

**THE  
H.L. HUNLEY SUBMARINE**

# A WAR BEGINS

The Civil War-era was one of industrious innovation and sweeping economic and cultural change. Not only would the country forever be transformed, but even the nature of warfare was fundamentally altered by the events that unfolded during this bloody conflict.

In late 1860 and early 1861, the Southern states voted to secede from the United States, and formed the Confederate States of America. When South Carolina seceded, the first Confederate state to do so, they began to seize the forts within their borders and off their coastline. The only fort they were unable to seize was the most strategic and important one to the Union: Fort Sumter.

Robert Anderson was the Federal Major assigned to Fort Sumter and by April 1861, he and his men did not even have enough supplies to get them through the end of the month. On April 11, General Beauregard sent a letter to Major Anderson demanding the surrender of the fort. When Anderson refused, the next day at 4:30 AM, Beauregard ordered his forces at the Charleston battery to open fire onto Fort Sumter. After two days of heavy bombardment, Fort Sumter surrendered to the Confederates.

The Civil War had begun.

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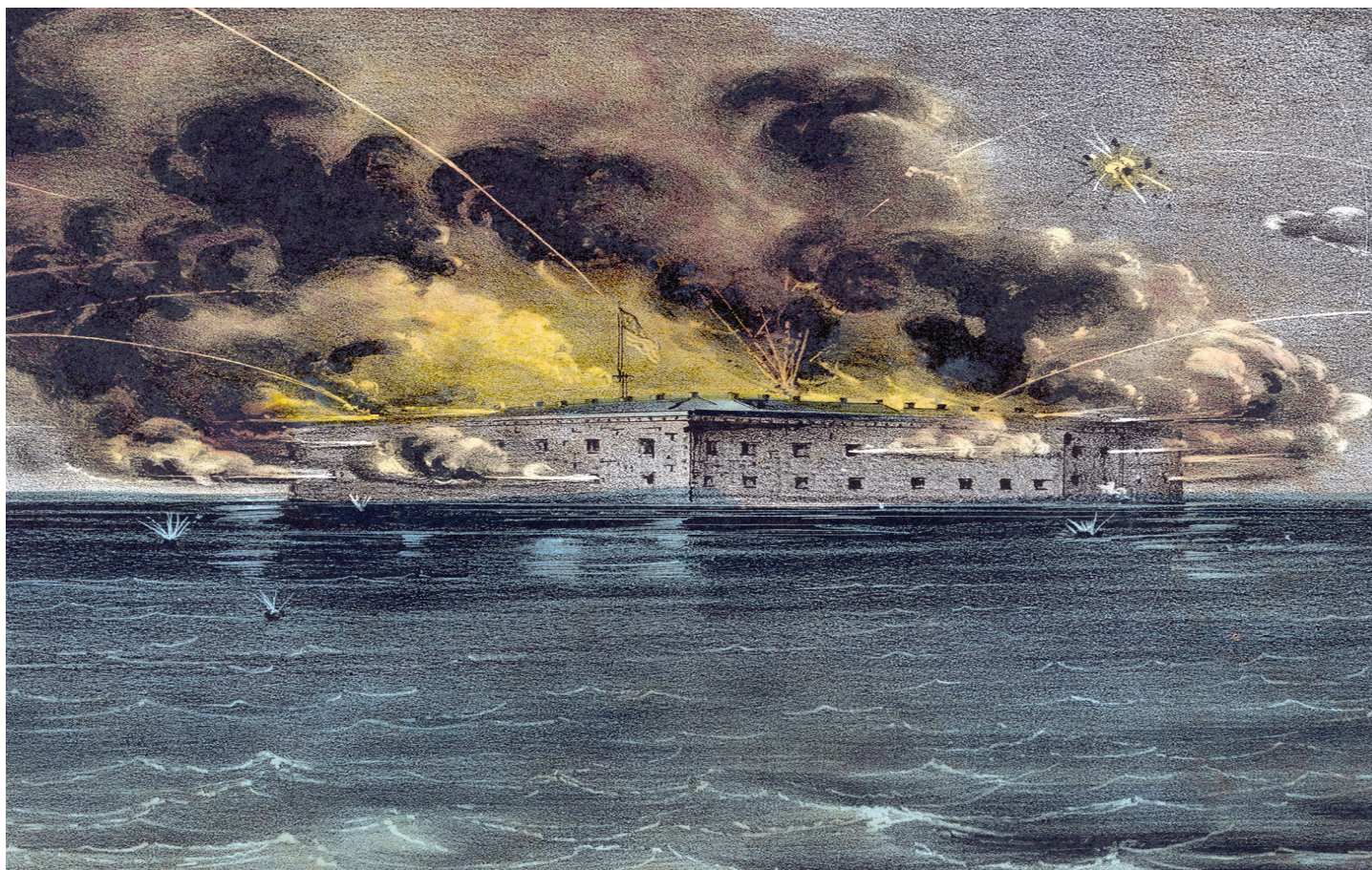
## A Strategy is Needed

At the outset of the war, the Union recognized the importance of keeping the Confederacy isolated from foreign markets. On April 19, 1861, President Abraham Lincoln issued an order for the Union forces to begin a blockade of all major Confederate ports with the signing of the Proclamation of Blockade Against Southern Ports.

Once in place, the Union’s Blockade strategy was very effective, covering 3,500 miles of coastline and 12 major ports. It was literally starving the South of supplies. The South grew increasingly desperate for any way to break the blockade to bring in much needed supplies.

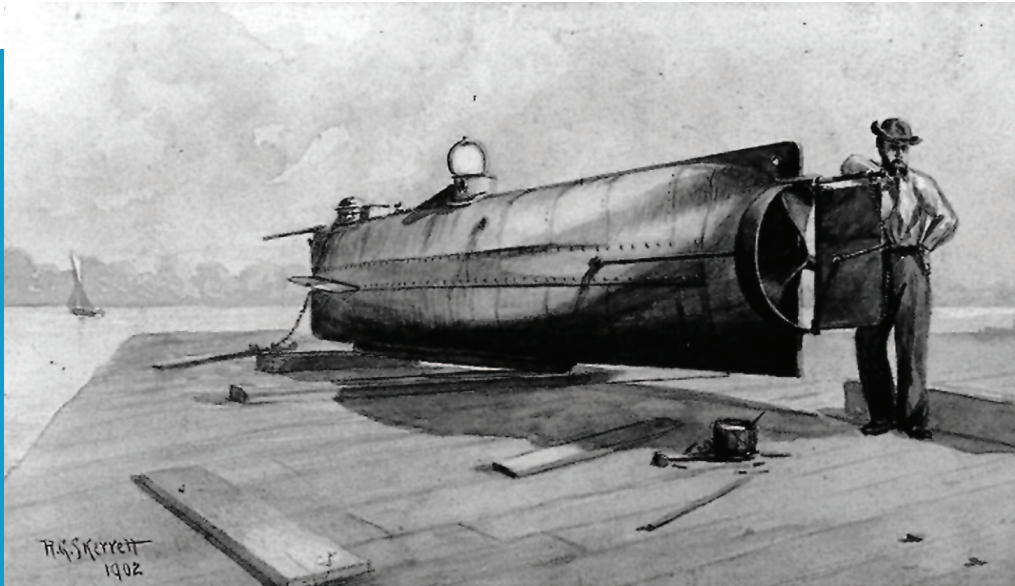
The newly formed Confederate States of America had to rethink traditional battle tactics. Born out of necessity, this setting led the Confederates to make groundbreaking advancements in naval warfare and eventually led to the building of the world’s first successful submarine.

The H. L. Hunley story begins here when Horace L. Hunley, James McClintock and Baxter Watson began to work together to find solutions to break the blockade. They attempted to take the battle beneath the water's surface and built a series of experimental underwater vessels, and helped give birth to the age of the submarine.



*FORT SUMTER* Attack by Confederate General Beauregard's troops, April 12, 1861.

# NAVAL INNOVATION

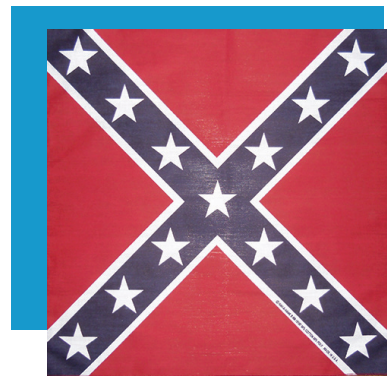


**Horace L. Hunley** One of the three key inventors of the submarine.

James McClintock and Baxter Watson were in the steam gauge manufacturing business in New Orleans and by late fall of 1861, these two inventors began the construction of a three-man underwater boat. During the early phases of construction another Louisiana gentleman eagerly joined McClintock and Watson in their underwater venture.

His name was Horace L. Hunley. Hunley was a submarine innovator and financier. Hunley recognized the importance of breaking the Union blockade and keeping supply lines open to the South. The small band of Confederates began work on a new approach to naval warfare, one that took the fight below the water's surface. This quest became a process of innovation and evolution.

Working with Hunley and Watson, McClintock developed two prototype submarines, the Pioneer and the American Diver. Improving the concept each time, they finally had success with the creation of the Hunley, a weapon that would forever change naval warfare.



**Naval Jack** One of many battle flags of the Confederacy.

## Prototypes

### American Diver

The group of engineers installed a hand crank and, by mid-January 1863, the American Diver was ready for harbor trials.

The American Diver, according to McClintock, was “unable to get a speed sufficient to make the boat of service against the vessels blockading the port.” Despite the American Diver’s limitations, evidence indicates she left from Fort Morgan sometime in mid-February and attempted an attack on the blockade. The attack was unsuccessful.

Another attack was planned, but as she was being towed off Fort Morgan at the mouth of Mobile Bay in February of 1863, a stormy sea engulfed the American Diver. No lives were lost.

The American Diver was never recovered, and her rusting hull may still remain beneath the shifting sands off the Alabama coastline. Her exact location was long ago lost by history.

### Pioneer

The Pioneer was built in New Orleans in early 1862 and performed moderately well. The submarine would sometimes get caught at the bottom of Lake Pontchartrain with the crew cranking the propeller, unaware they were stuck. After only a short month of tests, the Pioneer was destroyed by the Confederates to avoid capture by the Union army that was quickly closing in on the city.



**Pioneer** The first of two prototype submarines created by Hunley, Watson and McClintock.

# THE H.L. HUNLEY'S SINKINGS

## 1st Attempt

The H. L. Hunley arrived in Charleston on August 12th, 1863, accompanied by James McClintock and Gus Whitney, one of the investors in the sub. The crew quickly began testing the Hunley in Charleston Harbor.

On August 29th, the Hunley was moored at Fort Johnson, preparing to depart for its first attack on the blockade when it suddenly sank at the dock. There are conflicting stories of what happened: Some claimed the wake of a passing ship flooded into the Hunley's open hatches, filling it with enough water to sink it. Others claimed the mooring lines of another ship became tangled on the sub, pulling it onto its side until its hatches were underwater. Whatever happened, the result was the same: the Hunley sank immediately, taking five of her crew down to their deaths.

It took weeks to retrieve the submarine, and in that time Horace Hunley arrived in Charleston and sent for a crew of men from the Park and Lyons Machine Shop in Mobile.



**Mooring line** The Hunley's first sinking may have been caused by the tanglement of a rope similar to this one.

During her test missions in Charleston, the Hunley suffered two fatal sinkings that would claim the lives of over a dozen men, including Horace Hunley himself.

## 2nd Attempt

On October 15th, Horace Hunley scheduled a demonstration of his boat in Charleston Harbor. He announced his vessel would dive beneath the CSS Indian Chief and surface on the other side. Once the submarine disappeared beneath the waves, it was not seen again for weeks. Bad weather delayed search efforts and divers did not recover the H. L. Hunley until November 7th.

*“When its hatches were opened, there was a gruesome sight with the crew members seemingly frozen in time.”*

The Hunley was found deep in the harbor channel, with its bow buried in the mud and its stern still floating. Chains and ropes were used to hoist it to the surface and place it on the dock.

When its hatches were opened, there was a gruesome sight with the crew members seemingly frozen in time. Thomas Park was found with his head in the aft conning tower. Horace Hunley, still clutching a candle, was in the forward conning tower. Rescuers reported the forward ballast tank valve had been left open, allowing the submarine to fill with water. The wrench used to operate the seacock was found on the floor of the submarine leading them to theorize Hunley had either forgotten to close the valve or lost the wrench and was unable to close it. The sub’s keel weights had been partially loosened, which suggested the crew realized they were in danger, but not in time to save themselves.

**Wrench** The second Hunley sinking may have been due to a lost wrench.



## Final Attempt

Two tragedies had now befallen the H. L. Hunley. The sinkings and visible recovery efforts that followed had created quite a stir in Charleston. It was not long before Rear Admiral John Dahlgren, the head of the Union blockading fleet, learned of the diving submarine. In response, Dahlgren ordered his blockading squadron to anchor in shallow water, hang ropes and chains over their sides as defensive measures, and deploy picket craft to keep torpedo-bearing boats away. These clever tactics were also the genesis of anti-submarine countermeasures.

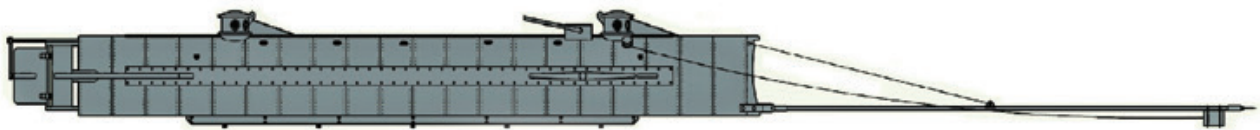
Towing an explosive device was abandoned for a more direct approach. A spar with a torpedo attached to its tip was mounted to the lower bow of the submarine. The plan was to ram the spar into the hull of an enemy ship, detonating the torpedo either on contact or by a trigger-pulled device.

It was perhaps efficient, but, with a sixteen-foot spar, it left the crew dangerously close to the explosion.

There was little time, if any, to test the new attack strategy. Even though General Beauregard was reluctant, he finally agreed to let the Hunley try again, but only if the submarine did not dive and operated at the surface.

With the dangers of the submarine well-known, a new, courageous volunteer crew was selected and put under the command of Lieutenant Dixon. Soon the vessel would be ready to carry out its mission.

*“It was perhaps efficient, but, with a sixteen-foot spar, it left the crew dangerously close to the explosion.”*



*CSS Hunley A Confederate submersible vessel that was created to sink an enemy ship.*



# THE ATTACK

The Hunley's approach was stealth and by the time they were spotted, it was too late. At about 8:45pm, several sailors on the deck of the USS Housatonic reported seeing something on the water just a few hundred feet away. The officer on the deck thought it might be a porpoise, coming up to blow. As the object approached the ship, the crew realized it was no porpoise. The alarm sounded and the sailors fired their guns, the bullets pinging off the metal hull of the Hunley. Below the surface, the spar torpedo detonated and the explosion blew a hole in the ship. The Housatonic sank in less than five minutes, causing the death of 5 of its 155 crewmen.



*USS Housatonic A Union vessel that was attacked by the Hunley Submarine.*

# THE HUNLEY DISAPPEARS

Nearly 45 minutes later, a Union sailor claimed he saw a blue light on the water. Some speculate this was the last reported sighting of the Hunley for more than a century. One record indicates Dixon had promised the troops at Battery Marshall, if successful, he would signal to shore by showing two blue lights. The Confederates on Sullivan's Island say they saw the agreed upon signal and lit a fire to guide the Hunley home, but she never returned. Instead, the submarine and crew disappeared into the darkness of the sea.

Their fate became a mystery and their accomplishment a legend. The submarine would not see the light of day again for over 136 years.

# TIMELINE

**1861**



**APRIL 12TH**

Fort Sumter is attacked. Civil War breaks out.

**1862**

**FEBRUARY**

Initial tests of the first submarine designed by Hunley, McClintock, and Watson, the Pioneer.

**1863**

**JANUARY**

American Diver, another Hunley predecessor, has harbor trials.

**JULY**

The Hunley is launched for the first time and shows promise during demonstrations.

**APRIL 1863**

Work begins to build the Hunley at Park and Lyons Machine Shop in Mobile, Alabama.

1864



**OCTOBER 15TH**

The Hunley's second sinking during a test mission.

**AUGUST**

Hunley travels to Charleston to help break the blockade strangling the city.

**AUGUST 29TH**

The Hunley's first sinking during a test mission.

**FEBRUARY 17TH**

The Hunley embarks on her legendary mission and makes world history.



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