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While one man cranks the spinner, the one holding the "top" walks backwards as the rope is twisted. From Edwin Tunis, *The Young United States, 1783 to 1830* (New York: World Publishing Co., 1969). Used by permission of the estate of Edwin Tunis.

Ropewalk

The Newsletter for
Shipwrights of Ohio - July 2021

Next Meeting: August 21, 2021
"To be Determined" –

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July Meeting

This month we met at the Westerville Public Library for the first time since February 2020. This was a combined, in-person & zoom, meeting and a test of the technology required to hold a combined meeting. We had four in attendance at the library and five joined via zoom. After a rough start, technical problem with a howling feedback that took awhile to correct. Did you know that our projector has the capability to control volume? We didn't, but we do now. Once corrected, the meeting proceeded as planned.

One of our members and his spouse have tested positive after getting their vaccination, and after a short discussion, we decided to return to Zoom meetings only for August, September and October. With the COVID variant increasing and the age of many of our members, we will be cautious for the next few meetings while we watch how the pandemic proceeds.

That said, we have averaged 11 per meeting the last four months. That's one third of our membership. So where are the rest of you? Mark your calendars for the third Saturday morning of each month (Aug. 21; Sept. 18; Oct. 16; and Nov.20.)

If you are having trouble setting up a zoom contact or signing in, I encourage you to contact Bob Mains, **Please**. He can help you to connect. Bob can be reached at (rmains43@gmail.com).

Announcements

NRG Photographic Ship Model Competition

Reminder: entries must be received by August 2nd, 2021. <https://thenrg.org/contests>

Philadelphia Ship Model Society

Will be holding a ship model display on board the battleship *New Jersey*, at Camden, NJ, August 7th, 2021, from 11 AM to 5 PM.

www.philadelphia shipmodelsociety.com/modelcon

Northeast Ship Model Conference

This conference will be held Saturday, October 2, 2021, from 9 AM to 3 PM, at the "Port'n'Starbord Convention Center, Ocean Beach Park, New London, CT. For more information, go to: www.uscmsg.org click on "More" and scroll down to Northeast Ship Model conference.

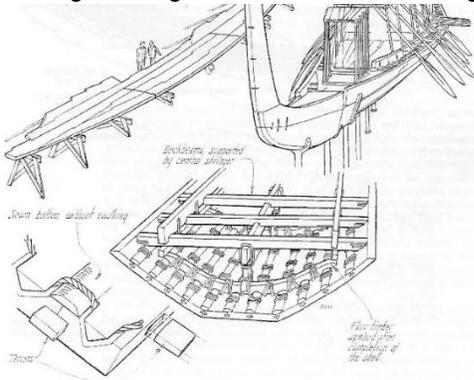
Presentation:

Our presentation for July was research orientated. It was based upon the book "The Evolution of the Wooden Ship" by Basil Greenhill (text) and Sam Manning (drawings). The book

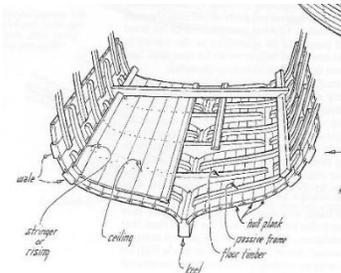
consists of two parts: 1, The evolution of the wooden ship; 2, The building of a wooden ship.

The presentation dealt with part one only. The author, Basil Greenhill, describes his sources as men who worked in building wooden ship in south-west England at the turn of the century. He also states that much of what we know about the past ship building is conjecture and that where possible he identifies wrecks found and researched by archaeologists.

For the period from 2650 BC to the 15th Century A.D. boats and ships were shell built. The Egyptian river boat, reconstructed from the wooden remains found in the Great Pyramid was shell built of cedar planks in irregular shapes, flush laid, and fastened edge-to-edge with tenons and sewing.

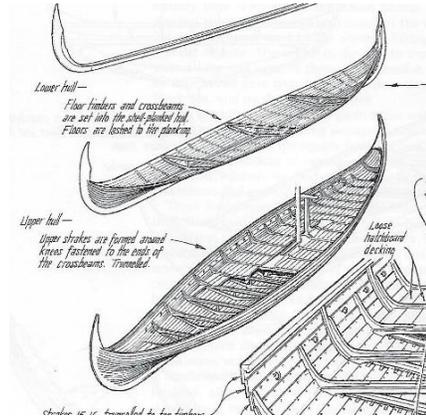


The Cypriote merchantman of 500 B.C. was shell-constructed with hull plans joined edgewise from the keel outward. Internal (passive) framing was added as the planking progressed. ("Passive". Because the planking is not formed around it. Passive framing is not a unified skeletal system within the hull. A shell-built hull is conceived and constructed as an envelope with its external planking fastened edge-to-edge, and the internal framing, if any, is added later.

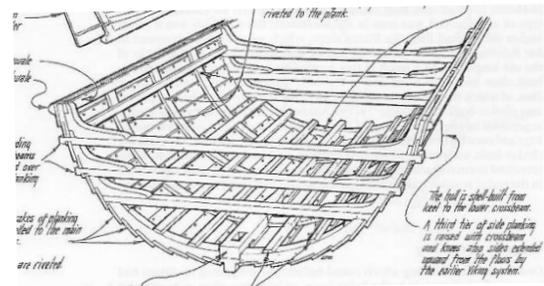


Viking hull construction, (Gokstad – 850 A.D.) as found in a Karve, excavated in 1880, near Oslo, Norway had a length of 76 feet and a breadth of 17 feet. She was shell planked with lapstrake planking trunnelled together and then floor timbers

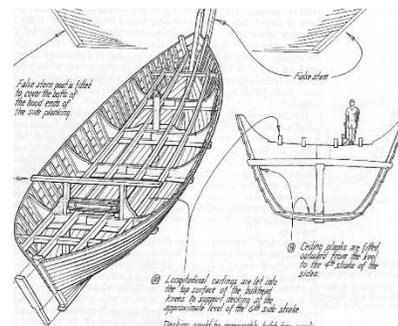
and cross beams added that were lashed to the planking. The upper strakes were formed around knees fastened to the ends of the cross-beams.



Excavated from the old harbor at Kalmar, Sweden in 1934, the Kalmar ship, 13th C. A.D. was shell built from the keel up to the first crossbeam, having a length of 36' and is an example of a single mast, square sail Baltic trader. Her planks were lapstraked with the laps riveted to the one above and then trunnelled to a frame. The first use of a stern rudder was perceived in this boat-find.

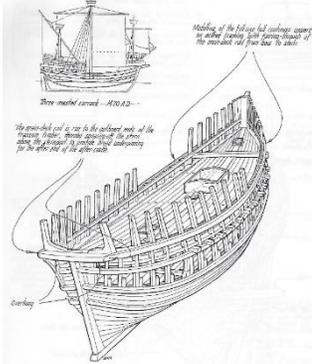


The Bremen Cog of 1380 had bottom planking that was cleated together across the keel and floor timbers fitted so that the bottom is held together. Her side planking was lapstrake and riveted together with side frames added to support the upper strakes.



By the early 16th C. ship building had shifted from shell-built to frame-built construction. The 15th C. Carrack, in a conjectural reconstruction, uses both

shell and frame construction. Shell-planking proceeds from the keel outward to the first wale. The planking is flush laid. First frame futtocks are scabbed to the floor frames and her planking is added. A second futtock or top timber is added to the first futtock and her planking is completed.



Discovered in the late 20th C. and built in 1481 – The *Gribshunden* was probably constructed in Flanders or in the Netherlands during a time of great exploration and provides clues as to how ships sailed by Christopher Columbus, and Vasco da Gama were constructed. She is frame built and the flagship of John, King of Denmark. She anchored in the Baltic Sea at the natural harbor near the port of Ronneby, Sweden. The *Gribshunden* caught fire, burned and sank with a loss of 150 crew. This is the first example of 15th C. ship building found and underwater archaeologists are exploring the wreck.

Ships on Deck:

The following is an update on what your fellow craftsman have been working on. I encourage each of you to share photos of your works in process, what you have completed in the past, and what you plan to work on in the future. Send it to your editor in jpeg format with a short write up.

Great Harry

John Boeck



From the photo above to this. It is finished.





We were contacted by the owner in May 2020 and picked up the "Great Harry" in June of that year. The model was built by a company in Germany in the late 1800's or early 1900's and brought to the USA by the owner's grandfather, sometime in the 1920's. Below, as we first saw the model and the work required.



The restoration of the late 1800's model of the "Henri Grace a Dieu", was finished early in July 2021. The original ship was built in 1514, rebuilt in 1539, and accidentally burnt in 1553. The model measures 48" x 42" x 18" and will be mounted on a solid base for transporting to Columbia, SC.

In our research, we found a model built for the Great Exhibition of 1851 at Greenwich, UK and a replica of our model at the Powerhouse Museum, July 21, 2021

Sidney, AU. We purchased copies of their digital photos of the Sidney model to develop the rigging plan used to re-rig our model.

Thanks to Darrell Markijohn for his work on the repair and replacement of the masts and yards.

A special thanks to John Boeck for his work of restoring the hull, making the missing blocks and deadeyes and in completing the rigging of the vessel.

CSS Virginia

Cliff Mitchell



This is my rendition of the CSS Virginia.... a BlueJacket kit that I modeled ten years ago. It was a very easy Bluejacket kit to build. No rigging and I had seen someone's build where they painted the boards and siding red. I think that made the ship "pop".... When it came to painting the model, I used Floquil paint and Polly scale paint exclusively. I still have a supply of some of the colors and I use them to paint my substantial collection of Fine Scale Miniature HO railroad kit models (over 30) that are made into dioramas.

Red Jacket

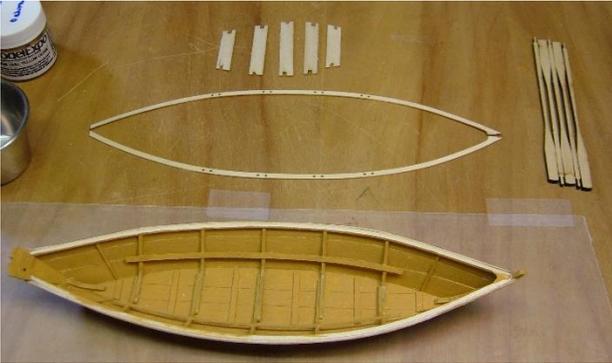
Stan Ross



Deadeyes and blocks on starboard channels done. Took two weeks. Now for the port side.

Lowell Grand Banks Dory

Bill Nyberg



Painted hull & gunnel



Installed gunnel and oars



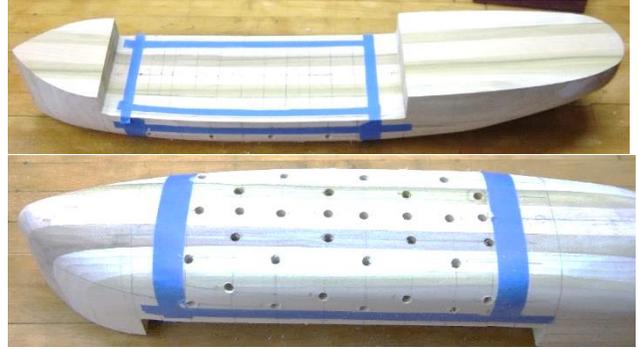
Finished model. Took about 8 hours.

Lumber Hooker

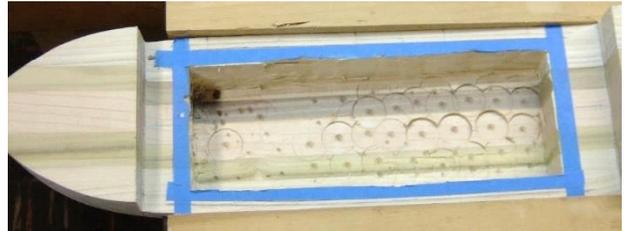
Bill Nyberg



Solid hull. Wanted to add a cargo hold & remembered a NRG Web presentation by Bob Filipowski (Midwest Model shipwrights, Chicago) on carving out a cargo hold



Key was identifying the thickness of the bulkheads and being able to know when you are at the thickness. Lined out the cargohold space and the section lines. Marked where holes were to be drilled & the depth – $\frac{1}{4}$ " plus $\frac{1}{8}$ " for glue space expansion. Drilled holes and then placed $\frac{1}{4}$ " dowel flush with outside hull. When the inside end of the dowel appears, you have $\frac{1}{4}$ " before you are through the hull.



Drilled out the space using a a Forstner drill bit. Will clean out rest of hold with carving tools down to the dowels.

Nautical Terms

Outboard: Situated outside the hull of a vessel; Situated within a vessel but positioned away (or farther away, when contrasted with another item) from her centerline; Farther from the hull, e.g. "The larger boat was tied up alongside the ship outboard of the smaller boat"; farther from the pier or shore, e.g. "The tanker and cargo ship were tied up at the pier alongside one another with the tanker outboard of the cargo ship."

outhaul: A line used to control the shape of a *sail*.

outward bound: To leave the safety of port, heading for the open ocean.

over-canvassed: To have too great a sail area up to safely maneuver in the current wind conditions.

over-reaching: Holding a course too long while tacking.

over the barrel: Adult sailors were flogged on the back or shoulders while tied to a grating, but boys were beaten instead on the posterior (often bared), with a cane or cat o' nine tails, while bending, often tied down, over the barrel of a gun, known as kissing the gunner's daughter.

overbear: To sail downwind directly at another ship, stealing the wind from its sails.

overboard: Off or outside a vessel. If something or someone falls, jumps, or is thrown off of a vessel into the water, the object or person is said to have gone overboard. See "Man overboard!"

overfalls: Dangerously steep and breaking seas due to opposing currents and wind in a shallow area, or strong currents over a shallow rocky bottom.

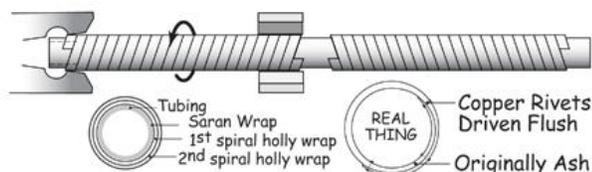
overhead: The ceiling of any enclosed space below decks in a vessel, essentially the bottom of the deck above.

overhaul: Hauling the buntline ropes over the sails to prevent them from chafing.

Glossary of Nautical terms Wikipedia

Other Notes: "Stuff" - Tugs & Things

Mast Hoops



MAST HOOPS

For white mast hoops you can stain, use Holly.
It bends like spaghetti when wet.

INSTRUCTIONS:

Use two pieces of holly 0.010" x 3/16" x 2'. Soak in hot water. Take a 1' section of brass tube with OD = to ID of hoop, and wrap with a couple layers of Saran®. Clamp one end of the strip to the center of the tube and spiral wrap, butting edges tightly. Clamp. Wrap the other, spiraling in the **other** direction. Dry overnight. When dry, remove strip #2 and wrap it over strip #1, using "carpenters" wood glue cut 50/50 with water. Allow to dry. Chuck in lathe or drill and sand. Cut rings off slightly wider than finish size and sand to final width. Stain.

Hoop diameter was generally about 25% larger than mast diameter (16" ID hoop on 12" dia mast). A 16" hoop was 1-1/2" deep x 1-1/8" thick, fastened with 3 copper rivets. Mast hoops were spaced about 24-36" apart - depending on vessel size - sailmaker's choice.

Remember to put 2-3 spare hoops on each mast just above the boom.
From Art Nyberg/Tampa Bay Ship Model Society, 5-23-00. Edited & Redrawn by I.Schuster

Nautical Research Journal

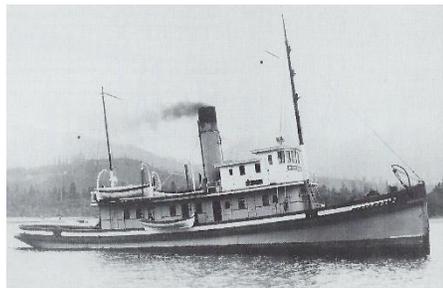
If you are not already an NRG member, go to info@thenauticalresearchguild.org. Yearly subscription is available in three forms: Print copy, On-Line copy (E-Journal) and a combined both Print & On-line.

Print Journal - \$55 she had measures of; 117.4 x 24.2' x 10.5'
E-Journal - \$40
Combined - \$65

In each journal, there is always something to expand your knowledge of ships, ship modeling and maritime history.

Tugs

Robert Preston

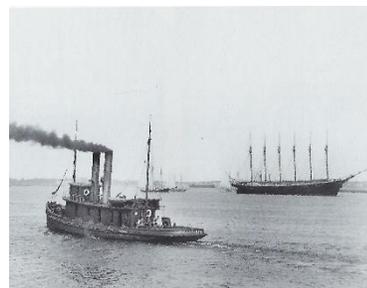


Canadian tugboats are not substantially different in design from their American sisters. Yet Canada has been one of the world leaders in the use of tugboats for work other than ship handling and salvage.

The *Robert Preston* is a good example of a Canadian Northwest steam tug. She was built in 1923 at New Westminster, British Columbia. Her measures were: 99.8' x 24' x 14.1' and rated at 500 horsepower. She is shown here early in her career, with a nice pulling boat slung in davits over her side and a radiotelephone antenna rigged between her masts. Canadian Pacific Coast tugs share the same characteristics as a tugboat from the Pacific Northwest of the United States. They have long houses and squared-off wheelhouse fronts. Another common identifying mark is the wide sheer stripe – tugboats elsewhere usually have narrow cove strips if they have them at all.

Original Source: "On the Hawser" by Steven Lang and Peter H. Spectre, 1980;

Spring Hill



Spring Hill, owned by the Cumberland railway and Coal Company of Parrsboro, Nova Scotia, is shown running down Portland Harbor, Maine, sometime before 1913. Built in 1893 at St. John, New Brunswick, she was 101.7' x 23.7' x 10.1'. She had two boilers feeding a single engine. In the background are lumber schooners and the six-masted schooner *Robert E. Merrill*.

Original Source: "On the Hawser" by Steven Lang and Peter H. Spectre, 1980;

Presentation Schedule:

2021

Jan 16 — History of Ship Modeling
Feb 20 — Carving Ship Decorations
Mar 20 — Photographing Models
Apr 17 — Setting up a Hahn Frame Jig
May 15 — Sail Making
Jun 19 — Video: "Ship That Changed the World"
Jul 17 — Evolution of the Wooden Ship
Aug 21 — Steam Engines (?)
Sep 18 — Super Detailing
Oct 16 — Illuminating Models – Fixture/Circuitry (?)
Nov 20 — Marietta Ship Building
Dec 18 — From CAD to Component Parts (?)

Events & Dates to Note:

2021 Tentative Schedule

~~IPMS-Columbus~~ **Canceled**

47th Anniversary BLIZZCON

Arts Impact Middle School
680 Jack Gibbs Blvd. Columbus 43215
Saturday, February 20, 2021

~~Miami Valley Woodcarving Show~~

Canceled

Christ United Methodist Church
700 Marshall Rd., Middletown, Ohio 45044
March 6 & 7, 2021

~~66th "Weak Signals" R/C Model Show~~

Canceled

~~31st North American Model Engineering Expo.~~

Canceled

Wyandotte, MI
April 23-24, 2021

44th Midwest Model & Boat Show,

Virtual competition will take place.

Wisconsin Maritime Museum, Manitowoc, WI
May 15-16, 2021

Photography for Ship Models

NRG Virtual Seminar
June 05, 2021

~~Lakeside Antique & Classic Wooden Boat~~

Lakeside Hotel, Lakeside, OH
July 18, 2021

NRG Photograph Competition

Submission Deadline
Aug 02, 2021

Toledo Antique & Classic Boat Show

Promenade Dock, Maumee River, Toledo, OH
Aug 21-22, 2021

July 21, 2021

~~BlueJacket Rigging Class for novice~~

Belfast, ME – Enrollment closed
Sept 20 – 24, 2021

~~NRG Conference~~

Canceled
Oct. 21-23, 2021

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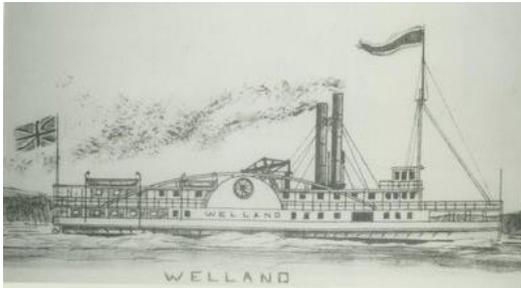
Web Site: www.shipwrightsofOhio.com

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Wooden Steamers

1855-A



Blue Bonnet: A wooden, sidewheel steamer was enrolled at Quebec in 1862. Built by D. J. McCarthy of Sorel, Que, she has measures at enrolment of 156.9' x 24' x 7.75' and a unit tonnage of 278. She was powered by a steam engine with a 24" bore x 120" stroke, rated at 69 horsepower and built by Milne & Milne, Montreal. She was owned by Port Dalhousie Railway and had been built for passenger service between Montreal and Cornwall, Ont on the Saint Lawrence River, but almost immediately was moved to passenger service between Toronto, Ont. and Port Dalhousie (St. Catharines) Ont. on Lake Ontario, replacing the sidewheel steamer *Welland*, built in 1853, who had caught fire and burned. Her master for the 1855 season was Captain Stickler and Captain William Donaldson for the 1856 season. In September 1856, the steamer *Blue Bonnet* caught fire while between Toronto and St. Catharines, Ont. The sidewheel steamer *Blue Bonnet* was rebuilt and renamed *Welland*.

Ownership of the steamer *Welland* was transferred to the Port Dalhousie & Toronto Rail Road Co. in 1857 and to the Toronto & Dalhousie rail Road Co., St. Catharines, Ont. in 1860.

The steamer *Welland* received large repairs and her ownership was changed to L. Reneau & Co., Montreal in 1861. She was first enrolled at Quebec in 1862 and assigned official number C46162.

Ownership of the sidewheel steamer *Welland* was changed in 1863 to United States interests renamed *Blue Bonnet* and operated as a blockade runner for the Confederate States during the American Civil War. (No information found of "Blue Bonnet" or "Welland" as a blockade runner).

Final disposition is unknown. The file for the *Blue Bonnet*, 1855 build, lists her as "out of service" in 1868 and for the *Welland* (1855 build), as not listed in 1871.

Bowmanville: George Nelson Ault at Portsmouth, Ont. built a wooden, sidewheel steamer for the C. Perry & Co., Kingston, Ont., for the passenger, package freight trade between Hamilton, Ont. and Montreal, P.Q. for the interval between completion of the St. Lawrence canals and the promotion of the Grand Trunk Railway. She was powered by a low-pressure engine built by the Kingston Foundry and had a 44" bore x 120" stroke. Her master for the 1855 to 58 season was Captain Charles Perry and for the 1859-60 seasons Captain McMillan. September 1859. while attempting to free the sidewheel steamer *New Era* which had gone aground in the Western Channel, Kingston Harbor, the steamer *Bowmanville* was caught in a sudden gust of wind and also went aground. Both vessels were released. In December of that same year, while bound from Oshawa, Ont, the steamer *Bowmanville*, laden with 3,200 barrels flour, took refuge at Port Darlington, Ont., Lake Ontario after casting overboard 700 bbls of flour to prevent the steamer from swamping. When the *Bowmanville* reached Whitby, Ont, she had 3 to 4 feet of water in her hold.

Master of the steamer *Bowmanville* for the 1861-62 seasons was Captain Smyth and the steamer *Bowmanville* ran as an independent steamer between St. Catharines, Toronto and Hamilton, Ont. for the 1861 season. Captain Charles Perry was master for part of the 1862 season.

The steamer *Bowmanville* was advertised for sale at auction in Kingston, Ont, on February 24, 1863. Ownership of the steamer *Bowmanville* was changed to James Linton that same month. The steamers first enrollment was issued at Montreal, Que., July 30, 1863, received official number C46212 and her measures recorded as 176.40' x 27.30' x 10.00' with tonnage recorded as 759.24 GRT, 520.82 NET. Her master for the 1863 season was Captain Anderson.

In September 1863, her ownership was sold "foreign" to Alonzo Jimenez, et al., Havana, Cuba. She left Quebec, clearing for Havana with a cargo of coal, September 21, 1863. In October of that year, bound from Quebec, for Havana, via Pictou N.S. the steamer put into New York harbor in a leaky condition. She was seized in New York by the Surveyor of the Port as an alleged blockade runner and placed in dry dock for repairs. Her cargo was deemed insignificant. She left New York on the first of December for Havana and had to return to New York for repairs having sprung a leak and her pumps choked damaging her machinery. In April 1864, Acting Volunteer Lieutenant Pickering, U.S. Navy, commanding the U.S.S. *Fort*

Donelson, reported that the sidewheel steamer *Bowmanville* was in Nassau and intends running the Wilmington blockade. The steamer *Bowmanville* foundered at sea, while on her voyage to Havana, Cuba.

The final enrollment registry was closed February 14, 1866.



T. U. Bradbury: Luther Moses, at Cleveland, Ohio, built for Robert Montgomery of Buffalo, NY and Captain Malcomb McBride of Cleveland, OH, a wooden propeller with measures: 178.6' x 24.3' x 11.5' with a tonnage (old style) of 545.99. She was powered by a high pressure, 28" bore x 84" stroke, engine originally built by Detroit Hydraulic Works and rebuilt by Newburgh Engine Works, N.Y. and installed by the Buffalo Engine Works. She was equipped with a firebox boiler 7' x 7'. Both engine and boiler were originally installed in the passenger steamer *Alabama* (US-1849). The propeller *T. U. Bradbury* was built for the passenger, bulk freight trade. Her master for the 1855 season was Captain Malcomb McBride with Annin Williams as first engineer. In October 1855, the *T. U. Bradbury* jettied part of her deck load and damaged her hull on Lake Michigan, north of Muskegon, MI. Property loss was set at \$2,000. In that same month the *T. U. Bradbury* and the schooner *Rainbow* collided in the Milwaukee River. Property loss set at \$500. In November of that year, the propeller *T. U. Bradbury*, bound down, Chicago, IL for Buffalo, NY, went ashore on Beaver Island, MI, Lake Michigan. Released. Property loss set at \$200.

During the 1856 season, the propeller *T. U. Bradbury*, ran as part of the People's Line between Milwaukee, Chicago and Buffalo. In June 1857, the *T. U. Bradbury* and the schooner *Kossuth* (US-1857) collided in Lake St. Clair. Property loss was set at \$900.

Ownership of the propeller *T. U. Bradbury* was changed to Frank Perew, Buffalo, NY in September 1857. In April 1863, the propeller *T. U.*

Bradbury and the schooner *Barney Eaton* (US2142) collided off Sheboygan, WI, Lake Michigan.

Ownership of the propeller *T. U. Bradbury* was changed on May 4, 1863, to Erie & Western Transportation Co., Edwin T & James C. Evans, Buffalo, NY for \$30,000. She received large repairs to her passenger accommodations and was assigned to the daily line of freight and passenger vessels connecting with the New York Central Railroad, the Rochester Transportation and Western Canal lines of Buffalo, and with the Atlantic and Great Western railway at Cleveland. Master of the *T. U. Bradbury* for the 1864 season was Captain W. H. McAlly. In April 1865, the propeller *T. U. Bradbury* was remeasured and enrollment measurements changed: 183.3 x 27.3 x 10.5; 676 grt. She was assigned official number 24109. Her master for the 1867 season was Captain Lyman Hunt. In October 1869, the *T. U. Bradbury* broke her shaft on Lake Michigan.

June 1872, ownership of the propeller *T. U. Bradbury* was changed to Robert A. Jones, et al, Buffalo, NY.

In February 1873, ownership of the *T. U. Bradbury* was changed to Edwin Park, et al. Bay City, MI. September 1874, laden with staves, the *T. U. Bradbury* sank at Port Lambton, MI, St. Clair River. Her property loss on the hull was set at \$3,000, and for her cargo at \$500. During winter layup of 1879-80, the *T. U. Bradbury* was dismantled and converted into a barge. Her enrollment measurements were changed to: 676.87 grt.

Her new owner, Captain Henry G. Blanchard, Detroit, MI, in 1880, had the barge *T. U. Bradbury* rebuilt, by C. W. Wheeler, West Bay City, MI, into a 2-mast schooner and enrollment measurements updated to: 180.4 x 27.6 x 10.2; 390.85 grt. The schooner *T. U. Bradbury* was renamed *Florence M. Dickinson* and her enrollment updated in April 1881.

Ownership of the schooner *Florence M. Dickinson* was transferred to Blanchard Navigation Co., Detroit, MI in May 1885. November 1886, in tow of the tug *Justice Field* (US2767), the schooner *Florence M. Dickinson*, laden with coal, went ashore in a gale near Kewaunee, WI and was totally wrecked. Three lives lost.

Enrollment certificate for the schooner *Florence M. Dickinson* was surrendered December 09, 1887.



Chicago: At the Buffalo yard of Bidwell & Banta, a wooden propeller was built for the American Transportation Co., Buffalo, NY, Rufus C. Palmer, president, to be used in the bulk freight trade. Her measures recorded at her first enrollment at Buffalo, NY, September 19, 1855, were listed as: 197.8' x 31.3' x 12.9', with a tonnage (old style) of 785.45. She was powered by low pressure engine, 38" bore X 42" stroke, built by S. Shepard, Buffalo, NY. Her boiler was 10' x 19.5'. Her master for the 1855 season was Captain Samuel C. Foreman. In October 1855, the propeller *Chicago* received damage to her hull and cargo during a gale on Lake Michigan for a property loss of \$2,500. In September 1857, she was reengined with a Corliss engine from Buffalo Steam Engine Works. While upbound from Detroit, MI for Chicago, IL and Milwaukee, WI, the propeller went hard aground on St. Clair Flats, St. Clair River.

Her master for the 1859 season was Captain C. Herrick. The ownership designation for the vessel was changed to American Transportation Co., Buffalo, NY, James C. Evans, secretary, October 05. 1859.

Ownership of the propeller *Chicago* was changed to: Captain William Williams, 1/3, Buffalo, NY; Andrew J. Rich, 1/3, Buffalo, NY; and Henry Martin, 1/3, Buffalo, NY in April 1860. Her master was Captain William Williams.

Ownership of the propeller *Chicago* was changed to Dean Richmond, Batavia, NY in May 1860. Her master for the 1860 season was Captain M. H. Collins. October of that year, down bound from Milwaukee for Buffalo, laden with a cargo of flour and grain from Chicago, the propeller *Chicago* sprang a leak on Lake Michigan. She returned to Milwaukee for repairs at the Wolf & Lawrence's dry dock. June 1862, while down bound with a cargo of corn, the *Chicago* struck the sunken wreck of the tug *Zouave* at Windmill Point, Lake St. Clair. She required to be dry docked for repairs. May 5, 1865, the propeller *Chicago* was re-measured and her registration changed to: 198.3 x 31.7 x 11.4; 935.64 grt. She was
July 21, 2021

also assigned official number US-4266. September 1866, while up bound from Buffalo for Chicago, the *Chicago* broke her machinery off Long Point, Lake Erie. The property loss to ship was set at \$1,600.

April 1867, ownership of the *Chicago* was changed to Sheldon Pease, Buffalo, NY.

April 1870, ownership of the *Chicago* was changed to the Western Transportation Co. In August 1871, the foremast head of the propeller *Chicago* was carried away in a late gale on Lake Erie. Her master for the 1872 season was Captain Detz. May 13, 1872, while down bound from Chicago for Buffalo with a cargo of flour, pig iron & whiskey, she was cut through by ice and sank in nine fathoms of water off Point Abino, Lake Erie. The next day, she was towed into Buffalo Bay by the propeller *Olean* with part of the forward cabin still out of water. Vessel came to rest in five fathoms of water.

Ownership of the *Chicago* was changed to Charles H. Lane, et al, Saginaw, MI in May 1879. After 7 years partially sunk, the hull of the propeller *Chicago* was pumped out, raised and entered the Union Drydock to be converted to a steam barge for the lumber trade. Her tonnage enrollment was updated to 719.84 grt, on August 20. 1879. August 25, 1882, upbound for Chicago, the steam barge *Chicago*, coal-laden with barges *Manitowoc* and *C.B. Jones* in tow, took fire abreast North Fox Island, Lake Michigan, and burned to the water's edge. Her cargo of 1,000 tons of coal was consigned to the Chicago Stove Works. Cargo and vessel were insured. No lives lost. (08/24/1882)

Ferry No. 1: A wooden, sidewheel steamer was built, as the Montreal-Longueuil ferry across the Saint Lawrence River pending completion of the Victoria Bridge, by Augustin Cantin, Montreal, Que. Her measures were: 167 x 24 x 9.9 and *Ferry No. 1* was powered by two vertical beam, low pressure, 32" bore x 96" stroke, built by A. Cantin, Montreal, P.Q. Her original owner was the Grand Trunk Railway. *Ferry No. 1* was renamed *Walter Shanley* in 1860. (Walter Shanley was an engineer and prepared the survey for the Ottawa Canal.) May 1860, the steamer *Walter Shanley* was chartered to Gildersleeve and placed as a ferry from Kingston, Ont. to Cape Vincent, NY, across the Saint Lawrence River. Her master for the 1860 season was Captain Reid.

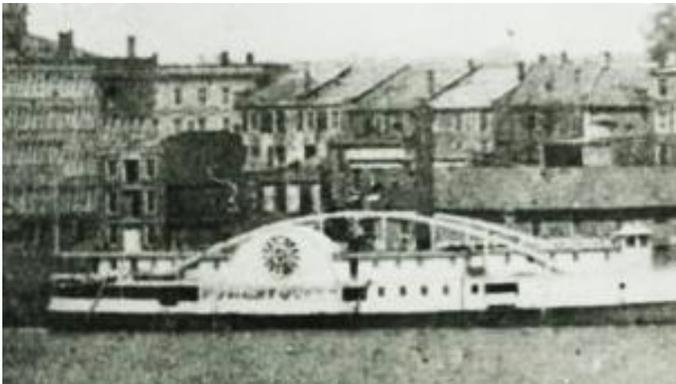
In 1862, her ownership was changed to Holcomb & Cowan and she was rebuilt during the winter 1862-63 and her accommodations expanded. The *Walter Shanley* was registered at Montreal, P.Q: 168.50 x 26.30 x 9.90; 639.07 grt, 460.20 net; renamed *Clyde* and given a Canadian register number: C33590, July 28, 1863. She would carry passengers and package freight. May 1863, while

down bound on the Saint Lawrence River, the steamer *Clyde*, had a steam pipe explode severely injuring two deck hands and killing another, below Prescott, Ont.

No final disposition known.

Note: The documentation on this steamer becomes confusing. She is listed as being sold foreign in New York in 1862 with the Canadian registry closed March 10, 1866. "Preliminary List of Canadian Merchant Steamships Inland & Coastal, 1809 to 1930" lists the *Clyde* as renamed *Peconic* in 1863. There was a steam paddle ship named *Peconic* (US19902) of 506.86 grt, 320.98 net that served the Union Army in 1864 off Folly Island, SC during the "War of the Rebellion".

There was also a sidewheel steamer *Clyde*, 200' 6" x 18' 6", 204 tons, captured by the Union, surveyed and purchased into the Union Navy. She served in the East Gulf Blockading Squadron off western Florida and the Florida Keys.



Forest Queen: John Bushnell, Newport (Marine City), MI built for Eber B. & Samuel Ward of Detroit a wooden, sidewheel steamer, with measures: 188.3' x 28.5' x 9.0' and a tonnage (old style) of 462 65/95. Her first enrollment was issued at Detroit, November 08, 1855. The steamer was powered by a vertical beam engine with a 44" bore x 120" stroke that had been built by the Cuyahoga Iron Works in 1848 and installed in *Pacific* (U19962) in 1848 and in *Saginaw* (U115118). The *Forest Queen* was built for the passenger, package freight trade between Detroit, MI and Port Huron, MI. and she was the sister ship to steamer *Forester* (U37060). Her first two masters were Captain P.H. Clark, 1855 season, and Captain S. D. Woodworth, 1856 season. In August 1857, the steamer *Forest Queen*, on an excursion cruise with some three hundred people up and down the Detroit River, was struck by the schooner *Son & Heir* under tow of the tug *Hamilton Morton*, both Canadian owned. The schooner carried no lights, and the *Forest Queen* not seeing the vessel crossed between July 21, 2021

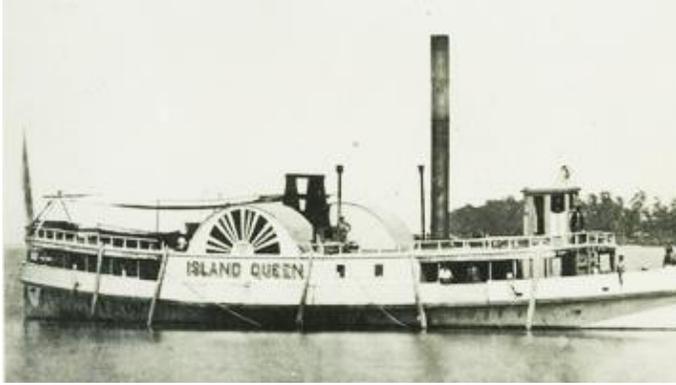
the tug and her tow. The schooner struck the starboard bow of the *Forest Queen* tearing away the side and smashing her bulwarks. Property damage to the *Forest Queen* was set at \$500.

Ownership of the steamer *Forest Queen* was transferred to Zael Ward, Newport, MI on February 2nd, 1858. Her master for the 1858 season was Captain George H. Cottrell. In April 1858 the steamer *Forest Queen* struck a rock in Lake Huron and was run ashore at Lexington, MI, near the St. Clair River to prevent her from sinking. She was released and repaired with the property loss set at \$1,200. In June of that same year, she broke a connecting rod which smashed her cylinder head. Property loss was set at \$3,500. At the end of July, the *Forest Queen* ran between Cleveland, OH and Buffalo, NY. (07/30/1858)

For the 1860 season her master was Captain John Robertson. March of that year, the steamer *Forest Queen* struck a rock and sank in the Saginaw River, Lake Huron. She was raised and towed to Detroit, MI for repairs. Her property loss was set at \$1,000. In October of 1861, the steamer *Forest Queen* ran hard aground in the St. Clair River. She was released by the steamers *Forrester* (U37060) and *Ruby*.

Ownership of the steamer *Forest Queen* was changed to Captain R.J. Hackett and Captain John Strachan in 1865. In May of that year, the steamer was readmeasured at Detroit, MI: 192 x 28.33 x 9.42; 677.72 grt; and she was assigned the official number 37061. July of 1866, due to the increased demand for more bulk "lumber" freight capacity, the hull of the steamer *Forest Queen* was rebuilt as a barge at Detroit, MI. Her enrollment was updated: 194 x 28.33 x 9.5; 351.16 grt. Her engine and machinery were removed and installed in the steamer *Saginaw* 1866. In December of that year, the barge *Forest Queen* laden with lumber, collided with the brig *Acadia* in the Maumee River at Toledo, OH. Her damage was repaired. The barge *Forest Queen* broke away from her tow on Lake Huron and went aground, losing part of her cargo of lumber.

C.C. Blodgett, Detroit, MI, acquired ownership of the barge *Forest Queen* in the 1871's. Her master for the 1872 season was Captain William Walker. Early in November 1872, while under tow by propeller *Burlington* (U2157), laden with a cargo of lumber from Bay City, MI for Buffalo, NY, the barge *Forest Queen* broke her tow line and foundered off Point Abino, ONT, Lake Erie during a gale on Lake Erie. All hands, five crew members lives were lost.



Island Queen: The enrollment Sandusky, Ohio, July 18, 1855, listed the wooden sidewheel steamer as built at Kelly's Island by Daniel Dibble for Datus Kelly; Alfred Kelly; A.S. Kelly; W.D. Kelly; Charles Carpenter; G.W. Orr; C.C. Huntington; all from Kelly's Island, OH & Rivera St. Jorge, Put-In-Bay, OH. She was listed at: 122.5' x 16.0' x 7.0' and a tonnage (old style) of 168 49/95. She was equipped with a crosshead engine, 22" bore x 60" stroke, 170 horsepower, built by N.G. Olds & Co., Sandusky, Ohio. The island Queen was built for the passenger, package freight between the Lake Erie Islands with side trips to ports between Toledo, OH and Cleveland, OH. She would also do towing in and out of Sandusky, OH and transport grain between Sandusky and Venice, OH or cement from Ottawa City to Toledo, OH.

On September 10, 1864, the *Island Queen* left Sandusky, OH with passengers and freight on her regular run to the islands. She also carried part of the Co. K, 130th Ohio Volunteer Infantry which was to be mustered out at Toledo, OH. She moored at Middle Bass Island and took on a party of disguised Confederate partisans who took her over. They had taken over the steamer *Philo Parsons* and planned to capture the *USS Michigan* at Sandusky. The raid failed. Enroute to Sandusky, the *Island Queen* broke a suction pipe and was cut loose from the *Philo Parsons*. The *Island Queen* drifted until it went aground on Chuck-a-Neola Reef, Peele Island, where she sank. The pipe was plugged, and the hull was pumped out and towed to Kelly's Island for repairs.

In 1866, her ownership was changed to A.D. Dickerson, Detroit, MI for \$10,000 and the *Island Queen* was chartered to W. A. Ashley, Detroit to run between Detroit and ports along the St. Clair River. In 1868, her ownership was changed to William Dana, Algonac, MI. The following year, her ownership was changed to River & Lake Shore Steamboat Company, Detroit, MI.

In 1870, her ownership was changed to S.B. Grummond, Detroit, MI. Her master of for the 1872 season was Captain E. Tormey.

Ownership of the steamer *Island Queen* was again changed in 1873 to R.J. Hackett, Mary Cook, and William McKay, all from Detroit, MI.

In 1874, her ownership changed to Detroit River Steamboat Co. Detroit, MI. July of that year she broke her crosshead engine while on the Detroit River.

June 1876, ownership of the steamer *Island Queen* was changed to M. Engelmann Interests, Milwaukee, WI. The engine was removed and the hull was reduced to a barge. Her enrollment was updated to: 121.5 x 20.42 x 6.75; 121.06 grt.

July 1876, ownership of the barge *Island Queen* was changed to Heber Squires et al, Grand Haven, MI. While under tow and bound from Grand Haven, MI for Chicago, IL with a cargo of lumber, the *Island Queen* was driven ashore one-half mile north of north pier, Grand Haven, MI on November 3, 1876.

Final enrollment surrendered at Grand Haven, MI, December 31, 1876, and endorsed "vessel wrecked."

Jersey City: George W. Jones, Black River, OH, built a wooden propeller for the New York & Erie Railroad Co., Dunkirk, NY; Stephen D. Caldwell, manager. Her first enrollment was issued at Dunkirk, NY in 1855, with measures: 182' x 29.4' x 12.3' and tonnage (old style) 633 2/95. She was powered by two high pressure engines: 24" bore x 36" stroke, built by Cuyahoga Furnace Co. her boiler was 7' 5" x 18' and she had a 10' wheel. She was built for the passenger, package freight trade. Her master was Captain J. G. Huff with Samuel Curtis as engineer. May 1856. the propeller *Jersey City* and the steamer *Minnesota* (U-1951) collided off Fairport, OH, Lake Erie, receiving minor damage.

Master of the propeller *Jersey City* for the 1857 – 60 seasons was Captain W. T. Munroe. June 1857, the propeller *Jersey City* was struck by the steamer *Western Metropolis* while approaching her wharf on the Maumee River, Toledo, OH. The bows of both vessels were considerably scratched, but neither suffered other damage. November 1857, while bound down from Toledo, OH to Dunkirk, NY, the propeller *Jersey City*, laden with grain and flour, struck a rock in the Middle Channel while entering Dunkirk Harbor and partly filled. The crew manned the pumps to keep her afloat until she made the harbor. 500 barrels of flour are wet. The loss was set at \$8,100.

For the 1860 season, the propeller *Jersey City* was operated by Union Steamboat Co. for the

New York & Erie Railway Co. November 1860, bound down from Toledo, OH to Dunkirk, NY, the propeller *Jersey City*, laden with flour, barreled pork and hides, was driven ashore, during a storm, near the tip of Long Point, Ont, Lake Erie. Sixteen lives lost.

Lion: J. L. Wolverton, Detroit, MI, built a wooden propeller towboat for Robert Lee et al, Detroit, MI. She was enrolled at Detroit, May 30, 1855 with measures: 102' x 22' 2" x 7' 3" and a tonnage (old style): 150 14/95. She would be powered by a steam engine: 24" bore x 38" stroke, built by Detroit Locomotive Works. She had been built for the towing trade and it was calculated she would be able to tow four of the largest lake vessels in one string.

He ownership *Lion* was changed to Lake Navigation Co., Buffalo, NY. In January 1857.

In April 1858 her ownership was changed to M. B. Kean, Newport, MI.

In August of that year, her ownership was changed to William Dana. September 1860, while on the Detroit River, the *Lion* was struck broadside by the propeller *James E. Eagle* (US – 1860). Both vessels were heavily damaged. September 1861, her machinery was damaged while on the St. Clair River. In June 1862, while down bound, the towboat *Lion*, with a vessel in tow, collided with the up bound towboat *Elisha C. Blish* (US–1857) also, with a vessel in tow. Both towboats sustained damage. The following month, while down bound, the towboat *Lion*, with four vessels in tow, had her machinery break on Lake St. Clair. She was towed to Detroit for repairs. In September 1863, the towboat *Lion* was condemned and had her engine removed at Algonac, MI to be transferred to new vessels. The towboat was abandoned.

Maira: A. L. Hoselton, Belleville, Ont. launched on May 8, 1855, a wooden propeller, destined for Belle Flint of Belleville, Ont and the passenger, package freight trade. Her measures were: 123; x 25' x 8' and a tonnage of 233-unit tons. She was powered by a high-pressure engine rated at 135 horsepower. Her master for the 1855-57 seasons was captain S. Barney. She would run on Lake Ontario, between Bellville, Ont. and Oswego, NY, touching at other ports on the Bay of Quinte. July 1855, the propeller *Maira* collided with the stern of the steamer *Novelty* near Picton, Ont., Bay of Quinte. Her property loss was set at \$1,000. In November of that year, she went ashore on Amherst Island, Lake Ontario during a snow storm. Damage property loss for the vessel was set at \$4,000, with the cargo loss at \$1,000.

Ownership of the propeller *Maira* was changed to Billy Flint, Belleville, Ont.in 1860. November 1861, while proceeding on her regular run between Belleville and Oswego, a flaw was discovered on her boiler, and to prevent a boiler explosion, the engine was stopped and the fire in the boiler dampened. Sails were set and the *Maira* sailed into Brighton harbor for a secured anchorage. She was towed back to Belleville for repairs.

For the 1862 season, her master was Captain Thomas McIntosh. In June of 1862, during a heavy fog on Lake Ontario, the propeller *Maira* ran ashore a half-a-mile west of Oswego harbor. She was pulled off and sustained no damage. In October of the same year, the propeller *Maira* sprang a leak and foundered in deep water off the Main Ducks Island, Lake Ontario. She was declared a total loss. No lives lost.

Some Notes:

Black River, Ohio: Drains Medina County, emptying into Lake Erie at Lorain, OH.

Cargo-carrying capacity in cubic feet, another method of volumetric measurement. The capacity in cubic feet is then divided by 100 cubic feet of capacity per gross ton, resulting in a tonnage expressed in tons.

Mail Steamer: Chartered by the Canadian government to carry the mail between ports.

Navigation: The reader may wonder what, with so few vessels on the lakes, why steamers could not avoid each other. Two main reasons, the visibility during storms and the vessels did not carry any lights so you came upon a vessel you could not determine if the vessel was approaching or departing from you.

Old Style Tonnage: The formula is: $Tonnage = ((length - (beam \times 3/5)) \times Beam \times Beam/2)/94$

where: *Length* is the length, in feet, from the stem to the sternpost; *Beam* is the maximum beam, in feet.

The Builder's Old Measurement formula remained in effect until the advent of steam propulsion. Steamships required a different method of estimating tonnage, because the ratio of length to beam was larger and a significant volume of internal space was used for boilers and machinery.

In 1849, the Moorsom System was created in Great Britain. The Moorsom system calculates the tonnage or cargo capacity of sailing ships as a basis for assessing harbour and other vessel fees.

Up to 1848, most freight was shipped, on steamers or propellers, as package freight. This meant that coal, grain, apples, and produce had been placed in a container or sack and carried aboard on the back of a laborer. Bulk freight in the form of lumber would have been loaded on barges and schooners and towed by a steam driven ship. In 1848, Joseph Arnold built at Port Huron, MI, a the steambarge *Petrel* (found in the third section) for the bulk freight trade answering a need to move bulk coal to the northern communities and iron ore, lumber, and grain south to the growing cities in the East.

By 1848, some ships built in that year, continued to operate beyond the "War of Rebellion" and may be listed with two different tonnage ratings. Most ships built on the Great Lakes were rated as Tonnage (Old Style). This dates back to the 1600's and comes to the U.S. from our cousins.

Tonnage (Old Style): The British took the length measurement from the outside of the stem to the outside of the sternpost; the Americans measured from inside the posts. The British measured breadth from outside the planks, whereas the American measured the breadth from inside the planks. Lastly, the British divided by 94, whereas the Americans divided by 95. The upshot was that American calculations gave a lower number than the British. For instance, when the British measured the captured *USS President* (a three-masted heavy frigate), their calculations gave her a burthen of $1533\frac{7}{94}$ tons, whereas the American calculations gave the burthen as 1444 tons. The British measure yields values about 6% greater than the American. The US system was in use from 1789 until 1864, when a modified version of the Moorsom System was adopted (see below).

Unit Ton - The unit of measure often used in specifying the size of a ship. There are three completely unrelated definitions for the word. One of them refers to weight, while the others refer to volume.

Measurement Ton (M/T) or Ship Ton Calculated as 40 cubic feet of cargo space. Example, a vessel having capacity of 10,000 M/T has a bale cubic of 400,000 cubic ft.

Register Ton - A measurement of cargo carrying capacity in cubic feet. One register ton is equivalent to 100 cubic feet of cargo space.

Weight Ton (W/T) - Calculated as a long ton (2,240 pounds)

In 1849, a Royal Commission was formed in England with the secretary of the commission as George Moorsom, and the resulting tonnage admeasurement system was called the "Moorsom System". The idea of this system is that the fees charged to vessels should be directly proportional to their potential earning capacity, i.e., the space occupied by passengers or cargo. A vessel is measured at a series of sections throughout its length, the transverse area determined at each section, and the areas integrated to determine the volume. The total internal volume was then divided by 100 to determine the vessel's "tonnage", since at that time, 100 cubic feet was determined to be the appropriate factor so that vessels would maintain approximately equal tonnages under the new and old regulations. There were two tonnages determined under the Moorsom System: "gross" and "net" tonnage. Gross tonnage reflected the entire measured volume of the vessel less certain "exempted" spaces, initially spaces used only for the crew or for navigation of the vessel, and spaces in the superstructure not used for cargo. Net tonnage was equal to gross tonnage less a deduction for the machinery space, reflecting the earning capability of the vessel.

A measurement of the cargo-carrying capacity of merchant vessels depends not on weight, but on the volume available for carrying cargo. The basic units of measure are the *Register Ton*, equivalent to 100 cubic feet, and the *Measurement Ton*, equivalent to 40 cubic feet. The calculation of tonnage is complicated by many technical factors.

The current system of measurement for ships includes:

Gross Tons (GRT) - The entire internal cubic capacity of the ship expressed in tons of 100 cubic feet to the ton, except certain spaces which are exempted such as: peak and other tanks for water ballast, open forecandle bridge and poop, access of hatchways, certain light and air spaces, domes of skylights, condenser, anchor gear, steering gear, wheel house, galley and cabin for passengers.

Net Tons (NT) - Obtained from the gross tonnage by deducting crew and navigating spaces and allowances for propulsion machinery.

P.Q.: Province of Quebec

Packet Freight: almost every imaginable item of merchandise – bags of onions, grain, etc., processed foods, bags of coal, stoves, furniture, that can be packed and moved by manpower from dock to hold and reverse.

Patriot War: A conflict along the Canada – U.S. border where bands of raiders attacked the British colony of Upper Canada more than a dozen times between December 1837 and December 1838. This so-called war was not a conflict between nations; it was a war of ideas fought by like-minded people against British forces

Ship Inventory: Will include the names of wooden steamers that will not be identified in the manuscript. The research project that the information was gathered for included all wooden steamers built on the Great Lakes or St. Lawrence River and operated on the Great Lakes with a gross tonnage at or over 100 tons.

Up-bound: Going against the current – St. Lawrence River to Lake Superior. (Lake Michigan – steaming north)

Down-bound: Going with the current – Lake Superior to the Saint Lawrence River. (Lake Michigan – steaming south)

(Original Source: "Wooden Steamers on the Great Lakes" – Great Lakes Historical Society; Bowling Green State University – Historical Collection; Thunder Bay National Marine Sanctuary Collection; Maritime History of the Great Lakes; and the scanned newspaper collection of the Marine Museum of the Great Lakes, Kingston, Ont. and 746 additional documented sources.)