A Civil War Doctor

The Civil War was fought, claimed the Union army surgeon general, "at the end of the medical Middle Ages." Little was known about what caused disease, how to stop it from spreading, or how to cure it. Surgical techniques ranged from the barbaric to the barely competent.

A Civil War soldier's chances of not surviving the war was about one in four. These fallen men were cared for by a woefully under qualified, understaffed, and undersupplied medical corps. Working against incredible odds, however, the medical corps increased in size, improved its techniques, and gained a greater understanding of medicine and disease every year the war was fought.

During the period just before the Civil War, a physician received minimal training. Nearly all the older doctors served as apprentices in lieu of formal education. Even those who had attended one of the few medical schools were poorly trained. In Europe, four-year medical schools were common, laboratory training was widespread, and a greater understanding of disease and infection existed. The average medical student in the United States, on the other hand, trained for two years or less, received practically no clinical experience, and was given virtually no laboratory instruction. Harvard University, for instance, did not own a single stethoscope or microscope until after the war.

When the war began, the Federal army had a total of about 98 medical officers, the Confederacy just 24. By 1865, some 13,000 Union doctors had served in the field and in the hospitals; in the Confederacy, about 4,000 medical officers and an unknown number of volunteers treated war casualties. In both the North and South, these men were assisted by thousands of women who donated their time and energy to help the wounded. It is estimated that more than 4,000 women served as nurses in Union hospitals; Confederate women contributed much to the effort as well.

Although Civil War doctors were commonly referred to as "butchers" by their patients and the press, they managed to treat more than 10 million cases of injury and illness in just 48 months and most did it with as much compassion and competency as possible. Poet Walt Whitman, who served as a volunteer in Union army hospitals, had great respect for the hardworking physicians, claiming that "All but a few are excellent men...

Approximately 620,000 men-360,000 Northerners and 260,000 Southerners-died in the four-year conflict, a figure that tops the total fatalities of all other wars in which America has fought. Of these numbers, approximately 110,000 Union and 94,000 Confederate men died of wounds received in battle. Every effort was made to treat wounded men within 48 hours; most primary care was administered at field hospitals located far behind the front lines. Those who survived were then transported by unreliable and overcrowded ambulances-two-wheeled carts or four-wheeled wagons-to army hospitals located in nearby cities and towns.

The most common Civil War small arms ammunition was the dreadful minnie ball, which tore an enormous wound on impact: it was so heavy that an abdominal or head wound was almost always fatal, and a hit to an extremity usually shattered any bone encountered. In addition, bullets carried dirt and germs into the wound that often caused infection.

Of the approximately 175,000 wounds to the extremities received among Federal troops, about 30,000 led to amputation; roughly the same proportion occurred in the Confederacy. One witness described a common surgeon's tent this way: "Tables about breast high had been erected upon which the screaming victims were having legs and arms cut off. The surgeons and their assistants, stripped to the waist and bespattered with blood, stood around, some holding the poor fellows while others, armed with long, bloody knives and saws, cut and sawed away with frightful rapidity, throwing the mangled limbs on a pile nearby as soon as removed."

Contrary to popular myth, most amputees did not experience the surgery without anesthetic. Ample doses of chloroform were administered beforehand; the screams heard were usually from soldiers just informed that they would lose a limb or who were witness to the plight of other soldiers under the knife.
Those who survived their wounds and surgeries still had another hurdle, however: the high risk of infection. While most surgeons were aware of a relationship between cleanliness and low infection rates, they did not know how to sterilize their equipment. Due to a frequent shortage of water, surgeons often went days without washing their hands or instruments, thereby passing germs from one patient to another as he treated them. The resulting vicious infections, commonly known as "surgical fevers," are believed to have been caused largely by *Staphylococcus aureus* and *Streptococcus pyogenes*, bacterial cells which generate pus, destroy tissue, and release deadly toxins into the bloodstream. Gangrene, the rotting away of flesh caused by the obstruction of blood flow, was also common after surgery. Despite these fearful odds, nearly 75 percent of the amputees survived.

While the average soldier believed the bullet was his most nefarious foe, disease was the biggest killer of the war. Of the Federal dead, roughly three out of five died of disease, and of the Confederate, perhaps two out of three. One of the reasons for the high rates of disease was the slipshod recruiting process that allowed under- or over-age men and those in noticeably poor health to join the armies on both sides, especially in the first year of the war. In fact, by late 1862, some 200,000 recruits originally accepted for service were judged physically unfit and discharged, either because they had fallen ill or because a routine examination revealed their frail condition.

About half of the deaths from disease during the Civil War were caused by intestinal disorders, mainly typhoid fever, diarrhea, and dysentery. The remainder died from pneumonia and tuberculosis. Camps populated by young soldiers who had never before been exposed to a large variety of common contagious diseases were plagued by outbreaks of measles, chickenpox, mumps, and whooping cough.

The culprit in most cases of wartime illness, however, was the shocking filth of the army camp itself. An inspector in late 1861 found most Federal camps 'littered with refuse, food, and other rubbish, sometimes in an offensive state of decomposition; slops deposited in pits within the camp limits or thrown out of broadcast; heaps of manure and offal close to the camp.' As a result, bacteria and viruses spread through the camp like wildfire. Bowel disorders constituted the soldiers' most common complaint. The Union army reported that more than 995 out of every 1,000 men eventually contracted chronic diarrhea or dysentery during the war; the Confederates fared no better.

Typhoid fever was even more devastating. Perhaps one-quarter of noncombat deaths in the Confederacy resulted from this disease, caused by the consumption of food or water contaminated by *salmonella* bacteria. Epidemics of malaria spread through camps located next to stagnant swamps teeming with *anopheles* mosquito. Although treatment with quinine reduced fatalities, malaria nevertheless struck approximately one quarter of all servicemen; the Union army alone reported one million cases of it during the course of the war. Poor diet and exposure to the elements only added to the burden. A simple cold often developed into pneumonia, which was the third leading killer disease of the war, after typhoid and dysentery.

Throughout the war, both the South and the North struggled to improve the level of medical care given to their men. In many ways, their efforts assisted in the birth of modern medicine in the United States. More complete records on medical and surgical activities were kept during the war than ever before, doctors became more adept at surgery and at the use of anesthesia, and perhaps most importantly, a greater understanding of the relationship between cleanliness, diet, and disease was gained not only by the medical establishment but by the public at large. Another important advance took place in the field of nursing, where respect for the role of women in medicine rose considerably among both doctors and patients.

http://www.civilwarhome.com/civilwarmedicine.htm
There is an interesting account of Battlefield medicine in the July 12, 1862 edition of Harper's Weekly, which we present an excerpt below:

The Surgeon at Work in the Field

The "Surgeon at Work" introduces us to the most painful scene on the battle-field. Away in the rear, under the green flag, which is always respected among civilized soldiers, the surgeon and his assistants receive the poor wounded soldiers, and swiftly minister to their needs. Arteries are tied, ligatures and tourniquets applied, flesh wounds hastily dressed, broken limbs set, and sometimes, where haste is essential, amputations performed within sight and sound of the cannon. Of all officers the surgeon is often the one who requires most nerve and most courage. The swaying tide of battle frequently makes him a prisoner, and sometimes brutal soldiers will take a flying shot at him as they pass. Upon his coolness and judgment depend the lives of a large proportion of the wounded; and if they fall into the enemy's hands, military rule requires that he should accompany them as a prisoner. An arrangement has lately been made between General Howell Cobb, of the rebel army, and Colonel Keys, of the army of the Potomac, by which surgeons are to be considered non-combatants and released from custody as soon as their wounded are in the hands of the surgeons of the enemy.

Civil War Battlefield Surgery

The most common Civil War surgery was the amputation. A few words about why there were so many amputations may be appropriate here. Many people have construed the Civil War surgeon to be a heartless individual or someone who
was somehow incompetent and that was the reason for the great number of amputations performed. This is false. The medical director of the Army of the Potomac, Dr. Jonathan Letterman, wrote in his report after the battle of Antietam:

The surgery of these battle-fields has been pronounced butchery. Gross misrepresentations of the conduct of medical officers have been made and scattered broadcast over the country, causing deep and heart-rendering anxiety to those who had friends or relatives in the army, who might at any moment require the services of a surgeon. It is not to be supposed that there were no incompetent surgeons in the army. It is certainly true that there were; but these sweeping denunciations against a class of men who will favorably compare with the military surgeons of any country, because of the incompetency and short-comings of a few, are wrong, and do injustice to a body of men who have labored faithfully and well. It is easy to magnify an existing evil until it is beyond the bounds of truth. It is equally easy to pass by the good that has been done on the other side. Some medical officers lost their lives in their devotion to duty in the battle of Antietam, and others sickened from excessive labor which they conscientiously and skillfully performed. If any objection could be urged against the surgery of those fields, it would be the efforts on the part of surgeons to practice "conservative surgery" to too great an extent.

Still the Civil War surgeon suffers from being called a butcher or some other derisive term.

The slow-moving minnie bullet used during the American Civil War caused catastrophic injuries. The two minnie bullets, for example, that struck John Bell Hood's leg at Chickamauga destroyed 5 inches of his upper thigh bone. This left surgeons no choice but to amputate shattered limbs. Hood's leg was removed only 4 and 1/2 inches away from his body. Hip amputations, like Hood's, had mortality rates of around 83%. The closer to the body the amputation was done, the more the increase in the wound being mortal. An upper arm amputation, as was done on Stonewall Jackson or General Oliver O. Howard (who lost his arm at Fair Oaks in 1862) had a mortality rate of about 24%.

Following is a description of a common battlefield amputation. Missing arms and legs were permanent, very visible reminders of the War. Amputees ranged from the highest ranking officers, like John B. Hood, Stonewall Jackson, and Oliver O. Howard, all the way down to the enlisted men, such as Corporal C.N. Lapham of the 1st Vermont Cavalry who lost both of his legs to a cannon ball. Hood, Jackson, Howard, and Lapham were certainly not alone in their loss, as 3 out of 4 wounds were to the extremities...in the Federal Army this led to 30,000 amputations.

Civil War Amputation

The wait for treatment could be a day, maybe two and that was not out of the ordinary. When treatment was finally done on the poor soldier, it was not done antiseptically. It would only be in 1865 that Joseph Lister embarked upon the era of antiseptic surgery. Surgeons did not even perform careful hand washing before operating. The doctors wore blood splattered clothes. When something was dropped, it was simply rinsed in cool, often bloody water. They used sponges that had been used in previous cases and simply dipped in cold water before using them again on the next person.

A surgeon recalled: "We operated in old blood-stained and often pus-stained coats, we used undisinfected instruments from undisinfected plush lined cases. If a sponge (if they had sponges) or instrument fell on the floor it was washed and squeezed in a basin of water and used as if it was clean"

The injuries to be dealt with were dreadful and the fault of the soft lead Minnie Ball. With the capability to kill at over 1,000 yards, this soft lead bullet caused large, gaping holes, splintered bones, and destroyed muscles, arteries and tissues beyond any possible repair. Those shot with them through the body, or the head, would not be expected to live. Almost all wounds were caused by the bullet, with canister, cannonballs, shells, and edged weapons next on the list.

The weapons (particularly the rifle) of the 1860s were far ahead of the tactics; i.e. the generals still thought to take a position you needed to go at it with the bayonet. The cylindrical lead bullet, the Minnie ball, was rather large and heavy (.58 caliber usually). When it hit bone, it tended to expand. When it hit "guts" (i.e. the intestines) it tended to tear them
in ways the old smoothbore musket ball did not. Since they crushed and smashed bone so badly, the doctors did not have much choice but to amputate a limb. Wounds to the stomach were almost always a death sentence.

Civil War doctors were woefully ill-prepared; of 11,000 Northern physicians, 500 had performed surgery. In the Confederacy, of 3,000, only 27. Many docs got their first introduction to surgery on the battlefield. Doctors usually did not specialize. Medical school, for many, was just 2 years (some less, few more). Surgeons reacted by adapting. They learned surgery on the job. And people died, of course, until they learned and became better... Many doctors were political appointments; there were no licensing boards in the 1860s... Army exam boards often even let in quacks.

Of the wounds recorded in the Civil War, 70%+ were to the extremities. And so, the amputation was the common operation of the Civil War surgeon.

The field hospital was hell on earth. The surgeon would stand over the operating table for hours without a let up. Men screamed in delirium, calling for loved ones, while others laid pale and quiet with the effect of shock. Only the division's best surgeons did the operating and they were called "operators". Already, they were performing a crude system of triage. The ones wounded through the head, belly, or chest were left to one side because they would most likely die.

This may sound somewhat cruel or heartless, but it allowed the doctors to save precious time and to operate on those that could be saved with prompt attention.

The surgeon would wash out the wound with a cloth (in the Southern Army sponges were long exhausted) and probe the wound with his finger or a probe, looking for bits of cloth, bone, or the bullet. If the bone was broken or a major blood vessel torn, he would often decide on amputation. Later in the War, surgeons would sometimes experiment with resection, but amputation was far more common.

Deciding upon an amputation, the surgeon would administer chloroform to the patient. Hollywood’s portrayal of battlefield surgery is dramatized and largely false; anesthesia was in common and widespread use during the war.... it would make more complicated and longer operations possible as the era of antiseptic surgery began in 1865 (too late for the poor Civil War soldier). With the patient insensible, the surgeon would take his scalpel and make an incision through the muscle and skin down to the bone. He would make incisions both above and below, leaving a flap of skin on one side.

Taking his bone saw (hence Civil War slang for a doctor is a "Sawbones") he would saw through the bone until it was severed. He would then toss it into the growing pile of limbs. The operator would then tie off the arteries with either horsehair, silk, or cotton threads. The surgeon would scrape the end and edges of the bone smooth, so that they would not work back through the skin. The flap of skin left by the surgeon would be pulled across and sewed close, leaving a drainage hole. The stump would be covered perhaps with isinglass plaster, and bandaged, and the soldier set aside where he would wake up thirsty and in pain, the "Sawbones" already well onto his next case.

A good surgeon could amputate a limb in less than 10 minutes. If the soldier was lucky, he would recover without one of the horrible so-called "Surgical Fevers", i.e. deadly pyemia or gangrene.

15 years after the War, surgeon George Otis cited the five principal advances of Civil War surgery: the surgeons had learned "something" about head injuries, how to deal with awful "ghastly wounds" without dismay, they had learned how to ligate arteries, information on injuries to spine and vertebrate had been "augmented," and "theory and practice" in chest wounds had been forwarded.

A little about the "Surgical Fevers". These were infections arising from the septic state of Civil War surgery. As you should have been able to see, the Civil War surgeon was interested not so much in cleanliness, but speed. As such, and not knowing anything about antiseptic surgery, fevers arose. Of these, the most deadly was probably pyemia. Pyemia means, literally, pus in the blood. It is a form of blood poisoning. Nothing seemed to halt pyemia, and it had a mortality rate of over 90%. Other surgical diseases included tetanus (with a mortality rate of 87%), erysipelas, which struck John B. Gordon's arm after he was wounded at Antietam, and osteomyelitis which is an inflammation of the bone. Also, there was something called "Hospital Gangrene". A black spot, about the size of a dime or so, would appear on the wound.
Before long, it would spread through, leaving the wound an evil smelling awful mess. The Hospital Gangrene of the Civil War is an extinct disease now.

Primary amputation mortality rate: 28%
Secondary amputation mortality rate: 52%

The minnie ball was very deadly. It was a low velocity projectile and it was made out of soft lead. If it hit bone, generally, amputation was the only solution. Even today, if one received a minnie ball to an arm or leg bone, amputation would be the only alternative. If a soldier was unfortunate enough to receive a gut shot...he was certainly doomed. Many photos from the Civil War show contorted bodies with mangle shirts; this was the soldier desperately looking for the wound in his final moments knowing that if he found one in his stomach he would shortly depart this earth.

http://www.civilwarhome.com/civilwarmedicine.htm
http://ehistory.osu.edu/uscw/features/medicine/cwsurgeon/amputations.cfm
Under the Knife by TERRY L. JONES

On Aug. 28, 1862, Maj. Gen. Richard S. Ewell’s Confederate division was fighting desperately in the fields and pine thickets near Groveton, Va., during the Second Bull Run campaign. Heavy fire was coming from unidentified soldiers in a thicket 100 yards in front. To get a better look, Ewell knelt on his left knee to peer under the limbs. Suddenly a 500-grain (about 1.1 ounces) lead Minié ball skimmed the ground and struck him on the left kneecap. Some nearby Alabama soldiers lay down their muskets and hurried over to carry him from the field, but the fiery Ewell barked: “Put me down, and give them hell! I’m no better than any other wounded soldier, to stay on the field.”

The general lay on a pile of rocks while two badly wounded soldiers nearby cried out for help until stretcher bearers finally arrived on the scene. Despite their own painful wounds, the two men insisted Ewell be carried off first, but he instructed the litter bearers to take them away. Hours after being wounded, Ewell was finally placed on a stretcher and taken to the rear. Dr. Hunter McGuire, Gen. Thomas J. “Stonewall” Jackson’s medical director, amputated Ewell’s leg the next day.

Campbell Brown, Ewell’s aide and future stepson, witnessed the operation. McGuire and his assistants sedated Ewell with chloroform and used a scalpel to cut around his leg just above the knee. In his drug-induced fog, Ewell feverishly issued orders to troops, but he did not appear to feel any pain until McGuire applied the bone saw. According to Brown, the general then “stretched both arms upward & said: ‘Oh! My God!’”

McGuire opened up the amputated limb to show the officers in the room that the operation had been necessary. The bullet had “pierced the joint & followed the leg down for some inches,” Brown later wrote. “When the leg was opened, we found the knee-cap split half in two — the head of the tibia knocked into several pieces — & that the ball had followed the marrow of the bone for six inches breaking the bone itself into small splinters & finally had split into two pieces on a sharp edge of bone.” Brown and a slave wrapped the bloody limb in an oilcloth, and the slave “decently buried” it in the garden. Brown kept the two pieces of bullet as souvenirs for his mother, who was engaged to Ewell, although he never told the general he had done so.

Rank was no protection from such brutal operations, and General Ewell was just one of many high-ranking officers to face the surgeon’s knife. In fact, statistically speaking, a Confederate general was more likely to require medical treatment than a private. Almost one out of four died in the war, compared with 1 out of 10 Union generals. Of the 250 Confederate generals who were wounded, 24 underwent amputations. General Ewell was one of the lucky ones who survived and returned to duty many months later with an artificial leg.

On approximatly two out of every three Civil War wounds treated by surgeons were to the extremities because few soldiers hit in the head, chest or stomach lived long enough to make it back to a field hospital. From a technical point of view, damaged limb bones presented the greatest challenge to surgeons. The war’s most common projectile, the large, oblong Minié ball, often tumbled when it hit the body and caused much more damage to bone than smoothbore musket balls. One Confederate surgeon observed, “The shattering, splintering, and splitting of a long bone by the impact of a minié or Enfield ball were, in many instances, both remarkable and frightful.” When bone was damaged, surgeons had to decide quickly on one of three possible treatments. If it was a simple fracture, a wooden or plaster splint was applied, but if the bone was shattered the surgeon performed either a resection or an amputation.

Resection involved cutting open the limb, sawing out the damaged bone, and then closing the incision. It was a time-consuming procedure and required considerable surgical skill, but some surgeons became quite proficient at it. After the Battle of Savage’s Station in 1862, one Union surgeon completed 26 resections of the shoulder and elbow in a single day. He was said to be able to eat and drink coffee at the operating table while pieces of bone, muscle and ligaments piled up around him.
Besides being a difficult procedure, resection also carried a high risk of profuse bleeding, infection and postoperative necrosis of the flesh. Successful resections, however, allowed the patient to keep his limb, although it was limp, useful merely to “fill a sleeve.” Because of the time required, resections were not always practical when there were large numbers of patients to treat, but they were used more frequently after surgeons learned that amputations had a much higher mortality rate.

The amputation process was fairly simple. After a circular cut was made completely around the limb, the bone was sawed through, and the blood vessels and arteries sewn shut. To prevent future pain, nerves were then pulled out as far as possible with forceps, cut and released to retract away from the end of the stump. Finally, clippers and a rasp were used to smooth the end of the exposed bone. Sometimes the raw and bloody stump was left untreated to heal gradually, and sometimes excess skin was pulled down and sewn over the wound. Speed was essential in all amputations to lessen blood loss and prevent shock. An amputation at the knee was expected to take just three minutes.

Civil War surgeons almost always had chloroform to anesthetize patients before an amputation. The chloroform was dripped onto a piece of cloth held over the patient’s face until he was unconscious. Although not an exact science, the procedure worked well, and few patients died from overdose. Opium pills, opium dust and injections were also available to control postoperative pain.

The mistaken belief that amputations were routinely performed without anesthetics can be partially attributed to the fact that chloroform did not put patients into a deep unconscious state. Bystanders who saw moaning, writhing patients being held down on the table assumed no anesthetic was being used. As in the case of General Ewell, patients often reacted to the scalpel and bone saw as if in pain, but they did not remember it afterward. After his left arm was amputated (Dr. McGuire also performed that operation), Stonewall Jackson mentioned that he had heard the most beautiful music while under the chloroform. Upon reflection, he said, “I believe it was the sawing of the bone.”

Because surgeons preferred to operate outdoors where lighting and ventilation were better, thousands of soldiers witnessed amputations firsthand. Passers-by and even wounded men waiting their turn watched as surgeons sawed off arms and legs and tossed them onto ever growing piles. The poet Walt Whitman witnessed such a scene when he visited Fredericksburg in search of his wounded brother. “One of the first things that met my eyes in camp,” he wrote, “was a heap of feet, arms, legs, etc., under a tree in front of a hospital.” Indeed, after the December 1862 Battle of Fredericksburg, Union surgeons performed almost 500 amputations.

Early in the war surgeons earned the nickname “Saw-bones” because they seemed eager to amputate. This eagerness stemmed not from overzealousness but from the knowledge that infections developed quickly in mangled flesh, and amputation was the most effective way to prevent it. Those limbs removed within 48 hours of injury were called primary amputations, and those removed after 48 hours were called secondary amputations. The mortality rate for primary amputations was about 25 percent; that for secondary amputations was twice as high, thanks to the fact that most secondary amputations were performed after gangrene or blood poisoning developed in the wound. Surgeons learned that amputating the limb after it became infected actually caused the infection to spread, and patients frequently died. Thus, the patient was much more likely to survive if a primary amputation was performed before infection set in.

Primary amputations were also preferred because it was easier and less painful to transport an amputee than a soldier whose broken bones and inflamed tissue made the slightest jostle sheer torture. One surgeon admitted that an excessive number of amputations may have been performed during the war, but he added, “I have no hesitation in saying that far more lives were lost from refusal to amputate than by amputation.”

Where the amputation was made on the limb was as vital to survival as when it was done. Generally, the higher up the amputation was made, the higher the mortality rate. This was especially true for thigh wounds. More than half of all soldiers who suffered a femur wound died, and amputations at or near the hip joint had a 66 percent mortality rate in the Confederate Army.
Nonetheless, it is estimated that approximately three out of four soldiers survived amputations. Amazingly, some, like Confederate Brig. Gen. Francis T. Nicholls, endured more than one. His lower left arm was amputated after he was shot at the First Battle of Winchester and his left foot was taken off when he was wounded at Chancellorsville. After the war, Nicholls was a popular Louisiana governor who was said to ask people to vote for “all that’s left of General Nicholls” and to support him for governor because he was “too one sided to be a judge.”

Often, surviving an amputation seemed to be completely random. While some, like Ewell and Nicholls, seemed unhindered by the surgery, others died from what appeared to be rather minor wounds. Two members of Company B, 19th Michigan Infantry, were shot in the index finger in the same battle during the Atlanta campaign. One man treated himself by cutting off the mangled finger with his pocket knife. He wrapped the stub in a handkerchief and waited until the battle was over to have the wound dressed at the field hospital. The other soldier went immediately to the surgeon for a proper amputation. Gangrene set in within days, and the surgeon was later forced to amputate his arm at the shoulder. The soldier died soon afterward. The man who treated himself made a full recovery and lived to a ripe old age.

Taking care of amputees put a significant strain on both wartime governments. The Union provided its disabled soldiers with prosthetic limbs made from cork wood, metal or rubber and gave amputees $8 a month as a pension. The Confederacy was unable to be so generous and by 1864 was providing just 10 percent of the needed prostheses. Incredibly, Mississippi’s single greatest state expenditure a year after the war ended was the purchase of artificial limbs for its veterans, which consumed 20 percent of the state’s budget. Some amputee veterans were forced to look after themselves and paired up to form “shoe exchanges” where they chipped in to buy a pair of shoes and each man took the one he needed.

Amputation was the most common Civil War surgical procedure. Union surgeons performed approximately 30,000 compared to just over 16,000 by American surgeons in World War II. One postwar British traveler noted that amputees were “everywhere in town and farm communities through the South.” The men who had survived the surgeon’s knife were a visible reminder of the Civil War for decades.