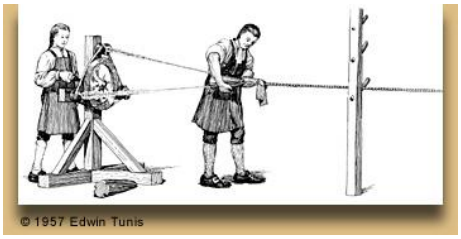


While one man cranks the spinner, the one holding the "top" walks meeting backwards as the rope is twisted. From Edwin Tunis, *The Young United States, 1783 to 1830* (New York: World Publishing Co., 1969). Used by permission of the estate of Edwin Tunis.

Ropewalk

The Newsletter for
Shipwrights of Ohio – March 2026

Our Next Meeting: April 18, 2026.
Hybrid – Classroom & Zoom
Topic: "Blocks & Tackle"
by Steven Keller

Contents

March:

Rain and wind, damaged the library and they canceled our conference room reservation for Saturday March 21st meeting. We were scheduled for the second-floor classroom, rather than our normal conference room on the first floor. Notice went out that the March presentation "Blocks & tackle" by Steven Keller has been rescheduled for the April 18, 2026, meeting. Mother Nature and a nasty low-pressure system passing over Ohio, were the cause of it all.

Without a meeting, and a minimum of "Ships on Deck" (Thanks Ric & Rob) your newsletter will be an update of some past items and the addition of some new "stuff". I am obligated, under the Communications position description (see below) to compile and deliver at least 6 pages of "stuff", so here goes…….... Without a meeting, you are probable disappointed, but don't be, rather look at the gift of 4+ hours, on a Saturday morning, to be working on that ship model sitting on your work bench.

"And finally, this cold winter week, even with the daffodils and forsythia blooming, frost bitten maybe, take care of yourself and your families, look to those you know who may need help or are lonely and may need human contact. Then get back into the hobby shop and at work on that ship model. We need your model photos."

Skipper's Report

Our "skipper" implemented his logistic plan to soak up some sun in sunny Florida, and he didn't invite us to join him, and "No", he did not schedule his trip south when he heard about the cold front we experienced.

Business

2026 Club Dues

Have you paid you 2026 dues yet?

Is this notice getting a little bit boring?

We ended 2025 with 34 members on the roster. Of those 34, we knew the three were not renewing for 2026 due to age or work requirements. There are still six who have not renewed for 2026.

If you do not plan on renewing your membership for 2026, please respond back to me with your decision. It would be appreciated. You do not need me pestering you.

Send your decision: Subject: Dues, to shipwright@breezelineohio.net

Our club dues ($20 for 2026) support our web hosting, our monthly Zoom subscription, our NRG Charter Club status, besides our normal monthly meetings and postal cost.

There are 2 ways left to make payment of dues to the "Shipwrights of Ohio".

1. ~~Pay Cash, (easiest) directly to the club treasurer at the meeting~~.

2. **Write a check**, (2nd easiest) for the dues amount, made out to "Shipwrights of Ohio", and send it to:

Shipwrights of Ohio,
5298 Timberlake Circle
Orient, Ohio 43146.

3. **Use the Venmo app.** This is a simple way to transfer funds from person to person, by downloading an app to your phone or computer for free. The parent company is PayPal. It will enable you to set up an account online where you can deposit or send money to others. The account can be attached to your checking account where you can move money between your checking account and "Venmo".

Note: If dues are not paid by March 22, 2026 (The Sunday after the canceled March Shipwrights meeting), you will be dropped from our roster and mailing list. We do give a break due to the slow USPS delivery.

Questions call: Lee Kimmins at 614-378-9344.

Continuity/Transition Update:

Our agenda is focused on the efforts to maintain and grow our club. Steven Keller, Jeff Northup and Bill Nyberg have volunteered to begin a Continuity and Transition Committee; more volunteers are needed.

The three areas that need to be discussed and documented for this club's survival:

Transition Planning
Continuity Planning
Market Planning

The committee has been asked to develop guidelines for:

- How do we transition individuals into club officer's positions?
- How we recruit and train future officers?
- How we market ship modeling to both young people and retirees, male & female?

Objective:

- To develop and document Transition Plans and the materials required to ensure an effective Turn-Over for each club officer position.
- To build a continuity plan for club leadership that ensures long run club stability. To encourage members to increase participation and step up to running the club in the future.
- To develop a marketing plan including participation in outreach activities and advertising.

First Step:

An email was sent to all present officers:

President,
Vice-president,
~~Treasurer - responded~~,
Web Master,
Zoom Master,
~~Communications - responded~~

Asking them to respond to the following questions:

1. What tools do you use to execute your responsibilities?
2. What skills do you have that help you in executing your responsibilities?
3. What training, if available, would you have liked before you assumed your present responsibilities?
4. If you were recruiting your own replacement, what would you be looking for, so that they could step into the job, without an interruption in service to the club and its members?

Response to date:

Treasurer:

1. Tools- Should have a computer and a cell phone, to make a deposit and transfer from home. Set up Zello and Venmo accounts from your home account.
2. Skills- Should be able to balance a checkbook and create a spreadsheet. Live near a Huntington bank branch.
3. Responsibilities- Pay bills, handle cash, keep an updated account balance for each meeting. Once a year fill out a simple 990 EZ tax exempt form.

Communications:

1. Tools: Access to a computer and the Internet plus ability to photograph ship models, etc.
2. Experience in writing reports; researching information on the internet as well as in books.
3. A creative writing course, for when the meetings are canceled and you have to create the (minimum 6 page) monthly "Ropewalk".
4. Ability to take notes during meetings and convert those notes into an interesting recap of the discussions. Also an interest in ship modeling and our club organization now and into the future.

2026 Presentation Schedule:

We still need your help. As of this month, March 2026 our presentation schedule looks like this:

January - Card Modeling – Holloway & Nyberg
February – HMS Victoria – C. Mitchell
March – Canceled.
April – Blocks and Tackles – S. Keller
May – Cases, Bases and Displays – J Northup
June – Field Trip – Warther Carving Museum
July – open
August – open
September – Ironclads – C. Mitchell
October – Wooden Steamers on the G.L.- B Nyberg
November – Thread Railings – J. Holloway
December – Planking & Mayflower Images – D. Buchanan

On Page 9 of this newsletter, is a list of subjects that we may or may not have a copy of a previous presentation that you can use as a base for your presentation. After more then 20 years we have had almost all the topics a ship modeler needs to know to build a model and some that you may not even have thought about, and we have many presentations that are available.

Giving a presentation at a meeting is a good way to learn more about a skill you may already have, or to build your knowledge about a subject you need to learn more about.

Give it a try. We are a friendly audience and the effort to develop a knowledgeable presentation will help you grow in your ship modeling knowledge.

Contact Cliff Mitchell for information at: mail@cliffmitchell.com to check what presentations are available, or to sign up for a presentation at a meeting. Hurry, there are only two slots left.

Presentation:

Our presentation for March has been moved to the April meeting due to the libraries need to cancel our March meeting.

Reminders & Announcements.

National Museum of the Great Lakes

The National Museum of the Great Lakes, located at Toledo, OH, provides a lecture series in a hybrid format. Since Toledo is a bit of a drive for an hour and a half presentation, you can access their web site to sign up. The Spring lecture, held Tuesday, March 18, was "Mapping the Great Lakes: "Shipwrecks, Surfing, and Shorelines".

https://nmgl.org/events/

NRG - Virtual Workshop

March 28, 2026

LOFTING LINES FROM DRAWINGS

NRG Director Bruce LeCren will show and explain how he developed the lines for his model of the RCMP Schooner *St. Roch.* The was originally shown at the NRG Virtual Workshop on Sept 20, 2025.

Bruce will explain the process of developing the lines in an easily understood manner that simplifies the lofting process.

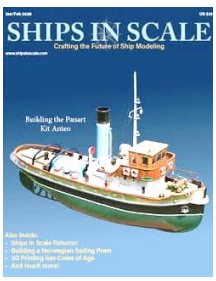
This presentation will provide the modeler with an understanding of lofting that can become the basis for more complex hull shapes.

The Virtual Workshop will start at 10:30 AM Central time on Saturday, March 28, 2026. There will be adequate time allocated for questions to Bruce.

The ZOOM link to the Workshop will be sent out on March 26, 2026.

Sea Watch Books

Ships in Scale



The first relaunched *Ships in Scale* magazine contained:

- Building the Norwegian Sailing Pram – Model Expo.
- 3D printing
- How important is Scale?
- Building open boats
- Shipwrights Apprentice: Riveting Results
- Building a table saw sled.

That is just 6 of the 15 titles contained in the January/February 2026 edition.

Have you subscribed yet? There are two subscription options:

- Print & Digital
- Digital Only

Pricing:

- Digital: $39.95/year
- Print & Digital: $44.95 (US); $54.95 (Canada); $64.95 (International)

To subscribe go to:
www.Simplecirc.com/subscribe/ships-in-scale/relaunch

Sea History Activity

Brig Niagara Update:

The brig *Niagara* presently is in the Bristol Marine's Sample's Shipyard, Boothbay Harbor, ME, receiving critical repairs.

To follow the work:
https://www.eriemaritimemuseum.org/blog/journey-of-the-us-brig-niagara

A By-The-Numbers Journey
Feb. 26, 2026

To date, the U.S. Brig Niagara capital repair and refit project is approximately 75% complete. As you can see in the infographic, we're making excellent progress across all major categories.

Carpentry, the largest category for repairs — accounting for more than two-thirds of the project scope — is 88% complete. This progress, when weighted by cost, brings our total project completion to 75%.

With repairs moving steadily ahead, we remain on target to leave Maine in late-spring 2026, returning home to Erie for July 2, 2026.

Ship Modeling Helps:

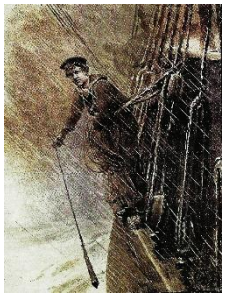
Soundings

The following summation is from U.S. Naval Institute "Naval History" article "Armaments & Innovations" by Philip k. Allan.

I, your editor, had the privilege to serve 2,5 years on a LST (Landing Ship Tank or "Last Ship There").

Ships and crew always face danger, water, wind, fire and earth especially when close to shore or in rivers or small bays. Our ship was designed to go ashore, and many exercises were made putting the bow of the ship on the beach to offload our Marine compliment. We were equipped with sonar, which told us

where the bottom was, but sonar does not help when you are intentionally planning to go aground. When beaching, our captain would have a member of the deck crew, up forward with a rope and lead weight “sounding the bottom” as we got close to the beach. The concern was going aground to far off the beach to unload our trucks and tanks.



The photo above shows a seaman “Heaving the lead”. A nautical term, it means exactly what it says. The seaman heaves overboard a lead weight, 7 to 14 lbs., attached to a marked line. The lead hits the bottom, going slack, after which the seaman pulls enough line back in to restore tension. When the ship is directly above the lead – that is, when the line is perpendicular to the sea surface – markings on the rope allow the depth of the seafloor to be measured.

Those markings are standard:

- 2 fathoms, 2 strips of leather
- 3 fathoms, 3 strips of leather
- 5 fathoms, a white rag
- 7 fathoms, a red rag
- 10 fathoms, a piece of leather with a hole in it
- 13 fathoms, 3 strips of leather
- 15 fathoms, a white rag
- 17 fathoms, a red rag
- 20 fathoms, 2 knots

A fathom is equal to 6 feet or 1.8288 meters.

The seaman would sing out with a loud voice “By the mark 5: the fathom mark on the line.

So why is this important in a world of advanced electronics? On our ship, the sonar head was on the bottom of the hull at the bow. Which means that it was damaged easily when we beached.

Our first captain, did not utilize the “lead Line” seamanship and after running aground on the Potomac river during a ship parade, he was assigned to a military commissary for the remainder of his career.

The replacement captain and the deck officers did not make that mistake again.

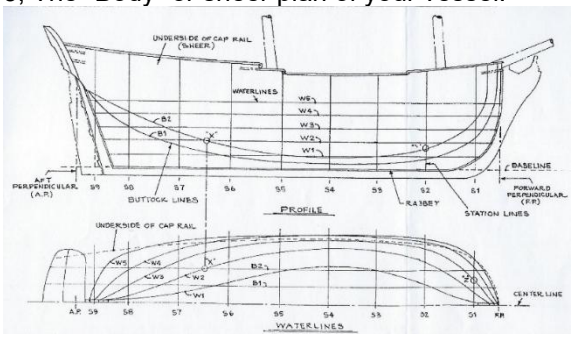
Another purpose of the lead line was to sample the bottom. A tacky water-resistant material was used to fill a cavity in the lead weight. The tallow would pick up debris such as sand, mud, and seashells from the sea floor that provided additional navigational information to the ship’s navigator. Entries would be made in the log, such as: “fair white sand with red shells” or “white chalk bottom in thirty fathoms”. This information would be passed on to other ship navigators to help identify where their ships were, when in darkness or in limited visibility.

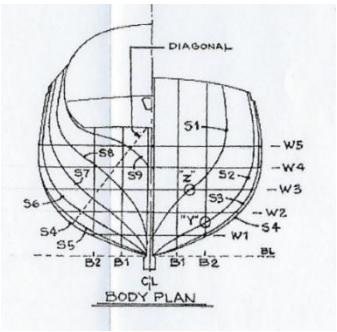
Half-Hulls

I have, in the past, before building a ship model, taken the time to carve a half-hull of the model. The process, helped me gain a feel for what the model would end up looking like. Below are the four models I have hanging on the wall behind me. All the half-hulls are for scratch-built models. The top half-hull is for the brigantine *Leon*, below is the half-hull for the topsail schooner *Hannah*; below that are two half-hulls for the *Friendship sloop* at different scales; and finally the half-hull of the whaler *Charles W, Morgan*.

So, what do you need to carve a half-hull? First, the carving of a half-hull is the same as carving a solid wood hull, with the exception that there is only half the work.

First Step: Pick your ship and acquire the “Line Drawing” for the ship’s hull:
1, The “Profile”
2, The “Waterlines” Plan
3, The “Body” or sheer plan of your vessel.





The horizontal line in the upper “Profile” drawing, labeled with a “w: and a number, match the curved lines in the “Waterline” (middle) drawing and match the horizontal lines in the “Body” (lower) drawing.

The “Waterline” plan provides the curve of the hull, and the “Body” plan provides a view of the hull, right side from the bow, left side from the stern.

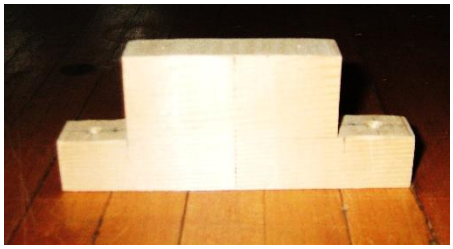
Second Step: is to cut out the lifts (That section of the “Body Plan” between the baseline and the first “Waterline” (W1). Continue up until you have six sets of lifts with the last thickness from W5 to the top of the hull plan shown on the “Profile”.

Third Step: is to cut out the pattern shown in the “Waterline” drawing. Mark your pattern paper with the “Station” Lines and the “Center” line. Transfer this pattern to your lifts. Also, transfer the station line to the “centerline” side of each lift. This will be used for alignment of the “Lifts” when you glue them together.

Fourth Step: is to make nine copies of the “Body Plan”. Glue each to a cardboard backing. These will be used to check the curvature of the hull when carving. Mark each with the “Station number”.

Fifth Step: glue to “Lifts” together. Check the alignment of the “Station lines” before clamping together. They should be parallel to each other and perpendicular to the base line for this set of drawings.

Sixth Step: Determine how you will hold this block of wood while you are carving the “Half-Hull”. I have used a scrap piece of pine that is large enough to fit on the back of the “To Be Half-hull” yet small enough to fit with you clamping device. Drill holes in the lower steps of the bracket and then attach it to the back of body of wood. Assemble the parts and then clamp them in place.



Seventh Step: Gather your carving tools, sanding instruments and the “Station Line” patterns from Step Four.

Eight Step: Carve. Frequently check your progress using the Station Line patterns from Step Four. I normally first do rough carving using a plane or carving chisels to remove large chunks of wood to get to a rough shape of the hull. I then carve the bow and stern sections to shape, finishing of the center of the hull last.

Ninth Step: Set aside your chisels and plans and continue with sandpaper to get to the final shape, always check the profile with the “Station Line” patterns.

Tenth Step: Apply a finishing coat of varnish, shellac, etc. to the hull. Remove the bracket on the back and mount your half hull to the display board, using the screw holes used for the bracket.

NOTE: Looking at the photos of my Half Hull, you may notice that I use dark wood to identify the waterline of the ship’s hull. For *Hannah* and the *Morgan,* the top of the dark wood is the waterline and for *Leon* the bottom of the dark wood is the waterline. Just a carver’s choice.

Other News

Shipping Season Returns

The Great Lakes shipping season is closely tied to two key openings: the St. Lawrence Seaway (including the Welland Canal) and the Soo Locks at Sault Ste. Marie, Michigan. For 2026, the Seaway is scheduled to open March 22 (Montreal/Lake Ontario Section and the Welland Canal), while the Soo Locks are scheduled to reopen March 25 after a winter maintenance period.

Paul R. Tregurtha and *Mesabi Miner* are waiting to use Poe Lock in Sault Ste. Marie, Michigan. *Credit: Minnesota Historical Society.*

These seasonal closures are not just tradition—they’re operational necessity. Winter is when lock operators perform maintenance. When the locks reopen, traffic quickly builds as carriers move the bulk commodities that keep industry moving, cargoes such as grain, iron ore, and steel, among other raw materials.

The Poe Lock dewatered to undergo critical maintenance over the winter month. *Credit: U.S. Army Corps of Engineers.*

The economic footprint is substantial. A recent binational study found that the Great Lakes–St. Lawrence Seaway System moved 135.7 million metric tons of cargo in 2022, valued at about $26.1 billion, supporting 241,286 U.S. and Canadian jobs tied to this maritime commerce.

Ships on Deck

The intro photos for each ship shown above the title is for reference to what the model may look like when finished.

USS Ohio

By Ric Stratton

I have finally finished all 24 carronades and 2 cannon for the spar deck. I presented the first carronade back in April of 2024. 23 months later, I have finished the full set (shown below):

Rather tedious work with each carronade having 19 parts and each cannon having 23 parts, not including, sanding, paint, polyurethane, glue and such.

(An enlarged view)

I've now started installation which includes rigging. The first carronade has been fully installed and the second one only glued in place:

Rigging the full set of guns to the ship will require 100 double blocks, 100 single blocks, and 200 hooks, plus rope. Also, tedious, but I think they'll look pretty cool once they're all done.

Armed Virgina Sloop 1768

By William Nyberg

Last worked in December 2023, before building a scratch model of the steambarge *Margaret Olwill.*

Got back to her in January 2025 and then had to deal with family medical issues. The sloop has sat on my workbench until this month when I restarted the planking of the hull. First strake is on the starboard side.

Grecian

By Rob Washburn

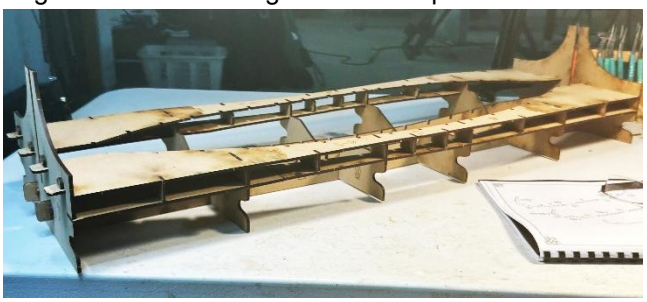
Vanguard Ship Models "Grecian" completed.

”

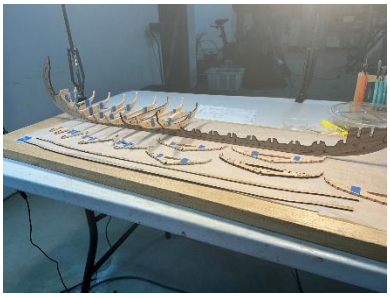
Oseberg

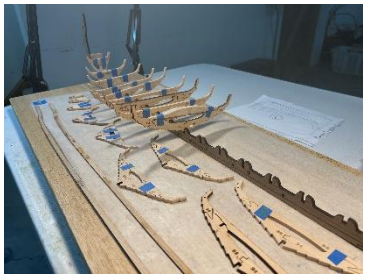
By Rob Washburn

A 1:15 scale Viking ship "*Oseberg*". Almost 3' long. Kit is by Pavel Nikitin in the Ukraine. Due to instability there I purchased it through Chris Watton of Vanguard in the UK. Significant tariff paid.



Above picture is of the jig for construction of keel and frames. There is a second jig to make for holding hull inverted for clinker planking. Frames temporarily in place. Much more prep of keel and frames before permanent assembly. Mr. Nikitin has posted several You Tube videos showing assembly.





So, what are the rest of you working on?

I am accepting photos of your efforts in my 2026-04 “Ropewalk” photo file.

Events & Dates to Note:

2026 Tentative Schedule

46th Midwestern Model & Boat Show,
Wisconsin Maritime Museum, Manitowoc, WI
May 15-17, 2026

U.S. Air force Show
Rickenbacker Air Base
June 19-21, 2026

Lakeside Antique & Classic Wooden Boat
Lakeside Hotel, Lakeside, OH
July 19, 2026

2026 IPMS/USA National Convention
Grand Wayne Convention Center
120 W. Jefferson Blvd.
Fort Wayne, IN 46802
August 5-8, 2026

U.S. Navy "Blue Angles"
June 13-14, 2026, Dayton
Sept. 5-7, 2026, Cleveland

Ohio River Sternwheel Festival
Riverfront Park, Marietta, OH
September 11-13, 2026

Presentation Schedule:

2026 – Schedule Tentative

Jan 17 – Card Modeling – Holloway/Nyberg
Feb 21 – HMS Victoria - Mitchell
Mar 21 – Canceled
Apr 18 – Blocks & Tackles - Keller
May 16 – Cases, Bases & Displays - Northup
Jun 20 – Field trip – Warther Carving Museum
Jul 18 –
Aug 15 –
Sep 19 – Ironclads - Mitchell
Oct 17 – Wooden Steamers on the G.L. - Nyberg
Nov 21 – Thread Railing - Holloway
Dec 19 – Planking & Mayflower Images - Buchanan

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Editor: Wiliam Nyberg
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Cargo Hold

www.shipwrightsofohio.com/cargo hold/
Here you will find how to order **Challenge Coins, as shown above, on left, that have been used historically for Identification within an organization, Recognition of achievements, Appreciation of services and Trading/Collecting. Our Shipwrights of Ohio coin contains both the Club Logo and the Club Coat-of-Arms.**
You can also order Logo shirts from "Lands End". They offer an on-line link for direct, personal purchases of many of their products without Shipwrights of Ohio logo.

There are currently two logo styles available:

- **Full Club logo – with Motto, for digital print use on the backside of T-shirts. 10" or 12" round.**
- **Small Club logo – without Motto for embroidered or digital print on the front of items. 4" round.**

Presentation Topics

Red highlight – scheduled for 2026

Fixtures: Anchors
Fixtures: Building a Deck House - Scratch
Fixtures: Capstans and Windlasses
Fixtures: Cannon Rigging & Accessories
Fixtures: Flags - Making
Fixtures: Ships' Bilge Pumps
Fixtures: Small Boats
Fixtures: The Rudder
General: Adhesives
General: Air Brushing
General: Cannon Rigging
General: Display case
General: Displaying & Mounting Ship Models
General: Finishing: Natural & Paint
General: Furniture & Fixtures
General;: Photo Etching Brass Parts
General: Photographing Models
General: Raw Materials & Parts: Sources
General: Soldering
General: Super Detailing: Finding Materials
General: Wood Finishing: Round Table
History: Evolution of the Wooden ship
History: HMS Terror
History: HMS Victoria
History; Ironclads
History: Marietta: 19th C. Ship Building
History: Ship Modeling
History: Wooden Steamers on the Great Lakes
History: Ships during World War II
Hull building: Carving Half-Hulls
Hull building: Copper plating a hull
Hull building: Lapstrake Hulls
Hull building: Planking a deck
Hull building: Planking: Frames/Fairing
Hull building: Planking
Hull building: Planking - Spiling
Hull building: Solid, POB, POF

Rigging: Belaying Plan
Rigging: Blocks & Tackles
Rigging: Mast Making
Rigging: Right vs Left hand laid rope
Rigging: Running Rigging & Belaying
Rigging: Sail Making
Rigging: Standing Rigging
Rigging: Scale comparison thread to actual rope lines
Rigging: The Principles of Rigging
Rigging: Yards & Spars
Techniques: Building display cases
Techniques: Card Modeling
Techniques: Carving
Techniques: CAD, Comp. Assisted Drafting
Techniques: From CAD to Component Parts
Techniques: Bending Wood
Techniques: Dioramas
Techniques: 3D Printing & CAD Software Support
Techniques: Electro Plating
Techniques: Illuminating Models
Techniques: Lofting & Reading Plans
Techniques: Repairing/Restoring Ship Models
Techniques: Rope Walks: Making your own rope
Techniques: Ships in a Bottle
Techniques: Scratch building
Techniques: Soldering
Techniques: Thread Railings
Techniques: UV Resin Molding
Techniques: Weathering: Aging ship models
Tools: Jigs & Fixtures - used in ship modeling
Tools: Power & Hand tools, used in ship modeling
Tools: Sharping tools

Field Trips: Warther Carving Museum, Sugarcreek

Wooden Steamers on the Great Lakes

Research & written
By William E. Nyberg

The Gilded Age was a period in the United States from 1873 to the early 1890s, and marked by rapid economic growth, political corruption, and social inequality:

- Economic growth: The US became the world's leading producer of coal, oil, steel, and food, and saw a huge increase in the importance of the factory system, railroads, mining, and finance.
- Political corruption: The Gilded Age was marked by widespread political corruption, with wealthy industrialists and bankers holding the most political power. Tammany politicians in New York used fraud, violence, and intimidation to win elections.
- Social inequality: The Gilded Age saw the rise of two distinct classes, separated by a gulf of wealth and circumstance. Women faced a sexual double standard and inequalities in marriage, with limited access to divorce and few long-term career options.
- The Gilded Age name: The term comes from the 1873 novel “The Gilded Age” by Mark Twain and Charles Dudley Warner, which satirically depicted the era's corruption and political figures.
- The Panic of 1873 was blamed for setting off the economic depression that lasted from 1873 to 1879. This period, called the Great Depression, until the even greater depression of 1893 received that label, which it held until the even greater contraction in the 1930s, now known as the Great Depression.
- Other events during the period were: The US seized the Philippines, Puerto Rico, and Cuba after the Spanish-American War (1898).

Supporting the economic growth was the change from wooden vessels on the Great Lakes to larger iron and then steel vessels. To transfer the growing needs of the steel mills and the transfer of grain crops to populated areas, Great Lakes ships needed to be structurally stronger to support the increase cargo weight, Longer vessels were required to support the larger cargos and this required stronger hulls to prevent “hogging” which impacted wooden ships structural keels.

The last wooden steamer, at 100 gross tons or greater, built on the Great Lakes in 1928, was the tug *F.H. Anson* at Collingwood, Ont. The first two iron hulled vessels were bult on the Great Lakes in 1844, The *Colonel Albert* for the U.S. Army, at Buffalo, NY; and the *USS Michigan*, for the U.S. Navy, at Erie, PA. The first steel vessel was the propeller *William Chisholm* built by Globe Iron Works at Cleveland, OH in 1884.

1881-B

Cumberland: At Cleveland, Thomas Quayle and Sons built a wooden propeller for owners: William G. Winslow, 3/8 share, Mary A. Winslow, 3/8 share, both from Buffalo, NY; and Caroline S. Williams, ¼ share from Baltimore, MD. Her initial enrollment was at Cleveland, with recorded measures: 251.42’ x 38.25’ x 19.58’: 1601.0 grt, 1280.0 net. The propeller *Cumberland* was powered by two fore & aft compound engines; 32", 60" bore x 48" stroke built by Cuyahoga Iron Works, Cleveland. One engine was placed before the other on a single shaft. The original vessel also had four masts. Steam was generated by two firebox boilers, 9’ x 17’, 100 pounds steam. She was assigned official number 25918. The *Cumberland* was originally built as a steam barge for the bulk freight trade for the Winslow interests of Buffalo & Cleveland. They went out of business in 1887. She cost $120,000 to build and had a capacity for 70,000 bushels of corn. Masters of the steam barge *Cumberland* were Captain John Coulter, 1881 season; Captain James Edgecomb 1882 season; and Captain Charles Tyler Morley, 1885 season; with: Horace Higgins in 1881, and Edward W. Prince in 1883, as chief engineers. In May 1882, down bound with schooner *Helvetia* (95213) in tow and laden with ore, the steam barge *Cumberland* went aground on Colchester Reef, Lake Erie. She was released after jettisoning 75 tons of ore. In July 1884, the *Cumberland* collided with the steambarge *City of New York* (4377) at the 18th Street bridge, Chicago after the *City of New York* had struck her dock before being struck by the *Cumberland.* In August 1884, the *Cumberland* went aground on Sturgeon Point, 9 miles west of Ashtabula, OH, on Lake Erie sustaining $1,200 damage. She was released and repaired.

Ownership of the steam barge *Cumberland* was changed in March 1886, to Gilchrist Transportation Co., Cleveland. Principal owner was J.C. Gilchrist, Vermilion OH; et al. The steam barge *Cumberland,* with a cargo of 70,000 bushels of wheat, received ice damage to her bow in March 1887, while in Detroit, breaking a plank, and sank. Property loss to the hull was $2,000 and the cargo $60,000. Insurance on the cargo was $57,800. She was raised and repaired. In June 1887, the steam barge *Cumberland,* laden with coal, went aground on Lake Superior and sustained $1,500 damage to her hull. Released. In July 1887, at Fairport, OH, the steam barge *Cumberland,* laden with ore, caught fire in her engine room while unloading and burned. Her engine was a total loss. Damage was appraised at $25,066 and the vessel repaired at Cleveland. Her engine was declared a

total loss and replaced with a fore & aft compound engine, 30", 54" bore x 48" stroke built by Samuel F. Hodge & Co.

In March 1897, ownership of the steam barge *Cumberland* was transferred to Lake Shore Transit Co., Vermilion, OH. Master of the steam barge were: Captain P.H. Smith, 1899 season; Captain A. Ames, 1900 season; Captain F. Heaton, 1901 season; and Captain W.F. Delaney, 1902 season; with chief engineers: Henry Hess in 1899; Frank Ouellette in 1900; Warren Welch in 1901; and A. L. Hatch for the 1902-03 season. During winter layup for the 1901 season, the steam barge *Cumberland* had her engines rebuilt to 21", 44" bore x 48" stroke.

In March 1903, ownership of the steam barge *Cumberland* was transferred to Gilchrist Transport Co. Vermilion, OH. Her master for the 1903 season was Captain Albert Swanson with A. L. Hatch as chief engineer. In 1904, Captain J.B. Lyons was master of the steambarge, followed by Captain John Lohr in 1905, with Daniel Flint as chief engineer for the 1904 & 05 seasons. In May 1905, the *Cumberland* went aground on the rocks on the east bank of Bois Blanc Island, Detroit River, when her wheel chains parted. She was released, without lightering, by the *Homer Warren* (298). Masters of the steam barge *Cumberland* were Captain Sam Minskey, 1906 season; Captain W.S. Ritchie for the 1907-08 seasons; and Captain W.M. Whitney for the 1909 season; with William J. Nolan as chief engineer for the 1906-08 seasons. In June 1906, the steam barge *Cumberland*, laden with ore and under tow of the tug *Robert H. Hebard* (U110841) for the Buffalo's Furnace Co. docks at Buffalo, struck the center abutment of the Ohio Street bridge, settling to the bottom, blocking both river and street traffic. She was pumped out, unloaded and repaired. In March 1913, when the Gilchrist Fleet was liquidated, ownership of the steam barge *Cumberland* was changed to Captain Frank Peterson, 1/3 share; J.B. McMillan, 1/3 share, both from Milwaukee; and George A. Collinge, 1/3 share, Conneaut, OH. In May 1913, the steam barge *Cumberland* was renamed the *Collinge,* (125918) 251.5' x 38.3' x 19.7': 1,601 grt, 1,280 net; 700 horsepower and staffed with a with a crew of 15.

The following year, 1914, the steam barge *Collinge* was sold Canadian to Stuart W. Ltd., Montreal, P.Q. and enrolled as *Collinge* (C138096), 262' x 38' x 19.5'; 1601 grt.

In February 1916, ownership of the steam barge *Collinge* was transferred to Canada Import Co., a subsidiary of Stuart W. Ltd., Quebec, P.Q., and renamed *Stuart W,* (C138096). She was readmeasured: 261.66' x 38.33' x 19.5'; 1707 grt - 971 net. In November 1913, laden with coal, the steam barge *Stuart W* went ashore on Scow Shoal, St. Lawrence River. Vessel released.

Ownership of the steam barge *Stuart W was* transferred in 1923, to Tree Line Ltd., Montreal, P.Q. which was formed by the Ogilvie Flour Miles et al. The vessel was transferred to the new fleet and renamed Y*ewbay,* C138096. The vessel proved to be "waterlogged" on purchase. The steam barge *Yewbay* was retired from service at the end of the 1924 season and laid up in Portsmouth Bay, Kingston, Ont. The hull was towed out and scuttled in deep water off Kingston, Ont.
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Charles H. Davis: A.P. Kenyon, with T. Kinson as master carpenter, at Saginaw, MI, built a wooden barge for a consortium of investors from Saginaw. They were: James H. Prentice, 1/3 share; A.W. Wright, 1/3 share; Charles H. Davis, 1/6 share; and Willis F. Knowlton, 1/6 share. The initial enrollment of the barge *Charles H. Davis* was at Port Huron, MI, on May 7, 1881. Her measures as recorded were: 151.9' x 31.0' x 9.1'; 345.6 grt, 328.32 net. She was assigned official number: 34107. She originally had no engine and was an unusual vessel, reportedly built of pine and pointed at both ends, with hull planking set diagonally. She was built for bulk cargos as a tow barge.

Ownership of the barge *Charles H. Davis* was changed in 1884, to N. Merriman, Saginaw, MI.

Ownership of the barge *Charles H. Davis* was changed in 1890, to Willis P. Knowlton & Annie Wright, Saginaw, MI. During winter layup 1892/93, they had E. W. Haskins, Saginaw, convert the barge *Charles H. Davis* into a steam barge, fitted with a steeple compound engine, 11", 20" bore x 16" stroke, 185 horsepower, built by S.F. Hodge & Co., Detroit; with steam generated by a firebox boiler, 5.5' x 9.25', 100 pounds steam, built by McGregor, Detroit, MI.

. Ownership of the propeller *Charles H. Davis* was changed to Wright & Dean, Saginaw, in 1894. She was rebuilt as a screw steam barge and her enrollment measures updated to: 1 mast, 150' x 31' x 9'; 390 grt, 333 net. In November 1894, the propeller *Charles H. Davis* went ashore on Starve Island, Lake Erie. Released.

Ownership of the propeller *Charles H. Davis* was changed in 1899, to Erustis W. Haskins, Saginaw, MI. Master of the vessel for the 1902-03 seasons was Captain E. W. Haskins with William Carrick as chief engineer. In June 1903, during a northwest gale, the *Charles H. Davis* developed a leak which quickly enlarged in excess of her pumping capacity, and she foundered off the Cleveland breakwater, Lake Erie. Her crew was removed by two tugs. Her captain and owner, E. W. Haskins was the one life lost.

Erin: Joseph Shickluna, at St. Catharines, Ont., built a wooden propeller for John & Thomas Conlon, Thorold, Ont., to be used in the package freight trade. She was enrolled at St. Catharines, Ont., August 18, 1881, and her measures recorded: 142' x 26' x 12.6'; 392.49 grt, 235.33 net. Her official number was Canadian 83142. The *Erin* was powered by a high-pressure engine, 24" bore x 30" stroke, 75 horsepower, built by George N. Oill, St. Catharines in 1881. Built as a steambarge for the package freight trade, she towed the schooner barge *Maggie* (C75649) and together they could carry 50,000 bushels. Her master for the 1882 season was Captain Clifford.

In October 1882, the steambarge *Erin* with the schooner barge *Maggie* in tow was struck by a gale on Lake Erie, while off Port Stanley, Ont. The tow line broke and the barge drifted off. The following day the steambarge recovered the barge *Maggie* and made port at Port Colborne. After inspection the barge was found to be leaking and required re-caulking. The following month, November 3rd, the steambarge *Erin* ran aground in the Nappanee River, near Deseronto, Ont., on the Bay of Quinte. She was released. Four days later, 7th, laden with barley, the *Erin* ran aground at Belleville, Ont., Bay of Quinte.

In 1884, the master of the steambarge *Erin* was Captain P. J. Sullivan. He would serve from 1884 through 1906. His chief engineers were: J. Carr in 1899; William Milne in 1901; George Milne in 1902; D. Serley in 1903; E. Wright in 1904; John Milne in 1905; and Patrick W. Quinn in 1906. In November 1884, bound from Barago, MI to Herring Bay, laden with bridge timbers, the steambarge *Erin* stranded, during a snowstorm, at Gull Rock, Keweenaw Point, MI, Lake Superior. She was released in the fall of 1885, and the *Erin* was rebuilt at Collingwood. he was lengthened 32 feet, had steel arches added and her enrollment measures updated to: 2 decks, 165.0' x 26.0' x 12.6'; 512 grt. In June 1887, in heavy fog on Lake Michigan, the steambarge *Erin* collided with the schooner *Ellen Williams* (7308) thirty miles northeast of Chicago. Not making much headway, the captain of the schooner prevented his vessel from being struck amidships and possible sunk by putting his helm to port, damaging the schooners bowsprit and bow stays and the steam barges cabin and the port side rail and stanchions. The *Erin* took the schooner in tow back to Chicago. In November 1888, the steambarge *Erin,* laden with coal, ran aground twice while entering the harbor at Toronto, Ont. In 1889, the steambarge *Erin* received a new 10' x 10' scotch boiler, 107 pounds steam. In September 1889, on her way to the mouth of the Chicago River, the steambarge *Erin* failed to respond to her helm and ran into a dock damaging her stem. She was taken to the South Branch dry dock and had her stem rebuilt. In 1893, the steambarge *Erin* had her engine converted to a Steeple Compound engine, 18", 24" bore x 30" stroke, 350 horse power. In October 1897, the steambarge *Erin* broke her rudder off Long Point and was towed into port for repairs. In April 1905, while moored at Sandwich, Ont., on the Detroit River, the steambarge *Erin* was badly scorched when the passenger steamer *Lincoln* (C92735) was destroyed by fire. In August of that same year, the steambarge *Erin* received serious engine damage when the connecting rod broke at Sandwich, Ont. One life lost. May 1906, up bound from St. Catharines, to Algoma Mills, Ont. on the St. Clair River, the steambarge *Erin,* laden with 800 tons of coal and towing the schooner *Danforth* (C97011) was struck, cut in two, then sank by the down bound steel propeller *John B. Cowle,* (77559) laden with 8,000 tons of ore. Five lives lost.

The hulk of the steambarge *Erin* was dynamited to clear the channel.

Escanaba: Craig & Linn, at Gibraltar, MI, built a wooden propeller for the Escanaba & Lake Michigan Transportation Co., Marine City, MI. She was enrolled at Port Huron, MI, May 7, 1881, and her measures recorded as: 201.0' x 35.5' x 20.0'; 1160.56 grt, 919.64 net. Her official number was 135487. The propeller *Escanaba* was powered by a fore & aft compound engine, 23", 44" bore x 40" stroke, 720 horsepower, built by Dry Dock Engine Works, Detroit, MI in 1881. Steam was generated by a boiler, 112 pounds steam, built by Dry Dock Engine Works, Detroit, MI in 1881. She was built for the bulk freight trade and was iron strapped and banded. Valued at $78,000.

In October 1883, the steambarge *Escanaba,* while winding around the Cuyahoga River at Cleveland, collided with the schooner *R. Hallaran* (U110434). In August 1884, the steambarge *Escanaba* stranded in Lake Michigan. She was released. Her hull damage was set at $500. In September 1886, bound from Ashland for Chicago, the steambarge *Escanaba,* laden with a cargo of ore and towing the schooner *Thomas L. Parker* (145264), ore laden, sprang a leak off the canal entrance above Keweenaw Point, MI, during a late west and northwest gale. The *Thomas L. Parker* sought shelter in Bete Grise Harbor. The *Escanaba,* on entering the harbor the next morning went aground and was run into by the *Parker.* The damage was estimated at $500 per vessel. Repaired.

Master of the steambarge *Escanaba* for the 1889 season was Captain George E. Merritt with Charles W. Draper, Sr as chief engineer. In October 1890, the steambarge *Escanaba* collided at Lake George Flats, Saint Clair River with the schooner *Merritt.* The *Escanaba* went aground and the *Merritt* was badly damaged forward. Both repaired. Master of the steambarge *Escanaba* in the 1895 season was Captain Francis M. Stenton with Peter Marcoux, 1893-94; William Eddy and P.W. Phelan in 1895 as chief engineers. In May 1896, the steambarge *Escanaba* went aground in Lake Michigan. She was released and towed into Escanaba, MI for repairs. Her rudder, shoe and forefoot were gone.

Ownership of the steambarge *Escanaba* was changed in April 1899, to: P.H. Fleming, ½ shares; Edward J. Fleming, ¼ share; and Orton G. Orr, ¼ share; all from Chicago, IL. She was renamed the steambarge *Baltimore* (135487) and her enrollment updated in May 1899. Her master for the 1901 season was Captain M. H. Place with Peter Marcoux as chief engineer. In May 1901, the steambarge *Baltimore*, laden with coal and towing a steam drill and barge, foundered after fighting her way above Thunder Bay, MI in a northeast gale, before finally turning back to Tawas, MI. She struck a reef southeast of Au Sable, and broke up off Pointe Au Sable, MI, Lake Huron. Thirteen lives were lost out of the fifteen on board.

Her engine and boiler were recovered in 1901 and the rest of her gear in 1903.

Jessie H. Farwell: Craig & Linn, at Gibraltar, MI, built a wooden bulk freighter for her owners: J.H. Farwell & Co.; Thomas Adams, ½ share; and Jesse H. Farwell, ½ share, both from Detroit. She was enrolled at Detroit, May 1881 and her measures recorded as: 212.25' x 35.50' x 19.50'; 1200.0 grt, 997.0 net. Her assigned official number was 76203. She was powered by a fore & aft. engine, 27", 44" bore x 40" stroke, built by I.W. Buhl Co., Detroit in 1881. The steambarge *Jessie H. Farwell* was built as a steam barge for the bulk freight trade. Her master for the 1881 & 82 seasons was Captain E. Rathbun. Downbound in October 1885, the steambarge *Jessie H. Farwell,* with a cargo of ore, stranded on Fighting Island in the Detroit River. Loss was set at $1,800. (10/12/1885)

Ownership shares of the steambarge *Jessie H. Farwell* were transferred in April 1887 to: Thomas Adams, 3/8 share; Farwell Transportation Co., 3/8 share; and Thomas H. Walsh, ¼ share; all from Detroit, MI.

Ownership of the steambarge *Jessie H. Farwell* was transferred in April 1895 to: Thomas Adams, 3/8 share; Ecorse Transportation Co., 3/8 share; and Thomas H. Walsh, ¼ share, all from Detroit. Her masters were: Captain C.E. Sayre, 1899 season; Captain John A. Duncanson, 1900-02 seasons; and Captain John J. Pearson, 1903 season; with John W. Johnson, 1899 to 1901; and George Purvis, 1903; as chief engineers.

Ownership of the steambarge *Jessie H. Farwell* was changed in April 1904, to William H. Follette, Tonawanda, NY. Her master was Captain David A. Curran, 1905-08; with A.E. Rhodes, 1905-06 season; John Hilton 1907 season; and A.J. Miller for the 1908 season as chief engineers.

In April 1910, ownership of the steambarge *Jessie H. Farwell* was transferred to Pacific Dispatch Co. In 1911, she was readmeasured: 207.16' x 35.5' x 12'; 756 grt, 540 net. In April 1912, the steambarge *Jessie H. Farwell* was renamed *James W. Follette.* Her master for the 1915 season was Captain Charles D. Bennett with Charles Larson as chief engineer.

The steambarge *James W. Follette* was sold Canadian, in July 1916, to Plunkett Navigation Co., Colbourne Ont. and registered at Cobourg, Ont. as *James W. Follette,* C116816 with measures: 207.20' x 35.60', 755.59 grt, 540.08 net.

In 1917, ownership of the steambarge *James W. Follette* was changed to George Hall, Coal & Transportation Co. Masters of the steambarge *James W. Follette* were: Captain Charles A. Mahoney, 1917-19; Captain W. Piddell, 1920; Captain William Liddle, 1921; Captain Charles A. Mahoney, 1922; and Captain J. Hurley, 1923; with M.J. McFaul, 1917 to 1922, and F. Cote in 1923, as chief engineers. In May 1923, while mid-lake on Lake Ontario during a gale, the steambarge *James W. Follette* slewed into the wave troughs and had her rudder ripped off, putting a large hole in her counter. The vessel filled and sank despite the heroic effort by her crew.

The steambarge *James W. Follette* was raised in 1923 and towed to Ogdensburg, NY where she was laid up. In 1932, she was dismantled at Toronto and scuttled in Lake Ontario.

John C. Gault: Union Dry Dock Co., at Buffalo, NY, built a wooden propeller for the Lake Erie Transportation Co., Munroe, MI. a subsidiary of the Wabash, St. Louis & Pacific Railroad Line; A. W. Colton, manager Wabash Line. Her initial enrollment was at Buffalo, May 14, 1881. Her recorded measures were: 218.0' x 32.5' x 13.33';

1212.71 grt, 1093.54'. her official number was 76204. She was powered by a steeple compound engine, Parry & Lay design; 24", 54" bore x 36" stroke, 650 horsepower, built by Henry G. Trout in 1881. Steam was generated by a firebox boiler, 7' x 14', 102 pounds steam, built by M. Ritter, Buffalo, in 1881. The *John C. Gault* was built for the package freight trade. Her master for the 1881 season was Captain G. W. Stoddart with Joseph Whiteham as chief engineer.

In May 1881, ownership of the propeller *John C. Gault* was transferred to: Wabash, St. Louis & Pacific Railway Co. Her chief engineer of the propeller *John C. Gault* for the 1884 – 88 season was Oscar M. Beach.

In January 1890, ownership of the propeller *John C. Gault* was changed to Lake Erie Transportation Co. Monroe, MI. Her master for the 1893 – 1902 seasons, was Captain Charles H. Lewis with John C. Bustead as chief engineer, 1899 – 1902. In 1906, the propeller *John C. Gault* was cut down to a bulk carrier at Detroit, and her enrollment measures changed: 218' x 32' x 12.66'; 591 grt, 451 net.

Ownership of the propeller *John C. Gault* was changed, in April 1906, to M. W. Humphrey, Detroit. In July of 1906, enrollment for the propeller *John C. Gault* was transferred to Rochester, NY; with her owner listed as Frank L. Upton, Charlotte, NY. In May 1907, the *John C. Gault* collided with and sank the steamer *Byron Whitaker* (3477) between Boise Blank Island and Amherstburg, Ont. in the Detroit River.

Ownership of the propeller *John C. Gault* was changed to W. Ferguson, Detroit in January 1908.

Ownership of the propeller *John C. Gault* was listed as the Detroit Transportation Co., Detroit, MI, January 31, 1908. In February 1908, she was renamed the *Felix Carbray* with her home port at Marquette, MI. For the 1908 & 09 seasons, her master of the *Felix Carbray* was Captain James Beauvais with George Draper as chief engineer for 1909.

Ownership of the propeller *Felix Carbray* was changed in May 1909 to Fremont B, Chesbrough, 155/275 shares, Emerson, MI; and C.M. Haight, 120/275 shares, Detroit.

Ownership of the propeller *Felix Carbray* was transferred to Fremont B, Chesbrough, Emerson, MI in May 1910. In 1912, the *Felix Carbray* was taken to Atlantic Coast and sailed out of Camden, NJ. She returned to the Lakes in 1913 and returned back to the coast in 1915.

Ownership of the propeller *Felix Carbray* was changed to Atlantic Equipment Co. in February 1916.

In February 1916, ownership of the propeller *Felix Carbray* was changed to Arthur L. Crowley, Boston, MA. She was renamed the *Crescent* with ownership transferred to the Spanish-American Iron Co. New York, NY.

Bound for Cuba in February 1916, the propeller *Crescent* foundered off Cape Hatteras, NC, in the Atlantic Ocean.

Her final enrollment was surrendered, February 29, 1916, and endorsed "vessel abandoned at sea".

C. H. Green: At East Saginaw, MI, Thomas Arnold built a wooden schooner for the bulk freight "lumber" trade at the cost of $70,000. The schooner *C.H. Green* was first enrolled at Port Huron, October 4, 1881, and her measures recorded as: 197.6' x 33.1' x 15.42'; 700.4 grt, 504.98 net. Her official number was 126001. Her original owners were Lucius P. Mason, 1/3 share; Gurdon Corning, 1/3 share, both from East Saginaw MI; and Charles H. Green, 1/3 share from Saginaw MI. During winter layup of 1882, the schooner *C.H. Green* rig was changed to propeller. A fore & aft engine was installed: 22", 44" bore x 42" stroke, 530 horsepower, built by S.F. Hodge & Co., Detroit, MI. Her chief engineer in 1882 was Scott Pratt, with George McMonagle assuming that position in 1885. In April 1884, her tonnage enrollment measures were updated to 920 grt. In September 1886, in a heavy fog over both Lake St. Clair and the St. Clair River, the propeller *C.H. Green* ran aground on the middle grounds at Port Huron. She was easily released. In November 1889, the propeller *C. H. Green* stranded at Grosse Pointe, on the St. Clair River. She required to be lightered to free her from the bottom.

Ownership of the propeller *C. H. Green* were changed in March 1891, to J.F. Edgar, ½ share, Saginaw MI; et al, In August of that year, the propeller *C. H. Green* collided with the package freighter *Saginaw Valley* (115769) on the Detroit River at Walkerville, Ont. Repaired. During the winter 1892 layup, Macon & Co., Cleveland, received orders to cover the boilers, steam pipes, etc. of the propeller *C. H. Green* with Magnesia sectional covering. Master of the propeller *C.H. Green* for the 1894 season, was Captain H.W. Robertson with William Ormsby, 1899-1910, as chief engineer. Rebuilt during winter 1894, the enrollment measure for the propeller *C.H. Green* was: 700.4 grt, 504.98 net; one scotch boiler 13' x 10.9' at 125 pounds steam built by Wickes Brothers, Saginaw, MI.

Ownership of the *C.H. Green* was changed, March 1897, to Gordon Corning, ½ share and J.F. Edgar, ½ share, both from Saginaw MI.

Ownership of the steamer was transferred to Gordon Corning in April 1898. Master of the propeller *C.H. Green* was Captain Charles E. Little, 1899-1912 seasons.

In April 1900, ownership of the propeller *C.H. Green* was transferred to Gordon Corning, Saginaw MI; and John M. Robinson, N. Tonawanda NY. In March 1904, the propeller *C.H. Green*, docked at Smith, Fassett & Company's dock, Tonawanda, NY, where she caught fire and had her cabin damaged. In June 1904, after repairs and rebuilding, the measures for the *C.H.*

Green were recorded as: 192.5' x 33' x 12.66'; 664 grt, 349 net.

In July 1904, ownership of the propeller *C.H. Green* was transferred to: Gordon Corning, 2/16 share, E. Saginaw Mi; John M. Robinson, 5/8 share, N. Tonawanda NY; and C.E. Little, 3/16 share, Mt. Clemons MI. Master of the *C.H. Green* was Captain C.F. Van Notta, 1913 season; with A, Carter, 1911; A.O. McGinnis, 1912; and Charles Smith, 1913, as chief engineers.

In May 1915, ownership of the propeller *C.H. Green* was changed to James E. Sheehan, ¼ share; Abraham B. King, ¼ share, both from Buffalo NY; and John E. Smith, ¼ share; and William P. Quinlan, ¼ share, both from Detroit. Her masters for the next three seasons were: Captain William Quinlan, 1916; Captain Gustava T. Clausson, 1917; and Captain Charles E. McClure, 1918.

In February 1917, ownership was transferred to: James R. Andrews Transportation Co., Escanaba MI.

In May 1919, ownership of the propeller *C.H. Green* was changed to Theodore Dunn Transportation Co., Escanaba MI. Her master for the 1919 to 1922 seasons was Captain G. Gunderson, with Walter Schipper as chief engineer for the 1920-22 seasons.

In June 1922, ownership of the propeller *C.H. Green* was changed to Detroit Sulphite Transportation Co., Detroit MI.

March 1923, ownership of the propeller *C.H. Green* was changed to Pine Ridge Coal Co., Detroit. Her master of the *C.H. Green* was Captain T. Walter Lawler, 1923-34; with William Clark in 1923; and Leon Pollock, 1924-34, as chief engineers. In the spring of 1935, the propeller *C.H. Green* was abandoned and grounded in shallow water off Trenton, MI near Grosse Ile, on the Detroit River.

Final enrollment for the propeller *C. H. Green* was surrendered May 1935 and endorsed "abandoned". In August 1936, prior to being dismantled, the *C.H. Green* caught fire and burned to water's edge. The cause was thought to be arson.

Samuel F. Hodge: Detroit Dry Dock Co., built a wooden propeller, as hull number 00043, for Eber Ward's Detroit & Lake Superior Line, to be used in the transport of package freight. She was enrolled at Detroit, May 11, 1881, with measures recorded as: 149.33' x 30.0' x 12.66'; 585.62 grt, 466.0 net. The *Samuel F. Hodge* was issued official number 115763. She was powered by a fore & aft compound engine, 22", 36" bore x 36" stroke, built in 1881 by Samuel F. Hodge & Co., Detroit. Steam was generated by a firebox boiler, 9.5' x 13.4', built by Detroit Dry Dock Co. Master of Samuel *F. Hodge* was Captain J. McArthur for the 1881 season. In June 1881, while unloading, a barrel of naphtha exploded in her cargo hold injuring two men. During the winter layup of 1881/82, the propeller *Samuel F. Hodge* received new decks, rails, stanchions and bulwarks at Detroit. Captain Francis M. Stenton was master for the 1886-88 seasons. The *Samuel F. Hodge,* spent her 1892 winter layup at Duluth and received a new deck and general repairs. In February 1892, Ward's Detroit & Lake Superior Line was renamed the Crescent Transportation Co., Hamtramck, MI. Her master for the 1892 season was Captain Murray G. McIntosh with W.T. Walker in 1892, and John R. Judge 1893 & 94, as chief engineers. In May 1893, the *Samuel F. Hodge* received boiler repairs and in June she tied off at Sault Ste. Marie after losing her rudder in the river.

Ownership of the propeller *Samuel F. Hodge* was changed, in May 1895, to: Simon O'Day, 10/22 share, Muskegon, MI; Henry C. Farrell, 7/22 share; and Michael J. Galvin, 5/22 share, both from Buffalo, NY. Her master for the 1895 season was Captain Lewis Elliott with Charles Rice as chief engineer. While at Alpena, MI, in May 1896, the *Samuel F. Hodge* sank. She was raised and repaired. In July 1896, bound from Cleveland, for Prescott, ONT, the propeller *Samuel F. Hodge,* laden with a cargo of 600 tons of wire, caught fire in mid-Lake Ontario, off Oak Orchard, NY, and sank. The fire originated near the boiler and a 28-year-old fireman was reported missing. The fire was fought by the steamer *St. Joseph* (23354) who also rescued the remainder of the crew. One live lost. Cargo was valued at $7,000 and the ship at $25,000.

Iron Chief: Built as hull 00051, a schooner-barge, at the Detroit Dry Dock Co., Detroit, with John C. Parker, as master carpenter, the *Iron Chief* was enrolled at Detroit, July 19, 1881. Her measures recorded were: 212.33' x 35.0' x 17.5'; 1112.77 grt, 998.0 net. She was assigned official number 100287. Her original owner was the Detroit Transportation Co. Detroit. She would be used in the bulk freight trade as consort to the propeller *Iron Duke* (100278). Master of the schooner barge for the 1881 season was Captain F.B. Shepherd. During the 1881/82 winter layup, the schooner-barge *Iron Chief* was converted to propeller and her registered tonnage changed to:1154.08 grt, 966.04 net. She was powered by a steeple compound engine, 22", 48" bore x 36" stroke, built by Christie & DeGraff, Frontier Iron Works, Detroit. Steam was generated by a firebox boiler, 10' x 16', 100 pounds steam, built by Desotelle & Hutton,

Detroit. Master of the propeller *Iron Chief*, for 1884 was Captain D.B. Millen with James B. Purvis, 1885-87, J.O. Snyder as chief engineer. The propeller *Iron Chief,* with the schooner barge *Iron State* (U85338) in tow, in heavy fog, stranded between Fairport and Ashtabula, OH on Lake Erie. She had run off course through inaccuracy in her compass and broke her wheel. Released and repaired. In March 1885, the propeller *Iron Chief,* laden with 55,000 bushels of corn, sank shortly after arriving at Chicago. 20,600 bushels of dry corn were salvaged and 34,147 bushels of damaged corn were sold at auction. Loss of cargo was set at $8,385 and loss to the hull at $1,716. The vessel was raised and the damage to the hull was to the forward peak, caused by the vessel hitting a rock or pile. Repaired. Master of the propeller *Iron Chief* was Captain Sid Millen – 1888; with George C. Lawrence Jr., 1891-93, as chief engineers. In August 1889, the propeller *Iron Chief* broke her low-pressure cylinder off Port Sanilac, MI, Lake Huron. Repaired.

In August 1889, due to the difficulty chartering vessels to transport ore, the ownership of the propeller *Iron Chief* and 10 other bulk carriers were sold to: Corrigan, McKinney & Co., James Corrigan, Trustee, Wickliffe, OH.

In 1890, the propeller *Iron Chief* towed the schooners *Iron State* (100255) & *Iron City* (6875). For the 1892 season, she towed the schooner *Iron Cliff* (100275). Her master's and chief engineers were: 1899 – 1900 seasons

Captain W.A. Irvine, with August Cobo; 1901-02: Captain George A. Symes with Harvey S. Haynes and F. Gordon; 1903: Captain F.B. Chilson and for 1904: Captain H.S. Cody with Charles Steadman as chief engineer.

In October 1904, upbound for Fort Williams, ONT, laden with a cargo of coal, the propeller *Iron Chief* broke her stern pipe while crossing Saginaw Bay during heavy seas. She filled and sank ten miles NE of Point Aux Barques, MI, on Lake Huron. No lives lost.

Final enrollment for the propeller *Iron Chief* was surrendered at Cleveland, October 14, 1904.

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Iron Duke: Built as a wooden propeller, hull # 00046, at the Detroit Dry Dock Co., Detroit; John C. Parker, Master Carpenter, she was enrolled at Detroit, April 26, 1881. Her measures as recorded were: 212.60' x 35.0' x 17.75'; 1152.22 grt, 962.18 net. She was assigned official number 100278. The *Iron Duke* was powered by a steeple compound engine, 26", 48" bore x 36" stroke, 415 horsepower, built by Frontier Iron Works, Detroit, in 1881. Steam was generated by a firebox boiler, 9.5' x 16'. 110 pounds steam, built by Dry Dock Engine Works, Detroit. Her original owner was Detroit Transportation Co. Detroit, and she was built for the bulk freight trade. Master of the propeller *Iron Duke,* for the 1881 season, was Captain James Millen with William Barr as chief engineer. In June of her first year, the *Iron Duke* was struck by the schooner *Clara Parker* (U4357)*,* in fog off Au Sable Point, Lake Superior. Slight damage. In September 1882, the propeller *Iron Duke,* laden with a cargo of coal, went aground in Kinnickinnic River near Milwaukee, WI. Her cargo was lightered so she could be released.

Master of the propeller *Iron Duke* for the 1884 season was Captain Thomas Honer with John Caddick in 1884, William J. McClure 1888-89 as chief engineer. In September 1884, the propeller *Iron Duke* stranded on Lake Huron. Released, her hull damage was set at $500. In 1888, she received a new firebox boiler, 10.5' x 16', 110 pounds steam, built by Drydock Engine Works. William J. Slater was chief engineer in 1895. November 1897, the propeller *Iron Duke* stranded on Hyde Park reef near Chicago, 300 tons coal was lightered to refloat her.

Due to the difficulty to charter vessels to transport ore, the ownership of the propeller *Iron Duke* and 10 other bulk carriers were sold, in July 1899, to Corrigan, McKinney & Co., James Corrigan, Trustee, Wickliffe, OH. Masters of the propeller *Iron Duke,* were: 1899-1900, Captain N.L. Miner with John M. Cronenweth in 1899, and Irwin Morrison in 1900 as chief engineers. Her master for the 1901 & 02 seasons was Captain W.A. Ashley with S. Moore in 1901 and James Kimberly in 1902-03 as chief engineers. Captain J.W. Nicholson was master in 1903; and Captain Harvey Peters as master with M. Gore as chief engineer in 1904. While in winter quarters at Charlotte, NY, 1904, the propeller *Iron Duke* caught fire, burned and sank

The ownership of the propeller *Iron Duke* changed to wrecking master, Harris W. Baker, Detroit, in July 1905. She was rebuilt at Ogdensburg, NY, during winter layup 1905/06: 2 decks, 4 masts, 1,153 grt.

The rebuilt propeller *Iron Duke* was sold, May 1906, to George Hall Coal Co, Ogdensburg, NY. She was renamed and registered as *Henry B. Hall* (100278). Masters of the propeller *Henry B. Hall* were: 1906 to 1911 seasons: Captain Samuel V. Anderson with W.F. Brown 1906-08, and Rolla G. Jardin, 1909-11 as chief engineers.

1912-14 seasons: Captain John J. Powers with John W. Cline, 1911-12; and Everette Robertson, 1913 & 1914. 1915 season: Captain David Allen Kiah with Robert W. Cline as chief engineer.

In March, the propeller *Henry B. Hall* was sold Canadian to H. Lomer, Montreal, and registered as *Henry B. Hall* (C138094) with Canadian measures: 220' x 35' x 17.5'; 1190 grt, 618 net.

Ownership of the propeller *Henry B. Hall* was changed, in September 1916, to Blantyre Transportation & Coal Co., Montreal.

Ownership of the propeller *Henry B. Hall* was changed in 1918, to Fairhaven Transportation & Coal Co., Montreal. In May 1920, the propeller *Henry B. Hall*

was wrecked at St. David, Que., Saint Lawrence River, NE of Montreal, Que. She was raised and repaired. In October 1921, the propeller *Henry B. Hall* caught fire and was seriously damaged while in the Lachine Canal. The hulk was dismantled at Sorel, Que. and scuttled in the St. Lawrence River in July 1922.

John B. Lyon: Thomas Quayle & Sons, at Cleveland, built a wooden steambarge for Frank Perew, Buffalo, NY. She was enrolled at Cleveland, May 4, 1881 and her measures recorded as: 255.75' x 38.66' x 20.0'; 1710.33 grt, 1330.0 net. She was powered by a double steeple compound engine, 22", 22", 42", 42" bore x 48" stroke, 700 horsepower, built by Globe Iron Works and installed by H.G. Trout, Buffalo, in a Perry & Lay engine pattern. Steam was generated by two firebox boilers (2), 9.5' x 16', 95 pounds steam, built by M. Riter, Buffalo, NY in 1881. Her assigned official number was 76199. The steambarge was built for the bulk freight trade. Master of the steambarge *John B. Lyon* was Captain Frank Perew, 1881, with Adam Hague, 1881-83, as chief engineer. In July 1881, the steambarge *John B. Lyon* collided with the schooner *Jones* on the Chicago River. In October of that same year, the steambarge *John B. Lyon* collided with the canal boat *Victor* on the Buffalo River. The following month, November, the steambarge *John B. Lyon* lost both stacks and damaged her boiler and steampipes in a gale on Lake Michigan. Disabled, she raised sail and headed to shore for repairs. In June 1883, the steambarge *John B. Lyon* went aground on the St. Clair Flats, St. Clair River. Released. The following month, July, the steambarge *John B. Lyon*, laden with 77,000 bu. corn, with her schooner consorts *John M. Hutchinson* (75597), 65,000 bu. wheat, *Joseph G. Masten* (13750), 45,000 bu. corn, and *Hattie Wells* (11609), 36,000 bu. Corn, left Chicago for Buffalo. While leaving Chicago, the *John B. Lyon* collided with her consort *John M. Hutchinson* (75597) at Chicago. Repaired. In October 1883, the steambarge *John B. Lyon* collided with and crushed her tow, the canal boat *Mary Walker.* In November of 1883, during a west gale, the steambarge *John B. Lyon* grounded on White's Shoal, Lake St. Clair, off Peche Island. Released. Master of the steambarge *John B. Lyon,* from 1884 to 1892, was Captain Frank D. Perew. In September 1884, the steambarge *John B. Lyon* caught fire while lying at William's coal dock, at Buffalo. The fire originated from an overheated pipe and was contained to the boiler room. Repaired. During winter lay up of 1887, the *John B. Lyon* received new steel arches, stanchions, rails and bulwarks at Millers Brothers shipyard, Cleveland. In November of 1887, the *John B. Lyon,* laden with grain for Buffalo, went aground when leaving Chicago. While being released, three of the buckets were broken off her wheel. Released and repaired. In November 1889, the *John B. Lyon* went aground at the foot of Washington Street, Buffalo. The water at the east end of Lake Erie was very low. She was released when the water level came back up. In May 1892, the steambarge *John B. Lyon,* laden with 120,000 bushels of oats from Chicago, went aground at Forest Bay, Sand Beach, MI, on Lake Huron. She was released after her grain was lightered. Damages $15,000.

Ownership of the steambarge *John B. Lyon* was changed, in June 1892, to J.C. Gilchrist et al, Vermilion OH. Her masters were Captain Charles Hahn, 1899 season; and Captain A.H. Senghas, 1900 season; with Cassius M. Williams in 1895; A.F. Hogle in 1899; and Charles H. Wilson in 1900, as chief engineer.

In March 1897, ownership of the steambarge *John B. Lyon* was transferred to Gilchrist Transportation Co., Vermilion, OH. In November of that year, the steambarge *John B. Lyon* went aground on White's Shoal, off Peche Island, Lake St. Clair. In September 1900. The *John B. Lyon,* laden with a load of iron ore, foundered during a severe storm (remnant of a hurricane) 25 miles east of Ashtabula, OH. Eleven lives were lost of the sixteen aboard.

Final enrollment for the steambarge *John B. Lyon* was surrendered at Sandusky, OH, September 15, 1900.

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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 divided by 100 cubic feet of capacity per gross ton, resulting in a tonnage expressed in tons.
Freshet: a great rise or overflowing of a stream caused by heavy rains or melted snow.
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 x 3/5)) x Beam x 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 harbor and other vessel fees. Up to 1848, most freight shipped on steamers or propellers, as package freight. This meant that coal, grain, apples, and produce were placed in a container or sack and carried aboard on the back of a laborer. Bulk freight in the form of lumber would be loaded on barges and schooners and towed by a steam driven ship. In 1848, Joseph Arnold built, at Port Huron, MI, the steambarge *Petrel* 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, 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 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$^{7}/_{94}$ 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, until 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 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 was 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, divided by 100, determines 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 forecastle 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: Is 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.
Room & Space: This term has a specific meaning in the context of shipbuilding, referring to the frame and the gap between the frames of a wooden ship's hull.
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: Includes the names of wooden steamers that are 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.)