

Chapter 1

JAMES EDWARD HANGER

The war in Virginia had just begun. Men of all ages were called upon to defend their homes and country, the new Confederate States of America. They came from all walks of life, many from families who had never owned a slave. For boys and young men who had not seen the face of war, it was an exciting time. They had no clue as to the suffering that lay ahead.

James Edward Hanger was eighteen, a sophomore at Washington College in Lexington, Virginia. Jim, as the family called him, was studying to be a mechanical engineer. When the war started, he went home to Mount Hope Farm, near Churchville, Virginia. He tried to enlist in the army but was turned down because of his age. Jim's parents, William and Eliza Hanger, tried to convince their youngest boy to stay in school. There had been no land battles at this point, and most soldiers were just sitting around campfires. However, the Hangers knew that war was a dangerous business.

Jim was determined. Though his parents were unhappy with the choice, he joined an ambulance corps taking supplies to the Churchville cavalry. Two of his older brothers were already part of this unit, so Mrs. Hanger packed food and clothes for them as well. Jim caught up with the group in Philippi. The commander, Colonel Porterfield, was trying to build an army of 5,000 men in western Virginia. His goal was to protect the railroad.



Ambulance corps. (Library of Congress)

NEW RECRUIT

The colonel found that people there were not ready to get involved, and he had few volunteers. Jim was allowed to join the small group of untrained, poorly armed men. It was June 2, 1861, and they were not prepared to face the army marching to meet them.

When news reached Philippi that 4,500 Federal soldiers would arrive that night, the result was panic. Colonel Porterfield knew it would be useless to face them with his 750 men. He ordered them to pack up and be ready to move at a moment's notice. Then it started to rain, a hard, driving rain that lasted all night. Thinking the enemy would not travel in such conditions, the colonel waited.

Most of the volunteers did not have tents and slept wherever they could find shelter. Jim and a few others stayed with the unit's horses in a barn. To pass the time, the volunteers climbed into the loft and jumped in the hay, while pickets stood guard outside. Finally, everyone settled down for the night.

THE PHILIPPI RACES

Jim's turn at guard duty came in the early hours of June 3. As he waited

for daybreak, a loud gunshot pierced the air. Two cannon thundered in response, echoing across the sleeping town as smoke rose from the hill above. Marching through the dismal rain, the Federals had arrived and taken position during the night. The first land battle of the Civil War had begun. Jim raced inside for his horse and belongings as the other men tumbled out. Suddenly a cannonball exploded through the barn wall! It struck the hard ground and ricocheted upward. Jim was raising his foot to mount when a pain like nothing he had ever known tore through his body. The dreadful six-pound cannonball had shattered his leg. . . .

Outside was chaos as Confederate soldiers slipped between Federal lines to head south. Some were captured and the injured left behind. The short skirmish would be remembered as “The Philippi Races,” for the speed of their escape.

A barely conscious Jim tried to hide by dragging himself into the hay. He grew weaker as his useless leg bled. Four hours later, the soggy Federal soldiers rode into Philippi. Fortunately, Jim was not well hidden. They found him that day, lying among the shattered oak boards and blood-soaked hay.

Dr. James Robinson of the Ohio Volunteers was called. He knew that the only way to save Jim’s life was to remove the damaged leg quickly. The youth was very weak, with a huge chance of infection.

Federal soldiers removed the barn door from its hinges and set it on two stacks of hay to make a table. Dr. Robinson had never performed an amputation, but he did the surgery in forty-five minutes. There was no anesthesia.

Jim’s leg was amputated seven inches above the knee. After the surgery, he was taken to a church in Philippi, which served as a hospital. Then he was cared for by a family in their home and later in another hospital. There he was given a “pegleg,” a heavy piece of wood shaped like a peg. Using it was like trying to walk with a table leg, painful and awkward.

BACK HOME

Two months passed before Jim was part of a prisoner-of-war exchange.



Amputation kit. (Courtesy of Sam Davis Home)

Finally, he could go home. Instead of letting his family comfort him over his loss, Jim wanted to be alone. They tried to understand, thinking he needed time to adjust to his handicap. His mother brought meals to his door and later picked up the empty plate. Sometimes they heard him thumping around upstairs and knew he was all right.

When Jim asked for willow wood from the trees outside, and barrel staves, his family humored him. At night he placed buckets of shavings outside the door, which they replaced with new wood. The family couldn't imagine what he was carving, but working with his hands was good therapy.

Three months passed. One day there was a new sound on the

Records show that over 400,000 trauma patients were treated on the Union side, and at least 30,000 were amputations. In the 1860s, it took only two years to become a surgeon, and most doctors had never amputated a limb before going off to war.

stairway. It was like a dream of the old days—Jim walking down the stairs! Where was the painful clomping of his dreadful peg? What had brought about this miracle?

During his three-month exile, young Jim had used the barrel staves and willow wood to build the world's first articulated, double-jointed prosthetic limb!

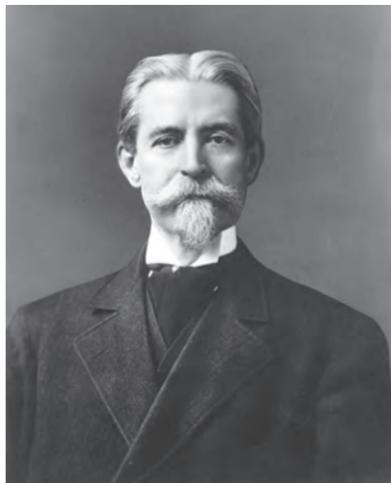
HELPING OTHERS

Jim Hanger was the first of 60,000 men who would lose a limb during the Civil War. When news of his invention reached the papers, other amputees asked about his device. He moved to Richmond and set up shop, always looking for ways to improve the leg. In 1863, he applied for a patent. Before the war ended, the state of Virginia presented him a contract for 1,000 prosthetic limbs.

With business doing well, Jim married Nora McCarthy in 1873. They had six sons and two daughters. All the boys grew up to work in their father's company. He moved it to Washington, D.C., and then opened branches across the United States and into Europe. In 1915, Jim toured Europe to learn about new techniques in surgery brought on by World War I. He enjoyed the outdoors, played golf, and invented new

How was the Hanger limb better than other artificial legs?

1. Comfort—carved to the match the length of the other leg, and fit perfectly, it weighed less than five pounds.
2. Function—with two hinged joints and a little practice, it allowed a person to walk almost normally.
3. Appearance—constructed from light-weight wood, with a carved foot, the Hanger limb made it possible to wear a shoe or boot.



James Hanger. (Courtesy of Hanger Orthopedic Group)



Early Hanger workshop. (Courtesy of Hanger Orthopedic Group)

things—venetian blinds, the water turbine, and a toy horseless carriage for his children.

For many years, Jim served as an elder in the Presbyterian Church and was known for his kindness and good humor. Going to work one day, he noticed an elderly black man begging on the street. The man had lost both legs. Jim took him to the shop and fitted him with Hanger limbs. They became good friends, and Jim gave him a job.

When Jim died in 1919, the Hanger Company had over 1,000 employees in forty-three states and several countries. It is still helping people . . . and a very special dolphin named “Winter.” Her prosthetic tail, as seen in the movie *Dolphin Tale*, was developed by Hanger employee Dan Strzempka and financed by the company. Today, the glue known as “WintersGel” is being used for artificial human limbs.

James Edward Hanger

I know your feelings and problems, but the world is just as beautiful as of old. The flowers and the trees, and the sunshine, are just as precious as ever. Nor has opportunity fled. Science and invention have done, and are doing, more to cancel your misfortune than can possibly be done for any other serious handicap in life.

—James Hanger

