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A Hard Death - the Sinking of the *Hennepin*

by Valerie Olson van Heest

On the sultry evening of August 18, 1927, the 40-foot tugboat *Lotus* headed slowly up the Grand River returning to the home port of Construction Materials Corporation in Ferrysburg, Michigan. The tug had departed from its port the day before, bound for Chicago, towing the self-unloading vessel *Hennepin*

loaded with a cargo of crushed stone. As the *Lotus* approached the dock, Captain Anderson blew the steam whistle to get the attention of workers waiting there. It was clear something was very wrong. There were more crew onboard the tugboat than the *Lotus* had gotten underway with, and the *Hennepin* was nowhere in sight. Workers were anxious — where was their ship? As the *Lotus* neared the

dock, they could see the familiar faces of the crew of the *Hennepin* and her captain, Ole Hansen, so they knew everyone was safe. But where was the *Hennepin*? Realizing their concern, Hansen shouted across the water to explain what had happened, “We lost her boys — she died a hard death.”

Nearly eight decades after the sinking of the *Hennepin*, Michigan Shipwreck Research Associates (MSRA), the organization I co-founded in 2001, set out to find the ship

that Captain Hansen helplessly watched sink slowly into Lake Michigan off South Haven. Dedicated to bringing the maritime stories of Western Michigan to life through exploration and documentation of shipwrecks, MSRA felt that the discovery of the *Hennepin* would highlight the important roots of the

bulk cargo transport industry, which was revolutionized when the *Hennepin* was retrofitted as a self-unloader in 1902. MSRA also knew that finding the *Hennepin*, unlike other vessels lost in more mysterious circumstances, would be a simple matter of searching exactly where Captain Hansen reported he lost his ship.

In 2005, after three seasons of searching, MSRA

finally located the wreck of the *S.S. Michigan* (featured in Jan/Feb 2007 *Michigan History*). In hindsight, it was right where the captain reported the loss: 15 to 20 miles offshore in 275’ to 300’ of water. And because of that discovery, MSRA learned to trust the accounts of survivors, particularly a seasoned lake captain. Captain Hansen reported that the *Hennepin* sank off South Haven in 203’ of water. It seemed odd that the depth would be so specific, but trusting the



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From the Director



This issue marks the fifth year we have published a story about a local shipwreck that has been located and documented by Holland based Michigan Shipwreck Research Associates (MSRA). The other stories are posted on our website and can be accessed by visiting the *Quarterly* link. This installment is equally interesting as those in past issues and will be spotlighted in the group's annual "Beneath the Inland Seas" shipwreck show, which will be held at the Knickerbocker Theatre on Hope College's campus on May 5. See the enclosed flyer for more details.

I want to also remind you of the upcoming biennial meeting of the Association for the Advancement of Dutch-American Studies (AADAS), which will be held at Hope College on June 7-9, 2007. Many fine papers will be presented on the theme of art and its contribution to the formation of a Dutch-American subculture, distinctive elements of Dutch-American artistic expression, possible inspiration by trends in the old country and the influence that these expressions might have exerted inside and outside the subculture. It promises to be another stimulating conference. For more information about the AADAS conference, contact Dr. Robert Swierenga at swierenga@hope.edu.

Geoffrey D. Reynolds

A Hard Death (continued from page 1)

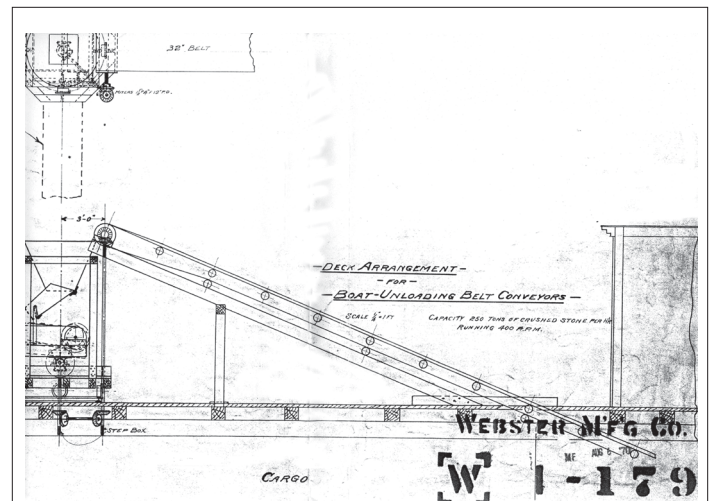
captain's account, MSRA developed a probable search area based upon that depth range.

The 214' *Hennepin* was built by Milwaukee's Wolf and Davidson shipyard, the largest shipbuilder in the region, and launched in October 1888. The steamer was originally named the *George H. Dyer*, in recognition of William Wolf's son-in-law. Originally fitted with three masts and the salvaged engine from the steamer *William T. Graves*, lost off North Manitou Island in 1885, the *Dyer* was built for hauling cargo. With a 1600-ton single cargo compartment and a value of \$85,000, the *Dyer* was rated A-1 at the time of her building.

The *Dyer* would change hands many times in her life, several in the first decade. At 10 years old, she was sold to a Michigan partnership to transport package freight for the Soo Line Railroad through the Great Lakes from Buffalo,

New York, to Gladstone in Michigan's Upper Peninsula. The ship was renamed *Hennepin* after French explorer Father Hennepin, who voyaged with Robert Sieur de La Salle through the Great Lakes in a 1679 expedition. Perhaps that name was chosen because the *Hennepin* would run shipments through lakes Erie, Huron and Michigan, following the same route that La Salle and Hennepin traveled over 200 years earlier on the vessel *Le Griffon*.

On June 27, 1901, while loading at her dock in Buffalo, the *Hennepin* caught fire from an adjacent freight house which was in flames. Her upper works burned and her machinery was ruined, resulting in over \$30,000 in damage. Were it not for this fire, the *Hennepin* may have drifted into obscurity. Instead, she was resurrected, repaired and converted into what would be the world's first self-unloading steamer. Simply put, the *Hennepin* is one of the most significant vessels to ever sail the Great Lakes for one indisputable reason: her 1902 conversion provided the model upon which virtually all future self-unloading bulk vessels, on both fresh and salt water, would be based.



William Lafferty Collection

Webster Engineering Co.
drawing of the self-unloading equipment

After the fire which nearly destroyed the *Hennepin*, entrepreneur Frank Merrill bought the hulk from the underwriters for \$18,000. Merrill had just formed the Lakeshore Stone Company for the purposes of mining the shallow limestone deposits found near the shores of Lake Michigan, east of Belgium, Wisconsin. Merrill hired Chicago's Webster Engineering Company to design a state-of-the-art quarrying operation, complete with a pier into Lake Michigan for loading stone. To transport the quarry's output, Webster engineered an unloading system to be installed on the *Hennepin*. The Milwaukee Dry Dock Company, a consolidation of Wolf and Davidson, the original builders of the ship, fabricated and installed Webster's unloading system on the *Hennepin*.

Inclined walls within the hold dispensed cargo onto conveyors below deck, which ran the length of the ship. The conveyors moved the cargo into a hopper where it was transferred to an inclined conveyor, up to the conveyor boom on deck, which swung over to deposit the bulk material on land. What made this advancement completely unique was that the ship would no longer require massive shore infrastructure at major harbors to unload its cargo. The *Hennepin* could discharge its stone not only in a small harbor, but along a river, into a construction caisson, or into trucks, something not possible before this development.



William Lafferty Collection

Hennepin at Leathem Smith Dock, Sturgeon Bay, Wisconsin

Lakeshore Stone Company continued in operation until 1920 when competition reduced its revenue. Leathem Smith, whose L. D. Smith Stone Company was a major competitor of Lakeshore, chartered the *Hennepin* to carry crushed stone from his newly enlarged quarry just north of Sturgeon Bay, Wisconsin. He would use the *Hennepin* for the next three seasons, which was likely the inspiration for his own improved self-unloading system. In 1923, Smith bought and converted the 31-year old, semi-whaleback *Andaste* into a self-unloader using his design which became known as the “Leathem D. Smith Patented Tunnel Scraper Self-Unloading System.” Blade-like scrapers, rather than conveyor belts, made conversion easier and more economical and allowed more flexibility in the types of cargo that could be hauled.

Smith returned the *Hennepin* to Lakeshore Stone Company in 1923, and they sold it to Construction Materials Corporation, a Chicago company founded in 1907. While the ship was old and tired, its unloading equipment made it valuable to a company which had just purchased 1,100 acres of property several miles up the Grand River from Grand Haven, Michigan. The property contained vast deposits of stone ready to be mined and the *Hennepin* would be used to haul the aggregate. (Today the quarry has filled with water and is the site of the Bass River Recreational Area in Ottawa County.)

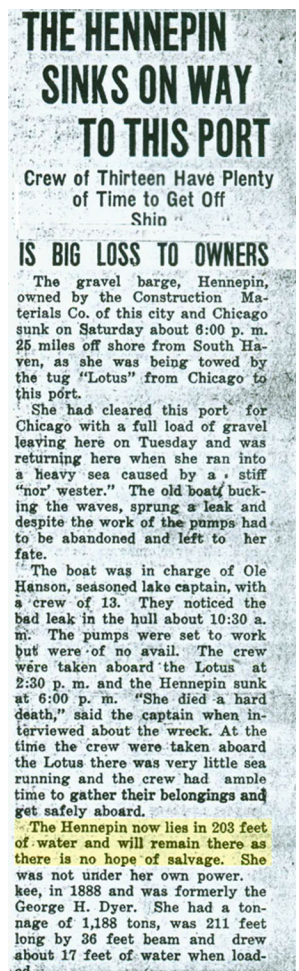
After being quarried, stone was brought down the Grand River to Ferrysburg Michigan, where it was sorted into different sized gravel and rock, then loaded onto ships and transported to Chicago. Much of the gravel hauled to Chicago on the *Hennepin* was used as fill, becoming the bed for the Outer Drive, Field Museum, Shedd Aquarium, and Adler Planetarium.

During the *Hennepin*'s working career in Michigan, the hull became worn and weakened, but the newer self-unloading equipment was still operational. The owners extended their vessel's life by removing its heavy engine, thus classifying it as a barge. They commissioned the tugs *Lotus* and *Ufasco* to tow the barge. This would, however, mark the beginning of the end for the *Hennepin*.

The only known account of the *Hennepin*'s sinking was a news article from the *Grand Haven Tribune* in which Captain Hanson blamed a “stiff nor'wester” for causing his ship to sink. Obtaining weather records from the National Climatic Data Center from August 18, 1927, MSRA learned that only a moderate breeze was blowing that day. Additional light was shed on the story of the sinking when MSRA discovered an oral history from now deceased Spring Lake, Michigan, resident and former *Hennepin* crew member, Vern Verplank. Verplank spoke with several *Hennepin* crew members who survived the sinking and from his personal recollections (indicated by quotations) the true details of the day are now known.

“On a tow-barge none of the officers had to be licensed. In fact, most of them were ex-licensed, having lost theirs after an accident or due to alcohol abuse.” Ole Hanson may not have been licensed, but could have found employment on the tow-barge *Hennepin*.

On August 18, 1927, after offloading her cargo of gravel in Chicago, *Lotus* Captain Albert Anderson directed his crew to secure the hawser that ran from the *Hennepin* to the tug. With an empty hold, the *Hennepin* was riding high on her



Grand Haven Tribune article, August 22, 1927

return trip to Grand Haven. “The old hull was taking on water as she typically did and all ten of her bilge pumps were running.”

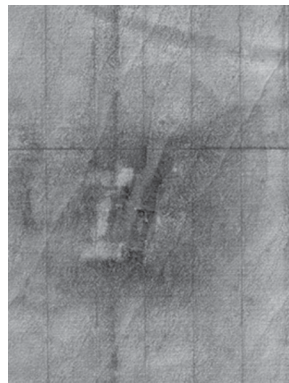
It was smooth sailing for the first few hours, but around 10:30 a.m. Hansen noticed the pumps weren’t keeping up with the incoming water. “Chief Engineer Abe Lyons, notorious for slacking, must not have kept the pump filters cleaned.” Any attempts to clean the pumps at that point were futile as the water was gaining fast.

By 2:30 p.m. it was clear that *Hennepin* was not going to make it home. “Abe Lyons grabbed the distress whistle and blew it four or five times to get the tug’s attention. Captain Hansen called out to abandon ship. Ernie Casperson, the cook, took quarters of beef out of the cooler. Lyons went down to the engine room and took off the big brass clock.” They launched the lifeboat in calm seas and rode away from the *Hennepin* with no panic or pandemonium.

As the big ship wallowed deeper in the water, the crew of the *Lotus* finally released the hawser. “Everyone watched as the *Hennepin* finally sank beneath the waves and the whole galley house floated right up from the ship. The *Lotus* kept ramming into it to break it up so it would not be a hazard to other ships.”

With nothing to do but wait out the return trip, Hanson must have realized the sinking of the *Hennepin*, valued at over \$100,000, meant a huge loss for the company, who still had enormous quantities of gravel to transport to Chicago. He would also have been concerned for his own livelihood, because there were few employment options for unlicensed captains. When the tug reached its home port, Hansen likely invented the tale of the “stiff nor’wester” to shift blame from himself and his crew.

For the past eight years, MSRA has retained the services of David Trotter from Canton, Michigan, to conduct side scan survey operations in search of lost ships in Lake Michigan. Keeping detailed records of nearly 200 square miles scanned in eastern Lake Michigan, MSRA knew they had already covered almost half of the *Hennepin*’s probable search area during prior search expeditions for other lost wrecks, but the steamer had not been discovered. In July 2006, Trotter covered the balance of the *Hennepin*’s search area extending east, north and west of areas already covered working in depths ranging from 190’ to 250’. Running lanes in a pattern much like mowing a lawn, the 50 kHz torpedo-like sonar was towed 100’ below the boat sending acoustical signals out to each side. The remaining 25 square mile search area was completed in just four days with no discoveries. Or so it appeared.



David Trotter

Side scan sonar

To be thorough, MSRA reviewed the rolls of sonar paper to check for any targets that might have been overlooked by the boat crew. As the paper unrolled, an unusual “splotch” appeared. The image, although quite small and rough, suggested a man-made object because it had both density, revealed by the dark plot, and height, indicated by the white shadow. Usually a target like this would be plotted several times on site to obtain more detail, but it had been missed, probably during a crew shift. Meticulous recordkeeping pinpointed its size and location, but clearly there was not enough detail to determine if it was the *Hennepin* — only a dive would tell.

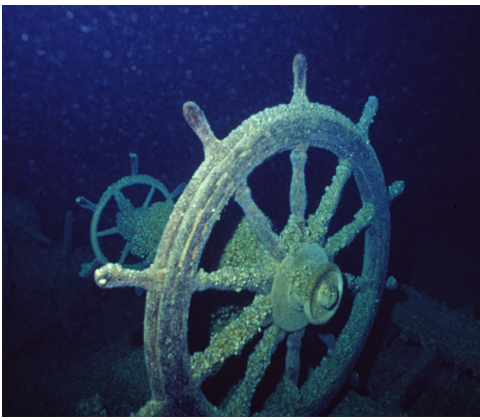
One week after the discovery of the new shipwreck, MSRA’s technical dive team made the first dive to attempt to identify the wreck. It lay in 230’ of water, which was not too far off from the 203’ reported by Captain Hanson. (Perhaps the newspaper reporter accidentally transposed the 3 and 0?) The diver’s tanks were filled with a special blend of gas to reduce the effects of “nitrogen narcosis,” a condition caused by breathing nitrogen under pressure similar to drinking several martinis. The gas, called tri-mix, replaces a percentage of nitrogen with helium, allowing them a clear head at depth.

After a 20-minute dive and a 45-minute decompression, the divers returned with a positive identification of the *Hennepin*. The side scan had been deceiving; the wreck was in pristine condition, looking much like it had in historical photographs.

I had been training for technical diving and in August, the 79th anniversary of the sinking, I made my first tri-mix dive on the *Hennepin* with my dive buddy Bob Underhill. The visibility was exceptional, and nearly 70-feet above the bottom I could see the wreck sitting upright on the flat sand bottom in near-perfect condition, evidence of the slowness in which the ship sank. Ambient light penetrated to the bottom, but I used a light to accentuate detail.



Valerie van Heest prepares to dive the *Hennepin*



Robert Underhill

Hennepin wheel

The 2-story wheelhouse is missing, likely carried away during the sinking, but otherwise the forward deck, called the “forecastle,” remains intact. The tow winch sits in the center of the forward

deck, still coiled with the hawser which runs taut through the fair lead at the tip of the bow. From there, the cable curves gently downward to the bottom where the bitter end lies in the sand, just as it was cast off by the crew of the *Lotus*. The capstan, which was used to raise and lower the anchor, sits forward of the tow winch and bears the engraved name *G. H. Dyer* on its domed cover. Swimming aft, I reach the giant ship’s wheel, which had been located in the wheelhouse, now exposed on deck, with every spoke in perfect shape.

Behind the forecastle, the deck drops down to the main deck where the five hatches are located. The mainmast, situated forward of the first hatch, is still standing tall, which is quite unusual considering the trauma of any sinking event. Behind that, the innovative unloading system is completely intact in the amidships area. The conveyor boom lays over the hatches down the center of the deck. Only the canvas belt is missing, deteriorated after its long submersion.

The 40-foot A-frame stands securely in place with its cable still ready to hoist the boom into position.



Todd White

Hennepin A-frame

Although the engine had already been removed before the sinking, the boiler house, which supplied steam for the unloading equipment remains intact in the stern behind the last hatch. Both ventilators sit atop the boiler house, but the smokestack has toppled to the port side. The aft mast has also fallen, but towards the starboard side.

The only significant damage is to the stern and starboard hull, portions of which have fallen outward. The broken hull,

however, conveniently provides a perfect cutaway view of the inner workings of the conveyor system which runs the length of the hold. As I returned to the bow to begin my 45-minute decompression ascent, I had time to contemplate what I had seen. It is ironic that the pioneering equipment, which makes the *Hennepin* such an archaeologically significant ship, is completely intact, while the older hull has deteriorated around it.

The loss of the *Hennepin* was a great blow to the Construction Materials Corporation. With an active quarry operation on the shores of the Bass River, they needed another vessel to carry the thousands of tons of gravel yet to be mined. It was nearly a year before they chartered another self-unloader, the *Andaste* from the Leathem D. Smith Company in Sturgeon Bay, to handle their transport needs. The *Andaste* was equipped with Leathem Smith’s first patented tunnel scraper system, which was inspired by the *Hennepin’s* innovative design.

In an ironic twist of fate, the *Andaste* died an even harder and more tragic death than the *Hennepin*. Just two years after the *Hennepin* sank, the *Andaste*, owned by the same company, running the same route, delivering the same cargo, and equipped with a similar prototypical unloading system, was swallowed up just miles from her predecessor. The ship took with her Captain Albert Anderson, who piloted the tug *Lotus* when the *Hennepin* sank, and all 28 crew members, many of who crewed on the *Hennepin*. Tragedy aside, it is truly remarkable that Lake Michigan holds the first two examples of revolutionary developments in bulk cargo transportation within a few miles of each other. Perhaps the *Andaste’s* final resting place will soon be discovered.

Today, self-unloaders, the dominant vessel on the Great Lakes, represent a multi-million-dollar bulk cargo industry, delivering dozens of products like iron ore, coal, and sand to virtually every conceivable destination throughout the Great Lakes using systems modeled after the very first conveyor belt system which was fitted on the *Hennepin*. This historical equipment and the ship in which it was installed are currently on exhibit 230’ beneath Lake Michigan in this extraordinary underwater museum of maritime history. If treated with respect, the *Hennepin* will remain undisturbed as a reminder of the roots of the self-unloading industry, which is still flourishing after more than a century.

A researcher, writer, and member of the Woman Divers Hall of Fame, Valerie Olson van Heest co-founded Holland based Michigan Shipwreck Research Associates and uses her talents to document Great Lakes Shipwrecks and share their stories. For more information about her work visit www.valerievanheest.com and www.michiganshipwrecks.org.

Today's dominant Great Lakes vessels, the Self- Unloaders, are modeled after the first conveyor system installed on the steamer *Hennepin*, just recently located on the bottom of Lake Michigan.



Modern Self-Unloading Vessel
Courtesy of U.S. Environmental Protection Agency



The Hennepin in the 1920s
Courtesy of Milwaukee Public Library

