PITTSBURGH BUILDS A

BROWN WATER

NAVY

FOR THE

CIVIL WAR

By Arthur Fox, M.A.
With the construction of the steamboat *New Orleans* in 1811, southwestern Pennsylvania helped usher in commercial steamboat navigation on Western waters. Four counties—Allegheny, Beaver, Fayette, and Washington—especially contributed to the area becoming known for shipbuilding much as it would later gain renown for iron and steel. By the Civil War, this region was producing steamships and steam towboats for the federal government.
These new-style boats were part of a plan by the North to block Southern seaports along the Atlantic coast and Gulf of Mexico using the ocean-going “blue water navy.” Meanwhile, ironclads and smaller vessels would be deployed inland on rivers. These boats stirred up river bottom mud, creating “brown water” and hence the “brown water navy.” Two of the locally built boats, the little-known USS Michigan and the tinclad Cricket, served in and survived the war, one guarding Confederate soldiers and the other taking enemy fire on the Red River.²

A Forgotten Steamship

Although she never experienced battle, the USS Michigan performed such honorable and invaluable wartime duties as guarding Confederate soldiers and shuttling sailors. The first iron-hulled ship in the U.S. Navy, the Michigan was constructed in Pittsburgh in the early 1840s. The vessel’s hull and engines were made and assembled at Samuel Stackhouse and Joseph Tomlinson Iron Works in Pittsburgh. (The company was established before the War of 1812 as Michael Stackhouse and Joseph Tomlinson, and had fitted Oliver H. Perry’s fleet on Lake Erie with anchors.) By the 1840s, the firm had constructed more boats than any in the eastern U.S. and was among Pittsburgh’s most competent engine-manufacturing establishments.³

Naval constructor Samuel Hart designed the Michigan. Hart hired three ship’s carpenters, five apprentices, and additional
laborers who built full-size wooden molds on which the hot, wrought iron plates were shaped using hammers and mallets. By July, Stackhouse and Tomlinson were ready to roll the plate for Hart’s work gang to shape. The frames were made of T-iron, stiffened by reverse bars of L-iron. The keel-plate and bottom plates were one inch thick, and the sides one-half inch. The deck beams were also made of iron.4

After making sure all the parts fit, the hull was disassembled and shipped overland to Erie via the Erie-Beaver Extension Canal and the Pennsylvania and Ohio Cross-Cut Canal, and then reassembled in the summer and fall of 1843.5

The ship launched December 5, 1843, into Lake Erie, displacing only three feet, ten inches of water. The next day, President John Tyler christened the ship USS Michigan in honor of the recently proclaimed 26th state. One reporter wrote, “Her model is beautiful, and, judging from the way she sets in the water now, if ever she gets after one of Queen Victoria’s craft, she will make them think she’s ‘old Iron-sides’ in good earnest.”6

Much additional work was completed during 1844, but on August 19, 1844, the ship was officially transferred to the government for service. Total cost: $152,478.71.7

The Michigan was propelled by a set of 21-foot-diameter paddle wheels, whose houses were decorated with a large carving of an eagle and shield. For the two-cylinder engine to obtain 330 horsepower, two boilers consumed 120 tons of coal. The ship also carried three
ABOVE: Eagle and shield of the USS Michigan/Wolverine.
Erie County Historical Society

BELOW: Three views of the deck of the USS Michigan/Wolverine in disrepair.
HHC L&RR, General Photograph Collection, Box 23, Boats.
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masts and was rigged as a barkentine for open lake sailing. On trials, under engine alone, the Michigan made 10-½ statute miles an hour. A full crew consisted of 106 officers and men. As originally designed, the ship could have carried bow and stern pivot guns and 12 broadside guns; however, tensions with Canada having eased by the time of her launching, the Michigan was restricted by treaty to one 18-pound cannon.8

In May 1851, the ship assisted in the arrest of James Jesse Strang, known as “King James I,” who headed a dissident Mormon colony on Beaver Island at the head of Lake Michigan. During the 1850s, the Michigan also conducted surveys and assisted vessels in distress on the lakes.

When war appeared imminent in late 1860, the Michigan was equipped with one 30-pound Parrot Rifle, five 20-pound Parrot Rifles, six 24-pound smoothbores, and two 12-pound boat howitzers.

With the start of the Civil War in 1861, the Michigan became an important logistics link, ferrying would-be sailors from east coast ports such as New York City, Boston, or Baltimore, and between Buffalo, New York, and western Lake Erie ports, where they boarded trains for Cairo, Illinois, and the Mississippi River fleet. She also spent time at anchor guarding Confederate prisoners on Johnson’s Island, the Union prison camp on Lake Erie, Sandusky Bay, Ohio. The ship’s log entry of November 23, 1863, recorded a message from the Navy Department: “reliable information is furnished this department that a project is on foot in Canada to fit-out steamers and attempt a rescue of the prisoners confined on Johnson’s Island, rifled guns will be sent to you.”9

Confederates twice attempted to capture vessels on the lakes, including the successful capture of a U.S. Merchant ship in Canada. The Michigan was not attacked, remaining untested in combat on patrol in the Great Lakes, functioning mainly as a rescue ship and a mobile garrison against ship-borne raiders.10

In late 1864, Lieutenant Commander F.A. Roe took command of the Michigan and noted that, “Every bit of wood-work in her was rotten, and it was not known when the vibrations of the steam engines would shake yards and masts all together in a mass on deck … her decks look like a sieve.” However, the ship was not overhauled for another year.11

After the war, the ship’s crew assisted in arresting members of the Irish Fenian Brotherhood attempting to capture Canada starting in 1866. The U.S. branch of the Irish Revolutionary Brotherhood’s eventual goal was to overthrow British rule in Ireland. Britain still ruled Canada in 1866, and although there were 150,000 Irish Union Civil War veterans in the U.S., the Fenian’s hope for a full-scale invasion of Canada never gained support in America and was doomed to failure. However, the Michigan, while tied to Pratt’s Wharf in Black Rock, New York, would be boarded (the only time in its history) on the night of November 5, 1866, by a “hostile band” of the Fenian Sisterhood, who attempted to retrieve the green sunburst standard of the Fenian legion confiscated on June 3. The ship’s log unfortunately, does not record whether the effort succeeded.12

On June 17, 1905, the U.S. Naval Department renamed the vessel Wolverine to free her original name for a new battleship. The wolverine was Michigan’s state mascot.13

In 1909, during trials she could still obtain 10 miles an hour. At age 70, Wolverine received the honor of towing the original USS Niagara, which had been raised and rebuilt, on a Great Lakes tour.

In 1923, a connecting rod of her port cylinder broke, ending Wolverine’s active career. In 1927, the hulk was pushed up onto a sandbank in Presque Isle Bay and loaned to the city of Erie as a relic. In spring 1942, the timely intervention of President Franklin D. Roosevelt gave the ship a few more years, when in a letter to Ralph Tillotson of the Curtiss Organizing Company (a company that strongly advocated the scrapping of the ship for war materials), FDR stated, “It is my opinion that memorials such as the Wolverine constitute a distinct morale factor which is of greater value than the metal which would be made available by their reduction to scrap metal. It is, therefore, the present intention to retain Wolverine in its present status under loan to the city of Erie, Pennsylvania.”14

Dedicated supporters saved the original Michigan from World War II scrap drives;
she was sold to the “Foundation for the Preservation of the Original USS Michigan, Inc.” in 1948. But within a year, after fundraising efforts failed to acquire sufficient money for her restoration and preservation, she was cut up and sold for scrap. In 1950, her prow was erected as a monument in Wolverine Park near the shipyard where she had been assembled. In 1988, the prow was moved to the Erie Maritime Museum for restoration, where it can now be viewed inside the museum, and the anchor is on display in front of the building.  

Steamships to Fighting Tinclads

Between 1861 and 1865, approximately 476 ferryboats (keel and flat) and barges, and 274 steamboats, were built in Pittsburgh and vicinity. Western river steamboats came in two types: side-wheelers and stern-wheelers. Each design had its advantages. Stern-wheelers were small and light and, unlike the larger and heavier side-wheelers, could operate in extremely low water. Side-wheelers had greater size and carrying capacity, plus superior maneuverability from two independently controllable paddle wheels. Thus side-wheelers had a greater ability to avoid river hazards such as snags, sand bars, rocks, and wrecks. Most steamboats, unless “retooled” and plated with metal, originally had wooden hulls, although river hazards would sink a wooden-hull ship faster than shot or shell against the main and upper decks. With the exception of fires started by shellfire, many vessels survived a surface attack, underwent repairs, and returned to service. 

Approximately 40 locally manufactured vessels experienced naval combat against Confederate forces in Kentucky, Tennessee,
Missouri, Mississippi, Arkansas, and Louisiana. Several steamships underwent conversion during the war to “tinclad.” These vessels were adapted to the conditions along the major rivers systems of the Mississippi, Tennessee, Cumberland, Arkansas, Red, White, and Yazoo rivers, and their numerous tributaries.

Tinclad vessels were born of necessity due to problems with the heavy, ironclad vessels in the “brown waters” of the Western Theatre. Seven ironclad vessels had been built in and around St. Louis by James B. Eads and his associates. Several large vessels were also converted by strengthening their hulls with light armored, thin-metal sheeting riveted to their casemates, and by mounting heavy batteries in their forward sections. The national administration deemed this force sufficient to defend the rivers of the West, while furnishing convoys and naval support for Generals Halleck and Grant’s land forces.

The ironclads performed well until July 1862, when the rivers dropped to their usual hot-weather low levels. Union commanders in the West found that many of their heavy naval units were isolated by bars and shallows, leaving large stretches of the Western rivers unprotected. The only way to remedy this was to build light auxiliary vessels that would draw only a few feet of water and could operate throughout the summer and autumn. Facilities for building such a fleet did not exist, so Northern commanders purchased and modified small, stern-wheel towboats to begin assembling a fleet.

Several were purchased in Western Pennsylvania, and before the summer of 1863 when low waters became common on
many of the Western rivers, Rear Admiral David D. Porter, commanding the Mississippi Squadron, had a fleet of 76 such vessels. This new force, subdivided into small commands of four to six vessels and assigned to specific areas, controlled smuggling, convoyed supply ships, protected Union sympathizers in doubtful areas, and checked the efforts of General Hunt Morgan and other Confederate cavalry raiders.

The number of Pittsburgh men who contributed to the success of this fleet of “tinclads,” or the name that caught on, “tinclads,” can only be estimated. Some of the materials necessary to convert them into gunboats came from the Pittsburgh area, although most of the ordnance would be “fitted” elsewhere. Of some 70 ships converted to tinclads during the war, nine had originally been assembled in southwestern Pennsylvania, and experienced significant wartime action. These vessels included the Glide, Marmora, Romeo No.3, Dutchess (renamed Petrel), Forest Rose, St. Clair, and Key West, all built in 1862; the James H. Trover (1864) (renamed Katie); and the Cricket (1860).

The Cricket
The Cricket, a wooden-hull stern-wheeler, probably saw the most action of any vessel assembled in southwestern Pennsylvania. Built in California, Washington County, in 1860, the Cricket’s first homeport was Pittsburgh. During 1862, some 22 steamships, including the Cricket, were fitted as tinclads, with additional armaments added. While in port at Cincinnati in 1862, the Cricket, now weighing 178 tons, was sold to the U.S. Navy for $16,000 and designated Cricket #6.

The Cricket #6, 151 feet long and armed with six 24-pound smoothbore guns, served during the 1863 Vicksburg, Mississippi, expedition, but encountered her greatest action in April 1864 during the Red River Campaign in northwestern Louisiana as Admiral David D. Porter’s flagship. The vessel’s most momentous action started on the evening of April 25, 1864, near Deloges Bluff on the Red River.

Admiral Porter was sitting on a chair on the upper deck of the Cricket #6, commanding the flotilla of the Fort Hindman, Champion #3, Champion #5, and Juliet, which were steaming south on the Red River, when Confederate fire erupted along the western bank. After firing its upper deck howitzers, the Cricket #6 drifted to within 20 feet of the shoreline, at which point a force of several hundred Confederates opened fire with musket and cannon fire. Within seconds, 19 shells, solid metal shots, and musket balls showered the Cricket #6. Admiral Porter, although slightly wounded, found the pilot badly wounded but able to control the vessel (in a four-knot current), assisted by Acting Master Henry H. Gorringe, also wounded.

All five ships were hit, and the resultant steam and smoke allowed Cricket #6 to momentarily drift under the bluff on the Red River’s eastern bank. But after it rounded a point a short distance south, another 19 artillery rounds pounded the stern and interior. Admiral Porter, running down the exposed starboard (right) side, encountered overturned guns, debris, and body parts from 24 dead and wounded, among them Ann Stewart, a laundress and wife of the ship’s steward. Porter rallied several African American contrabands, now sailors, to load and fire the lone operating gun. With Engineer Charles Park dead in the engine room, Admiral Porter took the throttle, gave the engines steam, and escaped Confederate fire.

In five minutes of ferocious fighting, the Cricket #6 was struck 38 times with solid shot and shells, many piercing the vessel but not sinking her. Of 50 men, 12 were killed and 19 wounded, nearly half the crew. The Deluges Bluff encounter was one of the stiffest naval fights of the Civil War; only one or two other tinclad engagements rivaled it in ferocity.

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David Dixon Porter, Rear Admiral, USS Cricket #6, photographed between 1861 and 1865. LOC, Civil War photograph collection (LC27 429).