marshall). The Philadelphia Hospital was to become a medical marvel, containing the first medical library and surgical amphitheater in the Americas.²⁴⁸

By late 1750, Benjamin Franklin and group of concerned men, including Bond, wanted to address the medical needs of the ‘distemper’d poor’ who were not treating their illnesses. At the time, it was difficult to find free lodging for care, in addition to medicines, nurses, surgeons, and attendants. The illnesses were not only stifling (and spreading); the lack of treatment meant that they were unable to recover or return to their work often losing their homes, where they “might otherwise have been restored to Health and Comfort, and become useful to themselves, their Families, and the Publick, for many Years after.” The poorhouses became vectors for disease and the healthy and wealthy would avoid these neighborhoods as unsafe, but as there were no separate accommodations, the sick would remain to infect the healthy. The only separation

²⁴⁸ “In the operating-room his deftness and precision were remarkable and as a lithotomist he was probably without equal in skill or number of operations performed. One of his last was upon the aged Chief Justice Marshall, a remarkable case, nearly a thousand calculi, in size varying from a partridge shot to a pea were removed and the patient made a good recovery.”

Benjamin Franklin, "Some Account of the Pennsylvania Hospital," in *Founders Online* (National Archives: Washington, DC, 1754), 912-13; Howard A. Kelly and Walter L. Burrage, "Physick, Philip Syng (1768-1837)," in *American Medical Biographies* (Baltimore, MD: Norman Remington Company, 1920); *ibid.*

available was the house of correction, which, at the time, was also the home for the mentally ill.²⁴⁹

Using Great Britain as a model and wanting to put Philadelphia as an equal to their large cities, Franklin petitioned the city government of Philadelphia to build a large hospital to open in 1754. Petitioning the House on January 23rd, 1751, Franklin called for the city to pay for “a Building sufficiently large and commodious for the Purpose,” of taking care of sickly poor and those “who unhappily became disorder’d in their Senses, wander’d about, to the Terror of their Neighbours.”²⁵⁰

Benjamin Franklin and Thomas Bond petitioned for the creation of the hospital to the Pennsylvania State House because “the Numbers of People the Number of Lunaticks, or Persons distemper’d in Mind, and deprived of their rational Faculties, hath greatly increased in this Province” with the promise of matching public and private funds. The bill passed the House unanimously. The donations came in slowly at first, but soon picked up. Mathias Koplin donated property that would become the hospital.²⁵¹

The original contributors met at the state house in July of 1751 to select the managers and treasurers to draw up the initial requirements. Using temporary facilities for the first few years, the managers chose six doctors/surgeons to work in the hospital on a rotation for the ensuing year); they would be in residence for three months at a time before rotating out. The hospital supplied medicines free of charge until December of 1752 when the demand became too high to

²⁴⁹ Franklin, "Some Account of the Pennsylvania Hospital," 911-15.

²⁵⁰ "Pennsylvania Hospital: Law for Regulating the Elections of Managers and Treasurers," ed. Academy of Philadelphia (Philadelphia, PA: Founders Online, 1754); "Some Account of the Pennsylvania Hospital."

²⁵¹ "Some Account of the Pennsylvania Hospital."

receive medicines from the crown and they hired an apothecary. The hospital paid the apothecary 15£ per annum and supplies the first year ran 112£ 15s 2p. However, the wealthy women of town considered the medicines so good, that they came to the hospital for their medications. The hospital charged the women, so the medicine could remain gratis for the poor and the hospital could pay doctors, allowing them to stay on longer.²⁵²

In the first 15 months as a public hospital, there were 64 patients treated, 32 of whom were cured and discharged, four improved their condition significantly, and five were discharged as incurable. By the end of the first two years, the hospital treated the following cases.

Table 1: Illnesses of the Public Hospital Philadelphia in the first 24 months.

	Admitted	Cured	Relieved	Irregular Behaviour	Incurable	Taken away by their Friends	Dead	Remaining
Agues	3	3						
Cancer,	3	2	—	—	—	—	—	1
Colliquative Purgings,	2	—	—	—	—	—	2	
Consumption,	1	—	—	—	—	1		
Contusion,	1	—	—	—	—	—	—	1
Cough of long standing,	1	1						
Dropsies,	9	4	1	—	—	—	3	1
Empyema,	1	1						
Eyes disordered,	2	1	1					
Falling Sickness,	3	1	—	—	2			
Fevers,	2	2						
Fistula in Ano,	3	2	1					
— in Perinea,	2	1	—	—	—	—	—	1
Flux,	1	—	—	—	—	—	1	
Gutta Serena,	1	1						

²⁵² Ibid.

These managers were Benjamin Franklin, Hugh Roberts, Thomas Bond (among others) and Treasurer John Reynell and the doctors were Lloyd Zachary, Thomas Bond, Phineas Bond, Thomas Cadwallader, Samuel Preston Moore, and John Redman.

Hair Lip,	1	—	—	—	—	—	—	1
Hypochondria Melancholy,	1	—	—	—	—	—	—	1
Hypopyon,	1	1						
Lunacy,	18	2	3	—	4	6	—	3
Mortification,	1	—	—	—	—	—	1	
Prolapsus Ani,	1	1						
— Uteri,	1	1						
Palsy,	1	1						
— of the Bladder,	1	—	—	—	—	—	—	1
Rheumatism and Sciatica,	6	4	—	—	—	—	—	2
Scorbutick and scrophulous Diseases,	9	6	1	1	—	—	—	1
Ulcers, with Caries, &c.	37	21	4	2	1	3	3	3
Vertigo,	1	1						
Uterine Disorder,	1	1						
Wen,	1	1						
Wounded,	1	1						
In all,	117	60	11	3	7	10	10	16

By the end of the eighteenth century, the hospital, by all accounts had become the standard of American public hospitals. The power granted the hospital and its doctors allowed the social policy to change. For example, due to a yellow fever epidemic in 1699, the province of Pennsylvania adopted a wide-ranging quarantine policy that attempted to prevent such outbreaks again. By the 1740s, smallpox outbreaks were of the utmost concern. Following medical policy determined by Alexander Hamilton (of Maryland) and prominent local physician Dr. Adam Thompson and at the urging of Franklin, the hospital took it upon itself to vaccinate the poor (while the rich tended to go to William Barnet's inoculation house, a place specializing in only vaccines).²⁵³

²⁵³ Correspondance, 1772/02/05/ 1772; "Founders Online."; "Some Account of the Pennsylvania Hospital."; Benjamin Franklin and Tench Francis, "Constitutions of the Academy of Philadelphia," ed. Academy of Philadelphia (Franklin Papers, 1749).

It is worth considering at this point the general appearance of the hospital both from a design and conceptual point of view. The building originally used was the home of John Kinsey, the recently deceased speaker of the Pennsylvania State Assembly. The first building opened in 1756 on Pine Street. It was a modern structure based on the Royal Infirmary in Edinburgh designed by Samuel Rhodes. The basement was for treatment for the mentally ill, was an aspect of the compassion of the Quakers; in most of the rest of the country and Europe, governments imprisoned the mentally ill poor as a threat. The first floor was for men, second for women, and the third was for quarantined patients and servants, with the operating theater on the top.²⁵⁴

The famous library (which by the 19th century, had nearly 9,000 books), is on the second floor. The ground grew many of the herbs listed in the *Medica Pharmacopeia* (sometimes pharmacopedia) (see Appendix B and Chapter 6). By the early 19th century, the garden grew Belladonna (Deadly Nightshade), Carnation, Catnip, Chamomile (Roman), Fennel, Flax, Forget-Me-Not, Garlic, Iris (Blue Flac), Lady's Mantle, Lavender, Lemon Balm, Marigold, Marjoram, Marsh Mallow, Parsley, Peppermint, Poppy, Rosemary, Sage, St. John's Wort, Strawberry, Sweet Violet, Thistle (Canadian), Thyme, Tobacco (Flowering), Valerian, Wild Ginger (Snake Root, Black Snake Root), and Wormwood for medical purposes among many others.²⁵⁵

Inside, the hospital looked much like a ward at many modern teaching hospitals. They included large rooms filled with assistants (generally partially trained nurses, mostly caretakers), doctors conducting rounds (as part of a medical rotation), and medical students learning. The hospital began to teach by 1763 (encouraged as a way to raise funds after the Crown's initial

²⁵⁴ Franklin, "Founders Online."; "Some Account of the Pennsylvania Hospital."; Franklin and Francis, "Constitutions of the Academy of Philadelphia."

²⁵⁵ Museum, "The Benjamin Rush Medicinal Plant Garden"; Freemon, *Gangrene and Glory*, 24, 70-75.

2000£ grant ran low. Plaster models of organs were in the library, medical records and medicines kept, and surgeries performed on the top floor (more on this in the next chapter). Preeminent doctors (starting with Bond) gave clinical lectures and performed experimental surgery and experimental treatments, including the first successful American lithotomy. The model was successful, and before long, similar hospitals sprang up in Baltimore, Providence, New Haven, Boston, and New York. However, by the mid-19th century, issues started to arise. As populations began to grow, there were shortages in trained professionals (as mentioned in the previous two chapters) and political strife began to split the county.²⁵⁶

5.2 Dorothea Dix and Asylums

When she returned to the United States from her time in England and the Asylum Reform Movement in 1841, Dorothea Dix began conducting inspections across her home state of Massachusetts on the treatment of the poor and insane. The confidence from her successes in England had encouraged her to bring the fight home. In most of the towns she investigated, the state/township placed any individuals that were mentally ill (without families, friends, or money to take care of them) in the care of citizens paid to take them in. The rest as mentioned above, were often imprisoned.²⁵⁷

However, the government had nearly no regulation and barely paid for these services. This led to several outrageous cases of mistreatment, widespread abuse, sexual assault, and forced labor. Dix published her results in a report to the State Legislature of Massachusetts. In

²⁵⁶ Thomas Bond, Correspondance, 06/07/1769 1769; Correspondance, 07/06/1771 1771; Correspondance, 1779/09/24/ 1779; Correspondance, 1780/04/27/ 1780; Franklin; Benjamin Franlin, Correspondance, 1780/03/16/ 1780.

²⁵⁷ Brown, *Dorothea Dix*, 51; Albert Deutsch, "Dorothea Lynde Dix: Apostle of the Insane," *The American Journal of Nursing* 36, no. 10 (1936): 987-97.

it, she states, "I proceed, Gentlemen, briefly to call your attention to the present state of Insane Persons confined within this Commonwealth, in cages, stalls, pens! Chained, naked, beaten with rods, and lashed into obedience." The fiery rhetoric led to a bill expanding the Worcester mental hospital.²⁵⁸

With her successes in Massachusetts, Dix turned her reform efforts toward New Jersey. A group of state commissioners issued a major report on the state of the mentally ill in New Jersey in 1839, which the legislature had mostly ignored. Knowing her successes nearby, New Jersey commissioners and advocates called on Dix to observe and attach her own observations to the report in order to add weight to support funds for a new mental hospital. She again documented hundreds of cases of mistreatment of the infirm. Additionally, she found a formerly wealthy and successful man who had become destitute after starting to slip in old age, and losing all funding with the death of his son. Dix tried to find the man shelter and protection and visited with him until he died. In her words, "This feeble and depressed old man, a pauper, helpless, lonely, and yet conscious of surrounding circumstances, and not now wholly oblivious of the past—this feeble old man, who was he?"²⁵⁹

With the impassioned plea set before the New Jersey legislature on January 23, 1845, Dix gathered support from state senator Joseph S. Dodd who became her strongest New Jersey advocate. Senator Dodd made a resolution calling for a joint committee to further investigate the treatment of the mentally insane. It carried both houses the next day. On February 25, Dodd presented the first report of the committee. He stated that Dix "presents the whole subject in so lucid a manner as to supersede the necessity of any remarks from us." The copious amounts of

²⁵⁸ Dorothea Dix, "'I Tell What I Have Seen'--the Reports of Asylum Reformer Dorothea Dix," *American Journal of Public Health* 96, no. 4 (2006): 622-24.

²⁵⁹ Tiffany, *Life of Dorothea Lynde Dix*, 111-13.

support seemed powerful but in fact represented a vocal minority. Fearing reprisal from increased taxes, enough state representatives and senators voted against the measure to stop it. An anonymous legislator stated that the plan was "An Egyptian Colosseum," and declared that a most popular act would be "to appropriate money sufficient to fill up the cellars and sow them over with grass seed, so that the spot may not be seen hereafter." This major setback frustrated Dix; she would rise before dawn writing letters to New Jersey state senators, representatives and powerful interests and editorials for major newspapers. In the evenings, she would hold salons and dinners to argue her points before powerful interests. A month later, the vote on the motion to table the bill failed and on March 25, the bill passed. In a letter to Mrs. Rathbone, she summarized her year: "I have traveled more than ten thousand miles in the last three years. Have visited eighteen State penitentiaries, three hundred county jails and houses of correction, more than five hundred almshouses and other institutions, besides hospitals and houses of refuge. I have been so happy as to promote and secure the establishment of six hospitals for the insane, several county poorhouses, and several jails on a reformed plan."²⁶⁰

5.2.1 National Celebrity and Failure

From New Jersey, Dix became an ambassador to the mentally ill. She traveled from New Jersey to New Hampshire, Illinois to Pennsylvania, Louisiana to North Carolina. All along the way, she established legislation to take care of the destitute and mentally ill or as she referred to them, the pauper lunatics. In 1846, she stopped in Illinois to study the mentally ill, leading to the funding of the first mental hospital in Illinois.²⁶¹

²⁶⁰ Hurd, *The Institutional Care of the Insane in the United States and Canada*, 59-61.

²⁶¹ Brown, *Dorothea Dix*, 40-51; Deutsch, "Dorothea Lynde Dix," 987-97.

In 1848, she visited North Carolina, and, for the first time, she observed slavery. Though converting to Channing Unitarianism later in life, Dix rejected even the subtle and restrained rejection of slavery by her mentors. Her abolitionist friends failed to convince her otherwise, even after traveling to the South and Caribbean. Such trips left her with a more positive view of the slaves and their conditions of servitude. The "negros are gay," she wrote, "obliging, and anything but miserable." Because of this blind spot in reform, she successfully progressed across the South as well, encouraging state asylum efforts and penal reforms. The orthodox acceptance to her gender role as a woman issuing moral judgement within her domestic sphere, historian Thomas Brown argues, made her more politically attractive to the Southern politicians of the time, which had an extreme distrust of feminism. Further, Dix's rejection of abolitionism gave her more of a national audience and allowed her to attract audiences in every state. Because of this, she was able to cross the crumbling bridge between North and South. With the help of the North Carolina State Medical Society, Dix successfully advocated for the opening of Raleigh's first mental institution in 1856, named in her honor. Additionally, in Pennsylvania, the first asylum, the Harrisburg State Hospital, opened with a library and reading room in 1853 and the state's first asylum. Today, it holds the Dix museum and papers.²⁶²

The pinnacle of her achievement was to be the Bill for the Benefit of the Indigent Insane, which she helped initially introduce to Congress on June 23, 1848 with a request for five million acres of land sold for the benefit of the insane. Swept up in a reform moment, Congressmen expanded the bill massively to 12,225,000 acres, with ten million going to benefit the insane and the remainder sold for "the benefit of the blind, deaf, and dumb" with the profit distributed to the states to build and maintain the asylums. This bill would have created not only a system of

²⁶² Brown, *Dorothea Dix*, 50-53.

asylums, but an entire federal system of care for the American people, paid for by the government. It would have become one the first nationalized medical services of its kind. However, while the bill passed Congress, President Franklin Pierce vetoed it. In his veto statement focused on the “constitutionality and propriety of the Federal Government assuming to enter into a novel and vast field of legislation. . . I cannot avoid the belief that it would in the end be prejudicial rather than beneficial in the noble offices of charity to have the charge of them transferred from the States to the Federal Government.”²⁶³

This objection is notable for several reasons. First, it is notable that Pierce was so afraid that Congress would override his veto, that he issued an eight-page signing statement. This was his first of nine vetoes (Congress would overturn five later and his first overridden veto was only the second in American history after John Tyler’s veto of an act “*Relating to revenue cutters and steamers*”). Second, despite the rhetoric looking like modern Libertarian thinking, the idea was much more traditional in the nineteenth century American Democratic party. This irony would be clearer in the Reconstruction era. Pierce’s statement, after a breakdown of the legislation, elucidate that Congress has the power to create such hospitals. However, he questioned why only the indigent insane? “It has the same power to provide hospitals and other local establishments for the care and cure of every species of human infirmity, and thus to assume all that duty of either public philanthropy, or public necessity to the dependent, the orphan, the sick, or the needy which is now discharged by the States. . . if not in the same degree, to idiocy, to physical disease, to extreme destitution.” After the War ended, Congress used federal funds to create a

²⁶³ Franklin Pierce, "Veto Message of the President of the United States, on the Indigent Insane Land Bill. Communicated to the Senate, May 3, 1854.," in *Library of Congress*, ed. Office of the President (Washington, DC: Library of Congress, 1854), 1-4.

public hospital system and prop up the most 'extremely destitute' among the newly emancipated freedmen. The Democrats in the South would oppose it.²⁶⁴

In the early nineteenth century, conventional wisdom was that most mental illnesses were moral sicknesses, with few in the medical community taking any action to correct that view. However, by the early-mid-part of the century, a movement to create asylums for the mentally ill started to appear. By 1851, in fact, it was possible to plead not guilty by reason of insanity (under the English Common Law System this was known as the M'Naghten [sometimes spelled McNaughton] rules of 1846, first accepted in the United States in 1851). In Europe, the field of psychology was starting to develop as well.²⁶⁵

For the most part, these movements were minor and small. However, by the end of the Civil War, unfamiliar problems started to develop. Tens of thousands of people developed a condition today we would call Post Traumatic Stress Disorder, or PTSD; damage is often hard to assess with the functioning body. President Pierce's veto statement killing the Indigent Insane Hospital System remained unchallenged, except for the Reconstruction hospitals, for 70 years, until Franklin Roosevelt provided mental health funding in the New Deal. The setback was so great to Dix, she left the country, returning to Great Britain to help the Rathbones investigate the madhouses in Scotland, carving the way for the Scottish Lunacy Commission.²⁶⁶

²⁶⁴ Downs, *Sick from Freedom*, 280; Pierce, "Veto Message on the Indigent Insane Land Bill," 1-8.

²⁶⁵ Hurd, *The Institutional Care of the Insane in the United States and Canada*, iv-vii, 5-11; Millard, *Destiny of the Republic*, 273-74.

²⁶⁶ Pierce, "Veto Message on the Indigent Insane Land Bill," 8; Brown, *Dorothea Dix*, 271-74; Humphreys, *Marrow of Tragedy*, 271-90; Matt, *Homesickness*, 75-102.

5.3 The Sanitary Commission

As mentioned in the previous chapter on nurses, the United States Sanitary Commission, and most of its rivals, had dual goals. The first, discussed at length in the previous chapter, was the role of nursing; the training and supplying of nurses to the Union army. The second was the supplying and generating of hospitals. Most of the fundraising and donations of the USSC went not to nurses, but to the hospitals that they created.²⁶⁷

The concern, however, that the USSC was not properly using the funds or donations was a serious threat to their good works. These are the kinds of issues that often come up, not unlike the issues addressed about Clara Barton's Red Cross and also occur for non-profits today. In an effort to quell this concern, the USSC of California published a pamphlet entitled *How and Where the Money Goes*, written as a published letter and response between prominent reformer Rev. Henry Ward Beecher and Bellows of the USSC. Rev. Beecher began with "My Dear Dr. Bellows: I think great good would be done by a brief statement of the mode of using money by the Sanitary Commission. There is great ignorance of its scope, details, and need of vast funds; and where is ignorance, there will be more or less fear and doubt whether such money as, in the imagination of the people, are rolling into its treasury from these national fairs, can be needed or well spent." From here, Bellows went into the seven ways the USSC spent money: collecting supplies, the Soldiers Home, the Hospital Directories, Hospital Inspections, Transportation of the

²⁶⁷ Henry Ward Beecher and H. W. Bellows, "How and Where the Money Goes: Important and Instructive Correspondence between the Rev. Henry Ward Beecher and the Rev. H. W. Bellows, D.D., President of the Commission.," in *New York Public Library, Manuscript Division*, ed. California Branch United States Sanitary Commission (San Francisco, CA: Frank and Eastman, 1864), 1-2.

Sick, Fresh Hospital Supplies, and Battle Field Services. He finished with a “recapitulation” and an inventory of supplies sent after the Battle of Gettysburg.²⁶⁸

The USSC collected the donations via their branches. In the first few years, they received huge quantities of sheets, pillowcases, comforters, blankets, shirts, drawers, socks, and more. As the war went on, such donations dried up as people had donated all of the finished goods they could. Thus, the USSC started to take donations of pieces of cloth, yarn, even raw cotton and wool and make “newly what they originally could take out of their closets and trunks.” Generally, five sixteenths of the costs went to the USSC for supplies and transportation. One sixteenth went to the USSC homes, lodges, maintenance, and the hospital directory (which I will return to) and the inspection of camps and hospitals. The remaining ten-sixteenths went to the supplies needed by the field hospitals. This totals in the previous three years “about *one million dollars, of which the Pacific Coast has given nearly three-quarters!*”²⁶⁹

The soldiers’ homes were a series of 25 lodges sprinkled throughout the country, from New Orleans to Washington. The USSC designed the soldiers’ homes to take care of homeless, wounded, and abandoned soldiers who had lost status during convalescence and were unable to get paid. They could house 2,300 such soldiers at a time, who would stay on average three days. Further, they set up agencies (called bureaus in documents) to help soldiers recover paperwork to assure pensions, back pay, and bounties.²⁷⁰

The Hospital Directories were on one hand the simplest, but some of the most important work that the USSC did. The Directory was an attempt to keep track of all the sick and wounded

²⁶⁸ Ibid., 1-3.

²⁶⁹ Ibid., 2-4.

Note: The document gave measurements in terms of sixteenths.

²⁷⁰ Ibid., 2-5.

men in the Union Army. Updated and corrected daily, it was a way for families to find missing members. At a cost of \$20,000, this incredible document tracked 600,000 names.²⁷¹

To establish standards for the medical care of all wounded and sick, the USSC employed sixty of the most skilled surgeons and physicians available to conduct hospital inspections. In teams of eight to ten for terms of six months at a time, they systematically inspected all the Union hospitals. In a report 4,000 pages long, they reported on the inspected 200,000 patients and 70,000 beds. The commission was to continue soon, but Bellows gave the rejoinder, “Dr. Newberry reports that the *best* hospital he has seen was at Bridgeport, near Chattanooga—a field hospital! What a pride and satisfaction to know that science and humanity are in the very front of our armies!” With the government’s limited ability to move the wounded away from the battlefield to more permanent convalescence or better medical treatment facilities, the USSC set up shipping transport of the sick to extract 8,000 soldiers from the Virginia peninsula during the Peninsula Campaign. Moving them “without jar” hundreds of miles.²⁷²

Due to the increased fighting in 1863-64 around the Washington, D.C. area, the hospitals and stores were incredibly low on supplies. The USSC supplied daily food shipments from its Philadelphia depots. The Battle-Field Service is what the USSC is best known for, of course. The field hospitals and makeshift-permanent hospitals set up nearby before the battles saved countless lives. To elucidate the scope of their abilities, the Battle of Gettysburg provides an excellent test case. The USSC personnel gathered supplies, placing stores and agents in Harrisburg, Pennsylvania and Frederick, Chambersburg, and Baltimore Maryland, to prepare for

²⁷¹ *Ibid.*, 3-5.

²⁷² Brockett and Vaughan, *Woman's Work in the Civil War: A Record of Heroism, Patriotism and Patience*, 301-15; Beecher and Bellows, "How and Where the Money Goes: Important and Instructive Correspondence between the Rev. Henry Ward Beecher and the Rev. H. W. Bellows, D.D., President of the Commission.," 4-5.

and provide for the wounded of General George Meade's army. There were over 15,000 wounded in only the four-square miles around the primary base of USSC's operations, far more than anticipated. "Every church, private house, barn, shed, was crammed with wounded men- additional to field hospitals (in tent.) whitening the hill sides, and drenching the soil in the blood of amputated limbs..." The government forces had been so ill prepared that the USSC and Christian Commissions supplied over half of the supplies needed. Bellows goes on to argue that while it is difficult to assure that the USSC did not misspend a single dollar, the money being there in advance saved roughly four fifths of the cost.²⁷³

Beecher ended with the inventory of thousands of dollars' worth of materials, foods, medical supplies, and the general supplies of care shared after Gettysburg. This includes thousands of pairs of underwear and socks, blankets, chamber pots (here called bed utensils), slippers, and crutches. The USSC included thousands of pounds of fresh meat, canned meat, vegetables, and fruits as well. Finally the commission listed the medical supplies for treatment of the ill and wounded, such as soaps, chloride of lime, plasters, and bandages.²⁷⁴

Similarly, the conditions were so poor and overwhelming across the Confederacy that civilians formed groups to deal with the same issues of short supplies that plagued the Union Army. Though never as organized or substantial as the Sanitary Commissions or the women's auxiliaries, groups like the Ladies' Soldiers' Relief Society in Macon, GA., attempted to raise funds, gather supplies, and aid the soldiers. They convinced a group of ten citizens to buy the

²⁷³ "How and Where the Money Goes: Important and Instructive Correspondence between the Rev. Henry Ward Beecher and the Rev. H. W. Bellows, D.D., President of the Commission.," 5-6.

There will be a summary of their works of Gettysburg at the end of the section, but the entire inventory is in Appendix C.

²⁷⁴ *Ibid.*, 1-8.

Old Macon Hotel and they converted it into one of the wayside hospitals. By the end of the War, their estimate had over 6,000 visitors to the hospital.²⁷⁵

By May of 1863, the Confederate government began to worry about the quality of care given to the men in the hospitals. In response, they issued General Order No. 69, which allowed for the creation of boards of examiners to meet twice weekly, examine hospitals and patients, in an effort to get soldiers well enough to return to the fronts. The examiners assumed doctors gave proper care, but the government assigned examiners to furlough men who were not fighting. Despite this and other such efforts, the Confederacy did not keep dependable lists, like those prepared by the USSC. Later historians in the Lost Cause furor blamed this on the burning of cities like Richmond and Atlanta, burned down by the retreating Confederate armies of Robert E. Lee and John Bell Hood, respectively. However, in reality, there does not appear to be the same adherence to paperwork, duplication, or coordination as the Union. While there seemed to be notable exceptions, like Samuel Hollingsworth Stout, Confederate paperwork is hard to come by. This lack of adherence to paperwork would eternally frustrate Samuel Stout.²⁷⁶

5.4 Battlefield Hospitals

Though we have discussed several firsthand accounts of the horrors of the battlefield, it is worth noting the conditions on the ground. Clara Barton, who not only sacrificed her time for these men, nearly died on the battlefield herself. By 1862, she was so shocked at the carnage and treatment of the soldiers; she redoubled her efforts.

²⁷⁵ Gay, *The Medical Profession in Georgia, 1733-1983*, 240-42.

²⁷⁶ *Ibid.*, 241-43.

It is amazing to me how often the historical narrative blames the Union Army for starting these fires.

I went to 1st division 9th corps hospital, found 8 officers of the 57 lying on the floor with a blanket under them; none even had had some rations once all day. About 200 left of the regiment...I saw no straw in any hospital and no mattresses, and its men lay so thick that gangrene was setting in and in nearly every hospital there has been set apart an erysipelas ward.²⁷⁷

After removal from such battle zones, the suffering rarely improved. Unless the USSC could get transportation to battle, the army would leave the severely wounded. As Barton observed after the Battle of Fredericksburg:

There is not room in the city to receive the wounded and those that arrived in yesterday mostly were left lying in the wagons all night at the mercy of the drivers, it rained very hard - many died in the wagons and then (enforcers?), where they had sufficient strength had raised up and threw them to the street. I saw them lying there in the early morning. They had been wounded two and three days previous. And after all this lay still another night - without care or food or shelter, many doubtless famished after arriving in Fredericksburg - The city is full of houses - and this morning broad parlors were thrown open and displayed to the view of the rebel occupants the bodies of the dead Union soldiers lying beside the wagons in which they perished.²⁷⁸

Battlefield hospitals, before the reforms was the place where most care took place on the Union side, and later the Confederate side. To improve conditions in battlefield hospitals and increase rates of survival among troops, the Union made several crucial leaps forward, including

²⁷⁷ Barton, "Clara Barton Papers: Diaries and Journals: 1862, Dec.," 2.

Erysipelas is a skin infection that thrives in filth, infecting open wounds.

²⁷⁸ Ibid., 3.

triage and ambulances. Led by Major John Letterman, these efforts became known as the Letterman Reforms.²⁷⁹

5.5 John Letterman and Triage and Ambulances

Major Jonathan K. Letterman was born the son of a famous surgeon in 1824 in Canonsburg, PA.²⁸⁰ He entered the family specialty of medicine along with his younger brother, William H. Letterman, studying at Jefferson College (now Washington and Jefferson College) in 1845 and Jefferson Medical College (now Thomas Jefferson University) in 1849; with his brother graduating in 1856 after founding the Phi Kappa Psi fraternity. Jonathan signed up with the military after graduating and the army granted him the rank of assistant surgeon.²⁸¹

After joining the military, Letterman served in Florida during the Seminole Wars until 1853, when he was transferred first to Ft. Ripley, Minnesota and then to Ft. Defiance, Minnesota to serve in the Apache Wars before transferring to Ft. Monroe, Virginia and finally to California from 1860-61 to fight the Utes until the army again called him away.²⁸²

When the Civil War erupted in 1861, the War Department assigned Letterman to the Army of the Potomac and his success earned him the praise of General George McClellan named him the Medical Director of the Department of West Virginia in May 1862. Within a month, the Surgeon General appointed Letterman the rank of Major. Seeing Letterman's great skill,

²⁷⁹ Freemon, *Gangrene and Glory*, 24, 70-75.

²⁸⁰ There is a footnote here because the middle initial K is somewhat of a mystery. In letters and biographies, he is simply Jonathan Letterman, but his tombstone in Arlington National Cemetery lists K as the middle initial; perhaps he earned a middle initial, posthumously, for his service.

²⁸¹ Rutkow, *Bleeding Blue and Gray*, 416; Adams, *Doctors in Blue*, 253; Clements, *Memoir of Jonathan Letterman*, 1-38, 60.

²⁸² *Memoir of Jonathan Letterman*, 60; Rutkow, *Bleeding Blue and Gray*, 415-17; Adams, *Doctors in Blue*, 252-54.

coupled with his own paranoia about losing even a single soldier(much to his own detriment) George McClellan granted Letterman a charter to do whatever he saw fit to improve the medical system in his army. After suffering immense casualties at the Battle of Seven Days in June and the Battle of Antietam in September, Letterman announced a new military system of forward aids.²⁸³

Before the new forward aids system came into play, the injured suffered greatly. A soldier on the battlefield who received a non-fatal shot or was struck with shrapnel, first had to look for a medic. During the Civil War, the military called these men dressers; they would dress mild wounds, cuts, abrasions, gashes, etc. and those more seriously injured would have to walk to a hospital, possibly several miles away. The dressers would run around the battlefield from trench to trench attempting to get to the wounded. Other soldiers might try to pull the wounded from the no-mans-land in between trenches, but often this was the job for the dressers. Generally, only basically trained, the dressers would try to stabilize any wounded soldier until they could get to a field hospital.²⁸⁴

The Letterman reforms came in two parts. The first was to establish a method of getting the wounded off of the battlefields; for this, Letterman developed the ambulance. As an idea, the ambulance was a fairly new innovation that came into use in the early 19th century in Europe during the Crimean War in the 1850s. The ambulance, as Letterman saw it, was a covered wagon with medical supplies that would carry wounded men off the battlefield. The supplies it carried varied greatly and were classified into two general groups; the medical and the morale.

²⁸³ Jonathan Letterman, *Medical Recollections of the Army of the Potomac* (New York, NY: D. Appleton and Co., 1866), microform, 194.

²⁸⁴ Devine, *Learning from the Wounded*, 1-13; Rutkow, *Bleeding Blue and Gray*; Humphreys, *Marrow of Tragedy*, 1-4.

The morale 'medication' often entailed the enhanced rations missed by soldiers. All controlled by Letterman, doctors believed these food products were not only preventative medicine, but also curative. In his diaries, Surgeon Spencer Welsh describes Letterman's ambulances as almost a spice house:

“Surg. Jonathan Letterman continued his organization of the medical support facilities for the Army of the Potomac by issuing a circular containing the *Supply Table for the Medical Department of the Army of the Potomac*. This circular, very detailed as to the content of each of the ambulances and medical supply wagons, contained some very interesting concepts. The allowance for a brigade for one month for active field service was one medicine wagon, filled; one medicine chest for each regiment, filled; one hospital knapsack for each regimental medical officer, filled; and a list of supplies to be carried in an ordinary army wagon. The list of supplies was very detailed, allocating medicines by the ounce, pound, or bottle. Hospital stores included canned beef stock (48lbs) to be carried in the army wagon, candles, farina, nutmeg, sugar, tea, and dried milk, a large assortment of instruments and dressing was included. In addition to those articles described in the tabular listing, a box would be carried under each ambulance seat to contain such articles as bed sacks (3), beef stock in 2lb cans (6), leather bucket (1), hard tack (10lbs), camp kettles (3), lanterns and candles (3), tin plates (6), table spoons (6), and tin tumblers (6). This box could only be opened by an appropriate medical officer during battle or during emergencies.²⁸⁵

²⁸⁵ Robert E. Denney, *Civil War Medicine: Care & Comfort of the Wounded* (New York, NY: Sterling Publishing, 1994), 227.

The other development, perhaps even more important, was the development of the first military medical triage system. By evaluating soldiers' injuries and determining whether a soldier could receive medical care by the ambulance corps and continue fighting, or should be taken to a field hospital for immediate/urgent care, or into an in-town hospital for more permanent and long-term care, countless lives were saved.²⁸⁶

The Letterman system became the basis for the military system of triage as it stands today. He advocated for specialized doctors to take care of special injuries. He updated diet and rations as a form of preventative medicine. Letterman also reorganized the supply line, assuring that the armies and hospitals switched out and refreshed medical supplies. They were all in contact with the ambulance corps and coordinated with the quartermaster department. His plans were so successful that Congress enacted the "Procedure for Intake and Treatment of Battlefield Casualties for the Entirety of the United States' Armies" in March of 1864 to expand the system throughout the military. George Wunderlich, executive director of the National Museum of Civil War Medicine in Frederick, Maryland, describes the weight of the improvement. "In July 1861, after the First Battle of Bull Run, with about 5,000 soldiers dead or wounded, it took almost a week to remove the Union and Confederate casualties from the Battlefield. In July 1863, after Gettysburg, virtually all of the 14,000 Union wounded were off the bloody grounds by July 4th, the morning after the fighting had stopped."²⁸⁷

The first major test for the Letterman triage system was during Gettysburg. With a massive military encampment called Camp Letterman, set up near the York Pike on George

²⁸⁶ Humphreys, *Marrow of Tragedy*, 294.

²⁸⁷ Ron Givens, "Father of Emergency Medicine: Jonathan Letterman's Civil War Innovations Revolutionized Military and Civilian Trauma Care," *The Journal of American History* (2009): 17; Howard D. Kramer, "Effect of the Civil War on the Public Health Movement," *The Mississippi Valley Historical Review* 35, no. 3 (1948): 449-62.

Wolf's farm and the USSC camps in Harrisburg, Pennsylvania, Frederick, Maryland, and Chambersburg, Pennsylvania, and at Baltimore, Maryland to send supplies. In the official report on Gettysburg, October 3, 1863, Brig. Gen. S. Williams, A.A.G., Army of the Potomac, stated "Surgeon John McNulty, medical director of that corps, reported that 'it is with extreme satisfaction that I can assure you that it enabled me to remove the wounded from the field, shelter, feed them, and dress their wounds within six hours after the battle ended, and to have every capital operation performed within twenty-four hours after the injury was received.' I can, I think, safely say that such would have been the result in other corps had the same facilities been allowed—a result not to have been surpassed, if equaled, in any battle of magnitude that has ever taken place."²⁸⁸

5.5.1 The Hospital Transport Service

When McClellan moved the Army of the Potomac from the high lands to the marshlands 'and miasmatic' region of the Peninsula in spring and summer 1862, the USSC developed what its leaders called the "Hospital Transport Service." Challenges included marshy conditions, aggressive fighting, and the need to extract a considerable number of ill and wounded. Olmstead, acting as Secretary of the Commission, applied to the Quartermaster General to allow the Commission to aid in the transportation of the wounded. In the past, the army had allowed them the use of steam ships to supply hospitals; however, this time they would be for a more complex purpose.²⁸⁹

²⁸⁸ George Breckinridge Davis, Henry Martin Lazelle, and Robert Nicholson Scott, "The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies," ed. United States War Department, Official Records of the Union and Confederate Armies (Washington, DC: Government Printing Office, 1889; reprint, Serial 120), 197.

²⁸⁹ Brockett and Vaughan, *Woman's Work in the Civil War: A Record of Heroism, Patriotism and Patience*, 301-08.

The USSC converted the ships into floating ambulances, furnishing them as though they were hospitals. They were able to work as a ward and even offer surgery. However, the military was slow and frustrating. As USSC nurses L. P. Brockett and Mary Vaughn recalled, “after tedious delays and disappointments of various kinds—one fine large boat having been assigned, partially furnished by the Commission, and then withdrawn—an order was at length received, authorizing the Commission to take possession of any of the Government transports, not in actual use, which might at that time be lying at Alexandria.” This would become the Hospital Transport Ship the “Daniel Webster,” assigned April 25, 1862. Ultimately, the "Ocean Queen," the " S. R. Spaulding," the "Elm City," the "Daniel · Webster No. 2," the "Knickerbocker," the clipper ships “Euterpe” and “St. Mark,” and would become part of the flotilla and the Commission chartered the "'Wilson Small," and the "Elizabeth," two small steamers, as tender and supply boats.²⁹⁰

On the hospital transports, the USSC assigned several women to act as nurses, checking diets, assisting in the dressing of wounds, and general medical care of the soldiers. Further, Olmstead and his assistant, Frederick N. Knapp, selected four women in the upper echelons of the USSC to be their coordinators on the ground and to assure the transports were a success. The journeys were difficult and dangerous. Though the floating hospital ships and transports, under the rules of war, were not supposed to be targets, the active war zone made them targets, even if unintentionally. The USSC placed women in charge of the ships (from a care and coordination perspective) and they were in constant peril. The USSC remembered them, their tenderness and

²⁹⁰ Ibid., 306-10.

gentleness [that] comforted and cheered the poor sufferers, and often by their skillful nursing rescued them from the jaws of death.²⁹¹”

One such transport on the Daniel Webster on April 30th went poorly, but illustrates the issues at hand. After reaching the York River, the women aboard discharged all supplies except the minimum needed to reach New York (to take as many men as possible). After moving the supplies to a store-house on the shore, they began to take on the wounded, changing their clothes, feeding them, washing their wounds, and putting them in clean beds. Soon after the Ocean Queen arrived, the nurses began to fill it, but it had no bunks or stores aboard, but before these preparations were made, the regimental and brigade surgeons on shore started sending their sick and wounded to the relief ship, despite arguments from the staff aboard. To feed the men, therefore, it became necessary to steal supplies. One group “found a rebel cow at pasture, shot her, skinned her with his pocket-knife, and brought off the beef.” Others stole Indian Meal to become gruel for those suffering typhoid fever. Another group found two draught oxen,

²⁹¹ Ibid., 308-12.

These women were Miss Katherine P. Wormeley, of Newport, RI, Mrs. William P. Griffin, of New York, one of the executive board of the Woman's Central Association of Relief, Mrs. Eliza W. Howland, wife of Colonel (afterward General) Joseph Howland, and her sister, Miss Georgiana Woolsey, both of New York. They “were Mrs. George T. Strong, the wife of the Treasurer of the Commission, who made four or five trips; Miss Harriet Douglas Whetten, who served throughout the Peninsular Campaign as head of the Women's Department on the S. R. Spaulding; Mrs. Laura Trotter, (now Mrs. Charles Parker) of Boston, who occupied a similar position on the Daniel Webster; Mrs. Bailey, at the head of the Women's Department on the Elm City; Mrs. Charlotte Bradford, a Massachusetts lady who made several trips on the Elm City and Knickerbocker; Miss Amy M. Bradley, whose faithful services are elsewhere recorded; Mrs. Annie Etheridge, of the Fifth Michigan, Miss Bradley's faithful and zealous co-worker; Miss Helen L. Gilson, who here as well as everywhere else proved herself one of the most eminently useful women in the service; Miss M. Gardiner, who was on several of the steamers; Mrs. Balustier, of New York, one of the most faithful and self-sacrificing of the ladies of the Hospital Transport service; Mrs. Mary Morris Husband, of Philadelphia, who made four voyages, and whose valuable services are elsewhere recited; Mrs. Bellows, the wife of the President of the Commission, who made one voyage; Mrs. Mer-ritt, and several other ladies.”

slaughtered them and provided over 900 with meat allowing the anchors to be weighed and taken out to sea. The difficulties found therein were the general state of things, “a day of comparative rest was the exception.” The seas were choppy and the travels difficult, but these transports saved many men from the battlefield to the hospitals near Fortress Monroe.²⁹²

5.6 Confederate Hospitals

The intensity and necessity of war accelerated the development of knowledge and skill among doctors and surgeons. As they honed their own skills on the battlefield, they advanced the field and study of surgery as a whole. However, despite these improvements, the surgeons were at a constant disadvantage. Supplies were often short, including the essential elements of anesthetic and sanitation agents, which were not known at the time for antibiotic properties, but instead were generally known as curatives. Further, the soldiers were not in an ideal condition for operating on. Doctors forced patients with cases deemed not as urgent to stand outside medical tents, sometimes for days at a time. Surgeons were no better off; they were on their feet for days at a time after a major battle. Hands would blister and become weak. Many surgeons performed operations despite having little experience with anesthetic, which was fairly new to surgery.²⁹³

As the hospitals became overcrowded and dirty, flies and maggots began to infest wounded soldiers. Despite the doctors’ attempts to remove the problem, the maggots and flies continued to swarm. In an unintentional blessing, the maggots began hatching and eating the wounded diseased flesh. This actually added in the recovery; the maggots ate away rotten flesh, preventing gangrene, and even saving limbs in some cases. However, most available treatments

²⁹² Ibid., 301-03, 10-13, 15.

²⁹³ Gay, *The Medical Profession in Georgia, 1733-1983*, 244.

proved more problematic than curative. For example, short on carbolic acid, one doctor named Louis A. Dugas, in charge treating the wounded in Augusta in hospitals set up in Richmond Academy, the First Presbyterian Church, and the original St. Patrick's Church, would mix near boiling water with a gill of pine tar and attempt to seal wounds with make-shift glue/disinfectant.²⁹⁴

As the war lingered on, the military set up more permanent hospitals. For the Union, this meant transferring wounded and ill soldiers who were in stable condition to occupied Southern cities or to nearby Union towns, depending on the theater of war. The Confederate government established a system of 'wayside hospitals' along the major rail lines, converting the small towns and villages along the railroads into hospital towns. Having been drained of men and supplies by the Confederate government, the 'wayside hospitals' were operated by the few elderly doctors (too old or ill to serve) and the remaining women and children in town.²⁹⁵

Due to the constantly shifting population and poor supply and quality of shelter and care, hospitals became disease ridden and subject to outbreaks of horrible illness. Communicable diseases like pneumonia, cholera, typhoid, dysentery, influenza, syphilis, gonorrhea, and diarrhea spread rapidly among the transient wounded left by armies and it spread through towns. Along with them, they would bring disease vectors like malaria spreading mosquitos, lice spreading Erysipelas, epidemic typhus, trench fever, pruritus, "vagabond's disease," and epidemic relapsing fever, and rats and mice spreading Hantavirus, Hemorrhagic Fever, meningitis, Plague,

²⁹⁴ Ibid., 245; Paul Gabrielsen, "How Maggots Heal Wounds " *Science*, Dec. 6, 2012 2012.

²⁹⁵ Butler, *Historical Record of Macon and Central Georgia*, 351; Duffy, *Healers*, 261-64, 302; Gay, *The Medical Profession in Georgia, 1733-1983*, 244-46.

and Rat-Bite Fever. This, coupled with the general conditions of rheumatism, scurvy, and nerve pain, left these hospitals and towns decimated.²⁹⁶

To minimize this effect, the Confederate government issued an order to open a major hospital along the railroad to accommodate the increasing wounded. Due to the structure of the railroads, Atlanta became the natural place to build such a hospital. On February 21, 1862, under the watch of first Lewis Pim followed by Samuel Stout, Georgia's "Gate City" would become the central medical hub of the South with the opening of Fairground Hospital, which the army ordered built two blocks from Oakland Cemetery, off of Fair Street.²⁹⁷

By summer, before the opening of the 500-bed hospital, the wounded started to arrive in droves, staying in wayside and temporary hospitals at many locations including "African Church, Alexander's Hospital, Atlanta Medical College,²⁹⁸ ... and D. O. C. Heery's Hospital." Several of these were already in the area, Daniel Octavius Council Heery (called Doc) was a graduate of Savannah Medical College and had opened a hospital in a building that would become part of the Fairgrounds Hospital. He had become president of the Atlanta Medical Society in 1861 and helped to lead the building effort along with Surgeon Joseph Logan (after appointment by the Secretary of War August 14th, 1862), Surgeon Harry Brown who took over Doc's hospital after

²⁹⁶ Butler, *Historical Record of Macon and Central Georgia*, 351; Duffy, *Healers*, 261-64, 302; Gay, *The Medical Profession in Georgia, 1733-1983*, 240-46.

²⁹⁷ Jack D. Welsh, *Two Confederate Hospitals and Their Patients: Atlanta to Opelika*, 1st ed. (Macon, GA: Mercer University Press, 2005), 1-5.

In today's Atlanta, Fair Street is Memorial Drive, placing the Hospital near the corner of Memorial and Hill St., going back to Logan St.

²⁹⁸ This has since become Emory University Medical School.

orders on August 12th, and Surgeon Willis Westmoreland took over the Medical College Hospital and African Church Hospital by December 9, 1862.²⁹⁹

5.7 Confederate Hospital Officers

The Surgeon General dictated the general structure of the Confederate hospitals as he did with the medical corps itself. The Confederate States Army organized it. In an early document, Surgeon General S. P. Moore laid out the basic structures. The staff should include one medical officer per seventy patients; at first this was ideally surgeons and assistant surgeons, but by 1863, a considerable number were medical officers and drafted private physicians. Moore included further regulations concerning the staff. If the hospital was of substantial size, of fourteen patients or higher, the (Senior) Surgeon in Charge would assign a surgeon or assistant surgeon the role of Officer of the Day, who would be the Sanitary Officer as well.³⁰⁰ His job was the daily basic operations of the hospital as well as assuring the cleanliness of the facilities. These included inspecting the hospital and grounds, ensuring discipline, assuring proper diets, checking conditions of the kitchen and assuring there were “sufficiency of utensils and cleanliness and to be present at meal times.” He would check the preparation of the food, schedule the staff to assure proper rest and exercise. “He would examine thoroughly the condition of the hospital as to drainage, removal of offal, water closets, latrines, supply of water, lights, fuel, dry scrubbing of floors, sweeping of premises ventilation and general cleanliness of the patients, bedding and of

²⁹⁹ Welsh, *Two Confederate Hospitals and Their Patients: Atlanta to Opelika*, 1-5; Gay, *The Medical Profession in Georgia, 1733-1983*, 246-47.

³⁰⁰ Smaller hospitals closer to the 140-patient limit would often only have an officer at the rank of Surgeon.

the hospital in general.” He would fill in when a member of his staff was sick. He made reports to the efficacy of all the above, even reporting on poor care.³⁰¹

This made the hospitals run more like a military unit, with the senior officer establishing the strategy and what we now more commonly refer to as Human Resources such as this dictum: “Suitable hours for retiring in winter and in summer would be fixed by the surgeon in charge after which no conversation in the wards would be permitted.” Lower officers acting as a ‘drill sergeants.’³⁰²

Further, depending on the hospital (where individual positions could have minor changes, though this range would lessen under Stout), the Officer of the Day might have additional responsibilities. For example, while the Senior Surgeon could assume the Officer of the Day would carry out these duties at any hospital, regulations specified at Fairgrounds No. 2 that the Officer of the Day would remain at the hospital all day and night and provide duties for any patient whose medical attendant was temporarily absent. He was to report all attendants who were missing when they were not allowed to be. Officer of the Day was also, largely with the Surgeon in Charge, responsible for the staff. “Should Wardmasters or Nurses fail in the respective duties towards those under their care, either by neglect, abuse, improper language or

³⁰¹ Samuel Preston Moore, "Regulations of Fairgrounds Hospital, No. 2," ed. Surgeon General's Office (Richmond, VA: Confederate States Army, 1863); Welsh, *Two Confederate Hospitals and Their Patients: Atlanta to Opelika*, 1-5; Samuel Preston Moore, "Circular No. --," ed. Surgeon General's Office (Richmond, VA: Confederate States Army, 1863).

See Appendix E.

³⁰² "Regulations of Fairgrounds Hospital, No. 2."; Welsh, *Two Confederate Hospitals and Their Patients: Atlanta to Opelika*, 1-5; Moore, "Circular No. --."

See Appendix E.

capricious conduct, the latter will report the delinquent to the Medical Officer in charge of the Ward, who will correct the evil.³⁰³”

There were other official positions as well, including stewards, assistants, ward matrons, acting dispensers of medicines, matrons, attendants, cooks (and, not unlike Occupational Safety and Health Administration requirements today, regulations required posting their duties and expectations in the wards). The chiefs and matrons of each section in particular were crucial and well defined. The Chief Matron of the Laundry Department was in charge of medical garments of both patients and staff, as well as all hospital equipment within the hospital. Allowed, one assistant, she was in charge of the staff that mended, washed, and ironed all of the clothing and bedding of the hospital. She was also to oversee the Ward Masters³⁰⁴ and the matrons to make sure they were properly changing the sheets and that the Bath House was clean and orderly and that only patients prescribed baths (warm or cold) were using it.³⁰⁵

The Chief Matron of the Special Diet Kitchen oversaw food delivery and service, as prescribed by the Steward (the hospital’s Quartermaster). The various diets prescribed by the attending medical officer (and described in detail in chapter six and shown verbatim in Appendix F) and matrons served at the assigned time of breakfast at 6 am, dinner at 12 m (noon), supper at 5pm from April to October and breakfast at 7 am, dinner at 12 m (noon), supper at 4 pm from October to April. Similarly, she is in charge of a staff, supplies and equipment granted to her

³⁰³ "Circular No. --."; "Regulations of Fairgrounds Hospital, No. 2."; Thomas H. Fisher, "Hospital Regulations General Hospital No. 3," ed. Confederate States Army (Lynchburg, TN: Confederate States Army, 1863).

³⁰⁴ In current hospitals, ‘charge nurses’ generally fill the role of Ward Masters.

³⁰⁵ Surgeon in Charge, "Duties of the Chief Matron of the Laundry Department," ed. Confederate States Army (Macon, GA: Burke, Boykin & Company Printers, 1862). See Appendix D.

and the food requested; however, she has power over surgeons in cases where they requested patients to have Special Diets for more than one day.³⁰⁶

The Ward Masters of the Baggage Room, which was the only of these positions specified to be held by a male, took charge of patients' possessions kept track of all their personal effects, clothing, and supplies. He was charged with having their clothing washed. He was to put the patients' items in a box and give the patient a receipt. Patients could not claim anything without the receipt. "He will on the admission of a patient take charge of his effects, register them in his book, (Form 9, Medical Regulations,) have them neatly and compactly arranged in one package, and see that it is at once placed in the proper receptacle, and numbered and labelled, with the patient's name, rank, regiment and company." When patients died, launderers would wash their clothing, inventory them, and send them to the Quarter Master (no mention of non-clothing items). Finally, the Ward Master of the Baggage Room was in charge of the Reading Room and held responsible for any book that was damaged or destroyed.³⁰⁷

³⁰⁶ "Duties of the Chief Matron of Special Diet Kitchen," ed. Confederate States Army (Macon, GA: Burke, Boykin & Company Printers, 1862). See Appendix D.

The term lunch, from luncheon, existed by this point, but was generally seen as casual or vulgar. Catherine Soanes and Angus Stevenson, "Lunch," in *Concise Oxford English Dictionary* (Oxford; New York, NY: Oxford University Press, 2009). Dinner has always meant the larger, bigger meal; which the wealth traditionally served, and often still in Europe, in the middle of the day. However, modern professional and "fashionable" classes, prefer the meal after the work day. "Dinner," in *Concise Oxford English Dictionary* (Oxford; New York, NY: Oxford University Press, 2009). While supper is the last meal of the day (which is where the Christian context of the Last Supper comes from). Generally, this is a smaller meal; often a soup from where the term shares an Old French/Anglo-Norman root. "Soup," in *Concise Oxford English Dictionary* (Oxford; New York, NY: Oxford University Press, 2009); "Supper," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009).

In older time parlance, there was ante meridiem (A. M.) and post meridiem (P. M.), with merely (12 M) meridiem for noon.

³⁰⁷ Surgeon in Charge, "Duties of the Ward Master of the Baggage Room," ed. Confederate States Army (Macon, GA: Burke, Boykin & Company Printers, 1862); Moore, "Regulations of Fairgrounds Hospital, No. 2.," Charge, "Duties of the Chief Matron of the Laundry Department."

5.7.1 *Confederate Hospital Patients*

Upon arriving, the hospital patients “will be careful to give their full names, company and regiment to the Wardmaster correctly, in order that they may receive their letters promptly-that their friends may be enabled to-find them without difficulty, and that the Hospital records may not be embarrassed.” Nurses, if needed, would bathe them and patients would receive hospital garments, while the laundry staff cleaned and stored their personal clothes, they were given a receipt for their clothes and instructed to keep it. There was a roll call at sunrise and sunset and officers ordered lights out at 8:30 pm from October to April, and 9:30 pm, from April to October; after one hour there was to be silence.³⁰⁸ The surgeons would conduct rounds at 8 am and 4 pm at which point all patients were required to be in their beds. Had the patients any business with the surgeons, they were to meet them in office hours from 8 am to 12 pm. and from 3 pm to 5:30 pm. The Senior Surgeon assigned a medical officer for policing duty; they would check on patients too ill for morning roll call and those patients were checked more regularly. Those in better health are subject to the surgeon in charge for “any light duty he may consider them able to perform.” No patient was to be absent after dark.³⁰⁹

The army expected patients to live up to a strict code of conduct. It banned smoking, gambling, drinking, profane language, trespassing, spitting on floors or outside from windows and porches, cooking in the wards, and “using other places than the sinks for their appropriate purpose.” Regulations banned patients from bringing into the hospital unripe fruits or “eatables of an injurious nature.” Staff could charge patients with defacing or injuring any hospital

³⁰⁸ At General Hospital No. 3, “Every patient must retire by nine o’clock, p. m. in winter and by ten, p. m. in summer; after which, all conversation must cease, in order that those who desire to sleep may not be disturbed”

³⁰⁹ Fisher, "Hospital Regulations General Hospital No. 3."; Moore, "Regulations of Fairgrounds Hospital, No. 2." See Appendix E.

property. Under the circulars, the Officer of the Day brought any violation of these rules to the Hospital Guards. "Patients forcing a Hospital Guard, or willfully infringing the Hospital Regulations, will subject themselves to unpleasant consequences."³¹⁰

5.7.2 *The Confederate Hospital*

To keep the hospital clean and fresh (in compliance with miasmatic and sanitation theories of the time), staff whitewashed the walls two or three times a year, and the staff was to refill the bed sacks (mattresses were filled with straw or other such cheap filler) monthly. The laundry staff aired bedding frequently, with three sets of sheets (two in back up, though this will be cut to one by 1862). When possible, the official hospital design required 800 cubic feet. Staff only washed hospital floors with water when directed by a surgeon; as such resources were precious; they staff scrubbed floors with sand.³¹¹

Like modern hospitals, the army quartermasters required surgeons and nurses to closely track medicines closely along with the foods for the wounded and sick. The hospital assigned each patient a receptacle for the medications prescribed, labeled with doses "periods for administration and name of the patient for whom it was intended." In each ward was a register of the patients (for roll call) along with their diet from the diet table (see chapter 6 and appendix F). Hospitals adorned their walls with the various Confederate and hospital specific rules, along with

³¹⁰ "Regulations of Fairgrounds Hospital, No. 2," 1; Fisher, "Hospital Regulations General Hospital No. 3." See Appendix E.

"Profane language included, "Profanity must be studiously avoided and abusive language or insulting epithets, from one to another, is especially forbidden."

³¹¹ Moore, "Circular No. --."

diets, and timetables were posted everywhere throughout the ward, for staff, patients, and guests to see.³¹²

As mentioned above, regulations forbade the attendants and patients from leaving without a pass signed by the surgeon in charge who laid out specific times and dates and a limit of three hours set (except in extreme cases). However, this soon became unfeasible by the size of the hospital. By 1863, Fairgrounds Hospital gave the pass control to the Wardmasters and Clerk of the Hospital, limited only by daily amounts assigned by the surgeon in charge. As long as, "No pass will be given until after the morning visit of the Medical Officer, and for no later hour than four o'clock, P. M.; after that hour, they will, in special cases, be given by the Surgeon in charge. No passes will be given to patients on the day preceding the one they return to duty." Similarly, the regulations forbade patients to visit other wards without passes or permission either and rules similarly limited visitors. They were "not permitted to eat or lodge in this hospital, nor to furnish the sick with food or drink without the permission of the Medical officers in charge of the ward."³¹³

5.8 Union Hospitals

For the Union army, eventually, there was a much more complex and coordinated system. As mentioned above in the section on ambulances, the care by 1863 started on the fields of the

³¹² "Form No. 1: Diet Table for Military Hospitals -- Articles Composing the Different Diets for a Day--Averdupois Weight.," ed. Confederate States Army (1862); Confederate States of America. Army Medical Department. and Confederate States of America Collection (Library of Congress), *Regulations for the Medical Department of the Confederate States Army* (Richmond, VA: Ritchie & Dunnavant, 1863); Department, "Regulations for the Medical Department of the Confederate States Army.;" Fisher, "Hospital Regulations General Hospital No. 3.;" Moore, "Regulations of Fairgrounds Hospital, No. 2."

³¹³ Fisher, "Hospital Regulations General Hospital No. 3.;" Moore, "Regulations of Fairgrounds Hospital, No. 2.;" "Circular No. --.;" Welsh, *Two Confederate Hospitals and Their Patients: Atlanta to Opelika*, 10-36.

‘bloodied ground.’ Ambulances and their medical team would assess a soldier’s wounds and transport him, most likely first to a field hospital. From there, depending on the requirements and level of injury, transport took the patient to the general hospitals. While the surgeons and medical officers staffed a given unit or post-controlled field hospital staff and operations, the army staffed general hospitals and took patients from the army regardless of unit. While in the first year of the war these were mostly improvised and recovered buildings (the army left other hospitals alone as to not disrupt the medical care already given; the goal was to expand the need). The army claimed both government and private businesses not used for the war effort and converted them into hospitals. In Washington D.C., for example, the army claimed jails, hotels, churches, warehouses, and a girl’s school; in Philadelphia it included railroad stations, sawmills, and a coach factory. At first, they were almost exclusively poorly equipped facilities; some even lacked bedding, dressings, and were generally terribly managed, even letting expensive and valuable medicine go to waste. It was bad enough that the wounded would go to the private hospitals and send their bills to the war department. These failures of mobilization are some of the reasons that the army accepted the aid of the United States Sanitary Commission and incorporated them into the military.³¹⁴

Before the Civil War, the War of 1812 provided an example of the American military creating hospitals. Building log cabins to perform the medical care available allowed for some care, but the army surgeons deemed them a failure; further, medical wisdom of Europe by the

³¹⁴ Lemuel Moss, *Annals of the United States Christian Commission* (Philadelphia, PA: J. B. Lippincott & Co., 1868), 367-69; Adams, *Doctors in Blue*, 4; Commission, *The Sanitary Commission of the United States Army; a Succinct Narrative of Its Works and Purposes*, 2-6; Forman, *The Western Sanitary Commission; a Sketch of Its Origin, History, Labors for the Sick and Wounded of the Western Armies, and Aid Given to Freedmen and Union Refugees, with Incidents of Hospital Life*, 1, 20-22.

middle of the 19th century questioned the safety of housing the ill and wounded together; as late as the Crimean War where Sir John Pringle (the British Father of Military Medicine, comparable to Jonathan Letterman) called large infirmaries the “chief causes of mortality in armies.” By the Mexican-American War, most hospitals were housed in seized churches, along with convents, and monasteries.”³¹⁵

Despite these concerns, new Surgeon General W. A. Hammond saw great advantage to the bigger hospitals. Due to the unexpected length and scope of the war, the larger hospitals were able to take care of a greater volume of soldiers, operate larger kitchens, more efficient laundry, and even separate wounded and ill based on care needed and illness suffered. This further allowed for specialization among the staff. Learning from the recommendations of the Crimean War and Florence Nightingale, the hospitals were open to the air and under tents. Due to the war manufacturing issues and general conservatism in the face of innovative ideas, the Surgeon General delayed the first round of tests of this system until the Battle of Shiloh, reaching full potential with the building of Harewood Hospital in Washington. By the time of the Battles of Antietam and South Mountain, it could hold 3,000 wounded at one of the tent cities. Nurses converted the tents into field hospitals as the construction on the new pavilion-style hospital buildings took place; after their completion, the doctors would only need the tents during emergencies to add further beds.³¹⁶

Hammond based the pavilion hospital design on the Lariboisière Hospital in Paris, the Blackburn Hospital in Blackburn, England, the Episcopal Hospital in Philadelphia, and the Boston City Hospital; each had long wings and an open structure with lofty ceilings. This would

³¹⁵ Adams, *Doctors in Blue*, 149-73; Commission, *The Sanitary Commission of the United States Army; a Succinct Narrative of Its Works and Purposes*, 44-54.

³¹⁶ Devine, *Learning from the Wounded*, 2, 26, 36; Humphreys, *Marrow of Tragedy*, 152-84.

circulate air and prohibit the ideas of hospital ‘poisons.’ Therefore, the hospital would be as open as possible, the pavilion hospitals would have flowers and greenspace, they would be bright and well lit. Before long, the model of the pavilion hospital became part of the military system; however, it was not the only system.³¹⁷

In late 1861 the USSC approached the Medical Director of the Army of the Potomac, Charles Tripler, with hospital readiness concerns and recommended that 5,000 more beds be made available. Tripler, afraid of the potential casualties to come, upped the request to 20,000 beds. After debate, the USSC returned with a proposal to build 15,000 beds. General lethargy and profiteering of contractors started to set in, Tripler lost control of the hospitals he was trying to build for the Washington, D.C. area to the Surgeon General, but General George McClellan got it back after interceding on his behalf. At this point, the profiteers set in. “(Tripler) resumed conversations with the commissioners, proposing simple shacks which could be built for \$25 a bed. The commissioners sent in plans for elaborate buildings estimated at \$75 a bed. At McClellan's objections to the exorbitant cost, he reduced the program to 5,000 beds, although Hammond recognized the need for 20,000. But the contractors' bids ranged from \$120 to \$400 a bed, and Tripler felt able to build only two, of 200 beds each, which were not completed until April 1862. The fact that five large hospitals were built in 1864-65---none in Washington---at an average cost of \$31 a bed bears out Tripler's charge of profiteering.³¹⁸”

With the issues in Washington and the Army of the Potomac, the assistant Surgeon General (soon to be Surgeon General) W. A. Hammond oversaw the manufacture of these pavilion hospitals in Parkersburg, Virginia (now West Virginia), early in 1862. It consisted of

³¹⁷ Adams, *Doctors in Blue*, 149-74.

³¹⁸ *Ibid.*, 149-65; *Doctors in Blue*, 152.

two long sheds, 130 feet by 25 feet, with 14-foot ceilings. A survey of the system on December 17, 1864 showed their overwhelming popularity. The hospitals ranged in size from the massive Satterlee Hospital in Philadelphia, with 3,500 beds, to the ‘pygmies,’ like the Hospital Number 6 in Kansas City with 102 beds, and Hospital Number 20 at Tullahoma, TN with 100. The system’s hospital averaged 614 beds per hospital, with 434 occupied at any time. In the Army of the Potomac Hospital system, by about the same time, there were 204 hospitals, with 136,894 beds, ultimately 671 beds per hospital.³¹⁹

5.8.1 Maintenance and Inspection

Generally, the USSC and their inspectors maintained hospitals and provided the general upkeep. As stated before, the inspectors were doctors, surgeons, and other medical professionals. The USSC gave them varied responsibilities. In recruitment and assembly points for the new soldiers like Alton, NH, Cleveland, and Cincinnati, OH, Cairo, IL, and St. Louis, among others, the USSC had centers to inspect the new troops. Further, they were shocked that “the dangers of the Army from ignorance and neglect of sanitary precaution were in no degree exaggerated,” thus, these inspectors were to inquire about the overall health of patients, advise, inspect the facilities and train staff for improvement. They were tasked with instructing and reporting to the Government with an emphasis on warning about potential dangers and calculating the best methods, “to preserve [patients] in bodily health and vigor for the performance of their duty to their country.”³²⁰

³¹⁹ Moss, *Annals of the United States Christian Commission*, 360, 431-40; United States Sanitary Commission and Frank Hastings Hamilton, *Surgical Memoirs of the War of the Rebellion*, 2 vols. (New York, NY: United States Sanitary Commission and Riverside Press, 1870), 155; Adams, *Doctors in Blue*.

³²⁰ Wormeley, *The United States Sanitary Commission: A Sketch of Its Purposes and Its Work*, 7, 14-15, 17-24.

These specific skills required specially trained people. They needed medical training, needed knowledge of all the sanitary laws, and army regulations. Further, they needed to have courteous manners as the military often felt that the USSC was interfering. Finally, they needed men who were willing to work without much pay. Of course, this was all the worse because they were competing for the doctors and surgeons with the military itself. Ultimately, they found enough, even convincing some men to join the USSC as inspectors over the better paying rank of Brigade Surgeon.³²¹

Before entering the camp to conduct inspections, the observers must obtain the formal approval of a variety of military personnel. Once received, they were to inspect the camp for all things sanitary or sanitary adjacent.

Among the subjects on which they are required to make written detailed reports are the quality of rations and water, the methods of camp-cooking, the ventilation of tents and quarters, the drainage of the camp itself, the healthfulness of its site, the administration of the hospital, the police of the camp, and all which that word includes; the quality of the tents, and the material used for flooring them; the quality of the clothing and the personal cleanliness of the men... Whatever deficiencies or evils they find to exist, by which the health, morale, or efficiency of the men may be endangered, they are instructed to indicate to the proper officers; at the same time offering advice, if it is needed, as to the best method of remedying them.³²²

Post-inspection, the observers were to make a comprehensive report, 180 questions long and included questions on illnesses, supplies, and the recent procedures of the surgeons. By mid-

³²¹ Ibid., 28-36.

³²² Ibid., 14-17.

1863, inspectors sent more than 1,470 reports in to the USSC headquarters. The data collected was to improve training guides, assure proper technique, treatment, and service, and to check for individual camps and units with “excessive wants, excessive neglects, frauds, &c., affecting the sick and wounded.”³²³

5.9 Hospitals in Reconstruction

After the Civil War ended, medical need remained high. In an interesting act of application, much of what the Union army learned during the war about the construction of hospitals was attempted during Reconstruction in the South. The USSC was sent into military hospitals and prisons to assure there would be not more camps like Chase, Elmira Prison, or the chilling Andersonville, where disease swept through and killed thousands of prisoners of war. The USSC coordinated in large part by Lynda Stull; she received and tried to act on letters from across the prison system. Stull received information about the day to day and conflicts which arose, including requests for supplies, like bedding, to issues of a potential mutiny and missing prisoners, to tensions rising between the freedmen and the soldiers. On August 16, 1865, Lt James King wrote about his experience intervening between the freedman servant of a colonel and a private in his company. Tensions rose, there was an altercation, and the other white soldiers “surely would have killed the man had I not put him in the hold.”³²⁴

To bring stability, Congress created the Bureau of Refugees, Freedmen, and Abandoned Lands in 1865 as an attempt to incorporate the former slaves as freedmen and, eventually, citizens. Major General Oliver O. Howard directed this agency and would direct it until the

³²³ Ibid., 221-35; "Camp Inspection Return," ed. Sanitary Commission (Washington, DC: United States Sanitary Commission, 1861).

³²⁴ James King, August 16, 1865 1865; John McDonald, 1865; Byron Algers, Oct. 1, 1865 1865.

agency disbanded when Reconstruction ended in what Eric Foner would call ‘noble failure;’
 “Reconstruction is today seen as a noble, if flawed, experiment in interracial democracy.”

Known more commonly as the Freedmen’s Bureau, it was to be the first major permanent federal body of any sort created for the purposes of social medical welfare. Under its direction, it was to furnish supplies, build schools and hospitals, develop a contract labor system, and create military tribunals to hear legal grievances, all with the intention of protecting the emancipated slaves.³²⁵

As an example, in the state of Georgia, Brigadier General Rufus Saxton controlled operations until 1870. Saxton, who oversaw Georgia, South Carolina, and Florida, had fought most of the war in the Outer Banks. His admitted goal as the Assistant Commissioner to these states was to continue the efforts of his wartime mission, aiding freedmen and women in resettling on abandoned and confiscated lands that retreating or advancing armies had destroyed or abandoned during the war. Saxon saw that the primary way to sufficiency was through land ownership. Though his goal was noble, it inevitably led to growing tensions as the Southern whites saw no place for landowning former slaves in their society. This led to the contentious interaction between the whites of the South, the slaves, and the northern aid givers, dubbed ‘carpetbaggers,’ who were building public structures like hospitals and schools.³²⁶

³²⁵ B. K. Scott and H. W. Smith, "Circular, Bureau of Refugees, Freedmen and Abandoned Lands, Charleston, Sc; Re Establishing Schools," ed. Freedmen and Abandoned Lands Bureau of Refugees (Charleston, SC: Bureau of Refugees, Freedmen and Abandoned Lands, 1866), 1-10; Georgia Humanities Council et al., "Freedmen’s Bureau," in *The New Georgia Encyclopedia* (Athens, GA: Georgia Humanities Council and the University of Georgia Press, 2004); Eric Foner, "Rooted in Reconstruction: The First Wave of Black Congressmen," *The Nation*, October 15, 2008.

³²⁶ Council et al., "Freedmen’s Bureau." Jonathan M. Bryant, *How Curious a Land: Conflict and Change in Greene County, Georgia, 1850-1885*, The Fred W. Morrison Series in Southern Studies (University of North Carolina Press, 1996); "Freedmen's Bureau," *New Georgia Encyclopedia*; Council et al., "Freedmen’s Bureau."

The conflict of the hospitals in the Freedmen's Bureau Medical System came down to two fundamental issues. First, in their attempts to bring treatment and stability to the South, the volunteers, doctors, teachers, and Bureau employees they were seen as carpetbaggers and outsiders, intent on throwing out the old social structure and economy to replace with a more 'Yankee' one. The second is a more fundamental misunderstanding of race and medicine.³²⁷

The first issue started to rear its head in the with the Black Codes and attacks by the Southern whites on the Freedmen's Bureau and the freedmen themselves. The problem was across the South, though not exclusive to it. Between 1868-1876 (the official Reconstruction period), there were roughly 50-100 lynchings per year, but generally harassment was more direct and individual than a lynching which would become more common after the Mississippi Plan of vote suppression in 1876 and during the period between 1877 until the early 20th century. By 1868, the promise of the freedom offered with emancipation was looking quite thin if you were a freedman and were going to stand out socially. The weak Reconstruction government was fighting a losing battle against the Ku Klux Klan.³²⁸

Fundamentally, this has to do with the control of the populace by the Federal government. As the Bureau created courts, and more shocking to Southern whites, put the freedmen on the juries and in government positions, they hid themselves and conducted fewer direct attacks, instead focusing on the subversive and threatening, the definition of terrorism. These attacks on individuals in the streets turned to the destruction of property. Southern whites

³²⁷ Downs, *Sick from Freedom*, 14-15, 63, 73, 125.

³²⁸ Freedmen and Abandoned Lands Bureau of Refugees, "List of Freedmen Murdered or Assaulted 1867-1868," ed. Records of the Assistant Commissioner for the State of Georgia, Reports Relating to Murders and Outrages 1865 - 1868 (Washington, DC: Bureau of Refugees, Freedmen and Abandoned Lands 1865 - 1869, 1870), 30-34; "The Congressional Globe, 1833-1873," 317-21, 82-85; "List of Freedmen Murdered or Assaulted 1867-1868," 1-10.

attacked the Bureau hospitals and burned schools down. Klansmen threatened doctors who treated freedmen.³²⁹

Despite these setbacks, the Freedmen's Bureau was able to do significant good in these areas. It took over the military hospitals left by the armies and expanded them past the original system into one covering most of the South substantially. Larger cities like New Orleans had fully functioning and staffed hospitals that were successfully able to help control the various outbreaks of smallpox, yellow fever and cholera that swept through the impoverished freedman neighborhoods. When these diseases swept into areas and through the shantytowns of bigger cities like Vicksburg, Memphis, and Atlanta, white doctors would not treat the freedmen without cash or often at all, leaving them to treatment by the 'root doctors' (former slaves and Native Americans who made traditional medicines out of herbs and roots) and 'conjure men' (one who performs traditional healing rituals). However, towns that had the Freedmen's Bureau hospitals had significantly more successes.³³⁰

Full hospitals such as Richmond and New Orleans could perform most procedures and did so at minimal or no cost to the patient to both freedmen and whites, though primarily only the poor and very few whites wanted to be treated where the freedmen were. However, money was always short. Therefore, treatments, beds, and facilities were always in short supply. More rural areas had dispensaries and doctors, offering medical care and medications. Oliver Howard, the chief commissioner of the Freedmen's Bureau and founder of Howard University, wanted to transfer this care to state and local governments to take the pressure off of the federal

³²⁹ "The Congressional Globe, 1833-1873," 317-21, 82-85.

³³⁰ Eric Foner, *Reconstruction: America's Unfinished Revolution, 1863-1877*, 1st ed., The New American Nation Series (New York, NY: Harper & Row, 1988), 151-54; D. E. Cadwallader and F. J. Wilson, "Folklore Medicine among Georgia's Piedmont Negroes after the Civil War," *Georgia Historical Quarterly*, no. 49 (1965): 46.

government and further expand care to include asylums for the “insane, blind, deaf, and dumb.” Thus, despite early successes, including the treatment of over half a million freedmen, by 1867 the Freedmen’s Bureau Medical System started to dismantle. Several Southern states took over/replaced/built their own segregated hospital system, but they were always poorly funded. Several black mental health facilities opened, but they had similar racial problems to the illnesses described below. However, between constant short funding and the lack of trained black doctors (which is also, to a point, a failure of the Bureau who trained none, including black nurses, medical assistants, or doctors; never trained the freedmen in basic medical care, or paid for the development of these things) the number of people willing and able to help the freedmen started to dry up, leaving the power of medicine in white hands and a persistent discomfort between the African American community and medicine today.³³¹

5.9.1 A Different Kind of Sick

The other major issue that leads to poor medical care on the part of the doctors was racism in the medical field. In an interesting question of personhood and citizenship, the treatment of the freedmen was their nebulous state between property, seizures of war, and citizens. There were complications with the incorporation of freedmen into the army and what that entails, the collapse of the plantation system, and the medical concepts of the racial differences in anatomy and health.

³³¹ Foner, *Reconstruction: America's Unfinished Revolution, 1863-1877*, 151-54. Todd L. Savitt, "Politics in Medicine: The Georgia Freedmen's Bureau and the Organization of Health Care," *Civil War History*, no. 28 (1982): 45-64; Marshall S. Legan, "Disease and the Freedmen in Mississippi During Reconstruction," *Journal of the History of Medicine and Allied Sciences*, no. 28 (1973): 257-67. Marsha Lillie-Blanton et al., "Race, Ethnicity, and the Health Care System: Public Perceptions and Experiences," *Medical Care Research and Review* 57, no. 1_suppl (2000): 57.

The problem of freedmen in the army involved planning. To redirect the message of the war, the Emancipation Proclamation allowed freedmen to fight in the military and also allowed all slaves that the Union Army came across to become a seized property of war. This transaction, then, allowed the now-freed slaves to join with the Union Army. However, fear of reprisals and lack of infrastructure or a kin relationship placed a lot of the former slaves in the custody of the Union Army, including family members, like women, children, the elderly, and the infirm, without the ability to fight, but requiring resources such as food and medical care. This, combined with ingrained racism in the soldiers, led to the deaths of hundreds of family members of people who joined the army.³³²

However, historian Jim Downs wrote that the issue of the ‘contraband of war’ was not the only issue. Slaves traveled hundreds of miles to reach the front to escape into freedom, often without adequate food or supplies. However, in the post-war Reconstruction era, this became even more complicated. At the root of the issue was the transition from the paternalistic Southern economy to a traditional 19th century capitalist economy. This transition removed the protection of the slaves no-longer able to work, by giving them childcare duties, as was common practice on plantations, and instead forcing them out into the world. As the Freedmen’s Bureau came in, the goal was to fill the institutional vacuum left by the plantation system and redefine the slaves as citizens. However, the Freedmen’s Bureau was ultimately responsible for assuring a strong replacement workforce, going as far as the ultimate goal of replacing the slave system with free labor. Restraints often left the freedmen on the same plantations without any support; women especially were unable to advocate for themselves and would find themselves in court or even prison over contract disputes for contracts into which they did not willingly or knowingly

³³² Downs, *Sick from Freedom*, 69, 114.

enter. Ultimately, the almshouses, hospitals, and schools founded by the Freedmen's Bureau were to assure a healthy workforce, classifying people as unfit to work and ultimately, closing nearly all the hospitals due to racially driven reasons.³³³

As mentioned above, the racial politics of the era allowed for little aid given to the Freedmen; the army gave the freedmen soldiers inferior supplies and rations, leading to greater instances of illness during the war and making them more susceptible to death from the great killers of the war such as cholera and dysentery. What made the illnesses more profound, though, is the assumption by many Freedmen's Bureau doctors that the freedmen were somehow immune to diseases like malaria and that outbreaks of other illnesses, such as smallpox, were due to the unclean living of the freedmen. This led to one of the most terrible effects of the Civil War, the Smallpox Epidemic of 1862 to 1868. The tragedy of the outbreak is that effectively it was manmade, which will be explored in the next chapter. The standard practices of western medicine, such as quarantine, which had worked so well in other outbreaks on the local level, the federal government ignored. Thus, the epidemic was allowed to grow for years, making the Civil War the "largest biological war of the nineteenth century."³³⁴

5.10 Spas, Asylums, Hospitals, and the Post-Reconstruction Era

On September 5, 1866, the Western Health Reform Institute opened. It would become the model of the modern health spa using vaguely scientific techniques (some even then were considered fringe) such Hydrotherapy (including regular enemas), Phototherapy (the now widely accepted idea of sunlamps during the winter months), Thermotherapy (saunas), and Electrotherapy (which was "not capable of accomplishing half the marvels that are claimed for it

³³³ Ibid., 4, 16-21, 25-26.

³³⁴ Ibid., 95-119.

by many enthusiastic electrotherapists,” but nonetheless were applied in conjunction with photo and thermo therapies), Physical training (such as postural exercise, calisthenics, gymnastics, swimming, and passive methods such as mechanotherapy, vibrotherapy, mechanical massage), but it would best known for so called Dietetics. After the first decade saw little growth, a young 25-year-old upstart named John Harvey Kellogg took over, with his brother W. K. working as a bookkeeper. Combining health and the philosophy of the Seventh Day Adventist faith they shared, the Kellogg brothers would go on to change health care in America with the Battle Creek Sanitarium.³³⁵

The Sanitarium began as what would be recognizable from the Philadelphia Hospital, or almost any doctor’s building today, rectangular and tall, with rows of rooms. However, when the second building burned down in 1902, the Kellogg brothers rebuilt, calling their new building the Battle Creek Sanitarium. As Kellogg put it, “a change of two letters transformed 'sanatorium' to 'sanitarium', and a new word was added to the English language." This was to separate themselves from a ‘sanatorium,’ a place that developed to deal with the mentally shattered and physically destroyed soldiers of the Civil War.³³⁶

The Kellogg brothers are now most known for their diets and food, which as a spin-off of Sylvester Graham’s Grahamites, allowed for the creation of breakfast cereals, possibly peanut butter (which Kellogg had two patents on), and one of the first meat substitutes called protose (also leading to the invention of the first acidophilus soy milk). However, his sanitarium was a natural development of the hospitals of the post-Civil War era. It followed the open floor plan, the ventilated fresh air, and greenspace of the pavilion hospitals. It attempted to calm and care

³³⁵ Wilson, *Dr. John Harvey Kellogg and the Religion of Biologic Living*, 30-62.

³³⁶ *Ibid.*

for the mind as well as the body and help incorporate the traumatized soldiers like the soldier's homes did. It encouraged exercise, proper diet and fresh air.³³⁷

During and after the war, the personal and mental health treatment of soldiers began. Under the direction of Knapp, who by the latter half of the war had received the title Special Relief Agent, a promotion from being Olmstead's assistant, the USSC set up a series of "Soldiers Homes." Free from the military and released from hospitals, the soldiers were often far from home, if home even still existed, and unable to care for themselves in many cases. The USSC sought to:

[Provide] lodging-houses and food, rescuing them from the hands of sharpers,³³⁸ collecting pensions and pay, correcting their defective papers, giving them medical treatment and nursing when required, (sought) to be the guardian of the soldiers while they are *in transitu*; endeavors to protect them in their rights, and to see that all immediate needs growing out of their disabled condition are met by corresponding provision for temporary supply and relief.³³⁹

This started small; after Antietam, the USSC received a notice "500 sick and wounded are on their way to Washington by the canal-boats; can you do something for them?" By the time the boat had arrived, the USSC was waiting with supplies and food. The hospital transports took the soldiers 'through a country full of guerrillas;' they were starving and short on supplies, more than actually wounded. The USSC found places for their convalescence and by mid-1863, they had 320 beds in Washington, and cared long term for over 935 from that first barrage. However,

³³⁷ Ibid.

³³⁸ Conmen, rogues, thieves.

³³⁹ Commission, *The Sanitary Commission of the United States Army; a Succinct Narrative of Its Works and Purposes*, 222-35.

that was not the end of the issue. From December 1862, to October 1st, 1863, the soldiers “home” received 7,187 persons. Further, by early 1864, the home had 86,986 nights' lodgings furnished, and 331,315 meals provided.

The USSC maintained "homes" of the same description and conducted in an admirable manner in Boston; Nashville, Cairo, Memphis, Louisville, Cleveland, and Cincinnati. Since their establishment, (Cincinnati, one of the largest and most efficient, excepted,) the whole number of nights' lodgings furnished by these "homes" of the Commission amounts to 198,963; the number of meals furnished, to 659,161.³⁴⁰

Over the remainder of the war, from the nomination of Surgeon General W. A. Hammond and the development of the General Hospital system to the end of the war three years later, the system treated 1,057,523 (the General Hospitals only treated white soldiers) with an 8% mortality rate, the lowest recorded for any military hospital in American history to that point and lower than most civilian hospitals. Americans observing the Franco-Prussian War noted that the Prussian hospitals of the 1870s were at least 20 years behind those of American general hospitals, dirtier, poorly organized, and outdated.³⁴¹

After the war ended, the roles of these ‘homes’ were replaced by the sanitariums. Civil War veterans were mentally and physically shattered by their experiences and filled many of these early mental health facilities. However, these facilities received no federal support until Franklin Roosevelt and the New Deal. Soldiers would panic and run across lines, feel overwhelmed and commit suicide, and many of the wounded would never return home; they

³⁴⁰ Ibid.

³⁴¹ Adams, *Doctors in Blue*, 149-73.

would be diagnosed with the ‘nostalgia’ as a condition of war (which I will get into more in the next chapter), and were unable to get help. In the South, the destruction of the Reconstruction Hospitals and the repeated shortness of supplies led to frustration and abandonment. Many of the men, fearing both prosecution and persecution for their role in the Confederacy, escaped to the west. Drew Faust goes as far as saying that the lack of care, facilities, and general nearness to death and destruction of war pushed the women of the Confederacy to lead the charge for the surrender of the South (and their embarrassment for this surrender, argues Karen Cox, led the women to push the Lost Cause narrative and statues of veterans across the South).³⁴²

Across most of the country, however, the hospital system started to stick. While the South rejected the federally controlled hospitals, the idea of the city hospital became a permanent fixture. Further, unlike the initial purpose of the Franklin and Bond Philadelphia Hospital, these were not purely for the poor. The stigma of hospitals being domiciles where the destitute die began to fade as the soldiers became used to hospital care. Though Americans were behind Europeans in understanding of germ theory, the War left them with incredible hospitals, surgeons, and an understanding of anesthetic. The designs of hospitals had also changed, they were more in line with the pavilion hospitals, with lofty ceilings and ventilation, greenspace outside, and large wards with similarly sick patients. The idea had caught on so much that Samuel Stout used it in designs for hospitals (though his formed a cross with a flattened bottom

³⁴² Karen L. Cox, *Dixie's Daughters: The United Daughters of the Confederacy and the Preservation of Confederate Culture*, 1st edition ed. (Gainesville: University Press of Florida, 2003), xi, 4-10; Faust, *Mothers of Invention: Women of the Slaveholding South in the American Civil War*, 240-41; Wilson, *Dr. John Harvey Kellogg and the Religion of Biologic Living*, xii, 1-4; Schroeder-Lein, *Confederate Hospitals on the Move*, 116; Heather Cox Richardson, *West from Appomattox: The Reconstruction of America after the Civil War* (New Haven, CT: Yale University Press, 2007), 31-37.

where a dining hall and doctors/nurse's quarters were). His hospitals contained three long wards with 40 bed each, 120 beds per hospital.³⁴³

Overall, these changes to the American healthcare system, included the hospital system in urban areas, improving care, and people's increasing comfort with their use. The care given in the era before antibiotics was difficult and often deadly. Patients treated on the battlefield would often need repeated and recurring care. Often, the hospitals were necessary because treatment never ended.

6 MEDICINE AND SURGERY

An occasional scream or cry, the doctor's shouted orders or calls,
 The glisten of the little steel instruments catching the glint of the torches,
 These I resume as I chant, I see again the forms, I smell the odor,
 Then hear outside the orders given, "Fall in, my men, fall in";
 But first I bend to the dying lad, his eyes open, a half-smile gives he me,
 Then the eyes close, calmly close, and I speed forth to the darkness,
 Resuming, marching, ever in darkness marching, on in the ranks,
 The unknown road still marching.³⁴⁴

- Walt Whitman, "A March in the Ranks Hard-Prest, and the Road Unknown,"

T. W. Pease was an average man of the age of twenty-six and a private in Company H of the 19th Indiana Regiment in the Union Army when he prepared to fight at the Battle of

³⁴³ Annmarie Adams, *Medicine by Design: The Architect and the Modern Hospital, 1893–1943* (Minneapolis, MN: University of Minnesota Press, 2008), 93; Stout, "Some Facts of the History of the Organization of the Medical Services of the Confederate Armies and Hospitals," 159-74. More on Germ Theory and anesthetics in chapter 6.

³⁴⁴ Walt Whitman, "A March in the Ranks Hard-Prest, and the Road Unknown," in *Drum Taps*, ed. David Widger (Project Gutenberg: Project Gutenberg, 1865).

Gettysburg on July 1, 1863. His military career was uneventful until his injury. While defending a ridge in advance of the Confederate attack, Pease took a direct hit to his right thigh, shattering his femur. Able to limp slightly to the waiting ambulance, he was rushed to a busy field hospital, probably one near George Spangler's farm, which would ultimately treat 1,800 Union and 100 Confederate forces. While standing in the busy tent, he underwent three operations on July 9; the first removed the minié ball, the second removed the splinters of bone, and the third drained the abscess in the thigh, all under the effects of ether. Pease convalesced for months in the corps hospital; doctors applied cheap splints, which caused infection, leading first to severe constipation, treated with inferior quality laxatives, which caused severe diarrhea. On September 5, Camp Letterman Hospital admitted Pease. Letterman would treat more than 14,000 Union and 6,800 Confederate wounded on George Wolf's farm. Acting Assistant Surgeon E. A. Koerper opened Pease's surgery site to drain an abscess by on November 3. Koerper noted the fusing of the remaining bone. The surgeries had already roughly removed three inches of bone, and the doctors deemed him stable enough for transfer to the York Hospital, about thirty miles away on November 14, five days before the Gettysburg Address. With the wound so high, they had needed to save his leg and succeeded, but this was not the end of his travails.³⁴⁵

³⁴⁵ Freemon, *Gangrene and Glory*, 196-98; "George Spangler Farm Civil War Field Hospital," <https://www.gettysburgfoundation.org/george-spangler-farm/>; United States Surgeon-General's Office et al., *Surgical History*, ed. Joseph K. Barnes, 3 vols., vol. 3, *The Medical and Surgical History of the War of the Rebellion (1861-65)* (Washington, DC: Government Printing Office, 1883), 114-15; Bonnie Brice Dorwart, "Civil War Hospitals," Virginia Center for Civil War Studies at Virginia Tech, <http://www.essentialcivilwarcurriculum.com/civil-war-hospitals.html>; Devine, *Learning from the Wounded*, 53-94.

Corps hospitals were unique to the larger battles of the war, like Gettysburg, Antietam, and Shiloh. For the most part, General Hospital Staff were left in the General Hospitals, but as casualties mounted, additional hospitals were required and these surgeons were pulled into the fray.

Before the army gave Pease an honorable discharge and his pension on August 8, 1864, he would undergo one more surgery for another abscess on January 16, 1864 (whose infection before discovery nearly killed him). On February 29, he suffered a case of tetanus (which doctors treated with camphor and opium whose side effects were, apparently, hiccups ending with diarrhea). By April, the wound had fully healed, and Pease no longer needed painkillers. On July 3, one year and two days past the date of his injury, he was able to walk on crutches for the first time. Going home to Indiana, he had another ten and a half inches of necrotic bone removed in 1868. Due to the practice of immobilizing the bone and joint (no longer in practice) the knee had fused stiff. In November 8, 1871, surgeons removed roughly ten more inches of necrotic bone and finally even more bone in 1877, leaving him ten inches shorter on the right than the left. To compensate for this, he wore a six-inch lift under his right foot, which was little more than a rod iron frame welded to the sole of his boot allowing him to walk with a cane.³⁴⁶

Perhaps most tragic in this comedy of errors is the fact that Pease was among the lucky. He had awful symptoms throughout his life. The surgical points wept and bled, he had fitful sleeping, fevers, and sweats often, constant erysipelas (a skin infection, which, too, would hemorrhage and bleed); and yet, he survived and kept both legs. Surgeries on the hip were particularly dangerous with a 60% mortality for military- aged men (18-45), in addition to bone damage and infection. Most soldiers with similar injuries given the available medical care died. According to the summary of the Surgeon General, *The Medical and Surgical History of the War of Rebellion (1861-1865)*, during the war, there were eleven cases where the first surgery had been successful, and a secondary excision was necessary. Of those, only three survived. All three survivors were adult men in strong shape before they were wounded (the two other than

³⁴⁶ Office et al., *Surgical History*, 3, 114-15; Freemon, *Gangrene and Glory*, 196-98. *ibid.*

Pease were 34 and 44 years of age). The account is careful to blame miasma for the ones who died, stating, “In the eight unsuccessful cases the ages varied from 18 to 43 years. In seven of the eight unsuccessful operations the patients succumbed in from one to eight days from the dates of operation, a mean of a little over days after the operation and succumbed apparently to unfavorable climatic influences and only in part to traumatic causes.”³⁴⁷

While on the forefront of American medical science and rapidly developing, this story of change has a dark side. Even while medical care was advancing, care was severely lacking and two-thirds as many soldiers died from non-mortal wounds as died on the battlefields. While advanced in our use of the anesthetic, even in the 1880s American experts challenged Joseph Lister on germ theory. On the battlefield, any wound from minié balls, musket rounds, cannon fire, bayonets, shrapnel, and trampling would often be a death sentence. For those who did not bleed out, infection could follow. However, wounds are only half the tale of disease. Large numbers of men crowded in a small space will always spread illness, but in this era of small isolated communities, initial exposure was often on the battlefield. Vaccination protocol was in place for smallpox, but this was an exception. Influenza, measles, mumps, fevers, and worst of all, dysentery, swept through the camps, killing hundreds of thousands. Overall, medical care and sanitary conditions were perhaps the greatest factor in the Civil War, which the narrative is only recently considering its effect on the outcome in the story of the war. To consider the outcome of the war without medicine is not only flawed but is impossible. The study of the Civil

³⁴⁷ Office et al., *Surgical History*, 3, 114-15; Freemon, *Gangrene and Glory*, 196-98; Office et al., *Surgical History*, 3, 114-15. Freemon, *Gangrene and Glory*, 196-98.

War must include a discussion of the impact of disease, injury, sanitation, and medical science.³⁴⁸

Now that there has been an establishment of a baseline with the caregivers, care providers, and care location, it is time to look at their intersection, the care of the patient. Before the turn-of-the-twentieth-century advent of antibiotics, there was little available in terms of drugs to treat disease or infection. Most medication of the time was related to treating symptoms and consisted mainly of painkillers and natural treatments. During the Civil War, in fact, most medication was a hearty meal and, possibly, a belt of whiskey sometimes laced with the treatments for illnesses and prevention, such as quinine dissolved in whiskey and served daily to troops in tropical areas. Surgery was horrifying, but necessary and ultimately lifesaving. One of the advances introduced in this era, was the use of anesthesia for surgical patients. Before the Civil War, anesthetics were rare, and surgeons performed operations in operating theaters with mostly conscious people with orderlies holding them down. With the advent of ether, morphine, and chloroform (on top of the mind numbing and pain-relieving effects of the massive dehydration and added alcohol), surgeries were more common, and people were becoming more comfortable with the idea of them. As mentioned in chapter three, doctors developed their skill in the trenches with the wounded, as schools really did not prepare doctors for the types of injuries seen on the battlefield. Piles of appendages were everywhere; surgeons performed 500 Union amputations at Fredericksburg alone, for example. “All day long I had seen the troops, in brigade lines, marched up a wide slope against stone walls, defended by Confederates. And line

³⁴⁸ Lindsey Fitzharris, *The Butchering Art: Joseph Lister's Quest to Transform the Grisly World of Victorian Medicine*, First edition. ed. (New York: Scientific American/Farrar, Straus and Giroux, 2017), 200-15; Moore, "Circular on Vaccinations," 4; Lindsey Fitzharris, *The Butchering Art: Joseph Lister's Quest to Transform the Grisly World of Victorian Medicine*, First ed. (New York, NY: Scientific American/Farrar, Straus and Giroux, 2017), 250-86.

after line was received by deadly volleys, broken, and driven back, while batteries from the top of the slope threw shrieking shells at them," wrote Mayer, a regimental surgeon from Hartford, as he recalled the Battle of Fredericksburg, one of the worst Union defeats of the Civil War. That night in mid-December 1862, "we surgeons labored in a large freight depot till morning. The carnage had been terrible." The smell of death was everywhere in a war that claimed 750,000 lives and which created millions of wounded, and thousands of amputees.³⁴⁹

6.1 Ideal Medical Times

Before the war, doctors distributed medicine differently throughout the country. In the South, the mistresses of most plantations cared for the family and helped to care for the slaves. Seen as investments, owners made efforts to keep slaves in good health. The mistress of the plantation would generally keep a doctor on the payroll. Traveling doctors, as mentioned in chapter 3, would take care of several plantations. However, the household generally kept well-stocked medicine chests filled with home remedies. Doctors would prescribe elixirs made of castor oil, in addition to blue mass, quinine, laudanum, spirits of turpentine, paregoric, liniment, vermifuge, and Epsom salts. Further, doctors could prescribe traditional medicines made by local conjure men and root doctors.³⁵⁰

Such medicines show the dichotomy of the era and the *Materia Medica*. Doctors viewed herbs with little to no medical uses like Evening Primrose, Columbine (or Granny Bonnet), European Cowslip, and Spiderwort, in the same manner as dangerous ones like Belladonna

³⁴⁹ Nathan Mayer, *A Poem Read by Surgeon Nathan Mayer, October 11, 1894, at the Dedication of a Monument by the Sixteenth Connecticut Where They Fought at Antietam, September 17, 1862* (Hartford,: Press of the Case, Lockwood & Brainard company, 1894), 1-13.

³⁵⁰ Gay, *The Medical Profession in Georgia, 1733-1983*, 228.

extract (Deadly Nightshade), and functional ones like aloe, St. John's Wort, and digitalis (which chemists now extract to make a drug that treats congestive heart failure).³⁵¹

In addition, this era sees the use of chemical compounds to treat a range of diseases and conditions. For example, physicians prescribed Acetic Acid to kill fungal infection and shrink tumors); Antimony was used as an emetic, arsenic was used for the treatment of malaria, syphilis, trypanosomiasis (a foodborne illness primarily from meat), Calomel (A white powder used a purgative and fungicide), Epsom salts (laxative), Quinine (treatment and preventative for malaria). Disinfectants including ammonia (also smelling salt), dichloride of mercury (also treatment, but not actual cure, for syphilis, carbolic acid, chlorine, muriatic acid (hydrochloric acid), iodine, lime (chloride of lime or milk of lime), Silver Nitrate, and Sulphuric Acid were available. Patients could purchase pain relievers like Liniment, Laudanum, Opium, Morphine, and Salicylic Acid at most alchemists. They even had access anesthetics like Chloroform, Diethyl Ether, Nitrous Oxide, and Sulphuric Ether, often without doctor permission.³⁵²

The medical application of the drug, however, depended greatly on the professional dealing with the patient. Internal medicine really did not exist, as mentioned above. Therefore,

³⁵¹ Dwight, "Admission Tickets."; Conner, "Dennis N. Conner Papers."

Belladonna has made a comeback as a terrifying homeopathic teething aid for children.

³⁵²Haller, *American Medicine in Transition 1840-1910*, 67-100; Haller Jr., *Battlefield Medicine*, 61-90; Rutkow, *Bleeding Blue and Gray*, 242-75; Devine, *Learning from the Wounded*, 94-132; Humphreys, *Marrow of Tragedy*, 208-43; Pierce, *The People's Common Sense Medical Adviser in Plain English, or, Medicine Simplified*, 931, 37; Downs, *Sick from Freedom*, 208; Welsh, *Two Confederate Hospitals and Their Patients: Atlanta to Opelika*, 66-70; Faust, *This Republic of Suffering*, 3-32; George Washington Peddy, Zerlina Catherine Peddy, and George Peddy Cuttino, *Saddle Bag and Spinning Wheel: Being the Civil War Letters of George W. Peddy, M.D., Surgeon, 56th Georgia Volunteer Regiment, C.S.A. And His Wife Kate Featherston Peddy* (Macon, GA: Mercer University Press, 2008), 1-5; Museum, "The Benjamin Rush Medicinal Plant Garden".

For a complete list of the medicines that were mentioned in this text, see Appendix B.

most treatments were hoaxes or treated symptoms; especially pain. Surgery was one of the few treatments that actually removed illnesses, a truly horrifying endeavor.³⁵³

6.2 Surgery

Surgery itself is a very old technique. Hippocrates was a noted chest surgeon (now called thoracic surgery), but even this was a relatively recent development. In 2000 BCE, the Japanese performed cataract surgery with tiny syringes, at least hypothetically. (The surgical tools and technique were theorized, it is unclear if such practices were ever attempted). By 6th century BCE in Kerala (now India, then part of the Tamil Kingdoms of Pandya king Kadungon), surgeons accomplished such cataract surgeries. The first reference to the grisly art of removal first is *A Discourse of the Whole Art of Chirurgerie* (published in either 1597 or 1612) and John Woodall's *The Surgions Mate* wherein Woodall first describes the cataract procedure. Woodall described the operation as, "Amputation or Dismembering is the most lamentable part of chirurgery, it were therefore the honour of a *The Surgions* never to use dismembering at all if it were possible for him to heale all he undertook, but necessities hath no law."³⁵⁴

While more widely practiced by the 1800s, surgery in Antebellum America and Victorian England was hardly less chilling. In major cities, surgeons performed the operations on higher

³⁵³ Freemon, *Gangrene and Glory*, 215-20.

³⁵⁴ Catherine Soanes and Angus Stevenson, "Amputation," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009). Haller, *Battlefield Medicine*, 61-90; John Woodall et al., *The Surgions Mate, or, a Treatise Discovering Faithfully and Plainely the Due Contents of the Surgions Chest: The Uses of the Instruments, the Vertues and Operations of the Medicines, the Cures of the Most Frequent Diseases at Sea, Namely Wounds, Apostumes, Ulcers, Fistulaes, Fractures, Dislocations: With the True Maner of Amputation, the Cure of the Scurvie, the Fluxes of the Belly, of the Collica and Illiaca Passio, Tenasmus, and Exitus Ani, the Callenture: With a Briefe Explanation of Sal, Sulphur, and Mercury, with Certain Characters and Tearmes of Arte: Published Chiefly for the Benefit of Young Sea-Surgions Employed in the East-India Companies Affaires* (London: Printed by Edward Griffin for Laurence Lisle, 1617), 171-72.

floors, so passersby would not hear screaming from the streets. Surgeries not only required attendants to be large, strong men who could hold down screaming patients, but suicide rather than surgery was common (some reports list nearly 30%). Trauma and fainting were also common, leading to recurring nightmares of surgery (like those of Pease).³⁵⁵

By the mid-nineteenth century, surgeons had standardized tool kits. Often presented as a gift upon graduation, the manufacturers designed surgeon's tools for ornamentation rather than functionality. Saws and knives would have ivory or carved hardwood handles and were stored in similarly ornate and stained wooden boxes lined with fabric, like velvet. Surgeons rarely cleaned the tools between patients, other than an occasional cursory wipe, and wear and tear would dull the tools over the course of a day's surgeries but use continued nonetheless. The standard inventory of such a kit would contain amputation knives, catlin, surgical scalpels, bistoury (hernia) knife, tenaculum, metacarpal saw and lifting back metacarpal saw, amputation saw, foreign body probe, straight forceps, rongeur or gnawing forceps, dissection forceps, bone forceps, curves scissors, bone file, director and tourniquet.³⁵⁶

³⁵⁵ Fenster, *Ether Day*, 1-10. Dave Anthony, *The Fight over Anesthesia*, podcast audio, The Dollop, 01:03:332016, <http://thedollop.net/wp/episode-144-dollop/>; Tim Howard, *Decoding the Void*, podcast audio, Radio Lab, 21:042014, <https://www.wnycstudios.org/story/anesthesia>.

An 1845 *New York Daily Tribune* article describes an amputation of a young man. In New York Hospital (located on what is now Lower Broadway), the patient was cradled by his father and held in place by several attendants, "as the surgeons-there were two-made their cuts, the boy's screams were so full of misery that everyone who could left the room. The first part of the operation complete, the young man watched "with glazed agony" as the chief surgeon pushed a saw past the sliced muscles, still twitching, and listened as the blade cut through the bone in three heavy passes, back and forth. That was the only noise in the room, for the boy had stopped screaming."

³⁵⁶ Catlins are double edged knives with sharp points used in amputation to separate the bone from the muscle.

Tenaculum are non-specialized forceps, often blunter. Forceps are pincer like surgical tools used for holding.

In a standard amputation, after applying the tourniquet, surgeons used amputating knives to remove the skin in the first cut and the muscle mass in the second in the circular amputation technique. The surgeon used a knife to cut radially through the layers of tissue, starting with a scalpel to cut skin, the tenaculum to hold back the skin, as the directors probed for the damaged bone shards left by minié balls; surgeons removed them with the rongeurs. Ultimately, the Catlin separated the bone from the muscle to prepare for the bone saw. The metacarpal saw or lifting back metacarpal saw cut through smaller bones such as ribs, fingers, toes, ankles, or wrists. The amputation saw is the bone saw from movies and nightmares, cutting through arms and legs. If, by this point, the bullet was still in the body, Nelaton's or Foreign Body Probe were used. The probe (some elongated forceps, almost needle-nose pliers) would enter a wound to search for a bullet. A tenaculum pulled arteries out of the stump to tie them off after amputation and the bone file would allow the creation of the stump. At this point, the dissection forceps would fold the skin back, to make into a stump, which the surgeon formed to end surgery. Since

Rongeurs are forceps with biting or gnawing actions, generally used to grab bone shards and shrapnel.

Directors are flat ended probes.

Tourniquets are, at the time, leather straps used to stop circulation after wounding and during surgeries to prevent patient from bleeding out.

Gordon Dammann, *Pictorial Encyclopedia of Civil War Medical Instruments and Equipment* (Missoula, MT: Pictorial Histories Publishing Company, 1983); Sally Johnson Ketcham, "Historic Furnishing Report," in *The Hospital*, ed. Fort Scott National Historic Site (Fort Scott, KS: National Park Service, 1978); Catherine Soanes and Angus Stevenson, "Catling," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009); "Tenaculum," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009); "Tourniquet," in *Concise Oxford English dictionary* (Oxford; New York, NY: Oxford University Press, 2009); C. Keith Wilbur, *Civil War Medicine, 1861-1865*, 1st hardback ed., Illustrated Living History Series (Philadelphia, PA: Chelsea House Publishers, 1999), 51-54.;

The National Park Service. *Hospital Info-Surgery*. (Fort Scott: The National Park Service) http://www.nps.gov/archive/fosc/hospital_info4.htm

chance of survival, (due, in part, to the freshness of the wound and the body's state of shock from being shot), was 90% better within the first twenty-four hours of injury and the speed with which the surgery would be done was quick (average was less than five minutes). It is important to remember the speed and almost assembly line treatment of these wounds. According to one assessment, surgeons performed over 60,000 times in the Union army alone, with 12,000 on a lower extremity and 75% survival rate. Other than scale, why was this war different?

Weaponry.³⁵⁷

6.2.1 Weapons of Death

As often is the case, the technology of death supersedes medicine. The minié ball was a bullet developed by Captain James H. Burton in 1853, four years after his promotion to armorer at Harpers Ferry Armory. Like the 1848 French projectile on which it was based, the minié bullet invented by Claude-Étienne Minié, both had a pointed tip made out of soft lead. Burton's efforts led to a ribbed bullet, which responded well to rifling, giving the weapon an effective range of 200-250 yards and a significant cost savings over the French version. However, although efficient and cost effective, the soft lead had a dimple on the back that, when fired, caused the projectile to expand, filling the barrel and accelerating the bullet, but that did not stop. Depending on the purity of the lead, the bullet would mushroom and strike. Where the old musket balls would penetrate the skin, and could bounce off bone, the minié balls would strike with force, causing bones to shatter.³⁵⁸

³⁵⁷ Humphreys, *Marrow of Tragedy*, 292-95. Jane Farrell-Beck and Laurann Figg, "Amputation in the Civil War: Physical and Social Dimensions" *Journal of the History of Medicine and Allied Sciences* 48, no. 4 (1993): 454-75.

³⁵⁸ James M. McPherson, *Battle Cry of Freedom: The Civil War Era*, The Oxford History of the United States (New York, NY: Oxford University Press, 1988), 474; Freemon, *Gangrene and Glory*, 48-52.

The standardization of the bullet into the minié ball created a huge shift in the injury load of the military on both sides. However, while this was a significant change in the types of wounds generated, it is important not to forget the roles of the improved cannons, such as the Parrott rifles. Both Union and Confederate forces had a variant of the 30-pounder, but there were Union naval vessels and fortresses with 100, 200, and 300-pounder variations), siege and garrison (light), seacoast (heavy), and Coehorns mortars, and Confederate siege trains. There were also the uses of the first rapid-fire weapons like J.D. Mill's Coffee Mill Gun and the Gatling gun on the Union side and the Williams Gun on the Confederate side. All these weapons were primarily defensive, protecting fortresses and retreating armies, but their advancements in speed, power, accuracy, and ability to reload increased the physical damage. While the minié ball was the ever-present small projectile (along with the traditional smooth bores and muskets still in use in the Confederacy and as side arms), these larger weapons created fear and destruction.³⁵⁹

As an aside, after his commission ended, Burton went to Ames Manufacturing Company of Chicopee, Massachusetts to continue his weapon development before joining Royal Small Arms Manufactory in Enfield Lock, England. He returned to Harper's Ferry in June 1859 to marry Eugenia Harper Mauzy four months before John Brown's raid. Radicalized by the raid, he joined the Confederacy as Superintendent of Richmond Armory. By December 1861, the Confederate Army commissioned Burton Lieutenant Colonel and placed him in charge of all Southern armories. After moving to Macon from June 1862 to December 1863, the army placed Burton in charge of attempting to get supplies and machinery from the English to support the Confederate weapon manufacture, eventually convincing Greenwood & Bailey. By mid-1864, Greenwood & Bailey had agreed to ship the supplies to Bermuda where they waited to make a push on the blockade, however, by this point the momentum had shifted and the supplies sat. Burton returned to Macon where Union forces took him prisoner in April 1865, before pardoning by Andrew Johnson on October 4, 1865.³⁵⁸

³⁵⁹ Warren Ripley, *Artillery and Ammunition of the Civil War*, 4th rev. ed. (Charleston, S.C. (93 King St., Charleston): Battery Press, 1984), 58-61; Henry L. Abbot, *Siege Artillery in the Campaigns against Richmond, with Notes on the 15-Inch Gun, Including an Algebraic Analysis of the Trajectory of a Shot in Its Ricochets Upon Smooth Water*, Professional Papers of the Corps of Engineers U S Army (Washington,: Govt. print. off., 1867), 87-90; William Bennett Edwards, *Civil War Guns; the Complete Story of Federal and Confederate Small Arms: Design,*

6.2.2 *Anesthetic*

As horrible as the surgeries were, and the chance of death due to post-surgical complications such as infection, the more widespread, routine use of anesthesia greatly reduced what had been a suicide rate of up to 30% among individuals faced with the prospect of surgery. One reason for shifting popular attitudes toward surgery was not due to the medical profession but rather to theatrical entertainment. Not four blocks away from the New York Hospital, was the Broadway Tabernacle Theater. Holding roughly 4,000 people, the popular show of the time was an exhibition of nitrous oxide wherein volunteers would come to the stage, huff the gasses, and act the fool to the amusement of the audience. The emcee, Gardner Q. Colton, hired a dozen strong men to hold back the volunteers who would become unwieldy and could harm themselves or him, but had the bizarre symptom of being unable to tell. Humphry Davy noted this effect in 1800 when he discovered nitrous oxides, but nearly half a century later, surgery was still a painful endeavor.³⁶⁰

On October 16, 1846, the future course of surgery would change when Gilbert Abbott, a housepainter with a tumor in his neck was operated on by Dr. J. C. Warren. While the operation was not unusual, the surgery would be. Dr. William T. G. Morton used anesthetic during surgery for the first time. After watching a stage show where Gardner Q. Colton made people on nitrous oxide leap around, Morton's mentor Dr. Horace Wells had been performing dentistry with

Manufacture, Identification, Procurement, Issue, Employment, Effectiveness, and Postwar Disposal (Harrisburg, PA: Stackpole Company, 1962).

³⁶⁰ Fenster, *Ether Day*, 1-10; H. W. Erving, "The Discoverer of Anæsthesia: Dr. Horace Wells of Hartford," *Yale Journal of Biology and Medicine* 5, no. 5 (1933): 421-30; Anthony, *The Fight over Anesthesia*; Howard, *Decoding the Void*.

nitrous oxide since 1844. However, when performing this in public during surgery for the first time, the patient awoke screaming; ruining Wells career and leading to the firing of Morton.³⁶¹

Not wanting to suffer the same fate of his former employer, Morton turned to use of ether instead. Known since 1741, it had mostly fallen out of favor due to its unstable nature after experimentation by Friedrich Hoffmann. Though the chemicals were ruled unpatentable (despite changing the name to Letheon, Morton developed an inhaler. Boston surgeon Henry Bigelow brought about that fateful October day because he wanted a demonstration, but Morton was late, and the assistant attempted to start administering ether without him. Morton arrived, seized the “Letheon” inhaler from the assistant, administered the dose, and (as a backup effort) held an ether rag to the patient’s nose during the surgery. After issuing the now famous (and possibly apocryphal) phrase, “doctor, that patient is now yours,” Dr. Warren took a knife and cut into the tumor as an audience watched in stunned silence.³⁶²

For years the unstable version of distilling ether meant that the chemical worked, but it was very dangerous to produce. However, in 1856, Edward Squibb developed a method using steam heat from lead coils, allowing safer manufacture of ether and allowing Squibb to become a powerhouse of pharmaceutical manufacturing. During the Civil War, Squibb became the leading

³⁶¹ Fenster, *Ether Day*, 1-10, 128-46; Anthony, *The Fight over Anesthesia*; Erving, "The Discoverer of Anæsthesia: Dr. Horace Wells of Hartford," 421-30; Howard, *Decoding the Void.*; P. H. Jacobsohn, "Horace Wells: Discoverer of Anesthesia," *Anesthesia Progress* 3, no. 42 (1995): 73-75; M. H. Alper, "The Ether Controversy Revisited Morton, Jackson," *Anesthesiology* 25 (1964): 560-63.

³⁶² Fenster, *Ether Day*, 128-46. Howard, *Decoding the Void.*; Fenster, *Ether Day*, 128-46, 213-24; Alper, "The Ether Controversy Revisited Morton, Jackson," 560-63.

manufacturer for medical kits, chorographer, ether, morphine, and quinine. The company lives on today as Bristol-Myers Squibb.³⁶³

One unintended consequence of this new “painless” surgery was that it took away critical information that medical professionals relied on. While the patient uses their sixth sense (homeostasis) to tell the doctor what is wrong and generally (luckily) doctors do not use taste any more (as in the medical exam in chapter three), the sight, smell, touch, and sound of the sick and wounded are paramount to diagnosis. While the screams of patients during surgery were terrible, they told the surgeon that the patient was still alive and functioning (not unlike how today, neurosurgeons conduct brain surgeries with patients conscious and talking). Because that fateful October 16, 1846 surgery was silent, the surgeon thought Morton had killed Colton and it was not until Morton revived him that Morton received his kudos.³⁶⁴

It is worth noting, however, that after Congressional inquiry, none of these men received federal credit for the first use of anesthetic. Congress granted the Georgia local Crawford Williamson Long credit after decades of work. In a series of affidavits compiled by the University of Pennsylvania (where Long was a graduate receiving his MD there in 1839) and organized by W. L. Laney, documents proved that Long used ether to excise a tumor, written in his account book as “James Venable / March 30- Ether and excising tumor \$2.00.” A native of Danielsville, Georgia, Long attended the University of Georgia for his undergraduate work. He returned to practice medicine in Georgia after graduating. By the time that the public displays in Boston were taking place, Long had performed at least six other operations. It was not until

³⁶³ George Winston Smith, *Medicines for the Union Army; the United States Army Laboratories During the Civil War* (Madison, WI: American Institute of the History of Pharmacy, 1962), 49-63. Albin, "The Use of Anesthetics During the Civil War, 1861-1865 " 99-114.

³⁶⁴ Howard, *Decoding the Void.*; Fenster, *Ether Day*, 106-26; Alper, "The Ether Controversy Revisited Morton, Jackson," 560-63.

1849 that Long even responded to the controversy, stating in the *Georgia Medical Journal* that he had been using what Jackson, Morton, and Wells had claimed for years before them, but that due to negligence of publication he might not receive credit. Though he provided little evidence, he stated, "My friends think I would be doing myself injustice, not to notify my /brethren of the medical profession of my priority of the use of ether by inhalation in surgical practice." It would not be until well after his death in 1878 that Long would receive his credit.³⁶⁵

The discovery of chloroform was much less contentious, but no less important. Occurring naturally to the tune of 660,000 tons by the breakdown of the soil and by certain fungi as a by-product, an American named Samuel Guthrie developed the synthetic version of chloroform developed by reacting chlorinated lime with ethanol in 1831. Though he noted the anesthetic properties, he believed that they were a side effect of the chemical reaction, which had accidentally made chloric ether as a by-product. Independently, but nearly simultaneously, Justus von Liebig (November 1831), and Eugene Soubeiran (January 1832) also synthesized the drug. In 1835, Jean-Baptist Dumas described its chemical and physical properties and in 1842, Robert Mortimer Glover proved the anesthetic effects on animals, but noted the toxicity and danger to humans. Returning to James Simpson, the obstetrician who fled the mastectomy in 1847, proved the efficacy on humans.³⁶⁶

³⁶⁵ W. J. Laney, "Proof of the Fact That Crawford W. Long, '39 Med. Was the First to Use Ether in a Surgical Operation 1842-1844," in *Crawford Williamson Long Collection 1842-1907*, ed. University of Pennsylvania (Philadelphia, PA: From the collection of George E. Nitzche, 1939).

³⁶⁶ Albin, "The Use of Anesthetics During the Civil War, 1861-1865 " 99-114; Smith, *Medicines for the Union Army; the United States Army Laboratories During the Civil War*, 252-305; "Effects of Chloroform on Mortality after Operations " *The British Medical Journal* 1, no. 473 (1870): 91; H. Laing Gordon, *Sir James Young Simpson and Chloroform (1811-1870)*, ed. E. Hart, Masters of Medicine (New York, NY: Longmans, Green & co., 1897), 88-111.

During the fall of 1847, Dr Simpson and two of his assistants, Dr George Skene Keith (1819-1910) and James Matthews Duncan (1826-1890), tested chemicals to see if they had anesthetic properties. Sitting in Simpson's dining room, they would measure out chemicals and inhale them to see if they would lose consciousness. After weeks of failure, chloroform had an interesting effect. Upon inhaling, the three men felt euphoric before collapsing and not waking until the next morning. Intrigued by the results, he tested them on his niece Petrie who fell asleep while singing the song "I am an angel." Before long, Simpson began to use chloroform during childbirth.³⁶⁷

During the war, the Union Army medical quartermaster issued each surgeon, assistant surgeon, and their medical assistants both ether and chloroform. The Confederates followed suit, but soon ran out of ether, and relied heavily on chloroform. It is worth noting the dangers of chloroform. As entertaining as the picture of Simpson and his colleagues huffing vials and seeing what happens is, chloroform is not only dangerous, but also deadly. Simpson and his colleagues could have easily not inhaled enough and not lost consciousness or too much and died nearly immediately. In order to test the effects of drugs and stabilize them, the Committee of the London Medical and Chirurgical Society tested three mixtures; Mixture A – one-part alcohol, two parts chloroform, and three parts ether; Mixture B – one-part chloroform and four parts ether; and Mixture C – one-part chloroform and two parts ether. Pharmacists developed Mixture A after the original version containing only one-part alcohol and two-part chloroform. Surgeon General William Hammond knew of these tests as he described patients who died consuming the

³⁶⁷ Albin, "The Use of Anesthetics During the Civil War, 1861-1865 " 99-114; Smith, *Medicines for the Union Army; the United States Army Laboratories During the Civil War*, 252-305; "Effects of Chloroform on Mortality after Operations " 91; Gordon, *Sir James Young Simpson and Chloroform (1811-1870)*, 88-111.

mixtures of chloroform and alcohol (which, both acting as depressants can cause the heart to slow dramatically, killing the patient). There is evidence that Confederate doctors, either untrained in the research or desperate, attempted the combination of chloroform and alcohol, leading to higher mortality rates.³⁶⁸

6.2.3 Infection

American popular culture has produced many depictions of medicine during the Civil War era. Whether from scenes like *Gone with the Wind*, *Gettysburg*, Ken Burns's *the Civil War*, or the recent *Free State of Jones*, amputation scenes are graphic representations of a war with men screaming as anesthetic runs low. However, as described above, surgeons performed most surgical operations under anesthetic by 1860. The graphic scenes of hospital are no less traumatic though.³⁶⁹

Hospitals, between the war zone and the masses of people, were in constant chaos. Here, a different speed was necessary, and a system of triage was critical. Using the Letterman system, surgeries conducted within forty-eight hours of the injury had a 27% mortality rate versus a 38% mortality rate with those occurring after seventy-two hours. Amputation was a last resort, of course, with attempts to splint and stabilize broken and shattered bones being more common. However, even these would often require surgeries to remove pieces of bones or shrapnel.

³⁶⁸ Lyman, *Artificial Anæsthesia and Anæsthetics*, 33; Albin, "The Use of Anesthetics During the Civil War, 1861-1865 " 99-114; William Hammond, "Death from Inhaling a Mixture of Chloroform and Alcohol," *American Journal of Medical Science* 1, no. 25 (1858): 41.

³⁶⁹ David O. Selznick, "Gone with the Wind," in *Richard L. Coe Theater Programs Collection (Library of Congress)* (Washington, DC: Library of Congress, 1939); Ken Burns et al., *The Civil War. Episode 2, 1862--a Very Bloody Affair*, vol. 2, *The Civil War* (United States: PBS, 1990); Gary Ross, "Free State of Jones," (United States: IM Global, 2016); Ron Maxwell, "Gettysburg," (United States: New Line Cinema, 1993); Humphreys, *Marrow of Tragedy*, 30-31.

Moreover, of course, the surgeries were not sanitary. As Margret Leech, a Union nurse described the process:

in threading the needle for the stitches, it was customary to point the silk by wetting it with saliva and rolling it with the fingers. Cold water was the sovereign dressing; bad wounds were repeatedly drenched to relieve the burning pain. Sometimes the wound was covered with wax; or ointments were applied on lint which had been scraped from cotton cloth by the patriotic but unsterile hands of women and children. Poultices of flaxseed meal or moistened bread were valued for promoting an abundant flow of pus, for all wounds was expected to suppurate.³⁷⁰

For an average injured soldier, medics or (if required) an ambulance, would help get a patient off the ground. These men were dirty, sweaty, bleeding and in shock. Depending on the severity of the injury, nurses treated them in the field hospital, the corps hospital, or the general/pavilion hospital or wayside hospitals. Field hospitals tended the most urgent cases, so saw the most suffering, and experienced the worst sounds and smells. Unfortunately, field hospitals were also where doctors and nurses treated the least injured, so they could return to the battle; the screams and smells haunted many of them for years. The mechanical way that doctors

³⁷⁰ *Marrow of Tragedy*, 30-31; Elisha Harris, "Yellow Fever and the Atlantic Coast and at the South During the War," in *Contributions Relating to the Causation and Prevention of Disease, and to Camp Diseases*, ed. Austin Flint (New York, NY: Published for the US Sanitary Commission by Hurd and Houghton, 1867), 236-68; Felix Formento and Moritz Schuppert, *Notes and Observations on Army Surgery*, The American Civil War Surgery Series (San Francisco, CA: Norman Publishing, 1990), x, 47, 69; U. S. Army Surgeon General's Office, *The Medical and Surgical History of the War of the Rebellion. (1861-1865.) Part I, Volume II. (1st Surgical Volume)* (Otis Historical Archives, National Museum of Health and Medicine, 1870), 860-78; Margaret Leech, *Reveille in Washington, 1860-1865*, Time Reading Program Special ed. (Alexandria, VA: Time-Life Books, 1980), 146.

treated patients in an assembly line even haunted the doctors. The care they provided was becoming less individualized and more generic, a standard medical practice. As Union Surgeon Claiborn Walton put it, “Yes sick and tired of bloodshed. Weary and worn out with it. We have been on this campaign fifty-six days and it has been almost one continued scene of carnage from day to day. I am not out of much of the groans of the wounded from morning till night. My hands are constantly steeped [sic] in blood. I have had them in blood and water so much that the nails are soft and tender.” Patients delirious and wounded followed by being in shock and anesthetized, that they would often awake without limbs to their surprise.³⁷¹

Union soldiers fared better than those of the Confederacy did. Union soldiers had a regular diet, not always well nourished, but more or less fed. Confederate soldiers were so malnourished; they were effectively blind at night, and much more susceptible to illness. From an official report to the USSC, the Commission General stationed at Murfreesboro, Dr. Reed, stated that the greatest request from the Army of the Cumberland was for fresh vegetables. They had only received two shipments of vegetables in the previous nine months and, subsequently, scurvy was appearing in almost every regiment. This not only made it more difficult to fight, but impossible to march far distances or labor building defenses. Further, the doctor notes, “if wounded in battle, their wounds would not heal kindly, but would be followed by pyemia,

³⁷¹ Claiborn Walton, June 29, 1864 1864.

To read these letters are to see into the darkness of a broken and depressed man.

Jesse Luce, "Diary of Jesse B. Luce: Pvt. Co. B 125th Ohio Infantry," (Kennesaw, GA: Kennesaw Mountain National Park, 1864), August 1st - 12th, 1864.

This series of entries is actually quite funny. It is tragic, but the entries go “8/2- I was told I would not need to amputate my arm. 8/6 – Today they amputated my arm. 8/7 Today I awoke without an arm.”

Commission, *The Sanitary Commission of the United States Army; a Succinct Narrative of Its Works and Purposes*, 123.

erysipelas, hospital gangrene, and excessive suppuration.” Observation of the enemy and communication with, Dr. Avent, their medical director (who Dr. Reed called “a surgeon of unusual intelligence,”) places Confederate mortality of wounded at 40% due to “the lack of vegetable diet.”³⁷²

In an era before the understanding of germ theory, especially in the United States, the scourge of surgery was infection. While we started the chapter with Pease, he was nearly miraculously lucky to go under the knife so many times without getting an infection (though there are reasons for this we will get to later). However, he was an exception more than the rule, as mentioned before. There were three main infections that ravaged the surgical wards: erysipelas, abscesses, and gangrene. With the men, dirty, malnourished, and often sickly, erysipelas was common. Caused by infections of cuts and scratches, skin became red and irritated. This evolves into shakes, fevers, and constant pain. In extreme cases, it can resemble pox and become excruciating, with the Union army reporting 24,812 cases and 2,107 deaths. Once the hospital system was going, Clara Barton observed that there was an erysipelas ward in nearly every hospital. Abscesses were small pockets of bacterial infection leaving pus at the sight of surgery and injury. With 49,622 Union infections leading to 201 deaths, this was a common occurrence that was more frustrating than deadly. The other infection, gangrene, was a much more terrifying situation.³⁷³

³⁷² *The Sanitary Commission of the United States Army; a Succinct Narrative of Its Works and Purposes*, 123.

Pyemia is the same as Septicemia – A blood stream infection which can lead to a septic shock, a substantial drop in blood pressure, leading to death.

³⁷³ Barton, "Clara Barton Papers: Diaries and Journals: 1862, Dec.," 2.

While gangrene caused few direct deaths, gangrene often led to complications such as pneumonia or required additional surgeries and so became the scourge of the operating room. As an infection, it is particularly difficult to manage. The bacteria tunnels through the healthy tissue, infecting the patient further as skin became necrotic. Certain variations of the infection, like gas gangrene and necrotizing fasciitis can cause sepsis and lead to rapid death even with modern medicine. Once it occurs, there was little surgeons could do but amputate the infected area, especially in the nineteenth century before the advent of modern antibiotics. In the South, nurses treated those who refused to submit to the surgery with two to three times daily “acid washes” to combat the illness, but due to the nature of the bacterium, after seven days nurses would stop the treatment often to negligible effect.³⁷⁴

To minimize the risk of gangrene, by 1864 the Union Army made it standard practice to debride wounds with disinfectants (see appendix B). This would clean out dead material, leaving clean wounds behind. Surgeon General Samuel Moore recommended nitric acid. Other surgeons preferred other chemicals. Middleton Goldsmith, after many experiments, was able to lower his patient mortality rate to 2.6% using bromine. These procedures were excruciating and required painkillers or anesthetics, but survival rates increased dramatically.³⁷⁵

*Table 2: Wounded Mortality, Union Army, and Army of the United States (Note: Year extends from June 30-30; therefore, first year of the war is June 1861-62).*³⁷⁶

War Year	Wounded	Died of Wounds	Mortality
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³⁷⁴ Humphreys, *Marrow of Tragedy*, 88; Miller, *Empty Sleeves*, 55.

In the context of Southern medicine, this was most often Lime (Chloride of Lime or milk of lime). The patients gangrenous wound would be submerged in the caustic liquid. Pain would be excruciating and the patient would need pain killers.

³⁷⁵ Humphreys, *Marrow of Tragedy*, 88.

³⁷⁶ U. S. Army Surgeon General's Office, *The Medical and Surgical History of the War of the Rebellion. (1861-1865) Part I. Volume I. Medical History. (1st Medical Volume)* (Otis Historical

First	17,498	4,479	25.6%
Second	57,395	8,773	15.3%
Third	96,970	9,238	9.5%
Fourth	57,122	10,201	17.0%

As Table 4 shows, until supplies started growing short in the last year of the war, the routine practice of wound disinfection helped prevent deaths. However, it is worth noting that germ theory did not replace miasmatic theory immediately; the process was slow and daunting. As William Campbell notes while taking medical school classes from the prestigious University of Pennsylvania in 1870,

It was formerly supposed that whatever would give the air a pleasant smell destroyed its bad quality, hence the use of cologne, burnt coffee and spices etc. This was a great mistake. . . Chemical action is necessary for disinfection. Fresh air is the best disinfectant. Next to this is a thunderstorm, which washes out the air and lessens mortality. Leaving the above out of consideration, Chlorine is the best. Its most available form is chloride of lime. . . it is used for water closets. Lime absorbs the results of organic decomposition. It acts not on the air.³⁷⁷

Amputations, surgeries, and gangrene led to a nation of the handicapped that for the first time the government tried to manage. In 1862, the U. S. Congress passed a bill that would grant war amputees fifty dollars for a prosthetic arm and seventy-five dollars for a prosthetic leg for

Archives, National Museum of Health and Medicine, 1870), 146, 296, 452, 604, 64 and 84, tables 24, 47, 71, 95, 104, and 07. Freemon, *Gangrene and Glory*, 215.

³⁷⁷ William J. Campbell, "Lectures on Hygiene Delievered in the Central High School, to the 49th Graduating Class by Prof. Henry Hartshorne M. D. Vol 1," University Archives (Philadelphia, PA: University of Pennsylvania 1869-70), 201-02.

the wounded of the Union Army. During the war, the Confederacy was never able to put together a similar effort and after the war, Confederate soldiers could not apply for the Federal money. Southern organizations, like the USSC, supplied soldiers with crutches and prosthetics, but waiting lists were long. In Richmond, VA, wealthy citizens founded one of the more successful groups called the Association for the Relief of Maimed Soldiers (ARMS) to seek out the “Benevolent and Patriotic Confederate Soldiers” and provide them with prosthetic limbs. They negotiated with manufacturers to set lower prices and raised \$113,464 for buying the prosthetics.³⁷⁸

After the War, several groups, including the United Daughters of the Confederacy (UDC) and the United Confederate Veterans (UCV), raised money to distribute prosthetics and did so until 1893; the later admitted to only around 270 disabled members took up this mantle. With this at stake and pressure from this reveal, both organizations raised awareness and recruitment of the disabled soldiers and even pushed several Southern states to make efforts to develop systems to get the waiting soldiers prosthetics. Within a few years of the program, South Carolina, for example, had nearly 1,250 applicants for their program. Although there were many men left disabled after the war, the conditions that they faced as they returned home were so disparate that it caused bitterness in the former Confederacy. As H. A. Sommers put it at the national meeting of the UDC in 1906, Union soldiers returned home to full granaries and pensions support from the government. Confederates returned home to destroyed cities, farms, and without slaves to help them rebuild. In Georgia in 1886, to respond to this, the state passed a

³⁷⁸ *Public Acts of the General Assembly of the State of Georgia*, 1882, 64; David A. Gerber, *Disabled Veterans in History*, Corporealities (Ann Arbor, MI: University of Michigan Press, 2000), 270; Humphreys, *Marrow of Tragedy*, 292; Miller, *Empty Sleeves*, 135-40; Susan M. Schweik, *The Ugly Laws: Disability in Public*, The History of Disability (New York, NY: New York University Press, 2009), 32-34, 149, 292.

law allowing veterans to register, because Georgia's legislature had passed a law allowing wounded soldiers to beg for donations.³⁷⁹

7 ILLNESSES: THEIR EFFECT AND TREATMENT

Large mahogany boxes held the instruments; and the heavy center table was covered with a freshly wiped rubber cloth. But asepsis was not understood. The surgeon rolled up his sleeves, gave his knife a last flick on the sole of his boot, and the operation began. His exploring hands wore no gloves. The probe carried the infection deep into the torn tissues. If one of the sponges, employed to mop out the wound, happened to drop onto the floor, it was squeezed in water and used at once; and, in any case, only a cursory washing had cleansed it of the blood and pus of the last operation...Blood poisoning, tetanus, secondary hemorrhage and gangrene were familiar visitors in the finest of the shining, whitewashed new pavilions of which Washington was so proud, and helped to fill the pine coffins which went jouncing in the dead carts to the cemetery.

Reveille in Washington 1860-65

Margaret Leech³⁸⁰

While no one would say that the practicing medicine during the Civil War was easy, with hundreds of wounded bodies on the battlefield if not thousands, it often got much worse. With thousands of people acting like mobile cities for the first time in American history, thousands got sick with everything from childhood illnesses to cholera and diphtheria. Before the war, there

³⁷⁹ *Public Acts of the General Assembly of the State of Georgia*; Gerber, *Disabled Veterans in History*, 270; Humphreys, *Marrow of Tragedy*, 292; Miller, *Empty Sleeves*, 135-40; Schweik, *The Ugly Laws: Disability in Public*, 32-34, 149, 292.

³⁸⁰ Leech, *Reveille in Washington, 1860-1865*, 142.

were some basic sanitation and quarantine rules put in place. However, the war was on such a large scale that many of these sanitary measures became impossible. After the war, while doctors learned some lessons, they treated the freedmen so poorly that tens of thousands died in disease outbreaks in the single biggest smallpox epidemic in since our country became a nation. The war provides a laboratory for techniques, training doctors and testing treatments. However, the overwhelming illnesses and the constantly sick state of the military racks up incredible numbers of the sick; they even affect the outcome of the war.³⁸¹

7.1 Illnesses by the Numbers

As a factor of the Civil War, the study of medicine is relatively new, even if much of the data is not. Immediately after the war, the U.S. Government Printing Office began publishing a book called *The Medical and Surgical History of the War of the Rebellion, 1861-65* (the MSHWR). This tome consisted of six volumes published between 1870 and 1888 and was “prepared Under the Direction of Surgeon General United States Army, Joseph K. Barnes.” The book included hundreds of etchings, wood engravings, charts, and tables, as well as many photographs and color plates (lithographs, chromolithographs, albumen photographs, heliotypes, and Woodbury types) accompanying the approximately 3,000 pages of densely printed text. This text would lay the groundwork for medical studies of the war; however, it would not be until the late twentieth century that books about illness as a factor in the war would appear. In fact, even today most historical medical works either omit using his information in discussions of causal effects of the war or misuse the information by posthumously diagnosing patients. Noted medical historian Jack Welsh goes as far as saying “I have not speculated how their medical

³⁸¹ Freemon, *Gangrene and Glory*, 215-20; Schroeder-Lein, *Confederate Hospitals on the Move*, 149-70; Downs, *Sick from Freedom*, 95-119, 24.

problems might have affected their performance or the war, as this is better left to trained military historians. However, even a brief review of the multiple illnesses and injuries resulting from wounds and accidents would suggest the possible influence poor health had on their field performance.”³⁸²

It is helpful to take a closer look at the understanding doctors had of diseases and their treatment. Doctors of the era, generally, only mildly understood pathogens. People knew that those who were around mosquitoes and insects became ill, but there was little understanding as to why. Therefore, even though Lincoln had General Benjamin Butler create drainage around New Orleans to remove stagnant water, this was only to prevent the spread of Yellow Fever. Science did not link Yellow Fever to mosquitoes until decades after the war ended.³⁸³

Looking at the disease statistics for the Union army, we find a very sickly army. Throughout the war, dysentery and other gastrointestinal illnesses infected on average 711 out of every thousand soldiers while malnutrition affected on average 252 out of every thousand. Various fevers infected 584 on average per thousand; this included malaria in 522 per thousand on average, a constant undiagnosed fever (likely caused by bacterial infection) in 40 on average per thousand, and a Typhus or typhoid fever (these were often cross-diagnosed). Finally,

³⁸² United States Surgeon-General's Office, *The Medical and Surgical History of the War of Rebellion (1861-65)*, 2 vols., vol. 2 (Washington, DC: U.S. Government Publishing Office, 1870); *ibid.*, 1; Office, *Medical and Surgical History Pt 1 Vol 1*; *Medical and Surgical History Pt 1 Vol 2*; *The Medical and Surgical History of the War of the Rebellion. (1861-1865.) Part II. Volume Ii. (2nd Surgical Volume)* (Otis Historical Archives, National Museum of Health and Medicine, 1876); *The Medical and Surgical History of the War of the Rebellion. Part II, Volume I. (2nd Medical Volume)* (Otis Historical Archives, National Museum of Health and Medicine, 1879); *The Medical and Surgical History of the War of the Rebellion. Part III, Volume I. (3rd Medical Volume)* (Otis Historical Archives, National Museum of Health and Medicine, 1888); *Medical and Surgical History Pt 3 Vol 2*; Welsh, *Two Confederate Hospitals and Their Patients: Atlanta to Opelika*, 1-10.

³⁸³ Freemon, *Gangrene and Glory*, 217.

respiratory ailments afflicted 261 on average per thousand, including acute bronchitis 174 average per thousand. This excludes various epidemics and disease acquired from infections from surgery or injury.³⁸⁴

Table 3: Infectious Diseases listed in the United States Army³⁸⁵

	Diagnosis	Cases	Deaths
1	Diarrhea and Dysentery	17139135	44558
1a	Cholera Morbus	26366	305
2	Malaria	1315955	10063
3	Catarrh, Epidemic Catarrh, and Bronchitis	283075	585
4	Typhoid	148631	34833
5	Gonorrhoea	102893	7
6	Conjunctivitis	84956	4
7	Boils	83170	0
8	Syphilis	79589	151
9	Pneumonia	77335	19971
10	Jaundice	77235	414
11	Measles	76318	5177
12	Tonsillitis	66665	109
13	Mumps	60314	84
14	Abscess	49622	201
15	Tuberculosis	29510	6946
16	Erysipelas	24812	2107
17	Smallpox	18952	7058
18	Inflammation of the Liver	12395	327
19	Diphtheria	8053	777
20	Inflammation of the Brain, Spin, or Meninges (meningitis)	3999	2660
21	Typhus	2624	958
22	Yellow Fever	1371	436
23	Scarlet Fever	696	72
24	Other Miasmatic Disease	94997	2363

³⁸⁴ Adams, *Doctors in Blue*, 240-41; Freemon, *Gangrene and Glory*, 206; Paul E. Steiner, *Disease in the Civil War; Natural Biological Warfare in 1861-1865* (Springfield, IL: C. C. Thomas, 1968), 10.

³⁸⁵ *Disease in the Civil War; Natural Biological Warfare in 1861-1865*, 10. Freemon, *Gangrene and Glory*, 215-20. Office, *Medical and Surgical History Pt 1 Vol 1; Medical and Surgical History Pt 1 Vol 2; Medical and Surgical History Pt 2 Vol 2; Medical and Surgical History Pt 2 Vol 1; Medical and Surgical History Pt 3 Vol 1; Medical and Surgical History Pt 3 Vol 2*.

25	Debility from Miasmatic Disease	18782	153
Total		20,587,450	140,319

Table 4: Non- Transmittable Diseases of the United States Army³⁸⁶

Diagnosis	Cases	Deaths
Rheumatism	286863	710
Scurvy	46931	771
Night-Blindness	8087	0
Nostalgia	5547	74
Insanity	2603	90
Neuralgia	58774	18
Sunstroke	6617	261
Army Itch	32080	0
Hernia	24353	39
Piles	57745	30
Varicocele	7060	1
Varicose Veins	8258	2
Headache	66862	1
Asthma	9365	75
Colic	75098	77
Constipation	145960	23
Dyspepsia	37514	31
Total	879,717	2203

Total Illness 21,467,167 142,522³⁸⁷

This means that of the roughly 2.1 million troops that fought in the Union army, the average soldier was sick over 10 times while in service. Illnesses led the Union army to discharge 223,535 soldiers.³⁸⁸

³⁸⁶ Steiner, *Disease in the Civil War; Natural Biological Warfare in 1861-1865*, 11. Office, *Medical and Surgical History Pt 1 Vol 1; Medical and Surgical History Pt 1 Vol 2; Medical and Surgical History Pt 2 Vol 2; Medical and Surgical History Pt 2 Vol 1; Medical and Surgical History Pt 3 Vol 1; Medical and Surgical History Pt 3 Vol 2*.

³⁸⁷ Drew Gilpin Faust, "'Numbers on Top of Numbers:' Counting the Civil War Dead," *The Journal of Military History* 70, no. 4 (2006): 995-1009. Steiner, *Disease in the Civil War; Natural Biological Warfare in 1861-1865*, 11.

³⁸⁸ Faust, "'Numbers on Top of Numbers:' Counting the Civil War Dead," 995-1009. Steiner, *Disease in the Civil War; Natural Biological Warfare in 1861-1865*, 11.

Due to fires lit by the retreating government in Richmond, medical documents (along with many others) were destroyed, though Samuel Stout's frustrations show that the quality of paperwork was never as regular as in the Union. However, because of this shortfall, we only have Confederate statistics on a smaller number of illnesses and only from the first eighteen months of the war. The numbers are stark.³⁸⁹

*Table 5: Confederate Soldiers Sick and Wounded During the First Eighteen Months of the War*³⁹⁰

Diagnosis	Field Cases	Field Deaths	Hospitals Cases	Hospitals Deaths	Total Deaths
Continual Fever	36,746	5,205	40,565	7,020	12,225
Malaria	115,415	848	49,311	486	1,334
Eruptive Fevers	44,438	1,036	32,755	1,238	2,274
Diarrhea	226,828	1,696	86,506	1,658	3,354
Pulmonary	42,204	2,278	36,988	4,538	8,072
Rheumatism	29,334	--	30,438	--	--
Gunshot Wounds	29,569	1,623	47,724	2,618	4,241
All Others	324,321	2,278	123,402	1,802	4,080
Killed in Action	--	8,087	--	--	8,087
Total	848,855	24,307	447,689	19,360	43,667

At the height of the war, there were shortages of medicines on both sides, but the shortages were especially desperate in the Deep South. As mentioned earlier in this chapter, ether was almost impossible to find by the third year of the war. By 1862, a group of physicians

³⁸⁹ Samuel P. Moore, "Grand Summary of the Sick and Wounded of the Confederate States Army under Treatment During the Years 1861 and 1862," *Confederate States Medical and Surgical Journal* 1, no. 1 (1864): 139-40. Freemon, *Gangrene and Glory*, 220.

³⁹⁰ Moore, "Grand Summary of the Sick and Wounded of the Confederate States Army under Treatment During the Years 1861 and 1862," 139-40. Freemon, *Gangrene and Glory*, 220.

met in Augusta to attempt to find medicines needed and assure their efficacy. Physicians used samples of the drugs, herbs, and chemicals extracted from native substances to test their strength and curative properties. The Confederate Government and a system of laboratories would be set up to conduct further testing and publish a list of successful medications.³⁹¹

Under the eye of doctors Joseph and John LeConte, labs were set up in Augusta, Macon, Atlanta, and Milledgeville. The medical community of Georgia knew the LeConte brothers, especially John, as educators and scientists, despite only practicing medicine on their family members and slaves. The brothers would go on to help found the University of California (now Berkeley), both serving as professors and John serving twice as its President. Their expertise and testing incorporated the use of tree bark (specifically willow, a drug now known as aspirin) and roots of all kinds, watermelon seeds, boxwood, peanut oil, cottonseed oil, dandelions, corncobs, and woman's slipper.³⁹²

However, purity remained an issue. After a series of outbreaks due to ineffective vaccines, in the official Confederate Army medical regulations, the 1862 edition includes a provision for the official vaccine from the Surgeon General. Despite this, Surgeon General Samuel Preston Moore had to issue another circular in 1863 after the Confederates suffered "pernicious results" due to impure vaccines. This encouraged the testing and certification of vaccinations from the Surgeon General, but did little to stop the medical staff to have to use non-sanctioned supplies.³⁹³

³⁹¹ Gay, *The Medical Profession in Georgia, 1733-1983*, 246-48.

³⁹² *Ibid.*, 247.

³⁹³ Moore, "Circular on Vaccinations," 241-55.

Even the medicines that were found were in short supply. The required amounts of medicine supplied for 1,000 troops for one year in the Confederacy were pitiful and far below the Union levels (see footnote) and these numbers were nearly never met, especially after 1863. Ether ran out earliest, but other manufactured chemicals soon followed, leaving the Confederacy in short supply. This made curatives rare, surgery more dangerous, and the risk of infection as very high.³⁹⁴

As the war dragged on, the way physicians obtained medication changed. With traditional manufacturing cut off or destroyed, Confederates needed to use a variety of methods to get the medications they needed. The most successful was the seizure of medicines from defeated Union troops or as contraband from citizens in the South. There were those who braved trade with the South, including sympathetic Northerners, Caribbeans, and Europeans, but this involved running the Union naval blockade. This smuggling is the way that many of the complex chemicals, like chloroform and ether made it to the South. In both cases, most of the drugs remained on the coast. Confederate physicians also turned to crude manufacture; difficult to make outside a proper laboratory setting, slaves and chemists attempted to make the drugs, including traditional African and slave treatments. While, to this point, the federal government

³⁹⁴ Gay, *The Medical Profession in Georgia, 1733-1983*, 247.

Supplies required were “acetic acid, 5 pounds; arsenic, 5 ounces; muriatic acid, 8 pounds; sulfuric acid, 8 pounds; sulfuric ether, 16 pounds; alcohol, 192 pint bottles; ammonia, 5 pounds; silver nitrate, 8 ounces; asafetida, 32 ounces; camphor, 16 pounds; chloroform, 8 pounds; adhesive plaster, 40 yards; extract of belladonna, 16 ounces; Sarsaparilla, 16 pounds; iodine, 16 ounces; opium, 5 pounds; jalap, 32 ounces; aloes, 32 ounces; quinine, 80 to 160 ounces; sugar, 160 pounds; and digitalis, 32 ounces.”

had spent more money during the Civil War than ever before in American History, but it was never sufficient and seemed to never go nearly far enough.³⁹⁵

In an era of short supply, devastating illness, and mass injuries, doctors sought innovative ways to develop treatments for their patients. Dr. J. B. Bean, of Macon, GA and Dr. Gunning of New York City working independently around the same time (the *Richmond Medical Journal* reported both cases in February of 1866), to develop a rubber splint that supported and healed jaws shattered by minié balls and cannon balls.³⁹⁶

However, not unlike the USSC's Dr. Reed noted, food illnesses and shortages were very common and dangerous. Outside of cases like dysentery, typhoid, cholera, parasites, etc., diseases caused by inadequate quality or infested food rose during the war. For example, Confederate Surgeon General Samuel Preston Moore issued in 1862 a Diet Table for Military Hospitals, wherein doctors could assess the wounded and ill and assign them one of ten diets: a Tea Diet, Spoon Diet, Beef Tea Diet, Milk Diet, Light Meat Diet, Chicken Diet, Half Diet, Fish Diet, Roast Half Diet, and a Full Diet. The Surgeon General approved the design of the assigned diet to help the men get their strength back and return them to battle. As the war continued, however, shortages forced the quartermasters to reduce the meals; thus, doctors prescribed smaller meals and recoveries took a hit because of it. Samuel Stout's records convey the

³⁹⁵ Humphreys, *Marrow of Tragedy*, 9, 24, 26, 122; Albin, "The Use of Anesthetics During the Civil War, 1861-1865 " 99-114; Gay, *The Medical Profession in Georgia, 1733-1983*, 241-55; Miller, *Empty Sleeves*, 13, 19, 24.

³⁹⁶ Gay, *The Medical Profession in Georgia, 1733-1983*, 241-55.

disastrous results of food shortages, describing people dying of “unsightly arms, erysipelas, and starvation” in Georgia hospitals.³⁹⁷

Not only did food shortages lead to armies unable to fight, march, or labor; they may have led to losses on the battlefield as well. Malnutrition might be the most intriguing health complication of the war. While most people associate a lack of fruit with scurvy, other conditions could occur. While Union troops had a supply of preserved vegetables and thus the Vitamin A needed to maintain health, Confederate troops did not. This led to the rods in the eye (the cells in the retina that detect light) to atrophy, developing a condition called nyctalopia or Night Blindness. Using battlefield reports from troops at the same battle from different sides, night battles where Union troops were able to fight by moon and starlight, Confederate troops described as pitch black. By 1864 this condition was nearly universal on both sides of the war, and there are several noteworthy cases.³⁹⁸

The Chickamauga Campaign (August 28 to September 21, 1863) serves as an excellent example where the disparity is clear. The Chickamauga Campaign started as an offense maneuver by the Union’s Army of the Cumberland led by General William Rosecrans, coming from Murfreesboro, seizing Chattanooga, and attempting to push further into Georgia. However, General Braxton Bragg blocked him and after the Confederate victory at the Battle of Chickamauga, Rosecrans retreated to Chattanooga and was so embarrassed that he resigned his commission. However, there were many small and notable skirmishes as the armies searched for each other. For example, outside Wauhatchie on August 28, the Union Fourth Army Corps led

³⁹⁷ Moore, "Form No. 1: Diet Table for Military Hospitals -- Articles Composing the Different Diets for a Day--Averdupois Weight.." (For complete description, see Appendix F). Samuel Hollingsworth Stout, 1864.

³⁹⁸ Freemon, *Gangrene and Glory*, 107-16.

by Brigadier General John Geary. Geary near Brigadier General Micah Jenkins' brigade of South Carolinians when General Bragg's Lieutenant General James Longstreet told Jenkins to engage the enemy. Fullerton wrote, "The night of the 28th was clear and the air crisp. The moon shone brightly from before midnight until morning." While commanding the troops during the same battle on the same night Geary reported, "The moon was fitful and did not afford sufficient light to see a body of men only 100 yards distant." While directly across from him, a Union soldier saw the Confederate lines approaching across the open field. This discrepancy in sight would lead to a Confederate defeat that Bragg would blame on Longstreet. However, rather than blaming Jenkins, Longstreet defended him, stating that the men were "nearly half the time on half rations." As Robert Stiles observed in his memoirs, even the army of Virginia had such issues. "Perhaps the most peculiar and striking fact or feature of the physical condition of General Lee's army during the latter half of the war was night blindness - the men affected being unable to see after sunset, or a little later. I do not know what proportion of the men were so affected, but it is safe to say that thousands were."³⁹⁹

It is worth noting, that as supplies dwindled this affected the Union as well. As shown earlier, doctors reported 8,087 cases of night blindness and even on the Wauhatchie campaign,

³⁹⁹ Ibid., 212; John K. Stevens, "Hostages to Hunger: Nutritional Night Blindness in Confederate Armies," *Tennessee Historical Quarterly* 48, no. 3 (1989): 131-43; James Longstreet, *From Manassas to Appomattox: Memoirs of the Civil War in America* (New York, NY: Skyhorse Publishing, 2013), 475-77; Thomas Lawrence Connelly, *Autumn of Glory: The Army of Tennessee, 1862-1865*, Louisiana pbk. ed. (Baton Rouge, LA: Louisiana State University Press, 2001), 257-61; Richard Lewis, *Camp Life of a Confederate Boy, of Bratton's Brigade, Longstreet's Corps, C. S. A.* (Charleston, SC: The News and Courier Book Presses, 1883), 64; Andrew J. Boies, *Record of the Thirty-Third Massachusetts Volunteer Infantry, from Aug. 1862 to Aug. 1865* (Fitchburg, MA: Sentinel Printing Company, 1880), 47-48; George Washington Skinner and Pennsylvania. Chickamauga-Chattanooga Battlefields commission. [from old catalog], *Pennsylvania at Chickamauga and Chattanooga* (Harrisburg, PA: W. S. Ray, State Printer, 1901), 257; Robert Stiles, *Four Years under Marse Robert*, Facsimile 40 (Dayton, OH: Morningside Bookshop, 1977), 349-50.

Union Reserve Corps Colonel, Dan McCook wrote it was so dark, he could not see his hand in front of his face while the fresh reserves of the Fourth Texas saw a bright sky. It is without question that malnutrition caused significantly more issues in the Confederacy.⁴⁰⁰

7.2 Illnesses of the War

By this point, it should be clear that the war pivoted on the health of the soldiers on both sides; and as Napoleon stated, an army marches on its stomach. The need for healthy food and good nutrition is critical to soldier readiness. Although the need was high, and the importance of adequate nutrition understood, even when food was available it was not enough to keep soldiers healthy. Before a battle, soldiers would have to march dozens, if not hundreds, of miles to arrive at the battlefield. Water made it possible for men able to march the distance while carrying 45-50 pounds if a Union soldier and 35 to 80 pounds for a Confederate Soldier. However, to nearly 70 percent of soldiers water was also often the source of illness. Water, during this period, was not only filthy, but also poorly managed. Soldiers dug latrines close to sources of drinking water. Soldiers filled canteens, which often had poor seals, with water. The poor nature of the seals would allow bacteria and fungus in, and then the metal material in the canteens would keep the water at , between 45 and 140 degrees Fahrenheit, a very warm temperature that microbiologists call the “danger zone,” where bacteria grows the fastest. That life-saving drink of water would invariably lead to illness. The lucky few would get, perhaps, only mild diarrhea. Many more would get far worse than the dysentery (in modern medical texts, doctors refer to the disease as *Shigella*, of which dysentery is a strain). Soldiers suffered from diarrhea, joined by vomiting, both of which might include by bloody discharge. Records of camps described the

⁴⁰⁰ Freeman, *Gangrene and Glory*, 212. Steiner, *Disease in the Civil War; Natural Biological Warfare in 1861-1865*, 11. Stevens, "Hostages to Hunger," 131-43.

horrific scene as smothered with the stench of death and the constant sound of retching. Flu-like symptoms of fever, sweat, and ache, pains, coughing, and wheezing followed next. Soldiers with dysentery usually survived. However, those who contracted cholera were often dead within hours. Soldiers were helpless, as entire battalions would, one by one, vomit themselves to death.⁴⁰¹

For most illnesses, the treatment was difficult, so prevention was key. Armies used vaccination where available (such as smallpox), but quarantine was crucial. In medical schools after the war, Campbell went over the use of quarantine. "It has been employed against smallpox, yellow fever, cholera, typhus, plague, measles, and scarlet fever. It is of no use against yellow fever, typhus, and cholera." The battlefield made it difficult to do much in the way of quarantine, though possible, but Benjamin Butler would prove this common medical knowledge wrong.⁴⁰²

Of the many documented epidemics experienced on both sides of the war, such as meningitis and smallpox, which would sweep through indiscriminately, the most ironically cruel was measles. There was no crueler disease than one that favored one side over the other. In many ways, this became almost a form of biological warfare. If you were a Northerner, the army was more likely to recruit you from more densely populated urban area, like a city. Thus, you were more likely to have had measles as a child and be immune as an adult; this is not unlike

⁴⁰¹ "Shigella – Shigellosis," Centers for Disease Control and Prevention, <https://www.cdc.gov/parasites/malaria/index.html>. Freeman, *Gangrene and Glory*, 90-91, 119-22; Humphreys, *Marrow of Tragedy*, 27,77,79,91. "Cholera - Vibrio Cholerae Infection," Centers for Disease Control and Prevention, <https://www.cdc.gov/cholera/index.html>. Freeman, *Gangrene and Glory*, 192.; James Downie, "How Much Did a Civil War Soldier Carry?," *The New Republic*, 04/12/2011 2011.

⁴⁰² Campbell, "Lectures on Hygiene Delievered in the Central High School, to the 49th Graduating Class by Prof. Henry Hartshorne M. D. Vol. 1," 63-64.

chicken pox or mumps before vaccination for these diseases became available. However, measles ravaged those from isolated rural areas who were less likely to have had a childhood immunity. For children, the symptoms of measles are rash, high fever, cough, runny nose, and red, watery eyes that last about a week. However, for people over the age of sixteen who get measles, the complications of diarrhea, ear infections, pneumonia, encephalitis, seizures, and death are far more common. These secondary complications of measles swept through the Confederate Army along with more rural Union troops, with 76,318 cases leading to 5,177 deaths in the Union Army over the entire war and 44,438 cases leading to 2,274 deaths in the Confederacy in the first eighteen months, (the only time period for which we have data) and before major upswing occurred in 1863. Hundreds of cases occurred monthly in Atlanta Hospitals and during each month of the Vicksburg Campaign.⁴⁰³

7.2.1 Prisons

The conditions in forts and military prisons often contributed to the spread of disease. Prisoners overwhelmed the prisons, with men stacked and often sharing bunk beds, food was scarce, and scurvy caused by malnutrition was common. Andersonville Prison was the site of the only war crimes trial during the war. Conditions were also bad at Union prisoner of war camps like Rock Island Prison, Elmira Prison, and Camp Chase and at Confederate camps like Libby, Belle Isle, and Florence stockades. However, Andersonville stands out as having

⁴⁰³ Freeman, *Gangrene and Glory*, 122,55, and 210. ⁴⁰³ "Measles (Rubeola)," Centers for Disease Control and Prevention, <https://www.cdc.gov/measles/index.html>; *Gangrene and Glory*, 86, 119-20, 52, 202.

Not Rubella, which is a different, though similar, disease. There is suspected that the total Confederate number was significantly higher as a lethal strain went around the world in the late 1850's and early 60s. It would kill 20% of Hawaii's population.

especially dire conditions with 13,000 of the 45,000 imprisoned men dying (Camp Douglas in Chicago was the most lethal Union prison, with 4,275 Confederates dying there).⁴⁰⁴

Not unlike the armies, diseases would come through in waves spreading through troops in camps and prisons alike; childhood illnesses (measles, mumps, tonsillitis, etc.) were followed by the illnesses associated with rotten food (dysentery, scurvy, typhoid, etc.), and illness spread by poor sanitation and hygiene (malaria, pneumonia, influenza, yellow fever, scarlet fever, etc.). The most terrifying disease to sweep through military prisons was smallpox. At the Rock Island Prison alone, during an outbreak in March of 1864, one barrack housed sick men in cramped conditions. Authorities had not built quarantine houses and the men were in close contact. Within a month, 25 percent of the men in the building died. Unable to stop the spread of disease, by the time the war ended, and prisoners released in July 1865, 1,960 prisoners and 171 Union guards had died of smallpox. However, this was nothing compared to Andersonville.⁴⁰⁵

Andersonville prison opened in February 1864 in Macon County, Georgia. Built with stockade walls sixteen feet height and a “dead line” about nineteen feet back (with the threat to shoot on sight any man found in the neutral zone), the Confederate Army built Andersonville prison at a time when it was in retreat and under incredible strain. Low on food for its own soldiers, the Confederacy had no interest in feeding prisoners of war. Further, as the Confederacy was in retreat and Union troops liberated other prison camps, the population of Andersonville exploded. With 7,160 prisoners by April 1, 1864, 12,000 by May 5, 1864; 20,652

⁴⁰⁴ J. Michael Martinez, *Life and Death in Civil War Prisons: The Parallel Torments of Corporal John Wesley Minnich, C.S.A. And Sergeant Warren Lee Goss, U.S.A.* (Nashville, TN: Rutledge Hill Press, 2004), 130-32; Margaret E. Wagner et al., *The Library of Congress Civil War Desk Reference* (New York, NY: Simon & Schuster, 2002), 605–06, 09.

⁴⁰⁵ Martinez, *Life and Death in Civil War Prisons: The Parallel Torments of Corporal John Wesley Minnich, C.S.A. And Sergeant Warren Lee Goss, U.S.A.*, 130-35.

by June 13, 1864; 23,942 by June 19, 1864; 29,076 by July 18, 1864; 31,678 by July 31, 1864; and 31,693 by August 31, 1864, the conditions in the camp were perilous. Malnourished and starving, soldiers got scurvy, dysentery, and typhoid, but there was more to come.⁴⁰⁶

In March of 1864, the Confederate army transferred two prisoners from Richmond with smallpox. Unable to hospitalize them for fear that the epidemic could spread through the hospital and out to the local population when the sentries went to town, the chief surgeon built makeshift facilities in the woods for the men to be taken care of by an elderly surgeon from Oglethorpe, Georgia, since the Chief Surgeon's wife was not immunized. With this outbreak controlled, the prison started to immunize all the men without smallpox scars or vaccine scars. However, the men were in no shape to survive vaccination. The vaccine left many men with scurvy ulcerous wounds that could become gangrenous. Prisoners started to drop dead in enormous numbers; so many died, in fact, that the remaining prisoners started to believe in a conspiracy that the Confederacy was killing them off on purpose. When summer came, this conspiracy theory almost seemed justified.⁴⁰⁷

The incredible heat of the summer of 1864 followed by horrible rains defined the Southern Georgia summer. Undersupplied with men wearing the same clothes since they arrived, the doctors treated second-degree burns on the bottom of men's feet. The camp flooded from the rains, even at one point destroying the wall, but also spreading contaminated water.

⁴⁰⁶ Russell A. Alger, Fred C. Ainsworth, and Joseph W. Kirkley, "The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies," ed. United States War Department, *Official Records of the Union and Confederate Armies* (Washington, DC: Government Printing Office, 1899; reprint, Serial 120), 116, 69, 381, 493, 517, and 708; Freemon, *Gangrene and Glory*, 191; Martinez, *Life and Death in Civil War Prisons: The Parallel Torments of Corporal John Wesley Minnich, C.S.A. And Sergeant Warren Lee Goss, U.S.A.*, 133-39.

⁴⁰⁷ *Life and Death in Civil War Prisons: The Parallel Torments of Corporal John Wesley Minnich, C.S.A. And Sergeant Warren Lee Goss, U.S.A.*, 131-35.

Not unlike a ‘boil warning’ because of a broken pipe or flash flood, the latrines (already dug too close to Stockade Creek, the source of drinking water), the conditions worsened when dirty men bathed in the creek, and then the creek flooded causing the bacteria to spread throughout the camp. According to Rosemary Drisdelle, the most likely culprit (on top of bacterial infections) was hookworm, which would spread via this water as well.⁴⁰⁸

Further exacerbating the horrible conditions, guards dumped the dead into mass graves. In all, Andersonville buried 13,714 of which all, but 921 could be identified. Henry Wirz (the camp commandant) would make sure that the Federal Government would never see the list. Atwater believing this might be the case, secretly made a copy of the document, which he was able to smuggle out with him upon his release. The list so appalled the Union War Department they refused to believe it, so Horace Greeley published it in the *New York Tribune*. Atwater returned to Andersonville later in 1865 with Clara Barton order to aid in identification efforts.⁴⁰⁹

7.2.2 *Nostalgia*

Perhaps the most peculiar (or at least confusing given current definitions) illness described during a period are the 5,547 diagnosed and 47 Union killed by ‘Nostalgia.’ This condition has had many historical names such as railway spine, stress syndrome, soldier's heart, shell shock, battle fatigue, combat stress reaction, or traumatic war neurosis, but the current diagnosis is Post Traumatic Stress Disorder (PTSD). For many soldiers, the first time they had left their small towns was to fight in the war. If they were Union soldiers, they were entering

⁴⁰⁸ Rosemary Drisdelle, *Parasites: Tales of Humanity's Most Unwelcome Guests* (Berkeley, CA: University of California Press, 2010), 86; Martinez, *Life and Death in Civil War Prisons: The Parallel Torments of Corporal John Wesley Minnich, C.S.A. And Sergeant Warren Lee Goss, U.S.A.*, 136-39.

⁴⁰⁹ Dorence Atwater and Clara Barton, *A List of the Union Soldiers Buried at Andersonville* (New York, NY: New York Tribune Association, 1866), iv-viii.

lands with an aggressive populace. Not unlike soldiers during the Vietnam War or the wars in Iraq and Afghanistan, the trauma seemed to mount with the feeling that the enemy surrounded them. When overcome, soldiers would react in diverse ways. Tales of the Rebel Yell causing reactions abound. For Union soldiers it could haunt dreams, appear to echo through woods; this caused soldiers to panic, fire wildly, or begin to run. For the Confederates, according to Grady McWhiney, rebels would yell to overcome their fear and sound larger. For many of them, it would come out almost involuntarily. For memoirist Bernard Baruch, his father would wake up making the yell in the night or as in immediate uncontrolled reaction to hearing the song “Dixie.” He recounts that his father even let out a Rebel Yell once at the Metropolitan Opera House during a performance. For many, soldiers’ panic would set in in the trenches and they would start to walk home, some would make it home wearing muddy and torn uniforms, others, gave up their position in the panic and sharpshooters shot them.⁴¹⁰

Symptoms of “Nostalgia” or PTSD took many forms *The Medical and Surgical History of the War of the Rebellion (MSHWR)* argues that the condition was underreported, quipping it was seemingly rare compared to epilepsy which had nearly double the cases per 1,000 per annum. Nostalgia increased by “every influence that tended to lower the vital powers of the soldier, such as over-fatigue, loss of sleep, exposure to cold and wet, particularly at night, overcrowding in quarters and the diseases to which these influences predisposed.” The medical texts listed nostalgia as a symptom of many chronic illnesses, like scurvy and nyctalopia. Chronic dysentery sometimes included nostalgia as a symptom:

⁴¹⁰ Freemon, *Gangrene and Glory*, 129, 43; Matt, *Homesickness*, 84-90; Humphreys, *Marrow of Tragedy*.

Meanwhile the complexion acquires a pallid hue...the spirits are much depressed, the patient takes a gloomy view of his prospects; very often he falls into a condition which is best described as general nervousness; in other cases the mental condition assumes the form of nostalgia; in others it approaches imbecility [or] delirium...The voice shares in the general debility, it became feeble and measured; sometimes it has a peculiar muffled sound as if heard from a distance.

Of the 47 Union soldiers recorded as having died from nostalgia, doctors described them as losing the 'will to live.' The case of Private Ezra Bingman, Co. G, 161st Ohio gives us an example. Cumberland Hospital in Maryland admitted Bingman on May 18, 1861 at age 30. He was convalescing from rheumatism and becoming extremely depressed and homesick. On July 7th, "his pulse was weak, cough slight, expectoration tough and stringy, skin dry and harsh, tongue white; hectic fever, dysphagia and much prostration were followed by hiccough, and death July 21." For soldiers who died on the battlefield, doctors left nostalgia off diagnoses as soldiers saw it as an unheroic way to die, not a "good death."⁴¹¹

In an effort to aid soldiers suffering from PTSD, the USSC came to the aid in the form of their Soldier's Homes. In the Soldier's Home in Washington (on Canal Street), the objectives were to lodge and feed the men, but their purview grew over time. The men would need care and assistance, "obtaining their papers and pay; to communicate with distant regiments on behalf of discharged men whose papers prove defective." Outside the Soldier's Homes, veterans were being taken advantage of; money would be withheld, they would be abandoned, or commens would take their property. The USSC would "make them reasonably neat and clean, and to

⁴¹¹ Office, *Medical and Surgical History Pt 2 Vol 1*, 493; *Medical and Surgical History Pt 3 Vol 1*, 706-7, 12, 808, 85.

furnish them with the necessary means of reaching home, if, on investigation, their des-titution and need is proved; and to be prepared to meet at once, with food and other aid, such necessities as arise when sick men.” The only requirement was an honorary discharge.⁴¹²

As part of the USSC’s core mission, the fundraising and supply generating arm was crucial to their association. While the standard supplies of medical gear, food, clothing, and bedding were in constant need, certain outbreaks, hospitals, and battles required specific supplies. As part of this outreach, the associate managers were the organizers on the ground for the USSC. The associate managers were to assure that there were local Soldier’s Aid Societies under their jurisdiction in each of the towns and villages. Often these societies were not directly associated with the USSC; thus, they were to first inspire the organizations of the ‘auxiliary societies’ followed by the dispelling of doubts about the USSC and the fund-raising efforts of it. They were to conform these societies to the Federal goals of the USSC and the grounds of “Duty, Patriotism, and Christianity.” They informed the USSC with constant correspondence to correspond to jurisdictions monthly. This model of outreach created a national network of fellow organizations that support the USSC, kept morale and fundraising high, and created the supply chain that kept Americans close to the war and war effort, which was impossible and/or unnecessary in the South since the fight was in their backyards.⁴¹³

Many of these organizations helped to fund and supply the Soldier’s Homes, and send care packages to wounded soldiers, in both hospitals and Soldier’s Homes. The organizers, mostly women, sent boxes of handkerchiefs, underwear, socks, dried fruit, combs, towels, etc.

⁴¹² Commission, *The Sanitary Commission of the United States Army; a Succinct Narrative of Its Works and Purposes*, 222-35.

⁴¹³ Frederick Law Olmstead, "The Duties of an Associate Manager Are---," ed. United States Sanitary Commission (Washington, DC: United States Sanitary Commission, 1862).

They would send magazines and newspapers. Local papers were in particularly high demand. They helped the soldiers feel closer to their hometown. Often, the charitable groups encouraged the women organizing and packing the care boxes (or of their own volition) to write familiar letters. In these cases, the women were unaware of to whom they were writing, but they wanted the unknown soldiers to feel like they received a care package from home. The women would assume the role of a wife or mother speaking of familial love. An example sent to a wounded soldier in a Chicago hospital read, “My Dear Friend, you are not my husband nor son; but you are the husband or son of some woman who undoubtedly loves you as I love mine. I have made these garments for you with a heart that aches for your sufferings, and with a longing to come to you to assist in taking care of you. . . . God loves and pities you, pining and lonely in a far-off hospital.” Some were less comforting and more matriarchal and sterner. “Do not mope and have the blues if you are sick. Moping never cured anybody yet.” The writers generally assumed the men missed the domestic life and attempted to emulate it. While these touches seem unnecessary, they made a difference. Soldiers receiving these homey touches convalesced better and kept better mental health; the additional food helped flesh out rations and the reading material helped distract, of course, but the bigger message was that the men, even ones who had no family or whose family were unaware of where they were, felt like those on the Home front remembered them. Observations like this are why, in later wars, the military would send touches of home, like the Coca Cola, Hershey’s Chocolate, and Camel, Lucky Strike, and Chesterfield cigarettes during World War II or Xboxes and games in more recent conflicts.⁴¹⁴

⁴¹⁴ Matt, *Homesickness*, 49-52, 85. Jeanie Attie, *Patriotic Toil: Northern Women and the American Civil War* (Ithaca, N.Y.: Cornell University Press, 1998), 3; Mary Ashton Rice Livermore, *My Story of the War*, *American Women: Images and Realities* (New York, NY: Arno Press, 1972), 136-41.

7.2.3 *Illness as a Factor in Battles*

The true impact of disease outbreaks on the outcome of the war will always be complicated to assess fully. Strewn across the battlefield, there are significant numbers of the dead and wounded, coupled with illness that spread rapidly and with devastating effect, leading to a generation of Americans not only emotionally scarred by the deaths they have seen, but subsequently more aware of the vectors that spread the disease. Yet, how outbreaks and illnesses affected individual battles is an interesting, if problematic, issue to explore. Can illnesses affect one side more than another? Clearly, in the case for Nyctalopia there were marked differences between the Confederacy and the Union armies due to poor nutrition that eventually affected the North as well (and worked around by able generals, such as Lee who began to adjust for the issues of night blindness). What about illness and disease outbreaks? In order to address this, there are some important examples to address, starting with malaria and yellow fever.⁴¹⁵

Yellow Fever was common. . . Spread via the mosquito *Aedes aegypti* (the same species that carries dengue fever, chikungunya, Zika, and Mayaro), this vector-based disease was rampant in swampy areas where soldiers were unable to escape the bite of the mosquitoes. There were several epidemics, including on Hilton Head and aboard the U.S.S Delaware. Fortunately, Yellow Fever can only exist during the warm months. Once the temperature gets too cold for mosquitoes, the epidemic ends.⁴¹⁶

⁴¹⁵ Freemon, *Gangrene and Glory*, 13, 19, 90, 119, 22, 35-41, 206-9.

⁴¹⁶ Irwin W. Sherman, *Twelve Diseases That Changed Our World* (Washington, DC: ASM Press, 2007), 143-58. "Yellow Fever," Centers for Disease Control and Prevention, <https://www.cdc.gov/yellowfever/index.html>. Freemon, *Gangrene and Glory*, 209.

Even today, there is no cure for Yellow Fever. Yellow Fever hospitalizes those stricken and treated for their symptoms, which include fever and chills, severe headache, back pain, general muscle aches, nausea, fatigue, and weakness. However, if untreated, symptoms can turn toxic; including a toxic phase that develops as the fever returns, with clinical symptoms including high fever, headache, back pain, nausea, vomiting, abdominal pain, and fatigue. Hepatic

However, though American doctors did not understand germ theory well, there were cases of significant success. For most illnesses, the treatment was difficult, so prevention was key. Doctors recommended vaccination where available, but quarantine was crucial. In medical schools after the War, professors taught quarantines as the most important public health intervention. As William Campbell describes the uses, "it has been employed against smallpox, yellow fever, cholera, typhus, plague, measles, scarlet fever...ship inspection and purification prevent the contamination of places to which a ship goes. When Cholera gets in a ship every person should be removed and the ship purified (this is how the Hilton Head outbreak was contained). Campbell went on to say quarantine was of no use against yellow fever, typhus, and cholera, but Benjamin Butler would prove this common medical knowledge wrong.⁴¹⁷

In 1862, after conquering the port of New Orleans, General Benjamin Butler did something quite extraordinary. To attempt to stop the spread yellow fever, he employed several strict measures; soldiers drained swamps around the city, collected garbage regularly, and doctors quarantined the sick. Yellow fever cases which reached their heights in 1853 with 8,400 dead and 1858 with 4,855 dead, dropped to 11 for the entire occupation from 1862-77 and until after the World Cotton Exposition in 1884; without Butler's policies implemented, the number of yellow fever deaths returned to 3,320 dead in 1867.⁴¹⁸

coagulopathy produces hemorrhagic symptoms, including hematemesis (black vomit), epistaxis (nosebleed), gum bleeding, and petechial and purpuric hemorrhages (bruising). Deepening jaundice and proteinuria frequently occur in severe cases. In the late stages of disease, patients can develop hypotension, shock, metabolic acidosis, acute tubular necrosis, myocardial dysfunction, and cardiac arrhythmia. Confusion, seizures, and coma can also occur.

⁴¹⁷ Campbell, "Lectures on Hygiene Delievered in the Central High School, to the 49th Graduating Class by Prof. Henry Hartshorne M. D. Vol. 1," 63-64. *ibid.*

⁴¹⁸ Jo Ann Carrigan, *The Saffron Scourge: A History of Yellow Fever in Louisiana, 1796-1905* (Lafayette, LA: Center for Louisiana Studies, University of Southwestern Louisiana, 1994), 80, 95.

Table 6: Yellow Fever Mortality in New Orleans, LA⁴¹⁹

Year	Number of Dead
1852	456
1853	8,400
1854	2,500
1855	2,670
1856	74
1857	199
1858	4,855
1859	92
1860	15
1861	0
1862	2
1863	2
1864	6
1865	1
1866	192
1867	3,320

Despite his successes, Butler received little credit after the war (as Campbell's lecture notes show) for two reasons. The first part has to do with Butler himself; people despised him. After a woman of New Orleans dumped a chamber pot on Admiral David Farragut, Butler issued General Order 28, which labeled any New Orleans woman who disrespected a Federal Officer a prostitute earning him the nickname "Beast" Butler (also called Spoons Butler for the assumption he stole silverware from the New Orleanians). The other is more technical; having to do with the manner in which Butler implemented his quarantine policy. In the traditional military and medical sense, quarantine meant simply separation, such as a form of separation from healthy parties. Since exchange of bodily fluids, like saliva and mucus from coughing and sneezing, is responsible for transmission of viruses such as measles, colds, and influenza, quarantine can be effective. However, quarantine will not work against one of the deadliest

⁴¹⁹ Ibid., 80, 95, 165.

scourges of the war, cholera, since the disease spreads via rotten food and water, which the healthy and sick receive in kind. Quarantine is also not effective in preventing or slowing the spread of vector-borne disease like yellow fever, typhus, or malaria. Being on the battlefield in a tent separated from other soldiers does nothing to prevent the spread of vector-borne diseases. So why was Butler successful? He quarantined patients inside, so the separated sick could not infect vectors and drained swamps and stagnant waters so fewer vectors were around. Medical science did not confirm the connection between mosquitoes and yellow fever until 1900 when the U.S. Army Yellow Fever Commission comprised of Major Walter Reed, Dr. James Carroll, Dr. Aristides Agramonte, and Dr. Jesse Lazear, confirmed Carlos Finlay's theory on yellow fever transmission, allowing for the completion of the Panama Canal.⁴²⁰

Malaria was an altogether different animal. A protozoan disease carried by the Anopheles genus of mosquitos, the best treatment was prevention. However, while scientists were unable to prevent yellow fever until a developing a vaccine in 1927, malaria had an effective prevention available to the soldiers. In swampy areas, soldiers received quinine dissolved in whiskey daily. Quinine is the extract of the cinchona tree by the Quechua people of South America going back centuries. First used by the Spanish colonists in the 1570s and brought back to Spain, the Spaniards used it as the indigenous people did, primarily as a muscle relaxant (doctors still prescribe quinine off label for restless leg syndrome). However, Charles Marie de La Condamine, a Frenchman exploring and mapping the Amazon River, discovered its use preventing malaria. Unfortunately, missing a dose led to illness for a lifetime. Malaria

⁴²⁰ Historical Collections Staff, "Historical Information for the U.S. Army Yellow Fever Commission," The University of Virginia, <http://exhibits.hsl.virginia.edu/yellowfever/>; George C. Strong and Benjamin Butler, "General Orders, No. 28 (Butler's Woman Order)," ed. Department of the Gulf (New Orleans, LA1862); Terry L. Jones, "The Beast in the Big Easy," *New York Times* 2012.

attacks in waves, if a patient survived a round, the body is never fully cured of the disease; it can return repeatedly. Constant dosing with quinine can slow and mostly control malaria, but this was not always possible. Symptoms are terrible, included severe headaches, high fever, seizures, fading consciousness, and drops in blood pressure.⁴²¹

One of the oldest and deadliest diseases in human history, there were 216 million cases of malaria in 2016; there is no question it affected the Civil War as well. There were outbreaks throughout, with 1,315,955 malarial fevers reported, killing 10,063 in the Union army, and 115,415 Confederate cases, killing 1,334 in the first 18 months. Ever present, major outbreaks occurred along the Mississippi River. With the Anaconda Plan moving the Union armies up the Mississippi from New Orleans and South from the Ohio River, people were getting sick. The area is a low land; in fact, most of the encampments were below sea level. The area is marshy, muddy, and damp. In the era before infrastructure controlled the flow of the river, it would constantly change its banks, flooding often. Floods eroded the whole area and kept the men generally dirty. They were unable bathe in the river, due to its speed in this area, and most ponds and streams in the area turn into stagnant pools quickly. All this came to a head as General Ulysses S. Grant approaches Vicksburg.⁴²²

The Siege of Vicksburg is a prime example of how an army could become ill in the war and how the illness can turn a battle. With the defenses up on the hills, even though outnumbered 18,500 to 35,000, Lt. General John Pemberton of the Confederate Army of

⁴²¹ Daniel M. Holt et al., *A Surgeon's Civil War: The Letters and Diary of Daniel M. Holt, Md* (Kent, OH: Kent State University Press, 1994). "Malaria," Centers for Disease Control and Prevention, <https://www.cdc.gov/parasites/malaria/index.html>. Cirillo, *Bullets and Bacilli*, 67-68. Freemon, *Gangrene and Glory*, 207-09.

⁴²² "Malaria". Cirillo, *Bullets and Bacilli*, 67-68. Freemon, *Gangrene and Glory*, 207-09. "World Malaria Report 2017," ed. World Health Organization (Geneva, SU: World Health Organization 2017), 33.

Mississippi, felt good about his army's chances against General Ulysses S. Grant. They had more than six miles of defenses set up and steady supplies, and Grant was down the hill in a swamp. However, without clean water everyone was at risk.⁴²³

The siege of Vicksburg lasted from May 18 – July 4, 1863, ending the same day as the Battle of Gettysburg across the country, and these two battles together signal a turning point of the war. From a military history perspective, the siege provides a glimpse of modern warfare. Union gunboats fired 22,000 shells. To protect themselves, the Confederates built over 500 caves they called their “bomb-proofs.” After sending wave after wave of men up the hills to their slaughter, Grant switches fully to siege strategies.⁴²⁴

The men were never at full strength though. In February 1863, Pemberton had forced the return of 97% of the wounded and ill men back on active duty. Cases of malaria, which had been down during colder month among the Union, allowing their quick advance, had caught up to the Confederacy with roughly eight percent of the men on both sides ill with a malarial fever. With the final push in sight, the Confederates had 40% of their troops sick and wounded in May and 45% in June; compared to the Union army losing 25% and 28% respectively. These illnesses were more lethal in the Confederacy as well.⁴²⁵

*Table 7: Mortality from Various Causes During the Vicksburg Campaign*⁴²⁶

Disease	Union	Confederate
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⁴²³ *Gangrene and Glory*, 116-23; Office, *Medical and Surgical History Pt 1 Vol 1*, 240, table 64.

⁴²⁴ Freemon, *Gangrene and Glory*, 116-23; Office, *Medical and Surgical History Pt 1 Vol 1*, 240, table 64.

⁴²⁵ Freemon, *Gangrene and Glory*, 116-23; Office, *Medical and Surgical History Pt 1 Vol 1*, 240, table 64.

⁴²⁶ Mortality is how many died from the illness, meaning the number died divided by number sick.

Died of Wounds	6.2 %	7.0 %
Diarrhea and Dysentery	1.6 %	1.5 %
Malaria	0.8 %	0.7 %
Pneumonia	13.4 %	17.2 %
Smallpox	10.5 %	12.6 %
Typhoid Fever	25.9 %	29.0 %
Total	2.15 %	2.48 %

By May of 1863, the Confederate Army lost roughly ten percent due to medical evacuation and in June, it was fourteen percent.⁴²⁷

7.2.4 Smallpox and Slavery

As mentioned above, smallpox ravaged the soldiers, but it made a significant impact on one specific community. After the war ended, the large freedmen population created a medical and logistical nightmare. When the war was going on, there was the contraband issue of former slaves (the army referred slaves as 'contraband' of war because the Constitution allows the President of the United States to issue orders to seize property of war of belligerents, this was the legal ground that allowed Lincoln to issue the Emancipation Proclamation). Often, freedmen would follow the armies, since they had nothing once liberated. This would slow armies and drain their resources. However, the issue of the 'contraband of war' was not the only issue.⁴²⁸

Slaves traveled hundreds of miles to reach the front to escape into freedom, often without adequate food or supplies. However, in the post-war Reconstruction era, things got even more

Freemon, *Gangrene and Glory*, 116-23.

⁴²⁷ Ibid.; Office, *Medical and Surgical History Pt 1 Vol 1*, 240, table 64.

⁴²⁸ Downs, *Sick from Freedom*.

complicated. The most basic issue was the transition from the paternalistic Southern economy to a traditional 19th century capitalist economy. This transition took away the protection of the slaves no longer able to work. Under the plantation system, slaves who could no longer labor worked childcare duties. The freedmen left plantations. As the Freedmen's Bureau came in, the goal was to fill the institutional vacuum left by the plantation system and redefine former slaves as citizens. However, the Freedmen's Bureau was ultimately responsible for assuring a strong replacement workforce; historian Jim Downs goes as far as stating the ultimate goal is to replace the slave system with free labor. The armies often left the freedmen on the same plantations without any support; women especially were unable to advocate for themselves and would find themselves in court/prison over contract disputes for contracts they never agreed to. Ultimately, the almshouses, hospitals, and schools founded by the Freedmen's Bureau were to assure a healthy workforce, classifying people as unfit to work and ultimately, closing nearly all the hospitals due to racially driven reasons.⁴²⁹

As mentioned above, the racial politics of the era allowed for little aid given to the freedmen. Even those in the army received inferior supplies and rations, leading them to have greater instances of illness during the war and making them more susceptible to death from the great killers of the war like cholera and dysentery. What made the illnesses more profound among former slaves, though, is the assumption by many Freedmen's Bureau doctors that the freedmen were somehow immune to diseases like malaria and that outbreaks of others, such as smallpox, were due to poor hygiene and sanitation. With over four million freedmen across the nation, in the fall of 1865, there were only 80 doctors and a dozen hospitals to care for them, setting the stage for a crisis, the Smallpox Epidemic of 1862 to 1868. The tragedy of the

⁴²⁹ Ibid., 18-23,.

outbreak is that it was man made. Within a couple of years, the Freedmen's Bureau had upped the numbers to 40 hospitals and alms houses with 80 additional doctors and hundreds of nurses and treated nearly a million former slaves, but this was still not enough. Further, the standard practices of western medicine, such as quarantine (which had worked so well in other outbreaks on the local level), the federal government completely ignored, and due to the presumption that former slaves were immune to disease. When the outbreak was at its height, the negligence of the government allowed a secondary epidemic, Asiatic cholera. Both epidemics grew for years ultimately allowing the deaths of hundreds of thousands. Jim Downs has called the Civil War the "largest biological war of the nineteenth century."⁴³⁰

7.3 Hygiene and the Mission of the Sanitarians

With all this death and destruction, stops and starts, advances and steps-backward, it may seem like there were few medical advances during the Civil War. However, there were several notable successes. The Union had clearly made advances. Over the course of January through June 1865, the field and pavilion hospitals treated and returned to the front some 69,200 men from the Virginia campaign alone. The medical improvements not only saved lives, but they were able to bring these developments home to benefit civilian populations.⁴³¹

While doctors still believed that foul odors of the battlefield caused illness, there was now a hygienic movement afoot. From the medical notes of William Campbell, we see this transition. Professors taught that every city should establish a board of health, paid for by the city, to pick up garbage and clean the streets at night. The cleaners should not dump the filth

⁴³⁰ Ibid., 8-10, 75, 95, and 100-08.

⁴³¹ Humphreys, *Marrow of Tragedy*, 295; Office, *Medical and Surgical History Pt 2 Vol 2*, 200-06.

into the drinking waters and that “Philadelphia was formerly the cleanest city in the world. Within the last few years it has deteriorated and is now below London [and even] In London the streets are cleaned at night.” Without such sanitary police, foul water closets can spread typhus and even the wealthy can get sick as ordinary zymotic (acute infectious) diseases become more dangerous by “the foul air (garbage and filth).” The Freedmen’s Bureau attempted to carry out these policies throughout the South.⁴³²

As Elaine Scarry points out, the numbers game that the army played was one of injury; that is to say, that the point of war is to “out injury” the other side. This creates a war of ideas based around the idea of redescription of the wounded. As opposed to omission, leaving off the dead, redescription of the casualties and their categorization allows for a form of euphemism of the casualty. By looking at the battlefields, strewn with the dead and the wounded, the sick and the amputated, etc., this chapter attempts to classify these dead, which arguably was the role of works like *The Medical and Surgical History of the War of the Rebellion* and *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*. The mere fact that historians credit Robert E. Lee or Ulysses S. Grant with winning a battle is a story of the numbers, the omissions. Perhaps, therefore, for Jim Downs, the death of the freedmen is so significant; their numbers did not seem to matter.⁴³³

To Jim Downs, the mistreatment of freedmen factors into the classification of the workers by the Freedmen’s Bureau. Downs alludes to the notion that the creation of the Medical division of the Freedmen’s Bureau created a precedent for the federal medical department and compared this to the western expansion and Indian campaigns for comparison, though the government

⁴³² Campbell, "Lectures on Hygiene Delievered in the Central High School, to the 49th Graduating Class by Prof. Henry Hartshorne M. D. Vol. 1," 63-65.

⁴³³ Scarry, "Injury and the Structure of War," 7.

drops these plans quickly. Ultimately, what Downs contends is that historians overlook the total cost of Emancipation and Reconstruction because they do not usually address the medical casualties of the African American community. He conjectures that the white authors of the emancipation narratives highlight only the positive aspects as a way to assure that the pro-slavery supporters in the immediate aftermath of the war would remain silenced. However, the letters of the freedmen and missionaries show a more accurate and bleak version of events than the accounts provided by the Freedmen's Bureau and the Military Reconstruction officials. It also strips away the narrative of the landownership and equal wages, by showing that the contraband camps functioned more like concentration camps and spread diseases like the Smallpox Epidemic with high mortality rates caused by poor sanitation often lowering life expectancy to rates lower than enslaved levels.⁴³⁴

These horrible conditions of poor sanitation and ignorance throughout the South changed the outlook of the war. The doctors trained steeped in the blood of the soldiers and the thousands of illnesses that ravaged them in ways that Americans had not seen before and never in the numbers. Doctors learned surgery, anesthetic, and emerged immune to more illnesses. They had seen terrible wounds and learned to deal with them. The soldiers returned home as a nation of the wounded, the sick, and the crippled. Hobbled, PTSD, and recovering, they reentered home life stumbling at first. Some men, wounded and unable to work, left home feeling unable to be "a man" or became addicted to the widely available opiates to deal with the chronic pain of surgery. Others pushed to bring more hospitals and medical care to the cities, fulfilling the efforts of Dix, Barton, and Letterman. As the government collected stories and cases for *The Medical and Surgical History of the War of the Rebellion* and *The War of the Rebellion: A*

⁴³⁴ Downs, *Sick from Freedom*, 2-15.

Compilation of the Official Records of the Union and Confederate Armies, Americans started to learn what treatments worked and formalize American medicine. They looked back at the wounded themselves and reassessed battles. While this does not muddy the waters of who or if someone won battles, it does muddy the question of why. These people would go on to push for the reforms that thrust America into the 20th century.

8 CONCLUSION: BURYING THE DEAD

Low, beneath the'encrimsoned sod,
 Where fierce, hurtling legions trod--
 Where men rushed to meet their God,
 Brave men rest in Gettysburg...
 There blood-thirsting, furious hail,
 Crashing fast on hill and dale,
 Scored of deaths a frightful,
 On the field of Gettysburg...
 On that peaceful, classic ground,
 For Science and for Art renowned,
 A "Cemetery" there they found,
 A "Hill" or Death! Fit place to die!

The Dead on the Field of Gettysburg – Samuel Beman⁴³⁵

In the early 2000s, scholars placed the body count of the Civil War somewhere in the neighborhood of 600,000 to 650,000 dead. Thanks to intrepid census work, we now put that

⁴³⁵ Samuel Beman, "The Dead on the Field of Gettysburg," *Hammond Gazette* 1863, 1.

number closer to 750,000. The loss somehow seems more devastating by that gap of roughly 100,000 lives that were unaccounted for until very recently. I started this work by recounting one of my favorite stories about Stonewall Jackson. His burial in two separate locations represents not only a form of hero worship, but also a question as to where and how we memorialize the bodies of great men; and, as part of the Lost Cause narrative. However, Jackson was not one of the missing 100,000. The Civil War quite literally tossed the yeomanry, citizen soldiers, aside, burying them in mass graves. In the South, angry citizens disinterred the bodies of the Federal troops as they did at Marietta, GA. This perception of the body is powerful in this context. If people saw the body in the same light as dead flesh, rotting meat, what point would there be in disinterring the bodies of the fallen? The message sent by the Marietta Cemetery removals was that no Yankee could achieve eternal rest in the South; that the bodies of the Yankee dead were a symbol of defeat. Having started with the story of Washington's death, let us now discuss the most notable death of the Civil War to see how the death of important people has changed.⁴³⁶

8.1 Lincoln's Assassination

It would not be appropriate to end the story of mortality without a discussion of the most important death of the war, the assassination of Abraham Lincoln. In the story of medicine, for the most part, politics is but a subtle side note along with the military history, but the frustrated rage of John Wilkes Booth ties the stories together. On April 14, 1865, John Wilkes Booth and his co-conspirators attempted to bring down the entire government with the assassination of four

⁴³⁶ Faust, "'Numbers on Top of Numbers:' Counting the Civil War Dead," 995-1009; Burns et al., *The Civil War. Episode 2, 1862--a Very Bloody Affair*; Faust, *This Republic of Suffering*, 1-10; J. David Hacker, "A Census-Based Count of the Civil War Dead," *Civil War History* 57, no. 4 (2011): 307-48.

men. John Wilkes Booth, famed actor and Confederate sympathizer, had always wanted to join the war, but never had. Accounts vary with some citing that Wilkes had chickened out and others that he had not joined at the behest of his mother. Regardless, a member of the Knights of the Golden Circle, he had already planned and failed to kidnap Lincoln after Grant announced the end of prisoner exchanges after the massacre at Fort Pillow. After Lincoln's second inaugural address (in which you can see John Wilkes Booth in the photos leering over Lincoln's shoulder), in which Booth became convinced Lincoln planned on making freed slaves full citizens and allowing miscegenation, Booth decided assassination was the only way to save the Confederacy.⁴³⁷

On April 14, Good Friday, Booth went to Ford's Theatre around noon to pick up his mail, when an usher told him that the president was coming to see the satiric British play "Our American Cousin" that evening. Having written in his diary the night before that something was to be done, Booth knew right then it was time to set his plan into motion. The conspirators plotted to bring down the government in Mary Surratt's tavern. John Wilkes Booth was to assassinate Lincoln and Ulysses S. Grant who was to accompany Lincoln to the theater. Lewis Powell was to assassinate the Secretary of State William Seward; George Atzerodt was to assassinate the Vice-President. Finally, Michael O'Laughlen who had been part of the plot to kidnap Lincoln earlier and when Grant changed his plans and went to Philadelphia, O'Laughlen planned to carry out the murder on April 14 and was arrested for stalking. David Herold

⁴³⁷ Warren Getler and Bob Brewer, *Shadow of the Sentinel: One Man's Quest to Find the Hidden Treasure of the Confederacy* (New York, NY: Simon & Schuster, 2003), 67; Michael W. Kauffman, *American Brutus: John Wilkes Booth and the Lincoln Conspiracies*, 1st ed. (New York, NY: Random House, 2004), 130-34, 74; James L. Swanson, *Manhunt: The Twelve-Day Chase for Lincoln's Killer*, 1st ed. (New York, NY: William Morrow, 2006), 9-35.

was supposed to lead the conspirators out of the city, especially Powell, who was unfamiliar with Washington DC.⁴³⁸

The conspirators planned to attack at exactly 10 pm, causing panic throughout the government as it crumbled around the dead leaders of the Union, thus allowing the remaining Confederates to rise up. Lincoln had arrived at Ford's Theatre late, with the band stopping the show to play "Hail to the Chief" on his arrival, where he and his wife Mary Todd Lincoln sat down with Major Henry Rathbone and his fiancée Clara Harris, who had filled in for the Grants. Knowing the play well, Booth approached the door to the presidential suite around 10:25pm. The bodyguard at the door, a Washington police officer named John Frederick Parker, was not at his post (possibly having never returned from the tavern at intermission). However, even if the guard had been at his post, Booth's fame may have allowed him to pass. Armed with a Philadelphia Derringer and a knife, Booth entered quietly and pulled the gun, aiming right behind Lincoln's left ear and waited for the laugh line "Well, I guess I know enough to turn you inside out, old gal; you sockdologizing old man-trap!" uttered by Harry Hawk.⁴³⁹

While he was still laughing at Hawk's line, the bullet entered Lincoln's skull behind the left ear, passing through the brain, and lodging behind the right eye. Despite the laughter, Rathbone heard the shot and turned at which point Booth shouted what to Rathbone sounded like, 'freedom' and pulled his knife, stabbing Rathbone twice in the arm and jumping to the stage. Booth's spurs caught the brocade and he landed hard, fracturing his leg, yelling 'Sic

⁴³⁸ Doris Kearns Goodwin, *Team of Rivals: The Political Genius of Abraham Lincoln* (New York, NY: Simon & Schuster, 2005), 728; Swanson, *Manhunt: The Twelve-Day Chase for Lincoln's Killer*, 12; Edward Steers, *Blood on the Moon: The Assassination of Abraham Lincoln* (Lexington, KY: University Press of Kentucky, 2001), 108-9.

⁴³⁹ Swanson, *Manhunt: The Twelve-Day Chase for Lincoln's Killer*, 32, 45-50; Thomas Goodrich, *The Darkest Dawn: Lincoln, Booth, and the Great American Tragedy* (Bloomington, IN: Indiana University Press, 2005), 38.

semper tyrannis,' before limping off stage to a getaway horse held by an unwitting accomplice in Joseph Burroughs.⁴⁴⁰

With this, Charles Leale, a fresh army surgeon (having only completed his coursework to become an army surgeon merely six weeks before), ran up the stairs to the presidential box, forcing open the door and addressing the situation. "His eyes were closed, and he was in a profoundly comatose condition, while his breathing was intermittent and exceedingly stertorous." Soon joined by doctors Charles Taft and Albert King, the three men attempted to save the president's life by clearing the blood clots from his brain (which relaxed and steadied his breathing). Before long, the show's star Laura Keane pushed them out of the way to embrace the dying president by cradling his head as Leale pronounced the wound fatal. (Keane would take the bloodied dress cuff on tour with her; it is now in display at the National Museum of American History). The doctors decided they must move the president to an easier place to treat him. With the roads cobbled, the White House was no longer possible, and thus they used the house of tailor William Petersen. Doctors carried Lincoln's barely breathing and unconscious body across the street and placed him in the first-floor bedroom of the home, waiting for Surgeon General Joseph K. Barnes, Charles Henry Crane, Anderson Ruffin Abbott, and Robert K. Stone

⁴⁴⁰ Goodwin, *Team of Rivals: The Political Genius of Abraham Lincoln*, 736-40; Steers, *Blood on the Moon: The Assassination of Abraham Lincoln*, 120-28.

'Sic semper tyrannis,' of course, mean thus always to tyrants, and is the state motto of Virginia. It is also, apparently what Brutus says before stated before stabbing Caesar, though Plutarch doubted such. Of note is the fact that John Wilkes Booth and his brothers Edwin and Junius Brutus Jr. had performed the play as together the year before, with the prima donna brother Edwin in the role of Brutus. After the assassination, Edwin announced his retirement from acting only to return a few months later to star in *Hamlet*, a play where a young upstart murders a king. Later, in a letter in 1909, Edwin will claim he saved the life of Robert Lincoln in 1864.

(Lincoln's personal physician) to arrive. Upon arrival, their diagnosis confirmed the previous; Lincoln would not survive.⁴⁴¹

Across town, George Atzerodt was having second thoughts. Having wanted to be part of the kidnapping but wanting to back out of the assassination having been told about it only earlier that evening, Atzerodt had gotten drunk at the Kirkwood House (the boarding house where Johnson was staying) and renting a room a floor above the Vice President. He was supposed to shoot the Vice President at 10:15, but instead got drunk and wandered the streets of Washington until 2 am, having lost his knife along the way, and eventually arrived at the Pennsylvania Hotel (where he had been stay before renting the room at the Kirkwood house) and slept. Thinking that Atzerodt might fail, Booth had gone to the Kirkwood earlier in the day to leave a note and calling card for Johnson to implicate Johnson in the plot. Near Lafayette Park, a miracle occurred.⁴⁴²

While there was a person to replace Lincoln, Vice President Andrew Johnson, the fact that the government did not collapse after Lincoln's death has a lot to do with who survived that night thanks to Edwin Stanton (who was by the dying president's side) and William Seward. When Lewis Powell arrived at the Seward house, he was the only one who had arrived on time. He was in the guise of a deliveryman for the local pharmacist with a delivery of medicine for the Secretary, who only nine days earlier had been in a terrible carriage accident, leaving him with a broken jaw and arm, and a concussion. When Powell knocked at the door, William Bell,

⁴⁴¹ *Blood on the Moon: The Assassination of Abraham Lincoln*, 120-28; Swanson, *Manhunt: The Twelve-Day Chase for Lincoln's Killer*, 36-55; Goodwin, *Team of Rivals: The Political Genius of Abraham Lincoln*, 736-40.

⁴⁴² Steers, *Blood on the Moon: The Assassination of Abraham Lincoln*, 111, 65-68; Swanson, *Manhunt: The Twelve-Day Chase for Lincoln's Killer*, 35-45; Goodwin, *Team of Rivals: The Political Genius of Abraham Lincoln*, 735.

Seward's butler, answered. Bell attempted to take the medicine from Powell, but he insisted the medicine needed personal administration. Pushing past Bell and charging up the stairs, this time, Seward's son, Assistant Secretary of State Frederick W. Seward, stopped him. Repeating the story again, Powell raised Frederick's suspicions and Frederick again stated that the Secretary was sleeping. At this point, Seward's daughter Fanny, hearing the voices, opened the door and stated that 'father is awake now,' thus announcing where Seward was. Powell pulled his gun, an 1858 Whitney revolver, and a Bowie knife and attempted to shoot Frederick, but the gun misfired. Reacting, both men struggled over the gun before Powell gained the upper hand and clubbed Frederick with it, breaking the handle over his skull, and leaving him unconscious. Hearing the struggle and the drop of a body, Seward's butler flung open the door screaming murder and looking for help. Likewise hearing the struggle and the drop of a body, Fanny opened the door, allowing Powell in who stabbed Seward repeatedly, mainly in his arms and neck; the blows likely would have killed him had the brace supporting his broken jaw not protected his jugular. By this time the two guards stationed to protect Seward emerged from their quarters, alerted by Bell and Fanny, George F. Robinson stopped Powell from dealing the deathblow, but Powell escaped and began running down the street screaming, "I'm mad!" David Herold, the man who was to help the conspirators escape Washington, had run away as the screaming began. Fanny returning to the room collapsed on the floor weeping "Oh God, Father's dead!" To which Seward bloodied and injured replied, "I am not dead. Send for the police and a surgeon and close the house." Robinson aided him back into bed and Bell returned with doctors. He would survive the wounds and serve under Johnson.⁴⁴³

⁴⁴³ *Team of Rivals: The Political Genius of Abraham Lincoln*, 735-38; Swanson, *Manhunt: The Twelve-Day Chase for Lincoln's Killer*, 53-60.

By midnight that night, Robert Todd Lincoln had arrived at the Petersen house, as did Tad Lincoln, who was so young, doctors kept him with his mother and away from the body. Secretary of the Navy Gideon Welles and Secretary of War Edwin M. Stanton arrived soon after, removing Mary Lincoln, who was weeping uncontrollably, to the front room to send away Tad. From that room, Stanton ran the government for the night and began the hunt for Booth and his co-conspirators. Throughout the night, doctors removed fragments of skull, clots, and shrapnel in an attempt to relieve pressure on the brain. Just before 7:00 a.m. the next morning, Mary returned to her husband's side to hold him. Before long, his breathing slowed and according to his secretary John Hay, "a look of unspeakable peace came upon his worn features." Lincoln passed away at 7:22 a. m., on Holy Saturday, April 15, 1864. The assembled crowd kneeled to pray and Stanton stated; "Now he belongs to the ages." Johnson took the oath of office from Salmon Chase between ten and eleven a.m.⁴⁴⁴

The full story of the massive search for Booth and his killing that followed does not belong here. The military put Booth's co-conspirators before a military tribunal ordered by Johnson. Samuel Arnold (another member of the kidnapping plot, George Atzerodt, David Herold, Samuel Mudd (the doctor who set Booth's leg), Michael O'Laughlen, Lewis Powell, Edmund Spangler (the stagehand who had given Booth's horse to Burroughs to hold), and Mary Surratt (owner of the tavern where the conspirators met) were all found guilty. The military executed Mary Surratt, Lewis Powell, David Herold, and George Atzerodt on July 7, 1865, at Fort McNair.⁴⁴⁵

⁴⁴⁴ Steers, *Blood on the Moon: The Assassination of Abraham Lincoln*, 134.

⁴⁴⁵ *Ibid.*, 213-15, 22-27; Swanson, *Manhunt: The Twelve-Day Chase for Lincoln's Killer*, 27, 365-67. Dave Anthony, *Boston Corbett*, podcast audio, The Dollop, 01:34:262015.

Lincoln's body, however, was not at rest, yet. Across the South, Southerners met Lincoln's death with a mixture of relief and sorrow. Lee expressed regret, while others cheered Booth. Confederate troops helped search for him. Internationally, the British Foreign Secretary called the death a 'sad calamity,' the Chinese, Haitian, French, and Mexicans decried the crimes, and Liberia issued a proclamation that called Lincoln, "not only the ruler of his own people, but a father to millions of a race stricken and oppressed." In Washington, Walt Whitman wrote *O Captain, My O Captain*, mourning Lincoln's death. "But O heart! heart! heart! O the bleeding drops of red, where on the deck my Captain lies, fallen cold and dead." Outside the Capitol and the White House, thousands of freedmen gathered to mourn 'Father Abraham' and fear for their fate.⁴⁴⁶

To fulfill his wishes, Mary Todd Lincoln arranged to have Lincoln buried in Springfield as long as their child Willy was buried with him (otherwise they were to both be buried in Washington, possibly with Lincoln buried in the empty tomb of the Capitol). With this, a train took the corpse of Lincoln on a 1,654-mile journey between April 21 and May 3 to Springfield, Illinois. Starting with the body lying in state from the 18th through 21st, the body and funeral train stopped eleven times before its final stop in Springfield. Thousands saw his body to pay their respects. This was possible due to the final medical advancement, to mention, of the war.⁴⁴⁷

⁴⁴⁶ Aaron W. Marrs, "International Reaction to Lincoln's Death," ed. United States Department of State (Washington, DC: Office of the Historian, 2011); Walt Whitman and James M. McPherson, *Drum Taps: The Complete Civil War Poems*, First edition. ed. (Kennebunkport, ME: Cider Mill Press Book Publishers, 2015), still image.

⁴⁴⁷ Roger J. Norton, "The Route of Abraham Lincoln's Funeral Train," <http://rogerjnnorton.com/Lincoln51.html>; Thomas J. Craughwell, "A Plot to Steal Lincoln's Body," *U. S. News and World Report* 2007.

Along the way, at each stop, an embalmer named Charles B. Brown would add more embalming fluid to Lincoln, so his body would not decompose further. After Jean Gannal, a French Chemist, introduced a new method of embalming by injecting the fluid into the carotid artery, the process exploded in popularity. On May 24, 1861, Colonel Elmer Ellsworth, a medic and personal friend of Lincoln's, was shot removing a massive Confederate Flag from the roof of a Virginian hotel, becoming the first casualty of the Civil War. Thomas Holmes offered his service as an embalmer to the Ellsworth family. The body laid in state in the White House and soon after traveled to New York City for weeks. Embalming offered a family the chance to see their deceased member one last time. Holmes alone embalmed 4,000 individuals for a fee of bodies \$100 each. Embalmers would set up tents near encampments and offer prepaid services (even selling coffins for four to ten dollars). By 1865, Grant stopped the practice, as it would affect morale.⁴⁴⁸

The embalmers would embalm unknown soldiers and place them in shop windows to encourage business. While America seemed to be comfortable with the dead, it had seen so much of death that does not make things easier. In September 1901, the family built a new crypt to house Lincoln. In order to assure that thieves had not taken his body (something that nearly happened in 1874), the crypt caretakers opened the coffin to confirm his identity. People attending remarked, that while yellow in the skin and slightly bruised from his wounds, the president had been nearly mummified and remained perfectly recognizable. Such things had haunted Lincoln, after his son Willy died. Henry Cattell had embalmed Willy (he would also

⁴⁴⁸ William Turner Coggeshall, *Lincoln Memorial. The Journeys of Abraham Lincoln: From Springfield to Washington, 1861, as President Elect; and from Washington to Springfield, 1865, as President Martyred; Comprising an Account of Public Ceremonies on the Entire Route, and Full Details of Both Journeys* (Columbus,: Ohio State Journal, 1865), 110-39.

prepare Lincoln's body for the initial burial; Brown would continue the process). Because of the life-like nature of the body, Lincoln never seemed to get over the grief. He visited the grave constantly sitting with the body for hours (not unlike his constant visits to the soldier's homes to visit the wounded); twice having the body disinterred to see the body unaffected. "Since Willie's death, I catch myself every day involuntarily talking with him as if he were with me."⁴⁴⁹

8.2 The Body Politic

The comparison of the two deaths is startling. George Washington, the father of our country, and Abraham Lincoln, one of the few men deserving mention alongside him, died 66 years apart, yet the medicine could not have been more different. The ins and outs of the body of Washington are a prominent place to look at the best medical care available at the end of the eighteenth century. As one of the wealthiest and most prominent Americans, Washington received state-of-the-art care (though his doctors most likely killed him, the disease on the cusp on the nineteenth century may well have as well). This compared to the minimal treatment of Lincoln's wounds and the obsession with the dead body and the creation of relics (like the mummified body, Keane's dress, and the probe and skull fragments) typical of the mid-nineteenth century. Dealing with the dead would become the next issue of the nation. From Atwater and Barton at identifying the dead of Andersonville, the disinterment and desecration of the Union dead buried across the Deep South, and the creation of Arlington National Cemetery on the grounds of Robert E. Lee's old plantation. However, it is understandable to look at the

⁴⁴⁹ Thomas J. Craughwell, *Stealing Lincoln's Body* (Cambridge, MA: Harvard University Press, 2007), 1-29; Owen Edwards, "The Death of Colonel Ellsworth," *Smithsonian Magazine* 2011.

situation and wonder how much actually changed. The assassination of James Garfield merely sixteen years after Lincoln, provides an illustration.⁴⁵⁰

Charles Guiteau, a mentally ill man who had been ostracized from that the ‘group marriage’ utopian society, the Oneida Community twice, was frustrated. He had given a speech to twelve African Americans, which Guiteau was convinced won Garfield the Presidential election of 1880. However, the Garfield Administration had not given him a consulate in either Vienna or Paris in reward for helping Garfield win the presidency. Originally a supporter of Ulysses S. Grant winning a third term, Guiteau merely replaced all references to ‘Grant’ with ‘Garfield’ in his speech, giving Garfield credit for Grant’s victory as a general and his political successes. After a final snubbing, Guiteau assumed Garfield was bad for the country, borrowed twelve dollars to buy a gun ‘fit to hang in a museum’ and shot Garfield in the Baltimore and Potomac Railroad station in Washington, DC. Despite letters to new President Chester Arthur, asking for pardon for helping the new President get a raise over being Vice President and a letter to General Sherman asking him to seize the prison and free him, Guiteau was found guilty of murder after a six-month trial (and arguing with his lawyer not to make an insanity plea). However, Garfield’s story is a medically interesting fact.⁴⁵¹

Guiteau fired two bullets; one grazed the president’s shoulder, and the other entered his back, missing the spine and resting near the pancreas. Secretary of State James Blaine and Secretary of War Robert Todd Lincoln (President Lincoln’s oldest son) rushed to aid the President, while Patrick Kearney, a police officer who bumped into him after running in off the street, hearing gunfire, arrested Guiteau. Shaken, Lincoln and Blaine helped Garfield upstairs to

⁴⁵⁰ Faust, *This Republic of Suffering*, 219, 22-23.

⁴⁵¹ Allan Peskin, *Garfield: A Biography* (Kent, OH: Kent State University Press, 1999), 587-90, 600-8; Millard, *Destiny of the Republic*, 80-82, 194, 289-91.

a room in the station for doctors to assess him. Over the next two and half months, the doctors would move the president, poke, prod, and probe him. The original wound was roughly three inches, but the exploratory surgeries and prodding opened the wound to over 20 inches. There were constant news reports on the President's health and the country and economy would rally and decline in response to the news. Doctors used innovative technology including a proto-air conditioner developed by the Navy which lowered the temperature in Garfield's room by roughly 20, degrees relieving him from the Washington summer heat and the first metal detector developed by Alexander Graham Bell, which detected the metal mattress springs rather than the bullet, leading to more surgeries.⁴⁵²

As Garfield's treatment continued, he would rally and fade. Fevers would give way to health and return to fevers. Doctors being excited for the chance to cure the President would be aggressive in treatment and ultimately, in this pre-germ theory era of American medicine, the doctors infected the wounds more than treating them. Blood infections, abscesses, and septic shock (after a probing doctor accidentally punctured Garfield's liver) all occurred at the hands of doctors. The damage and infection, especially to his pancreas, made eating difficult, thus the President consumed mainly liquids and 'nutrient enemas' containing beef extract, whiskey, 'beef peptonoids' (MSG), and occasionally egg yolk (removed for causing flatulence) and charcoal for digestion. In addition, if "owing to the irritability of the rectum, the whole suppository has been returned," doctors treated this with the addition of opium in the form of laudanum. Ultimately,

⁴⁵² Peskin, *Garfield: A Biography*, 587-90, 600-8; Millard, *Destiny of the Republic*, 80-82, 194, 289-91.

despite this, the president lost roughly 65 lbs. over the ten weeks and expired on September 19, 1881.⁴⁵³

This overtreatment was similar to the conditions that killed Washington decades earlier, possibly even killing a man who could have survived without treatment. With this in mind, what did the medical community learn because of the Civil War? Changes in medical practice and available treatments, the increased number of trained doctors and nurses, as well as the risk of hospitals, all mark a change for the medical system in America. However, these advances had a huge deficit to overcome.

8.3 Civil War and Medicine

With 750,000 dead, around 60,000 amputations were performed (again, our best numbers are Union, Confederate estimates are sketchier), 235,585 Union soldiers were shot, leading to 33,653 deaths (compared to the 142,522 dead from disease). Among the officers of the Union Army, 7,035 died, 48% in action, 30% from disease, and 22% of wounds. Of enlistees, the numbers show their risk; 19% died of gunshots and 80.1% died of illness or infection. In the Confederacy, 25% of men of military age died because of the War. The fifth New Hampshire left Concord with 1,300 and after Gettysburg only 380 remained. In Iowa, half the men eligible to fight served in the Union Army, 13,001 died, 3,540 in battle, 515 in prisoner of war camps, and 8,498 of disease. These numbers are standard.⁴⁵⁴

⁴⁵³ Peskin, *Garfield: A Biography*, 587-90, 600-8; Millard, *Destiny of the Republic*, 80-82, 194, 289-91; Willard Bliss, *Feeding Per Rectum: As Illustrated in the Case of the Late President Garfield and Others*, *The Medical Record* (New York, NY: The Medical Record, 1882), 1, 9-10.

⁴⁵⁴ Office, *Medical and Surgical History Pt 2 Vol 1*, XXV; Ken Burns et al., *The Civil War. Episode 9, the Better Angels of Our Nature (1865)*, vol. 9, *The Civil War* (United States: PBS, 1990); Humphreys, *Marrow of Tragedy*, 198; Hacker, "A Census-Based Count of the Civil War Dead," 309.

The horrors of the war helped to develop a new medical system in America. The surge in need for doctors, for example, brought on a new era of trained doctors. This trial by (or under) fire not only created a new medical corps, but a new onus for the quality of doctors. These surgeons from the battlefield strengthened the American Medical Association, found and developed medical schools and started the push against pseudo-sciences and medicines (a fight they would struggle against with the patent medicine industry until their effective victory with the Food and Drug Act of 1907). Returning to their hometowns, these doctors would continue their work treating the wounded and pushing back against the older generations. After the War, Samuel Stout became a professor of surgery and Atlanta Medical College of Georgia (now Emory University School of Medicine) and practiced medicine in Georgia until 1882 when he moved to Texas, helping found the Medical Department of the University of Dallas (now Baylor College School of Medicine) where he served as Dean from 1902-03.⁴⁵⁵

The nurses trained in the war never stopped their movement forward. Female nurses, where they received pushback, slowly gained ground, ultimately becoming the majority of nurses in the country. The crucial nature of their role led some prominent members of the USSC to become members of the American Women's Suffrage Association, with Mary Livermore becoming its president; frustrated that while many of the prominent women who led the USSC had been abolitionists, Congress omitted them from the Fifteenth amendment. Elizabeth Blackwell's New York Hospital and medical school continued to train doctors and nurses and treated 7,000 patients per year by 1866. In 1874, she opened one of the first medical schools for women in Europe, the London School of Medicine for Women. At the same time, Dorothea Dix

⁴⁵⁵ Schroeder-Lein, *Confederate Hospitals on the Move*, 177-80.

returned to fundraising, first for a memorial and burial for those who died at Fortress Monroe, and then continuing her crusade for the mentally ill, and did a tour of facilities of the South.⁴⁵⁶

Possibly, the most crucial change of the era was the hospitals. In the antebellum era, hospitals were places where the poor went to die; places paid for by churches or public funds to aid the destitute. The doctors treated the wealthy in their homes even with surgeries often done there. The end of the Civil War changed this. People got more medical treatments in general. Hospitals became places for those treatments, but in an era before good drug controls, this led to an opium epidemic. Regardless, facilities opened nationwide. They were of modern pavilion design. They aided with quarantines and performed anesthetized surgeries. However, their federal insertion in the South and treatment of the freedmen drew ire, their introduction and universal appearance in the South happened regardless.⁴⁵⁷

Prior to the Civil War, society often linked illness to morality among the ill-informed and uneducated, while even the medically well-informed linked illness to odors. The war began to change these views. By the end of the war, America became a nation with hundreds of thousands of men wounded and disfigured by war, and a new movement to create hospitals, sanitary conditions, and better, more modern food laws is under way. The model of the USSC led cities to push for sanitation and better conditions. Better plumbing, trash pickup, and sewage control were all part of the effort. For example, Col. George E. Waring Jr., a Union officer, followed Butler's model, draining water, and building a sewage system in Memphis to stem cholera and yellow fever outbreaks, and drained the lake in Central Park to, likewise, control disease. Prior to the War, officers expected the ill to stay with their garrison; the war changed

⁴⁵⁶ Brown, *Dorothea Dix*, 324-46; Blackwell, *Pioneer Work in Opening the Medical Profession to Women*, 135-41.

⁴⁵⁷ Gay, *The Medical Profession in Georgia, 1733-1983*, 256-64.

that. Further, the Navy's quarantine regiment to prevent disease became standard practice and taught in medical schools. People no longer saw illness as arbitrary; they saw it as something one overcame. Further, the overwhelming nature of illness in the Civil War caused a transition to the way that the doctors saw the human body to a modern way. The war damaged the mental states of many of the soldiers; their bodies were broken, but now doctors had standardized medical practices, making their treatment more similar soldier to soldier, starting the process of seeing them as part of a functioning machine. You can remove parts, replace them, but ultimately the body was separate from the mind. Doctors and sanitarians treated the mentally ill in new asylums developed by Dix, but others would bring acceptance to the idea, like the Kellogg brothers.⁴⁵⁸

The wounded would return to those hospitals and asylums for treatment for years. The soldier's homes, which housed the ill during the war, became places for the permanently injured. They needed artificial limbs, medicines, and treatments. Receiving no federal aid, Southern heritage groups like the United Daughters of the Confederacy generally acquired and distributed aid. States tried to provide aid, but money was short. In 1866, Mississippi spent 20% of the state's entire budget on artificial limbs. Most, who were infirm, were required to turn to busking and begging.⁴⁵⁹

The dead, numbering hundreds of thousands, provided the biggest obstacle to reuniting the nation. The weight of the dead changed the psyche of the people and altered the culture.

⁴⁵⁸ Office, *Medical and Surgical History Pt 1 Vol 1*, XXV; Martin V. Melosi, *Garbage in the Cities: Refuse, Reform, and the Environment: 1880-1980*, 1st ed., Environmental History Series (College Station, TX: Texas A&M University Press, 1981), 42. Campbell, "Lectures on Hygiene Delivered in the Central High School, to the 49th Graduating Class by Prof. Henry Hartshorne M. D. Vol. 1," 63-64.

⁴⁵⁹ Burns et al., *The Civil War. Episode 9, the Better Angels of Our Nature (1865)*.

Between 1862 and 63, the purchase of life insurance policies doubled. Between 1861 and 65, publishers only released two books in the United States with the argument for anything resembling the idea of the afterlife. During the war itself, death and dying were so present, farmers found corpses in their fields, every family was touched, and newspapers printed the photos of the dead, but no books were published that discussed the concept of heaven. As David Blight puts it, “But between 1865 and 1876 no less than eighty books were published on the idea of afterlife, of a heaven. Americans, as never before, were trying to invent a heaven.”⁴⁶⁰

Corpses of the dead lay across the South in such incredible numbers that they seemed endless. Walt Whitman, Clara Barton, the USSC, and thousands of others searched the South, keeping records of the dead and seeking their rest. They would disinter and rebury hundreds of dead in Northern federal cemeteries. Desecration of graves was so common, Congress criminalized it in 1866; bodies so disturbed were in Southern medical schools as anatomical models, autopsy cadavers, and embalming ads. Grave robbers stripped uniforms and then dumped bodies in rivers and ditches. When Congress suggested the idea of a shared federal cemetery in Marietta, Georgia, Georgians derided the idea and the UDC raised money for a Confederate only cemetery. These ideas of death clashed with the struggles for reality. A book called *Gates Ajar*, published in 1868, described heaven, and rivaled sales for *Uncle Tom's Cabin* in its first year. The clean living movement pushed this further with the combination of the Seventh-Day Adventists and hygiene:

As mere physiological and hygienic truths, they might be studied by some at their leisure, and by others laid aside as of little consequence; but when placed on a

⁴⁶⁰ David Blight, *Lecture 17 - Homefronts and Battlefronts: "Hard War" and the Social Impact of the Civil War, HIST 119: The Civil War and Reconstruction Era, 1845-1877* (New Haven, CT: Open Yale University Courses, 2008), 17.

level with the great truths of the third angel's message by the sanction and authority of God's Spirit, and so declared to be the means whereby a weak people may be made strong to overcome, and our diseased bodies cleansed and fitted for translation, then it comes to us as an essential part of *present truth*, to be received with the blessing of God, or rejected at our peril." This developed against the gaining strength of pragmatism and science.⁴⁶¹

The crisis of the dead and dying of the Civil War is truly unique in American history. The clashing of the armies provided a perfect space for the illnesses of old to overwhelm the medical practices of the day. Challenging the ability to heal, with whatever limited means that term meant in the early nineteenth century. However, we emerged confident in the idea that we had learned from these trials. Stronger and more confident, doctors and nurses led a move to modernize in America. While the incorporation of germ theory, controls on medicine and their purity, and antibiotics were still to come, the Civil War developed the framework for us to accept them. Wars overseas would challenge this system, first with the medically similar, but more successful Spanish American War, to the near apocalyptic World War I and its introduction of the Spanish Flu. Regardless of these future events, the Civil War developed for us a new American structure of medicine, one ready to take on the twentieth century.

⁴⁶¹ D. E. Robinson, *The Story of Our Health Message; the Origin, Character, and Development of Health Education in the Seventh-Day Adventist Church*, Ministerial Reading Course Selection for 1944, Ministerial Association of Seventh-Day Adventist (Nashville, TN: Southern Publishing Association, 1943), 80; Wilson, *Dr. John Harvey Kellogg and the Religion of Biologic Living*, IX-XV; Blight, *Lecture 17 - Homefronts and Battlefronts: "Hard War" and the Social Impact of the Civil War*.

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APPENDICES

Appendix A: REGULATIONS FOR THE MEDICAL DEPARTMENT OF THE CONFEDERATE STATES ARMY

RICHMOND: RITCHIE & DUNNAVANT, PRINTERS.

- Black Font is for the 1861 Edition⁴⁶²
- **Bold/Blue Font is for the 1862 Edition, April 10, 1862**⁴⁶³
- Underlined/Red Font is for the 1863 Edition, March 25, 1863⁴⁶⁴

"The following Regulations for the Medical Department of the Army of the Confederate States are published, by direction of the President, for the government of all concerned. They will accordingly be strictly obeyed, and nothing contrary to their tenor be enjoined or permitted in any of the forces of the Confederate States, by any officer whatsoever."

George W. Randolph (1862)

James A. Seddon, Secretary of War. (1863)

1. The Surgeon General is charged with the administrative details of the medical department; the government of hospitals, the regulation of the duties of surgeons and assistant surgeons, and the appointment of acting medical officers, when needed, for local or detached service. He will issue orders and instructions relating to the professional duties of medical officers; and all communications from them, which require his action, will be made directly to him.⁴⁶⁵

⁴⁶² Department, "Regulations for the Medical Department of the Confederate States Army."

⁴⁶³ "Regulations for the Medical Department of the Confederate States Army."

⁴⁶⁴ "Regulations for the Medical Department of the Confederate States Army."

⁴⁶⁵ In 1863, most of the this is reworded. "The Surgeon General is charged with the administrative details of the Medical Department; the government of hospitals; the regulation of duties of the medical officers, issuing orders and instructions relating to their professional duties; and the employment of acting medical officers when needed. All communications from medical officers, which require his action will be made directly to him."

2. The Medical Director of an army corps⁴⁶⁶ will be recommended by the Surgeon General, and being approved, will be announced in orders from the Adjutant and Inspector General's Office. They will have the general control of the medical officers. **An army corps or military department will have a medical officer assigned as Medical Director, who will have the general control of the medical officers and hospitals.**

3. A division will have a medical officer assigned, on the recommendation of the Medical Director, as Chief Surgeon; or the senior medical officer of the division, on the same recommendation, will be relieved from regimental duty, and placed in general charge as Chief Surgeon of Division.⁴⁶⁷

4. A brigade will be under the general medical charge of the Senior Surgeon of Brigade, who will not be relieved from regimental duty.

3. **(5)** The Medical Director, **Chief Surgeons of Divisions, and Senior Surgeons of Brigades** will inspect the hospitals under his control, and see that the rules and regulations with regard to them and the duties of the surgeons and assistant surgeons,⁴⁶⁸ are enforced, **and the duties of the Surgeons and Assistant Surgeons are properly performed.**

4. **(6)** They will examine the case books, prescription and diet books, and ascertain the nature of diseases which may have prevailed, and their probable causes; recommend the best method of prevention, and also make such suggestions relative to the situation, construction and

⁴⁶⁶ Of an army corps is dropped in 1863.

⁴⁶⁷ This is simplified in 1863 as “3. A division will have a medical officer assigned in general medical charge as Chief Surgeon of Division, on the recommendation of the Medical Director, by the General commanding an army.”

⁴⁶⁸ “with regard to them and the duties of the surgeons and assistant surgeons,” is removed in 1863

economy of the hospitals **and to the police of the camps**, as may appear necessary for the benefit and comfort of the sick and the good of the service.

5. From the monthly reports of the medical officers of the command (Form 1), he will make to the Surgeon General a consolidated monthly report of the sick and wounded.⁴⁶⁹

7. Senior Surgeons of Brigades will receive the monthly reports of sick and wounded (Form 1), required from the medical officers, and transmit them through the Chief Surgeon of Division to the Medical Director.

6. **(8) He will make to the Surgeon General a monthly return (Form 2) of the medical officers of the command (Replaced by the following in 1862). 8. The Medical Director will make to the Surgeon General a consolidated monthly report of the sick and wounded, from the monthly reports of the medical officers of the command.**

. 9. Chief Surgeons of Divisions and Senior Surgeons of Brigades will see that the quarterly reports of sick and wounded, and monthly statements of hospital fund, required from the medical officers, are transmitted to the Surgeon General.) 9. The quarterly reports of sick and wounded required from medical officers serving with troops, will be transmitted to the Surgeon General through the Senior Surgeon of Brigade, the Chief Surgeon of Division, and the Medical Director: those from medical officers in charge of General Hospitals will be forwarded through the Medical Director.

10. Senior Surgeons of Brigades will make to the Chief Surgeons of Divisions, and Chief Surgeons of Divisions will make to the Medical Director, monthly, returns of the medical officers of their commands. (Form 2.) Surgeons in charge of General Hospitals will

⁴⁶⁹ 7. This is removed in 1862 and 63

make to the Medical Director similar returns of the medical officers of the hospitals, including private physicians employed by contract.

11. The Medical Director will make to the Surgeon General a monthly return of the medical officers of the command.

7. **(12)** The Medical Purveyors will, under the direction of the Surgeon General, purchase all medical and hospital supplies required for the medical department of the army. **(Replaced by the following in 1862). 12. An army corps, or military department will have a medical officer assigned as Medical Purveyor, who, under the direction of the Surgeon General, will purchase all medical and hospital supplies required for the Medical Department, or will make requisitions for these supplies through the Surgeon General, on the principal purveying depots. (Replaced with the following in 1863) 12. Medical Purveyors will be assigned as such on the recommendation of the Surgeon General, and under his direction, will purchase all medical and hospital supplies required for the Medical Department, or will make requisitions for these supplies, through the Surgeon General, on the principal purveying depots.**

8. **(13)** Medical Purveyors will make to the Surgeon General, at the end of each fiscal quarter, returns in duplicate (Form 3), of medical supplies received, issued and remaining on hand, stating to whom, or from whom, and when and where issued or received. Other medical officers in charge of medical supplies will make similar returns semi-annual, on the 30th of June and the 31st of December; and all medical officers will make them when relieved from the duty to which their returns relate. The returns will show the condition of the stores, and particularly of the instruments, bedding and furniture. Medical purveyors will furnish abstracts of receipts and issues, with their returns (Form 4).

9. **(14)** Medical disbursing officers will, at the end of each fiscal quarter, render to the Surgeon General, in duplicate, a quarterly account current of moneys received and expended, with the proper vouchers for the payments, and certificates that the services have been rendered and the supplies purchased and received for the medical service, and transmit to him an estimate of the funds required for the next quarter.

10. **(15)** The medical supplies for the army are prescribed in the Standard Supply Tables for Hospitals and Field Service.

11. **(16)** Medical and hospital supplies will be obtained by making requisitions **(issued by Medical Purveyors)**, in duplicate (Form 5), on the Surgeon General, forwarding them through the Medical Director of the command. If an army be in the field, and there be a Medical Purveyor in charge of supplies, requisitions will be made on him, after receiving the approval of the Medical Director. **(approved by the Medical Director, and exhibiting the quantities on hand of articles wanted. The duplicate of the requisition, showing the actual issues and date thereof, will be forwarded by the Medical Purveyor to the Surgeon General.)** (Simplified by the following in 1863)16. Medical and hospital supplies will be issued by Medical Purveyors, on requisitions (Form 5), in duplicate, approved by the Medical Director, and exhibiting the quantities on hand of articles wanted. The duplicate of the requisition, showing the actual issues and date thereof, will be forwarded by the Medical Purveyor to the Surgeon General.

12. **(17)** When it is necessary to purchase medical supplies, and **(those which are indispensable may be procured by the Quartermaster, if)** recourse cannot be had to a medical disbursing officer, they may be procured by the quartermaster on a *special* requisition (Form G), and account (Form 7).

13. (18) In every case of special requisition, a duplicate of the requisition shall, at the same time, be transmitted to the Surgeon General, for his information.

14. (19) An officer transferring medical supplies, will furnish a certified invoice to the officer who is to receive them, and transmit a duplicate of it to the Surgeon General. The receiving officer will transmit duplicate receipts (specifying articles and quantities) to the Surgeon General, with a report of the quality and condition of the supplies, and report the same to the issuing officer. A medical officer who turns over medical supplies to a quartermaster for storage or transportation, will forward to the Surgeon General, with the invoice, the quartermaster's receipts for the packages.

15. (20) Medical officers will take up and account for all medical supplies of the army that come into their possession, and report, when they know it, to whose account they are to be credited.

21. Medical supplies are not to be detained or diverted from their destination, except in cases of absolute necessity, by commanding generals in cases of absolute necessity, who will promptly report the circumstances to the Adjutant General, that orders may be given for supplying the deficiency; and the medical officer receiving them will immediately report the fact to the Surgeon General; and, also, when practicable, notify the officer for whom they were intended.

16. (22) In all official lists of medical supplies, the articles will be entered in the order of the Supply Tables.

23. The senior medical officer of each post, regiment, or detachment, will, with the approbation of the commanding officer, select a suitable site for the erection of a hospital, or of hospital tents.

17. (24) The senior medical officer of a hospital will distribute the patients, according to convenience, and the nature of their complaints, into wards or divisions, under the particular charge of the several assistant surgeons, and will visit them himself each day as frequently as the state of the sick may require, accompanied by the assistant, steward and nurse.

18. (25) His prescriptions of medicine and diet are **to be** written down at once in the proper register (**register is changed to 'book' in 1862**), with the name of the patient and the number of his bed; the assistants fill up the diet table for the day, and direct the administration of the prescribed medicines. He will detail an assistant surgeon to remain at the hospital day and night, when the state of the sick requires it.

19. (26) In distributing the duties of his assistants, he will ordinarily require the aid of one in the care and preparation of the hospital reports, registers and records, the rolls and descriptive lists; and of another, in the charge of the dispensary, instruments, medicines, hospital expenditures, and the preparation of the requisitions and annual returns.

20. (27) He will enforce the proper hospital regulations to promote health and prevent contagion, by ventilated and not crowded rooms, scrupulous cleanliness, frequent changes of bedding and linen, occasional refilling of the bed sacks and pillow ticks with fresh straw, regularity in meals, attention to cooking, &c.

28. He will cause to be printed, or written in a legible hand, and hung up in a conspicuous place in each ward, such rules and regulations as he may deem necessary for the guidance of the attendants, and the order, cleanliness, and convenience of the patients.

21. (29) He will require the steward to take due care of the hospital stores and supplies; to enter in a book, daily (Form 8), the issues to the wardmasters, cooks and nurses; to prepare the provision returns, and receive and distribute the rations.

22. (30) He will require the wardmaster to take charge of the effects of the patients; to register them in a book (Form 9); to have them numbered and labelled with the patient's name, rank and company; to receive from the steward the furniture, bedding, cooking utensils, &c. for use, and keep a record of them (Form 10), and how distributed to the wards and kitchens, and once a week to take an inventory of the articles in use, and report to him any loss or damage to them, and to return to the steward such as are not required for use.

23. (31) Assistant surgeons will obey the orders of their senior surgeon, see that subordinate officers do their duty, and aid in enforcing the regulations of the hospital.

24. (32) The cooks and nurses are under the orders of the steward. He is responsible for the cleanliness of the wards and kitchens, patients and attendants, and all articles in use. He will ascertain who are present at sunrise and sunset, and tattoo, and report absentees.

25. (33) At surgeon's call the sick then in the companies will be conducted to the hospital by the first sergeants, who will each hand to the surgeon, in his company book, a list of all the sick of the company, on which the surgeon shall state who are to remain or go into hospital; who are to return to quarters as sick or convalescent; what duties the convalescents in quarters are capable of; what cases are feigned; and any other information in regard to the sick of the company he may have to communicate to the company commander.

26. (34) Soldiers in hospital, patients or attendants, except stewards, shall be mustered on the rolls of their company, if it be present at the post.

27. (35) When a soldier in hospital is detached from his company so as not to be mustered with it for pay, his company commander shall certify and send to the hospital his descriptive list, and account of pay and clothing, containing all necessary information relating to his accounts with the Confederate States, on which the surgeon shall enter all payments,

stoppages, and Issues of clothing to him in hospital. When lie leaves the hospital, the medical officer shall certify and remit his descriptive list, showing the state of his accounts. If he is discharged from the service in hospital, the surgeon shall make out his final statements for pay and clothing. If he dies in hospital, the surgeon shall take charge of his effects, and make the reports required in the general regulations concerning soldiers who die absent from their companies.

28. **(36)** Patients in hospital are, if possible, to leave their arms and accoutrements with their companies, and in no case to take ammunition into the hospital.

29. **(37)** When a patient is transferred from one hospital to another, the medical officer shall send with him an account of his case, and the treatment.

30. **(38)** The regulations for the service of hospitals apply, as far as practicable, to the medical service in the field.

39. In the field, the senior medical officer will inspect camps, and urge the enforcement of stringent rules of police.

31. **(39)** The senior medical officer of each hospital, post, regiment, or detachment, will keep the following records, and deliver them to his successor: A register of patients (Form 11); a prescription and diet book (Form 12); a case book; copies of his requisitions, annual returns, **returns of property**, and reports of sick and wounded; and an order and letter book; in which will be transcribed all orders and letters relating to his duties.

32. **(40)** He will make the muster and pay rolls of the hospital steward and matrons, and of all soldiers in hospital, sick or on duty, detached from their companies, on the forms furnished from the Adjutant and Inspector-General's office, and according to the directions expressed on them. (Replaced with the following in 1863) 41. He will make on the forms furnished from the

Adjutant and Inspector General's office, according to the directions expressed thereon, the muster and pay rolls of the hospital is the ward, cooks and nurses not enlisted or volunteers, and laundresses; and of all soldiers in hospital, sick or on duty, detached from their companies.

33. (41) The extra pay allowed to soldiers acting as cooks and nurses in hospitals, will be paid by the Pay Department (**changed to “Quartermaster Department” in 1862**). Such extra services will be noted on the hospital muster rolls, (and for the sums thus expended, the Pay Department will be reimbursed by the Medical Department.)⁴⁷⁰

42. The extra pay allowed to soldiers acting as cooks and nurses in hospitals, will be paid by the Quartermaster Department, the extra service being noted on the hospital muster rolls.

34. (43) The senior medical officer will select the cooks, nurses and matrons⁴⁷¹ (**and laundresses**), with the approval of the commanding officer. Cooks and nurses (will be)⁴⁷² taken from the privates, and will be exempt from other duty, but shall attend the parades for muster and weekly inspection of their companies at the post, unless specially excused by the commanding officer.⁴⁷³ **They will not be removed except for misdemeanor, and at the request of the medical officer, unless in cases of urgent necessity, and then only by the order of the commanding officer.**

⁴⁷⁰ This was removed in 1862

⁴⁷¹ And Matrons is removed in 1862.

⁴⁷² This was removed in 1862

⁴⁷³ This lined is reworded in 1862 as “Cooks and nurses, taken from the privates, will be exempt from other duty, but shall attend the parades for muster and weekly inspection of their companies at the post, unless specially excused by the commanding officer.”

44. (44) Cooks and nurses, (other than)⁴⁷⁴ not enlisted men or volunteers, are like others subject to military control. They will be paid on the hospital muster rolls, by the Quartermaster Department, at the rates at which they have been engaged, which, in no case, will exceed \$18 50 per month, being the pay proper of an enlisted man, together with the extra pay allowed in paragraph 42. They should not in general be employed for a less period than a calendar month.

35. (45) Ordinarily, hospital attendants are allowed as follows: To a general hospital, one steward, one nurse as wardmaster, one nurse to ten patients, one matron to twenty,⁴⁷⁵ and one cook to thirty; to a hospital, where the command exceeds five companies, one steward and wardmaster, one cook, two matrons, and four nurses; to a post or garrison of one company, one steward and wardmaster, one nurse, one cook, and one matron⁴⁷⁶; and for every two companies more, one nurse; at arsenals, where the number of enlisted men is not less than fourteen, one matron⁴⁷⁷ is allowed **to a post or garrison of one company, one steward and wardmaster, one nurse, one cook, and one laundress; and for every two companies more, one nurse; at arsenals, where the number of enlisted men is not less than fourteen, one laundress is allowed.** The allowance of hospital attendants for a regiment in the field will be, for one company **and not exceeding five**, one steward, one nurse and one cook; **and** for each additional company, one nurse; and for command of over five companies,⁴⁷⁸ one additional cook. (increased by “one steward, two cooks,” in 1863).

⁴⁷⁴ Removed in 1863

⁴⁷⁵ Replaced with, “one laundress to twenty in 1862”

⁴⁷⁶ Replaced with, “and one laundress in 1862”

⁴⁷⁷ Replaced with, “one steward and wardmaster, one cook, two laundresses, and four nurses”

⁴⁷⁸ Removed “of over five companies,” in 1862.

36. (46) Medical officers, where on duty, will attend the officers and enlisted men, and the servants⁴⁷⁹ and laundresses authorized by law; and at stations where other medical attendance cannot be procured, and on marches, the hired men of the army. Medicines will be dispensed to the families of officers and soldiers, and to all persons entitled to medical attendance; hospital stores to enlisted men.

37. (47) Medical officers, in giving certificates of disability (Form 13), are to take particular care in all cases that have not been under their charge; and especially in epilepsy, convulsions, chronic rheumatism, derangement of the urinary organs, ophthalmia, ulcers, or any obscure disease, liable to be feigned or purposely produced; and in no case shall such certificate be given until after sufficient time and examination to detect any attempt at deception.

38. (48) In passing a recruit, the medical officer is to examine him stripped; to see that he has free use of his limbs; that his chest is ample; that his hearing, vision and speech are perfect; that he has no tumors, or ulcerated⁴⁸⁰ or extensively cicatrized⁴⁸¹ legs; no rupture, or chronic cutaneous affection; that he has not received any contusion, or wound of the head, that may impair his faculties; that he is not a drunkard; is not subject to convulsions, and has no infectious disorder, nor any other that may unfit him for military service.

39. (49) Medical officers attending recruiting rendezvous will keep a record (Form 14) of all the recruits examined by them. Books for this purpose will be procured by application to the Surgeon General, to whom they will be returned when filled.

⁴⁷⁹ “Servants” is removed in 1862

⁴⁸⁰ Unhealed wounds

⁴⁸¹ Healed by scarring

40. (50) As soon as a recruit joins any regiment or station, he shall be examined by the medical officer, and vaccinated when it is required, **vaccine virus being kept on hand by timely requisition on the Surgeon General.**

41. (51) The senior medical officer of each hospital, post, regiment or detachment; will make monthly to the Medical Director, and quarterly to the Surgeon General, a report of sick and wounded (Form I), and of deaths, and of certificates for discharge for disability, and transmit to him a copy of the *Monthly Statement of the Hospital Fund* (Form 19).

42. (52) After surgeon's call, he will make a morning report of the sick to the commanding officer (Form 15).

43. (53) Every medical officer will report to the Surgeon General and to the Medical Director the date when he arrives at a station, or when he leaves it, and his orders in the case, and at the end of each month, whenever not at his station, whether on service or on leave of absence; and when on leave of absence, his post-office address for the next month. They will also acknowledge the receipt of all orders relating to their movements.

54. They will promptly acknowledge the receipt of all orders relating to their movements; and in all official communications, when at stations the positions of which are not well known, they will state the nearest post-office or well-known place.

44. (55) When it is necessary to employ a private physician as medical officer, **the Medical Director, or if circumstances preclude reference to him,** the commanding officer **may execute a written contract (notifying the Medical Director),** conditioned as in Form 16, at a stated compensation, not to exceed \$50 a month when the number of officers and men, with authorized laundresses, is 100 or more; \$40 when it is from 50 to 100, and \$30 when it is under 50.

45. (56) But when he is required to abandon his own business, and give his whole time to the public service, the contract may be not to exceed \$80 a month; and not to exceed \$100, besides transportation in kind, to be furnished by the Quartermaster's Department, where he is required to accompany troops on marches or transports. But a private physician will not be employed to accompany troops on marches or transports, except by orders from the War Department, or, in particular and urgent cases, by the order of the officer directing the movement; when a particular statement of the circumstances which make it necessary, will be appended to the contract.⁴⁸²

46. (57) And when a private physician is required to furnish medicines, he will be allowed, besides the liquidated pay,⁴⁸³ from 25 to 50 per cent, on it, to be determined by the Surgeon General **on the amount allowed by contract..**

47. (58) In all cases, a duplicate of the contract, **with a particular statement appended, of the circumstances which make it necessary,** will be transmitted forthwith by the commanding officer to the Surgeon General; and the commanding officer for the time being will at once discontinue it, whenever the necessity for it ceases, or the Surgeon General may so direct.

48. (59) The physician's account of pay due must be sent to the Surgeon General for payment, vouched by the certificate of the commanding officer, that it is correct and agreeable to contract, and that the services have been duly rendered. But **on the frontier or in the field,** when it cannot conveniently be submitted to the Surgeon General from the frontier or the field, it **the**

⁴⁸² “when a particular statement of the circumstances which make it necessary, will be appended to the contract” is removed in 1862.

⁴⁸³ “he will be allowed, besides the liquidated pay” is replaced with “**he will be paid in addition from**”

contract having already received his approval, the account may be paid on the order of the commanding officer, not to exceed the regulated amount, by a medical disbursing officer or a quartermaster.⁴⁸⁴

60. Private physicians, employed by contract, will conform to the regulations, and accordingly will keep all the records, and make the reports, requisitions, and returns required from medical officers. They will not be granted leave of absence.

49. (61) When medical attendance is required by officers or enlisted men on service, or for the authorized servants of such officers,⁴⁸⁵ and the attendance of a medical officer cannot be had, the officer, or if there be no officer, then the enlisted man, may employ a private physician, and a just account therefor will be paid by the Medical Bureau.

50. (62) The account will set out the name of the patient, the date of and charge for each visit, and for medicines. The physician will make a certificate to the account in case of an officer, or affidavit in case of an enlisted man, that the account is correct, and the charges are the customary charges of the place.

51. (63) The officer will make his certificate, or the enlisted man his affidavit, to the correctness of the account to the correctness of the account, that he was on service at the place, and stating the circumstances preventing him from receiving the services of a medical officer.

52. (64) When the charge is against an officer, he will pay the account if practicable, and transmit it to the Medical Bureau for reimbursement. In all other cases, the account will be transmitted to the Medical Bureau for settlement.

⁴⁸⁴ Quartermaster or a medical disbursing officer is reversed in 1862.

⁴⁸⁵ “or for the authorized servants of such officers,” is removed in 1862

53. (65) If the charge is against a deceased officer or enlisted man, the physician will make the affidavit, before required, to the account, and that he has been paid no part of it.

54. (66) No charges for consultation fees will be paid by the Medical Bureau; nor will any account for medical attendance or medicines be paid, if the officer or enlisted man be not on service.

55. (67) A board of not less than three medical officers will be appointed from time to time, by the Secretary of War, to examine applicants for appointment of assistant surgeons in the regular army, and assistant surgeons for promotion. And no one shall be so appointed or promoted until so examined and found qualified.

56. (68) The board will scrutinize rigidly the moral habits, professional acquirements, and physical qualifications of the candidates, and report favorably, either for appointment or promotion, in no case admitting of a reasonable doubt.

57. (69) The Secretary of War will designate the applicants to be examined for appointment of assistant surgeon. They must be between 21 and 25 years of age. The board will report their respective merits in the several branches of the examination, and their relative merit from the whole; agreeably whereto, if vacancies happen within two years thereafter, they will receive appointments and take rank in the medical corps.

58. (70) When an assistant surgeon has served five years, he is subject to be examined for promotion. If he declines the examination, or be found not qualified by moral habits or professional acquirements, he ceases to be a medical officer of the army.

59. (71) An applicant for appointment failing at one examination, may be allowed a second after two years; but never a third.

60. (72) The Secretary of War will appoint, on the recommendation of the Surgeon General, from the enlisted men of the army, or cause to be enlisted, as many competent hospital stewards as the service may require.

61. (73) The senior medical officer of a command requiring a steward, may recommend a competent non-commissioned officer or soldier to be appointed, which recommendation the commanding officer shall forward to the Adjutant and Inspector General of the army, with his remarks thereon, and with the remarks of the company commander.

62. (74) When no competent enlisted man can be procured, the medical officer will report the fact to the Surgeon General. Applications and testimonials of competency, from persons seeking to be enlisted for hospital stewards, may be addressed to the Surgeon General.

63. (75) The commanding officer may re-enlist a hospital steward at the expiration of his term of service, on the recommendation of the medical officer.

64. (76) No soldier or citizen will be recommended for appointment, who is not *known* to be temperate, honest, and in every way reliable, as well as sufficiently intelligent, and skilled in pharmacy, for the proper discharge of the responsible duties likely to be devolved upon him. Until this is *known*, he will be appointed an acting steward by the medical officer, with the approval of the commanding officer, and will be entitled to the pay and allowance of hospital steward.

65. (77) Hospital stewards, appointed by the Secretary of War, whenever stationed in places whence no post return is made to the adjutant general's office, or when on furlough, will, at the end of every month, report themselves, by letter, to the Adjutant **and Inspector**-General and Surgeon General, as well as to the Medical Director of the military department in which they may be serving; to each of whom they will also report each new assignment to duty, or change of

station, ordered in their case, noting carefully the number, date and source of the order directing the same. They will likewise report monthly, when on furlough, to the medical officer in charge of the hospital to which they are attached.

66. (78) The jurisdiction and authority of courts martial are the same with reference to hospital stewards as in the cases of other enlisted men. When, however, a hospital steward is sentenced by an inferior court to be reduced to the ranks, such sentence, though it may be approved by the reviewing officer, will not be carried into effect until the case has been referred to the General in Chief (**changed to Secretary of War in 1862**) for final action. In these cases of reduction, the application of the man for discharge from service, though not recognized as of right, will generally be regarded with favor, if his offence has not been of too serious a nature, and especially when he has not been recently promoted from the ranks.

67. (79) As the hospital stewards, appointed by the Secretary of War, are permanently attached to the Medical Department, their accounts of pay, clothing, &c., must be kept by the medical officers under whose immediate direction they are serving, who are also responsible for certified statements of such accounts, and correct descriptive lists of such stewards, to accompany them in case of transfer; as, also, that their final statements and certificates of discharge are accurately made out, when they are, at length discharged from service.

Appendix B: Appendix of Medicines⁴⁸⁶

Appendix B1: Herbal Treatments

English Name	Latin Name	Use
Agrimony	<i>Agrimonia eupatoria</i>	Indigestion, Peptic Ulcers, Colitis
Aloe	<i>Aloe perfoliata</i>	Topical analgesic, internal laxative
Amsonia (Fringed Blue Star)	<i>Amsonia hubrichtii</i> <i>or Amsonia tomentosa,</i> <i>depending on region</i>	Emetic
Asafetida	<i>Ferula assa-foetida</i> <i>L.</i>	Anti-flatulent, digestion aid, Asthma, Bronchitis, antimicrobial, abortive agent, and antiepileptic.
Autumn Crocus	<i>Colchicum autumnale</i>	Gout, Rheumatism
Betony, (Woolly)	<i>Stachys officinalis</i>	Bandages
Bouncing Bet, Soap Wart	<i>Saponaria officinalis</i>	Poison Ivy, Ulcerated Skin
Belladonna extract (Deadly Nightshade)		Pain reliever, muscle relaxer, and anti-inflammatory, and to treat menstrual problems, peptic ulcer disease, histaminic

⁴⁸⁶ Museum, "The Benjamin Rush Medicinal Plant Garden"; Freemon, *Gangrene and Glory*; Cadwallader and Wilson, "Folklore Medicine among Georgia's Piedmont Negroes after the Civil War."; Peddy, Peddy, and Cuttino, *Saddle Bag and Spinning Wheel: Being the Civil War Letters of George W. Peddy, M.D., Surgeon, 56th Georgia Volunteer Regiment, C.S.A. And His Wife Kate Featherston Peddy.*

		reaction, and motion sickness (eclectic school). In the 20 th century, it made a comeback as an anti-flatulent (which even Hitler took and may have contributed to his mental state near his end) and in the 21 st century it has made a comeback in homeopathic communities as a teething aid for children (leading to, according to the FDA in 2010 and 2016 “seizures, difficulty breathing, lethargy, excessive sleepiness, muscle weakness, skin flushing, constipation, difficulty urinating, or agitation”
Boxwood	<i>Buxus L.</i>	Splints, medical tools, tourniquet. Also, General Thomas F. Meagher decorated the hats of the men of the Irish Brigade with boxwood during the American Civil War, as he could find no shamrock.
Bugleweed	<i>Ajuga reptans</i>	Stops heavy bleeding
Cardinal Flower	<i>Lobelia cardinalis</i>	Asthma, Bronchitis
Carnation	<i>Dianthus caryophyllus</i>	Nervous Disorders Affecting the Heart and Circulation
Catnip	<i>Nepeta cataria</i>	Fevers, Sleeplessness in Children

Celandine, Greater	<i>Chelidonium majus</i>	Gall Stones, Biliary Colic, Infective Skin Diseases
Chamomile, Roman	<i>Chamaemelum nobile or Anthemis nobilis</i>	Constipation, Irritable Bowel Syndrome, Indigestion
Clary Sage	<i>Salvia sclarea</i>	Anxiety, Restlessness, Eyewash
Columbine (or Granny Bonnet)	<i>Aquilegia vulgaris</i>	Headaches, Diarrhea, Heavy Menstruation
Comfrey	<i>Symphytum officinale</i>	Wounds of the Skin and Mucous Membranes
Cottonseed Oil	<i>Gossypium hirsutum and Gossypium herbaceum</i>	Used as insecticide, treatment of lice, bed bugs, and fleas.
Corn Cobs	<i>Zea mays L.</i>	Ground up and put in wounds to stop bleeding
Corn Silk	<i>Zea mays L.</i>	Bedwetting, Bladder infections, Inflammation of the prostate, Inflammation of the urinary system, Kidney stones, Congestive heart failure, Diabetes, and Fatigue.
Cranesbill	<i>Geranium (422 species)</i>	Benign Prostate Hypertrophy, Heavy Menstruation

Dandelions	<i>Taraxacum officinale</i>	Infection, biliousness, liver and kidney issues and is a diuretic.
Delphinium (Stavesacre)	<i>Delphinium Staphisagria</i>	Head Lice, Nerve Pain (Topical)
Digitalis	<i>Digitalis L.</i>	Heart conditions
European Cowslip	<i>Primula veris</i>	Coughs, Asthma
Ergot	<i>Claviceps (50 species)</i>	Hallucinogen and convulsent used in labor
Evening Primrose	<i>Oenothera biennis</i>	Menopausal Symptoms, Eczema
False Blue Indigo	<i>Baptisia australis</i>	Infections of the Ear, Nose, and Throat
Fennel	<i>Foeniculum vulgare</i>	Flatulence, Intestinal Bloating
Feverfew	<i>Tanacetum parthenium</i>	Migraines, Painful Menstruation
Flax	<i>Linum usitatissimum</i>	Constipation, Colitis, Arthritis
Forget-Me-Not	<i>Myosotis sylvatica</i>	Whooping Cough, Bronchitis
Foxglove	<i>Digitalis purpurea</i>	Congestive Heart Failure, Cardiac Arrhythmia
Garlic	<i>Allium sativum</i>	Colds, Atherosclerosis, Intestinal Infections
Germander	<i>Teucrium fruticans</i>	Wounds, Anxiety, Insomnia
Great Blue Lobelia	<i>Lobelia siphilitica</i>	Diarrhea (ineffective), Syphilitic Ulcers
Herb Robert	<i>Geranium robertianum</i>	Diarrhea, Wound healing

Horehound, White	<i>Marrubium vulgare</i>	Cough, Colds, Bronchitis
Hyssop	<i>Hyssopus officinalis</i>	Chest Infections, Coughs
Iris, Blue Flac	<i>Iris versicolor</i>	Inflammatory Skin Conditions, Rheumatoid Arthritis, Constipation
Jacob's Ladder	<i>Polemonium caeruleum</i>	Coughs, Colds, Bronchitis
Jalap (Jalop)	<i>Ipomoea purga</i>	Cathartic and diarrhea and vomiting preventative.
Lady's Mantle	<i>Alchemilla vulgaris</i>	Menopausal Symptom, Heavy Menstruation, Leucorrhea
Lady's Slipper	<i>Cypripedium reginae</i>	Dermatitis, tooth aches, anxiety, headaches, as an antispasmodic, stimulant and sedative
Lavender	<i>Lavandula</i>	Restlessness, Anxiety, Burns
Lemon Balm	<i>Melissa officinalis</i>	Mild Depression, Cold Sores, Indigestion
Lily of the Valley	<i>Convallaria majalis</i>	Congestive Heart Failure, Cardiac Arrhythmia
Lovage	<i>Levisticum officinale</i>	Digestive Colic, Appetite Stimulant
Lungwart	<i>Pulmonaria</i>	Asthma, Bronchitis, Pleurisy
Marigold	<i>Calendula officinalis</i>	Infected Wounds, Swollen Glands, Skin Disease
Marjoram	<i>Origanum majorana</i>	Weak Digestion, Candidiasis
Marsh Mallow	<i>Althaea officinalis</i>	Wound, Inflammation and Ulceration

Meadow Rue	<i>Thalictrum</i>	Cathartic, Treatment of Colic
Meadow Sweet	<i>Filipendula ulmaria</i>	Acid Reflux, Peptic Ulcers, Arthritis
Monkshood	<i>Aconitum</i>	Used Externally for Neuralgia and Pain
Oswego Tea, Bee Balm	<i>Monarda didyma</i>	Nausea, Vomiting, Fevers
Parsley	<i>Petroselinum crispum</i>	Painful Menstruation, Chronic Cystitis
Peanut Oil	<i>Arachis hypogaea</i>	Laxative and used to suspend other medicines
Pennyroyal	<i>Mentha pulegium</i>	Digestive Colic, Painful Menstruation
Peppermint	<i>Mentha piperita</i>	Indigestion, Irritable Bowel Syndrome
Poppy	<i>Papaver somniferum</i>	Pain, Whooping Cough, Croup
Rosemary	<i>Rosmarinus officinalis</i>	Atherosclerosis, Headaches, Memory, Depression, Painful Menstruation, Anxiety, Neuralgia
Sage	<i>Salvia officinalis</i>	Excessive Sweating, Cold, Chest Infections, Sore Throats
Sarsaparilla	<i>Smilax ornate</i>	Syphilis
St. John's Wort	<i>Hypericum perforatum</i>	Anxiety, Mild Depression, Herpes Simplex
Santolina Silver	<i>Santolina chamaecyparissus</i>	Intestinal Worms, Weak Digestion
Southernwood	<i>Artemisia abrotanum</i>	Intestinal Worms in Children, Stimulates Liver Function and Digestion

Spiderwort	<i>Tradescantia</i>	Laxatives, Spider bites
Strawberry, Common	<i>Fragaria ananassa</i>	Sore Throat, Diarrhea, Dysentery
Strawberry, wild	<i>Fragaria ananassa</i>	Sore Throat, Diarrhea, Dysentery
Sweet Violet	<i>Viola odorata</i>	Bronchitis, Catarrh, Cancer of Breast, Lung and Digestive Tract
Sweet Woodruff	<i>Galium odoratum</i>	Liver Disease, Insomnia, Anxiety, Varicose Veins, Biliary Obstruction, Hepatitis, Jaundice
Tamarind	<i>Tamarindus indica</i>	Laxative, headache relief
Tansy	<i>Tanacetum vulgare</i>	Absent Menstruation, Delayed Labor, Intestinal Worms, Parasites
Thistle, Canadian	<i>Cirsium arvense</i>	Tonic, Diuretic
Thyme	<i>Thymus Vulgaris</i>	Chest Infections, Bronchitis, Colds, Flu
Tobacco, Flowering	<i>Nicotiana tabacum</i>	Vasoconstrictor, Narcotic
Valerian	<i>Valeriana officinalis</i>	Insomnia, Anxiety
Watermelon Seeds	<i>Citrullus lanatus</i>	Ground into paste, nutrient rich
Willow Bark	<i>Salix alba L.</i>	Aspirin
Wild Ginger, Snake Root, Black Snake Root	<i>Asarum canadense</i>	Asthma, Coughs, Digestive System
Wild Indigo	<i>Baptisia australis</i>	Tonsillitis, Sinusitis, Bronchitis
Wormwood	<i>Artemisia vulgaris</i>	Intestinal Worms, Digestion
Yarrow	<i>Achillea millefolium</i>	Varicose Veins, Wounds, Heavy Bleeding

Appendix B2: Chemical Treatments

Chemical/Supply ⁴⁸⁷	Name	Use
Acetic Acid	CH ₃ COOH	Injected into tumors, bacterial and fungal infections
Adhesive Plaster	Cotton	Wrapped around wounds and amputations, washed and reused.
Alcohol	C _n H _{2n+1} OH	Consumed as painkiller and in place of drinking water. Note: Pre-Germ Theory, not used as antiseptic.
Ammonia	NH ₃	Smelling Salt, cleaner
Antimony	Sb	Emetic
Arsenic	As	malaria, syphilis, trypanosomiasis (protozoan food illness primarily from meat).
Bichloride of Mercury	HgCl ₂	Disinfect wounds and applied topically and down the urethra to treat syphilis
Blue Mass	Pilula Hydrargyri	Mercury treatment for syphilis, tuberculosis, constipation, toothache, parasitic infestations, and the pains of childbirth
Bromide	Kbr	anticonvulsant, (it was thought that masturbation caused epilepsy; therefore it was also used to calm sexual excitement).
Bromine	Br	Disinfectant

⁴⁸⁷ Gay, *The Medical Profession in Georgia, 1733-1983*. 247

Calomel	Hg_2Cl_2	A white powder used a purgative and fungicide.
Camphor (Paregoric)	$\text{C}_{10}\text{H}_{16}\text{O}$	Pain reliever, antidiarrheal, antitussive, and analgesic properties
Carbolic Acid	$\text{C}_6\text{H}_5\text{OH}$	Pioneered by Joseph Lister as surgical antiseptic.
Castor Oil	<i>Ricinus communis</i>	Cysts, an antifungal agent,
Chlorine	Cl	Disinfectant
Chloroform	CHCl_3	Anesthetic
Diethyl Ether	$\text{C}_4\text{H}_{10}\text{O}$	Anesthetic
Epsom Salts	$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$	Laxative, osmotic purgative
Iodine	I	Disinfectant
Lime (Chloride of Lime or milk of lime)	CaO	Disinfectant
Liniment	$\text{C}_6\text{H}_4(\text{OH})(\text{CO}_2\text{CH}_3)$	Pain reliever
Laudanum	Tincture of Opium	Pain reliever
Morphine	$\text{C}_{17}\text{H}_{19}\text{NO}_3$	Pain reliever
Muriatic Acid (Hydrochloric Acid)	HCl	Antiseptic
Nitrous Oxide	N_2O	Pain reliever and Anesthetic
Opium	Poppy seeds	Pain reliever
Quinine	Cinchona Tree Bark	Malaria and Babesiosis
Salicylic Acid	Willow bark	Pain reliever

Silver Nitrate	AgNO_3	Antiseptic, Rabies preventative, and since 1881, used to prevent contraction of gonorrhoea by babies from mother
Sugar	$\text{C}_{12}\text{H}_{22}\text{O}_{11}$	Used to mix with medicines to be palatable.
Sulphuric Acid	<u>H_2SO_4</u>	Disinfectant and generally called vitriol, but generally mixed with Ether for stability.
Sulphuric Ether	$(\text{C}_2\text{H}_5)_2\text{O}$	Anesthetic
Turpentine, spirits of	<i>Pistacia terebinthus</i>	Inhalant and decongestant, including in the 1905 patent medicine Vick's Vaporub.
Vermifuge	$\text{C}_6\text{H}_4(\text{NH}_2)_2 +$ $\text{HC}(\text{OCH}_3)_3 \rightarrow$ $\text{C}_6\text{H}_4\text{N}(\text{NH})\text{CH} + 3$ CH_3OH	Anti-parasitic

**Appendix C: Supplies Distributed During and Immediately After the Battles at
Gettysburg, July 1st, 2d and 3d 1863.⁴⁸⁸⁴⁸⁹**

<i>Of Articles of Clothing, etc. viz.:</i>		
Item	Amount	Value
Drawers ⁴⁹⁰ (woolen)	5,310 Pairs	\$ 9,292.50
Drawers (cotton)	1,833 Pairs	\$1,833.00
Shirts (woolen)	7,158	\$14,316.00
Shirts (cotton)	3,266	\$3,266.00
Pillows	2,114	\$1,286.40
Pillow Cases	264	\$105.60
Bed Sacks ⁴⁹¹	1,630	\$3,463.75
Blankets	1,007	\$3,021.00
Sheets	274	\$274.00
Wrappers ⁴⁹²	508	\$1,498.00
Handkerchiefs	2,659	\$319.08
Stockings ⁴⁹³ (woolen)	3,560 Pairs	\$1,780.00

⁴⁸⁸ I have kept all original wording, but unabbreviated units of measure uncommon in the 21st century. I have also kept the original order, unsure of the sorting reasons.

⁴⁸⁹ Beecher and Bellows, "How and Where the Money Goes: Important and Instructive Correspondence between the Rev. Henry Ward Beecher and the Rev. H. W. Bellows, D.D., President of the Commission.."

⁴⁹⁰ Knickers or underpants.

⁴⁹¹ In modern terms, this would be a sleeping bag; however, such a thing did not really exist, referred to bedding sets for hospitals.

⁴⁹² A loose robe or gown (like medical gown).

⁴⁹³ Knee Socks

Stockings (cotton)	2,258 Pairs	\$451.00
Bed Utensils ⁴⁹⁴	728	\$182.00
Towels and Napkins	10,000	\$1,500.00
Sponges ⁴⁹⁵	2,300	\$230.00
Combs	1,500	\$60.00
Buckets	200	\$75.00
Soap (Castile) ⁴⁹⁶	250 lbs..	\$50.00
Oil Silk ⁴⁹⁷	300 yards	\$225.00
Tin Basins, Cups, etc.	700	\$700.00
Old Linen Bandages	110 barrels	\$1,100.00
Water Tanks	7	\$70.00
Water Coolers	46	\$230.00
Bay Rum ⁴⁹⁸ and Cologne		
Water ⁴⁹⁹	225 bottles	\$112.50
Fans	3,500	\$145.00
Chloride of Lime ⁵⁰⁰	11	\$99.00
Shoes and Slippers	4,000 Pairs	\$2,400.00

⁴⁹⁴ A Reference to Chamber Pots, also called chamber utensils or bedroom wares.

⁴⁹⁵ Used to clean wounds

⁴⁹⁶ Fine, hard white or mottled soap made with olive oil and sodium hydroxide; at the time, animal fat was more used to cook and soap made from it did not keep as well.

⁴⁹⁷ Silk treated with oil in order to make it water tight.

⁴⁹⁸ English perfume (also Baye Rhum), primarily for hair, made from bayberry leaves and rum.

⁴⁹⁹ Eau de toilette

⁵⁰⁰ Disinfectant

Crutches	1,200	\$480.00
Lanterns	350 lbs.	\$90.00
Candles	300	\$70.00
Canvas	648 square yards	\$360.00
Musquito [sic] Netting	237 pieces	\$810.00
Paper	189 quires ⁵⁰¹	\$23.70
Pants, Coats, Hats	16 pieces	\$96.75
Plaster ⁵⁰²	274	\$4.00
<i>Of Articles of Sustenance, viz.</i>		
Item	Amount	Value
Fresh Poultry and Mutton	11,000 lbs..	\$ 1,540.00
Fresh Butter	6,430 lbs.	\$ 1,286.00
Fresh Eggs, (chiefly collected for the occasion at farmhouses in Pennsylvania and New Jersey,)	8,500 dozen	\$ 1,700.00
Fresh Garden Vegetables	675 bushels	\$ 337.50
Fresh Berries	48 loaves	\$ 72.00
Fresh Bread	12,900 lbs.	\$ 645.00
Ice	20,000 lbs.	\$ 100.00
Concentrated Beef Soup	3,800 lbs.	\$ 3,800.00

⁵⁰¹ A Quires is 24 sheets, or four sheets forming 8 leaves.

⁵⁰² Adhesive used to apply to bandages.

Concentrated Milk	12,500 lbs.	\$ 3,125.00
Prepared Farinaceous food ⁵⁰³	7,000 lbs.	\$ 700.00
Dried Fruit	3,500 lbs.	\$ 350.00
Jellies and Conserves [sic]	2,000 jars	\$ 1,000.00
Tamarinds ⁵⁰⁴	750 gallons	\$ 600.00
Lemons	116 boxes	\$ 580.00
Oranges	6 boxes	\$ 230.00
Coffee	850 lbs.	\$ 272.00
Chocolate	831 lbs.	\$ 249.30
Tea	426 lbs.	\$ 383.40
White Sugar	6,800 lbs.	\$ 1,159.60
Syrups (Lemons, etc.)	785 bottles	\$ 596.25
Brandy	1,250 bottles	\$ 1,250.00
Whiskey	1,168 bottles	\$ 700.80
Wine	1,148 bottles	\$ 861.00
Ale	600 gallons	\$ 180.00
Biscuit, Crackers, and Rusk ⁵⁰⁵	134 barrels	\$ 670.00
Preserved Meats	500 lbs.	\$ 125.00
Preserved Fish	3,600 lbs.	\$ 720.00

⁵⁰³ Containing starched, proto-breakfast cereals; from which Farina gets its name.

⁵⁰⁴ Same as the Asian food staple, it is used as laxative and headache relief

⁵⁰⁵ Twice baked bread, often used as a thickener or filler.

Pickles	400 gallons	\$ 120.00
Tobacco	100 lbs.	\$ 70.00
Tobacco Pipes	1,000	\$ 5.00
Indian Meal ⁵⁰⁶	1,621 lbs.	\$ 40.50
Starch	1,074 lbs.	\$ 75.18
Cod Fish	3,848 lbs.	\$ 269.36
Canned Fruit	582 cans	\$ 436.50
Canned Oysters	72 cans	\$ 36.00
Brandy ⁵⁰⁷ Peaches	303 jars	\$ 303.00
Catsup	43 jars	\$ 11.00
Vinegar	24 bottles	\$ 3.00
Jamaica Ginger	43 jars	\$ 37.25
		Total: \$74,838.52

⁵⁰⁶ Corn Meal

⁵⁰⁷ Alcohol preserved peaches.

Appendix D: Confederate Army Medical Duties

Appendix D1: Duties of the Chief Matron of the Laundry Department⁵⁰⁸

- I. She will superintend the washing, ironing and mending of all clothing of patients and attendants in Hospital.
- II. She will have charge of all bedding and clothing requiring washing, and will neither deliver them to, nor receive them from any person except those authorized.
- III. She will call on the Ward Matrons for assistance in mending clothing, will issue to them when required, clean bedding, &c., in lieu of the dirty clothing delivered for wash. In all other cases receipts will be given for what is delivered, and she will be held responsible for the proper return of the articles specified.
- IV. She will see by repeated personal inspection that the Ward Masters and Matrons discharge their duties in keeping the bedding, &c., properly clean, and that they are abundantly and promptly supplied with everything requisite therefor.
- V. She will report any negligence or misconduct on part of any employees or others in her department.
- VI. She will be required to keep a neat record of all Hospital property in her charge, and make one each week a report of the same, stating loss either by negligence, accident or otherwise, if any shall occur.
- VII. She is entitled to one Assistant Matron.

⁵⁰⁸ Charge, "Duties of the Chief Matron of the Laundry Department."

VIII. She will have charge of the Bath House, and see that it is kept clean and in proper condition to furnish patients with warm or cold baths as ordered by Medical Officers. A ticket from the Ward Master of the Medical Officer shall be presented by the patient.

Appendix D2: Duties of the Chief Matron of Special Diet Kitchen⁵⁰⁹

I. She is charged with the prompt and careful preparation of such diets as may be assigned to her Kitchen by the Steward.

II. She shall be furnished by the Steward, daily, with a list (Form No. 4,) of the diets-to be prepared by her. 8nid list must specify the total number of every diet to be prepared, as also-the number of each of these which is to be issued to every Ward.

III. She will be prepared to deliver to the Ward Matrons, Ward Masters and Nurses, the diets ordered for their respective Ward, punctually at the following hours, viz:

Table 8: Confederate Patient Daily Meal Schedule

FROM APRIL TO OCTOBER.	FROM OCTOBER TO APRIL.
Breakfast...6, A. M.	Breakfast...7, A. M.
Dinner....12, M	Dinner....12, M
Supper....5, P. M.	Supper....4, P. M.

IV. She will make a requisition daily on the Steward for the supplies requisite to prepare the diets ordered in the above list, will receipt to him for all supplies issued to her, and will be held rigidly responsible that all supplies furnished are economically used and properly disposed of.

V. She will report promptly any failure on the part of the Steward to furnish such supplies as are required to prepare the diets ordered from her Kitchen.

⁵⁰⁹ "Duties of the Chief Matron of Special Diet Kitchen."

- VI. She will conform to the Diet Table (Form No. 1,) in respect to the articles and quantities composing her diets. When any required article is deficient, some other shall be substituted in its place, or the quantities of the remaining articles shall be proportionally augmented.
- VII. She will respect the orders and instructions of the Medical Officer supervising her Kitchen, and of the Steward, and is charged with the discipline of her assistant and all attendants reporting to her.
- VIII. She will pay no respect to any orders for Special Diets for indefinite times. Such special orders are prohibited for longer than one day, and these only when unavoidable. All such orders must be delivered to her in ample time for their preparation, and shall never take precedence of those required in the regular Daily List. (Form 4.)
- IX. She will keep a neat record of all public property in her charge, and make a weekly report of the same.

*Appendix D3 Duties of the Ward Masters of the Baggage Room*⁵¹⁰

- I. He will on the admission of a patient take charge of his effects, register them in his book, (Form 9, Medical Regulations,) have them neatly and compactly arranged in one package, and see that it is at once placed in the proper receptacle, and numbered and labelled, with the patient's name, rank, regiment and company.
- II. He will furnish for every patient a ticket, upon which will be entered a list of and receipt for each article of clothing, or other property received; and he will be held strictly accountable for the return of every article so receipted for, on the presentation of the ticket.

⁵¹⁰ "Duties of the Ward Master of the Baggage Room."

- III. It is the duty of the Ward Master of each Medical Officer to see that the baggage and other property of patients, are delivered to the Baggage Master promptly on their admission, properly receipted for, and returned to them when discharged from hospital.
- IV. The Baggage Master will in no case return to a patient whilst in hospital, any article for which he has receipted, unless the ticket is presented, and has endorsed on its back the receipt of the patient for the article required.
- V. He will take charge of the effects of deceased soldiers; see that the clothing is properly washed; that an inventory be taken of them, and that they are turned over to the Quarter Master; presenting to this office the Quarter Master's duplicate receipts therefor.
- VI. He will take charge of the guns, or any ordnance stores brought by patients admitted to this hospital, and see that they are turned over to, and receipted for by the proper officer.
- VII. He, will have charge of the Reading Room; will see that it is kept in good order, and open to patients at proper hours. He will be held responsible that no papers, books, &c., are destroyed or removed, and that regulations governing those admitted, are kept posted in the Reading Room.

Appendix E: Confederate Hospital Regulations

Appendix E1: Circular No. –

The number of Surgeons was to be kept appropriate for the number of patients with only one medical officer allowed for seventy patients. Under ordinary circumstances the hospital walls were to be whitewashed two or three times a year and the contents of bed sacks renewed once a month. All bedding would be frequently aired. Three sheets for each bed were to be kept on hand; two always on hand. In all cases when possible at least 800 cubic feet should be allowed for each bed. Hospital floors were to be dry scrubbed with sand. Water would not be employed for this purpose except by the special direction of the surgeon in charge. A receptacle was to be provided for the medicines prescribed, each of which would be labeled with the dose, periods for administration and name of the patient for whom it was intended. Upon the outer surface of the door of this receptacle the diet table of the hospital would be posted and for the convenience of the attendants, the timetable for the administration of remedies. The general house rules were to be posted conspicuously at the entrance and in all the several departments of the hospital for the information of visitors, residents and all others concerned. Cards specifying the duties of the stewards, assistants, ward matrons, acting dispenser of medicines, matrons, attendants, cooks and accompanied by the rules for their guidance were to be hung up in respective places where such duties were to be performed. Suitable hours for retiring in winter and in summer would be fixed by the surgeon in charge after which no conversation in the wards would be permitted. The surgeon in every hospital of or above the capacity of 140 patients would daily assign to duty one of the surgeons or assistant surgeons under his charge as Officer of the Day who would at the same time act as Sanitary Officer. It was to be the duty of the Officer of the Day to inspect the hospital and premises during both day and night, and to report in writing

the results of his inspection to the Senior Surgeon in charge. It would also be his duty to see that proper order and discipline were maintained, and that the directions of the officer in charge and of the prescribing surgeon were obeyed. He was to report any missing attendance or defect in the condition of the wards, and any delay or failure in the administration of remedies or serving of diets. He should visit the kitchen and note its condition as regards the sufficiency of utensils and cleanliness and to be present at meal times, to be able to judge of the proper preparation and distribution of food. He would examine thoroughly the condition of the hospital as to drainage, removal of offal, water closets, latrines, supply of water, lights, fuel, dry scrubbing of floors, sweeping of premises ventilation and general cleanliness of the patients, bedding and of the hospital in general. He should organize the attendants into relief parties in order that they may be allowed both the necessary sleep and exercise and to see particularly that such convalescents as can sit up, and are capable of performing such duty, separate their bedding and air it every day for two hours. They should render any assistance to their sick comrades, which their attending medical officer may think fit. He should see if the sentries guarding the hospital are at their posts and that they allow no liquor to be introduced into the hospital and no visitors admitted to the wards, except in accordance with the written rules.⁵¹¹

⁵¹¹ Moore, "Circular No. --." Welsh, *Two Confederate Hospitals and Their Patients: Atlanta to Opelika*.

*Appendix E2: Regulations for Fairground Hospital No. 2*⁵¹²

- I. Roll call at sunrise and sunset. Surgeon's visits at 8 am, and 4 pm. At these hours every patient will be at his bed, and silence be strictly observed.
- II. The hour for retiring is 8 1/2 pm from October to April, and 9 1/2 pm, from April to October, after which hour no noise or conversation is permitted.
- III. All business with the surgeon in charge must be transacted at the office, and during office hours, from 8 am to 12 pm. and from 3 pm. to 5 1/2 pm. Any patient having business with the surgeon in charge must transact it through the medical officer of his ward.
- IV. Every patient on admission will have his clothing changed and washed.
- V. Convalescents will be daily detailed by the medical officers for police duty.
- VI. Attendants and patients are forbidden to leave the hospital without a pass, signed by the surgeon in charge. Applications for a pass must specify the hour of leaving and returning to the hospital. Not more than three hours will be allowed to patients except for special reasons.
- VII. Smoking or cooking in the wards, gambling, drinking, profane language, using other places than the sinks for their appropriate purpose, trespassing upon the adjacent premises, packing in and under the beds dirty clothing, all noisy, uncleanly or disorderly conduct are strictly prohibited.
- VIII. Whilst order, politeness and obedience will be enforced, every patient shall receive all the government provides for him as a soldier and the kindness and attention due him as a sick man. To secure these he will report any just cause or complaint to the medical officer of

⁵¹² Moore, "Regulations of Fairgrounds Hospital, No. 2." Welsh, *Two Confederate Hospitals and Their Patients: Atlanta to Opelika*.

his ward, and failing to obtain redress, will appeal to the surgeon in charge, through the Officer of the Day.

- IX. Visitors are not permitted to eat or lodge in this hospital, nor to furnish the sick with food or drink without the permission of the Medical officers in charge of the ward.
- X. The Officer of the Day will remain at the hospital throughout the day and night; will prescribe for and perform such other duties as may be needed by patients whose regular medical attendant is temporarily absent; will report any officer absent during the hours in which his presence is required at the hospital; will inspect and superintend every department of and maintain order and discipline throughout the hospital, and strictly obey the special instructions of the surgeon general, Par. XV., circular July 6th, 1863.
- XI. Officers, attendants, and patients are required to report promptly any violations of these regulations not only in their particular wards, but wherever else observed.

*Appendix E3: General Hospital, No. 3*⁵¹³

Lynchburg, July 1, 1863.

The following Regulations are published for the government and guidance of Patients of this Hospital.

- I. Patients entering the Hospital will be careful to give their full names, company and regiment to the Wardmaster correctly, in order that they may receive their letters promptly-that their friends may be enabled to-find them without difficulty, and that the Hospital records may not be embarrassed.
- II. Passes will be given by the Wardmaster, and countersigned the Clerk of the Hospital. They will be limited to such number daily as the Surgeon in charge may deem proper. No pass will be given until after the morning visit of the Medical Officer, and for no later hour than four o'clock, P. M.; after that hour, they will, in special cases, be given by the Surgeon in charge. No passes will be given to patients on the day preceding the one they return to duty.
- III. Patients must invariably be in their Wards at such hours as the Medical Officer in attendance upon them, makes his visits. Absence from the Hospital at night is positively prohibited.
- IV. Patients will be cleanly in their persons and apparel; respectful and soldierly in their deportment. Profanity must be studiously avoided and abusive language or insulting epithets, from one to another, is especially forbidden.

⁵¹³ Fisher, "Hospital Regulations General Hospital No. 3."

- V. Smoking in the Wards or passages, and spitting upon the floors, or from the windows and porches, is prohibited, and boisterous behavior within the Hospital enclosure, will not be permitted.
- VI. Patients are not allowed to visit and lounge in Wards of which they are not inmates, without obtaining the sanction of the Wardmaster.
- VII. They are also prohibited from defacing and injuring Hospital property. The value of any article willfully destroyed, will be charged to the account of the patient destroying it.
- VIII. They are not permitted to bring into the Hospital, unripe fruit, or eatables of an injurious nature. The introduction of intoxicating liquors is especially and strictly forbidden.
- IX. Convalescents, not sufficiently recovered to return to the field, are subject to the orders of the Surgeon in charge for any light duty he may consider them able to perform.
- X. Every patient must retire by nine o'clock, p. m. in winter and by ten, p. m. in summer; after which, all conversation must cease, in order that those who desire to sleep may not be disturbed.
- XI. Should Wardmasters or Nurses fail in the respective duties towards those under their care, either by neglect, abuse, improper language or capricious conduct, the latter will report the delinquent to the Medical Officer in charge of the Ward, who will correct the evil.
- XII. Patients forcing a Hospital Guard, or willfully infringing the Hospital Regulations, will subject themselves to unpleasant consequences.

Thos. H. Fisher

Surgeon in Charge General Hospital, No. 3

Appendix F: Diet Table for Military Hospitals –Articles composing the different

Diets for a Day—Averdupois Weight⁵¹⁴

Table 9: Diet Table for Confederate Military Hospitals

Tea Diet	Spoon Diet	Beef Tea Diet	Milk Diet	Light Meat Diet	Chicken Diet	Half Diet	Fish Diet	Roast Half Diet	Full Diet
Bread, 8oz. Tea, ½ oz. Sugar, 2 1/2 oz. Milk, 6 oz.	Bread, 8 oz. Tea, ¼ oz. Sugar, 1 ¼ oz. Milk, 6 oz. Also, either of the following: Arrow root, 2 oz. Rice flour, 2 oz., Maizena. 2 oz. With milk, 1pt. corn meal for gruel, 2 oz. with butter, 1/2 oz. Sugar, oz.	Bread, 12oz. Tea, ¼ oz. Sugar, 1 ½ oz. Milk, 6 oz. Beef, 8 oz. Salt, ½ oz.	Bread, 14 oz. Rice, 2 oz. Or corn meal for mush, Milk, 3 pts. Sugar, 1 oz.	Meat, 6 oz. Eggs, 2 Bread, 14 oz. Salt, ½ oz. Tea, ¼ oz. Sugar, ½ oz. Milk, 6 oz. Butter, 1 oz. Rice, 2oz. Milk, ¼ pt. Sugar, ½ oz. Eggs, 1 For pudding, flavored with cinnamon and lemon	Fowl, 8 oz. Bread, 18 oz. Salt, ½ oz. Tea, ¼ oz. Sugar, ½ oz. Milk, 8 oz. Butter, 1 oz.	Meat, 8 oz. Bread, 16 oz. Potatoes, 8 oz. Barley, 1 ½ oz. Or rice, 1 ½ oz. Okra, --- Salt, ¼ oz. Tea, ¼ oz. Milk, oz. Vegetables, 4 oz. Butter, 2 oz. Flour, ¼ oz.	Fish, broiled or fried, 6 oz. Eggs, 2 Bread, 18 oz. Potatoes, 5 oz. Rice, 3 oz. Salt, ¼ oz. Tea, ¼ oz. Sugar, 1 ½ oz. Milk 6 oz. Butter, 2 oz.	Roast Meat, Chop, or Steak Meat, 8 oz. Bread, 18 oz. Potatoes, 8 oz. Or fried mush, 8 oz. Salt, ¼ oz. Tea, ¼ oz. Sugar, 1 ½ oz. Milk, 6 oz. Vegetables, 4 oz. Butter, 1 oz. Or butter, } ½ oz. Molasses, 3 oz.	Meat (fresh), 13 oz. Or Bacon, 8 oz. Bread, 16 oz. Potatoes, 16 oz. Or potatoes, } 7 oz. Beans, 9 oz. Barley, 1 ½ oz. Or Rice, 1 ½ oz. Okra, --- oz. Salt, ¾ oz. Tea, ¼ oz. Sugar, 1 ½ oz. Milk, 6 oz. Vegetables, 4 oz. Butter, 1 oz. Or butter, } ½ oz. Molasses, 4 oz. Flour, ¼ oz. When in lieu of soup, meat is baked, roasted, or stewed, 2 ounces extra of bread are allowed in lieu of barley and rice.

⁵¹⁴ Moore, "Form No. 1: Diet Table for Military Hospitals -- Articles Composing the Different Diets for a Day--Averdupois Weight.."

									To be marked "varied" on Roll.
Breakfast.									
Tea, 1 pt. Bread, 2oz.	Tea, 1 pt. Bread, 4oz.	Tea, 1 pt. Bread, 4oz.	Milk, 1 pt. Bread 6 oz.	Tea, 1pt. Bread 5oz. Butter, ½ oz. Eggs, 2	Tea, 1 pt. Toast, dry or with milk, 6oz. Butter, ½ oz.	Tea, 1 pt. Bread, 6oz. Butter, ½ oz.	Tea, 1 pt. Bread, 6oz. Butter, ½ oz.	Tea, 1 pt. Bread, 6oz. Butter, ½ oz.	Tea, 1 pt. Bread, 6oz. Butter, ½ oz.
Dinner.									
Tea, 1 pt. Bread, 4oz.	Arrow root. Rice flour, Maizena. Gruel.	Beef Tea, 10 oz. Bread, 4 oz.	Rice milk, 1 pt. Bread, 4 oz. Sugar, 1 oz. Or mush and milk	Beef tea, 15 oz. Bread, 4 oz. Also, rice pudding.	Fowl, 8 oz. Roast or made into chicken tea. Bread, 6 oz.	Soup. 15 oz. With okra, rice, or barley. Meat, 8 oz. Bread, 4 oz. Potatoes, 8 oz.	Fish, 6 oz. Eggs, 2 Potatoes, 5 oz. Rice, 3 oz. Butter, 1 oz.	Roast Meat, Chop, or Steak Meat, 8 oz. Bread, 6 oz.	Okra or bean soup, 1 pt. Meat, 12 or 8 oz. Bread, 4 oz. Potatoes, 16 or 8 oz. Vegetables, 4 oz.
Supper.									
Tea, 1 pt. Bread, 4oz.	Tea, 1 pt. Bread, 4oz.	Milk, 1 pt. Bread, 4oz.	Milk, 1 pt. Bread, 4oz.	Tea, 1 pt. Bread, 5 oz. Butter, ½ oz.	Tea, 1 pt. Bread, 6 oz. Butter, ½ oz.	Tea, 1 pt. Bread, 6 oz. Butter, ½ oz.	Tea, 1 pt. Bread, 6 oz. Butter, ½ oz.	Tea, 1 pt. Bread, 6 oz. Butter, ½ oz. Or Molasses 3 oz.	Tea, 1 pt. Bread, 6 oz. Butter, ½ oz. Or Molasses 4 oz.

Note 1. – Drinks for patients in tea, spoon, and beef tea diets are to be made.... Barley Water. –Barley, 2 oz.; sugar, 2 oz.; for every five pints.

Rice Water. – Rice, 2oz; sugar, 2 oz.; for every five pints.

Lemonade. —1 large lemon; sugar, 1 ½ oz.; to two pints.

Note 2. – Half an ounce of coffee may be substituted for 1/8th oz. of tea at breakfast and supper.

Note 3—Wine, spirits and malt liquors will be considered as extras, and when ordered will be marked as such on the Diet Roll, opposite the names of the patients receiving them.

Appendix G: The Medical Exam of George Snow

1. Describe the muscles, arteries, and nerves of the hand. (The muscles of the hand are the Flexor Longus Pollicis [sic, now it is generally Flexor pollicis longus] which arises from the internal condyle of the humerus and is inserted into the metatarsal line of the thumb. Flexor Longus Leitimium has nearly the same origin, passes under the annular ligament..." This part of medicine has changed little. Presumably, Snow was merely quoting his anatomy text, which since *Anatomy: Descriptive and Surgical* by Henry Gray in 1858, have become standard to medical practices.)⁵¹⁵
2. What is Abscess and how is it treated? (An abscess is an inflammation attended with pain, heat, swelling and seeps and if not subdued, disintegration of the tissues takes place followed with the formation of pus. The treatment at first should be antiphlogistic: as soon as the pus has formed, which may be detected by fluctuations, a free incision should be made into the part to discharge the matter, and then apply a cataplasm, or flax seed poultice, to encourage the discharge.)
3. What are the principal sources from whence is derived the blood? (The blood expectorated in Phthisis is arrived principally from the pulmonary artery which is distinctive to the air cells of the lungs.)
4. Describe the therapeutic effects and therapeutic application of aloes. (Aloes when administered, exerts its effects principally upon the lower part of the colon and rectum and is reputed at times to excite contraction of the uterus. It is an active cathartic, rarely given alone. Dose five to ten grains. It is given in various combinations in amenorrhea.)

⁵¹⁵ Gray and Holmes, *Anatomy, Descriptive and Surgical*.

5. Give the treatment of knee, shoulder, and back presentations (during labor). (In presentations of the knee, if the case proceeds favorably, I would treat it as a breech case or endeavor to return the part and all the buttocks to present. In shoulder presentation, I would turn and deliver by the front. In presentation of the back, I would cause the vertex or breech to present according to the position of the fetus.)
6. Under what circumstances of difficult labor are anesthetics, ergot, and instruments used? In long, tedious, labor with rigid os uteri (Cervical Cancer), anesthetics might be used. In protracted labor with a dilatable os uteri and natural presentation, ergot may be given. Instruments are to be used in those cases where the woman's strength became exhausted and bleeding commences, also when the uterus is ruptured during labor.
7. What are the chemical tests for arsenious acid?⁵¹⁶ (When arsenious acid is thrown upon red hot coals it gives off a peculiar odor resembling somewhat the odor of garlic and when a small quantity is placed upon a clean piece of white porcelain and subjected to heat, the arsenical ring is formed.)
8. What are the constituents of healthy pus? (Healthy pus is inodorous, of a yellow color, and possesses a sweetish taste).⁵¹⁷

⁵¹⁶ Yes, this is arsenic. They used arsenic in everything from candles to rat poison and could, of course, can kill. The fine white powder was dangerous and even led to more than one mass poisoning when an amnesiac baker (accidentally?) mixed it in candy and killed children in Paris when confused. In medical circles, apothecaries and doctors used it as a medicine on occasion, particularly for malaria, as experts at the time deemed tiny amounts safe. However, we know better now. Used for its fair share of murders, the risk and old fashion nature of arsenic most like it is the reason it is on the exam, it was difficult to tell accidental or deliberate death unless trained as poisoning mimicked cholera and, as such, doctor considered many deaths by arsenic, natural.

⁵¹⁷ Snow, "Navy Medical Written Exam for Applicant George Snow."