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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—May 2025

Our Next Meeting: June 21, 2025;
 Hybrid –
“Photo Etching Brass Parts”
 by Steven Keller

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May

We had a good turnout Saturday morning, with 5 in the conference room and 8 on-line, including Lee joining us from Manitowoc, WI and Jeff joining us from Idaho.

Be sure to check out the notice about the NRG “Ship Modelers Handbook” and if you missed Manitowoc, there is another competition open to you, through the NRG. Check out the events and activities below.

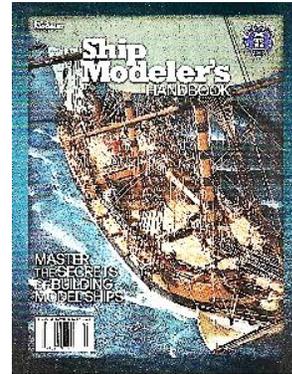
We are still experiencing technical problems at the library. Something about Apple and the library Smart Screens. Also, I experienced, for the first time, attending a hybrid meeting via zoom. I was not aware how a conference room discussion can drown out the speaker for those on zoom. We will have to work on that one.

As always, take care of yourself and your families, look to those you know who may need help or are lonely and may be in need of human contact.

If you have not gotten your Covid, Flu, Measles or RSV shots, please do. Stay safe.

Till next month. Your editor.

Ship Modeler’s Handbook



You do not have your copy yet?

Contact Bob, it is free, and we are paying postage. Our speaker Saturday, referenced the wealth of information found between pages 64 and 89 concerning building World War II ship models.

We are indebted to John Boeck for ordering a quantity of the handbooks for you, our members.

Leafing through the table of contents, I was impressed with the list of authors that I knew to be award winning ship modelers. Names, such as: David Antscherl, Gus Augustin, Toni Levine, Kurt Van Dahm, and Steve Wheeler.

The handbook is a joint venture between “Fine Scale Modeler & the Nautical Research Guild. To quote from the editor’s page: “you will find advise and step-by-step how-to articles on everything from choosing the proper tools to do a particular job to strategies for building ships from wood, plastic, and even paper.”

To receive a personal copy of the handbook, contact Bob Mains at rmains1@columbus.rr.com. All costs are being covered by our ship modeling club.

Reminders & Announcements

Modeling Events

48th Annual Midwestern Model Ships & Boat

The Wisconsin Maritime Museum hosted the Nautical Research Guild Associated Competition, May 16 – 18, 2025 at the maritime museum located at Manitowoc, Wis, on the shores of Lake Michigan.

The competition was held this past weekend.

We had two entries:



Lee Kimmins: *Constitution* Cross Section: (intermediate, Category 2, Kit Models – Bronze award)



Bill Nyberg: *Margaret Olwill*, steam barge (Advanced, Category 1, Scratch-Built – Bronze & Best Great Lakes Model Award)

Lee sent the following from the museum, featuring our entries. By the way, that is the WW II submarine USS Cobia, docked just outside the window.



2025 NRG Photographic Ship Model Comp.

Missed the competition this past weekend? Here is another chance to discover how your modeling skills & models rank against a set of standards and better yet, you don't have to transport your model anywhere.

Time to dust off that camera and start taking pictures of the ship model you want to enter. The 2025 NRG Ship Model Photo Contest, the fifth photo contest since 2011, is open to the members of the NRG for an entry fee of \$30 per model. The competition opens on June 16, 2025.

Because, the "Shipwrights of Ohio" are a NRG Chapter Club, non-NRG members, within the club membership, are offered a special competition entry: for a \$50 fee, you can enter a model and receive a one-year Nautical Research Guild digital membership at half the normal yearly price.

View the complete rules and download the Entry Form, at www.thenrg.org/2025photocompetition after June 16th. The forms are in pdf format and can be read with Adobe Reader. If you do not have this free application already installed, the following link will install it for you. <https://get.adobe.com/reader/>

All photos and supporting documentation requested will be submitted on-line. Entrants will also receive a written review of their model. Gold, Silver and Bronze medals will be awarded for the First, Second and Third place models in three categories: Novice, Apprentice and Master. A "Best of Show" will be awarded to the best "Gold" winner.

For NRG members, the entry fee will be \$30 per model entered. Entries can be submitted starting on Monday June 16, 2025. Entries must be submitted before or by Thursday, July 31, 2025. I repeat, to view the complete rules and download the Entry Form, go to www.thenrg.org/2025photocompetition.

Winners will be announced at the Annual Member's Meeting, 4th Q/2025.

American River Roots Festival **Cincinnati – October 08-12, 2025**

This festival is a signature event for America's 250th celebration. Come celebrate as we host a unique fusion of Music, Cuisine, Culture and Cruises on the Cincinnati, Covington and Newport riverfronts.

www.americasriverroots.com

Sea History Activity

LST-325 Ship Memorial: The LST-325, commenced summer hours April 1, 2025. The LST is docked on the Ohio River at Evansville, Ind. Her annual cruise is scheduled for September 3 – October 2, 2025, where she will stop at Muscatine, IA, Alton, IL, Cape Girardeau, MO before returning to Evansville, IND, October 01.

2025 Art of the Sea: "Sea History" will hold an online juried exhibition & sale, June 1 to July 1, 2025. <https://www.seahistory.org/artofthesea2025>.

Historic Naval Ships Assoc: September 24-27, 2025, the 12th Maritime Heritage Conference will be held at Buffalo, NY. More info when it comes available.

Presentation Schedule Change

Heads up. The 2025 presentation schedule has been revised due to scheduling conflicts. The schedule, as of the May meeting is:
June – Photo Etching brass parts – S. Keller

July – Jigs & Fixtures – D. Markijohn
 Aug – Planking a wooden hull – D. Buchanan
 Sep – Bending Wood – S. Keller
 Oct – Lofting & Ships Plans – Nyberg
 Nov – Power & hand tools in ship modeling – J. Northup
 Dec – Card Modeling – Holloway & Nyberg

Mark those calendars and plan to attend either in-person or via zoom.

Ship Modeling Education

I shared with you a copy of the “The Model Yacht” a newsletter from the “US Vintage Model Yacht Group.” Your editor’s first contact with vintage model yachts was watching pond yachts being raced on New York City, Central Park Pond as a boy, back during WW II. The pond is located west of 5th Ave. at 74th Street, and the lake still exists and is used for sailing pond yachts. See photo below.



I should caution you a pond model yacht is not a small model. They could be 50 inches LOA, with 800 square inches of sail and when fully rigged, could be over 7 feet tall. Powered by wind and sail, they can incorporate R/C for steering and shifting sails.

Doing some research, I found that the “Wooden Boat School”, is located at Brooklyn, Maine, which is just up the road from BlueJacket Ship Crafters (Searsport, ME).

Wooden Boat School is offering three on-site courses this summer focused on model building:
 July 20 – 26 & Aug.24-20: “Build Your Own Plank Constructed Pond Yacht”

For those of you, who may have been motivated by John Boeck’s presentation on Ships in a Bottle:
 August 24- 30: “Building a Ship in a Bottle”

Information can be found at:

<https://www.thewoodenboatschool.com/courses-glance/>

Now, what could be better than that: Building a model; being on the coast of Maine in late summer; lobster for dinner daily; plus, the company of other modelers. Almost heaven.

SeaWatch Books

Received this announcement a few weeks ago and it brought back memories. For those of us that have been modeling for years, the magazine “Ships in Scale” was one of our primary reference sources. Clayton Feldman was owner/author/publisher of the magazine as well as the forum web site by the same name. With the demise of the magazine, the web site was picked up by a set of ship modelers and they still support it.

Early in 2026, SeaWatch books will be relaunching the *Ships of Scale* magazine. The role of *Ships in Scale* will be focused more on the learning and how-to of the hobby. To learn more, go to:

www.shipsinscale.com

Presentation:

Ships, WW II: a Modeler’s Perspective

by Cliff Mitchell

The focus of Cliff’s presentation was on the importance of shipbuilding in WW II and to provide benefits to model makers on ships with rich detailing and historical significance. His presentation was a combination of historical ship information and model making. My summation below will focus of the modeler’s perspective. Modeling information will be listed under the heading:

For the modeler:

Cliff started by answering the question: What was the importance of ship building during WW II?

1. Maintaining Supply Lines: The Allies needed ships to transport food, troops, weapons, and fuel across vast distances—especially across the Atlantic to Britain and Europe and across the Pacific to supply the island-hopping campaigns.
2. Naval Supremacy: Shipbuilding allowed the U.S. and its allies to outpace Axis naval production
3. Industrial Power = Military Power: WWII was a war of production – rapidly building aircraft carriers, destroyers etc.
4. Amphibious Warfare: Large-scale operations like D-Day, Guadalcanal, and Okinawa needed massive fleets of landing ships, tank carriers (LSTs), and troop transports.
5. Economic and Social Impact: The shipbuilding boom transformed cities like Portland, Baltimore, and Mobile. It also opened up jobs for women and minorities, changing the social landscape of the U.S.

His presentation started in World War 1, featuring dreadnoughts:



Photo etch and QF 12pdr 18cwt England naval Gun North Star, *HMS Dreadnought* armament - 12in (10pcs), 12pdr (26pcs) barrels – Master.

Wooden deck and chain – Artwox.

Paint – Tamiya, Zvezda.

Rigging – spandex.

Anti-torpedo nets - stockings .

Decals – **Pontos and Begemot**.

Cover – **Futura and Tamiya** (Semi-Gloss Clear).

Toning – **Tamiya X-19**(Smoke) AK 304. The Assembly proceeded, as usual, about a year.

International treaties after WW 1, were aimed at preventing a naval arms race by limiting the size and number of capital ships among the major powers.

While initially successful, by the 1930s, countries like Japan and Italy began withdrawing from the agreements, feeling constrained by the limits, leading to renewed competition. This spurred the development of advanced warships and new naval strategies. As a result, navies started exploring alternatives to the limited classes, such as **cruisers**, **destroyers**, and especially **aircraft carriers**, marking a shift in naval strategy

There was also a shift in ship building techniques:

- Wooden/iron hulls were replaced by steel hulls
- Steel hulls were riveted which added weight.
- Welded steel structures replaced riveted.

The advantage of welded hulls was:

- **Weight Reduction** - Welded ships are lighter than riveted ones because welding doesn't require overlapping plates
- **Structural Strength & Integrity** - Welded joints create a continuous connection between plates, resulting in greater overall hull integrity.
- **Easier and Faster Construction** - Welding is faster than riveting, especially when using prefabricated sections and modular construction.
- **Lower Labor and Material Costs** - Welding requires fewer workers
- **Improved Hydrodynamics** - Welded hulls are smoother, reducing drag and improving fuel efficiency and speed.

For the modeler:

Riveted hulls:

Rivet Replication Techniques:

Raised rivets:

- **Aftermarket decals** (e.g., Archer Fine Transfers or HGW Models): These come in rows of resin rivets on clear backing. Apply like decals and seal with primer.
- **Rivet wheels** (Rosie the Riveter): Roll along a guide line—works well on styrene.
- **PVA or white glue dots**: Use a micro-applicator or toothpick to dab tiny dots in rows.

Impressed (indented) rivets:

- Use a **pounce wheel**, **needle**, or **beading tool** to press into soft styrene or resin putty.
- For resin or plastic, you can also use a **pin vise drill** to lightly mark the surface

Welded Seams

- **Weld Bead Techniques**:
- **Styrene rod**: Use ultra-thin stretched sprue or 0.25mm styrene rod, glued in place and softened with Tamiya Extra Thin, then textured with a knife or scribe.
- **Scribing + filler**: Score a fine line, then apply a tiny amount of putty or Mr. Surfacer. Use a blunt needle to create the scalloped "bead" pattern before it dries.

- **Thin CA glue**: Run a bead along the seam and use a sharp tool to shape it into a weld.

Reference:

- **Check historical plans or photos** to see if welds were flush or prominent. WWII ships often had lap welds with visible ridges.

History:

The evolution of the Liberty ship is a fascinating story of innovation, engineering, and the efforts of the U.S. government and private industry to solve the critical supply chain problems of the war.

- The ships were relatively small, at **441 feet** (134 meters) in length, with a beam of 57 feet (17 meters) and a depth of 30 feet (9 meters). They had a cargo capacity of around **10,800 tons**
- The shipyards used **assembly-line methods**. A total of **2,710 Liberty ships** were built between **1941 and 1945**, with an average construction time of about **42 days** for each ship, although some ships were built in as little as **30 days**.
- At its peak, over **275 Liberty ships** were being launched each month

For the modeler:



Bluejacket model of the *Jeremiah O'Brien* 1:192 by Cliff Mitchell



Liberty Ship: *SS John Randolph* by Monty Fowler 1/700 Skyways kit

- **Gold Medal Models**
 - Photoetched fire hose racks and watertight doors for all decks, deckhouses, etc. (No. 700-22).
- **Tom's Model Works Skywave/Pit-Road**
 - 20 2 1/2-ton GMC trucks, 5 Dodge weapons carriers, barrage balloon and white star decals for some vehicles (Beachhead Vehicles, kit SW-400).
 - Extra anchor at No. 5 hatch, hawser reel at stern, 4 oval life rafts (Equipment for U.S. Navy Ships WW II, kit SW-1000).
- **White Ensign Models**
 - 2 White halftracks (No. DM-7043).
 - **4 Willys jeeps** (no longer made).
 - 5 P-40 fighters (No. WEMAS-7162) with photoetch landing gear (No. PE-715). Propellers, wingtips and stabilizers were usually removed and crated separately for aircraft carried as deck cargo, which is how I depicted mine.
 - 5 25-foot motor launches (No. PRO B011), bought for another

idea that didn't pan out.

- Photoetched oars for forward lifeboats and tillers/rudders for aft lifeboats (No. PE-739).

History:

Versatile Workhorses - Fletcher-Class Destroyers

- design was balanced: anti-air, anti-sub, and antiship
- 175 built with long service life
- Backbone of fleet escort and surface action groups
- Great platform for modelers to explore radar masts, gun details, and paint schemes

For the modeler:



The new 1/700 "smart kit" from Dragon Models. The kit allows for the construction of two complete destroyers; one waterline the other full hull. I chose to do the *USS Monssen* as a full hull.

History:

Technology Advances

Radar (Radio Detection and ranging)

- United Kingdom: British physicist Sir Robert Watson-Watt is credited with the first practical demonstration of radar. On February 26, 1935, his team successfully detected an aircraft using radio waves in a test near Daventry. This led to the rapid development of a chain of coastal early warning radar stations known as Chain Home, which was crucial during the Battle of Britain in 1940.
- **United States:** Engineers at the U.S. Naval Research Laboratory began radar work in the early 1930s and developed a working prototype by 1937. The U.S. further advanced radar with the invention of the **cavity magnetron**, enabling microwave radar with much higher resolution.

Early Detection and Surveillance

- **Surface-search radar** could detect enemy ships long before they were visible to the naked eye.
- Allowed fleets to avoid ambushes and maintain formation in fog or darkness.
- For example, the **U.S. Navy's SG radar** (a microwave set introduced in 1941) could spot ships up to 15–20 miles away, even at night.

Fire Control

- Radar was tied into **gunfire control systems**, allowing ships to aim and fire accurately even in complete darkness or bad weather.
- This was a huge advantage in night battles like those off **Guadalcanal** (1942–43), where U.S. radar-equipped cruisers often surprised Japanese forces.
- The U.S. **Mark 3 and Mark 8 Fire Control Radars** helped battleships like the *USS Washington* land hits at long range during the Battle of Savo Island

Submarine Detection

- Surface-search radar could spot the **periscopes and snorkels** of submarines, especially at night.

- Aircraft equipped with **ASV (Air-to-Surface Vessel)** radar were highly effective against U-boats in the Atlantic.
- Radar helped turn the tide in the **Battle of the Atlantic** by detecting surfaced German U-boats at night, when they previously had an advantage.

Navigational Aid

- Radar helped ships maneuver in tight formations and avoid collisions, especially in poor visibility.
- Allowed **amphibious landing ships** to navigate closer to shore with accuracy—crucial in invasions like **Normandy (D-Day)** and **Iwo Jima**.

For the modeler:

Models that showcase radar:

USS Washington (BB-56)

- *Model:* Trumpeter 1/350 scale with detailed Mk.8 Fire Control Radar
- *Historical Use:* At the Battle of Savo Island (1942), *Washington* used radar-directed fire to sink IJN *Kirishima* at night.

HMS Duke of York

- *Model:* Flyhawk 1/700 kit
- *Historical Use:* Battle of the North Cape (1943), radar helped track and destroy German battleship *Scharnhorst* during an Arctic snowstorm.

Fletcher-class Destroyers (e.g., USS Kidd)

- *Model:* Tamiya and Dragon 1/350 kits and Bluejacket
- *Radar Gear:* Surface-search (SG) and air-search (SC/SC-2) radar
- *Historical Use:* Performed radar picket duty and night fighting in the Pacific, particularly around Okinawa.

History:

More Technology Advances

- **SONAR:** (SOund Navigation And Ranging) - uses sound waves to detect underwater objects. By sending out a sound pulse and timing its return, ships could determine the range and bearing of submarines or obstacles.
- **ASDIC** (Allied Sonar): Early British system developed in WWI, improved in the 1930s. Used widely on destroyers and escorts.
- Active vs Passive Sonar:
 - *Active:* Sends out a ping and listens for the echo.
 - *Passive:* Listens silently for submarine engine noise or propeller cavitation.
- By mid-war, American ships used the QHB and later the more sophisticated QCA sonar sets, improving detection depth and accuracy.

For the modeler:

Reasons to model warships:

- Remember a career at sea
- Remember stories and history at sea
- To remember a person who served in ww2
- Pleasure of building an intricate and beautiful ship

Type of Kits and Their Pros and Cons

• **Wood Ship Models**

- **Companies Making WWII Wooden Kits**
 - **BlueJacket Shipcrafters** – WWII subjects like the *Destroyer USS Ward*, *Tugboats*, and *Liberty Ships* in plank-on-frame and solid hull kits.

- **Model Shipways (via Model Expo)** – Some WWII-era merchant ships and naval tugs in wood.
- **Billing Boats** – RC and static models, including S-Boats, PT Boats, and tugs from WWII.
- **Advantages and Disadvantages of Wooden Kits**
 - **Advantages:**
 - Museum-quality craftsmanship
 - Long build satisfaction
 - Rich historical background
 - Often includes brass fittings
 - **Disadvantages:**
 - Steep learning curve
 - Limited WWII warship variety
 - Long build time
 - Expensive and requires tools
 - Storage



The Iron Shipwrights (ISW) CV-1 *USS Langley* in 1/350 resin by **Peter Van Buren**



Example: Bluejacket Model of Liberty Ship *Jeremiah O'Brien* By Cliff Mitche l

Plastic Injection Ship Models

- **Companies:** Trumpeter, Tamiya, Revell, Hasegawa
- **Advantages:**
 - **Mass produced** = lower cost
 - **Clean parts** with minimal prep (good mold consistency)
 - **Strong aftermarket support** (photo-etch, decals, etc.)
 - **Perfect for dioramas** (variety of WWII subjects and scales)
 - **Beginner to expert-friendly** depending on brand
- **Disadvantages:**
 - Detail is limited compared to resin or 3D prints in some cases
 - Parts may be simplified for mold feasibility
 - Soft plastic can warp over time or break easily during fine work



Example: Trumpeter Model of Liberty Ship by **Peter Van Buren**

Resin Ship Models

- **Companies:** Combrig, Iron Shipwrights, Samek Models
- **Advantages:**
 - Incredible detail, especially for small fittings
 - Rare & niche ships not offered in plastic (convoys, auxiliaries)
 - Often includes photo-etch or brass parts
 - Great for collectors and experienced builders
- **Disadvantages:**
 - Brittle – resin is fragile and can snap under stress
 - Warping and bubbles can occur (especially in older kits)
 - Requires experience – complex assembly, sanding, and aligning
 - More expensive than plastic kits

- **3D Resin Printable Ship Models - (STL or Ready-Made) STL** usually stands for "stereolithography" — it's the most common file format for 3D printing! It describes the surface of a 3D object with tiny triangles. 3D printers (especially resin and filament ones) use STL files to know what to print.

- **Examples:** Kozak Miniatures, STLFLIX, Cults3D files, Top Water (you print on your Anycubic)
- **Advantages:**
 - **Unlimited customization** – scale, orientation, hull mods
 - **Superb fine detail** with the right printer & settings
 - **Create rare subjects** that no one else offers
 - **Instant replacements or parts reprintable**
- **Disadvantages:**
 - **Requires a good printer** (you're set with the Anycubic M5s Pro)
 - **Post-processing is involved** – supports, curing, resin handling
 - **Digital skills needed** – slicing, supports, scaling
 - **Cost and time** depend on print size and failure rate



Example: 3D printed Bismarck

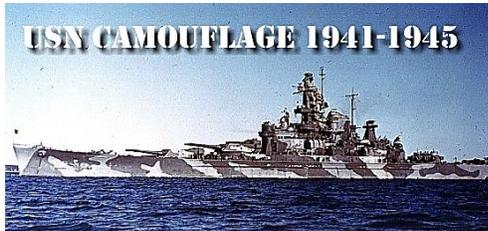
Quick Comparison Chart

Feature	Plastic	Resin	3D Printed	Wood
Detail Level	Medium	High	Very High	High (texture)
Subject Variety	High	Medium/High	Growing	Low for WWII
Skill Level Required	Low-Med	High	High	High
Customization	Low	Medium	Very High	Medium
Durability	Medium	Low	Low	Medium
Cost (General)	\$\$	\$\$\$	\$\$-\$	\$\$\$\$
Build Time	Moderate	Long	Short-Mod	Long

History

• Painting WW2 ships

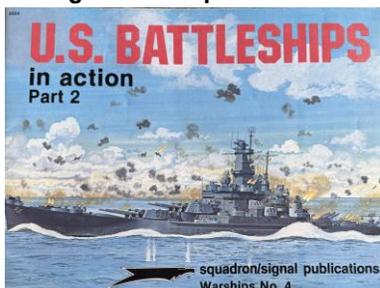
- **Historical Paint Schemes**
- **Camouflage patterns by nation:**
 - **Royal Navy:** Dazzle camouflage (Western Approaches, Admiralty Disruptive patterns).
 - **US Navy:** Measure 1, 12, 21, 22, 32/3D—great to show the evolution.
 - **Kriegsmarine:** Subdued grays, Baltic stripes, and some coastal camo.
 - **Imperial Japanese Navy:** Mostly dark gray/black hulls; some had unique topside patterns.
- An online database of camouflage used by United State Naval Warships during WWII



www.shipcamouflage.com

For the modeler:

- **Painting Techniques for Modelers**
 - Priming properly: importance of a neutral or dark base for naval models.
 - Layering and modulation: to bring out scale and depth on large flat surfaces.
 - Drybrushing: to highlight raised detail like railings, rivets, and deck lines.
 - Wash techniques: to bring out panel lines and weathering (use dark brown/black pin washes).
 - Salt and chipping methods: simulate wear, especially on deck edges and steel superstructures.
- **Weathering for Realism**
 - Rust and streaks: show photos of real WWII ships for reference.
 - Sun fading and salt spray: especially for tropical Pacific ships.
 - Deck staining: oil, dirt, and even battle damage on aircraft carriers or cruisers
- **Reference Materials**
 - Books like *Warship Perspectives* by Classic Warships Publishing.
 - Online color guides (e.g., Snyder & Short paint chips).
 - Museums and preserved ships (USS Kidd, USS Missouri, HMS Belfast)
 - ModelWarships.com
 - Naval-history.net
 - Classic Warships Publishing
 - **Squadron/Signal Warship Books**
 - ModelWarships.com
- **Squadron/Signal Warship Books**



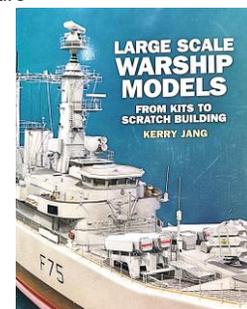
- USS Arizona (BB-39) In Action (Warships No. 26)
- USS Enterprise (CV-6) In Action (Warships No. 14)
- USS Lexington (CV-2) In Action (Warships No. 21)
- USS Hornet (CV-8) In Action (Warships No. 25)
- USS Yorktown (CV-5) In Action (Warships No. 16)
- USS Iowa (BB-61) In Action (Warships No. 32)
- USS Missouri (BB-63) In Action (Warships No. 33)
- USS New Jersey (BB-62) In Action (Warships No. 29)
- Essex-Class Carriers In Action (Warships No. 28)
- Destroyers Fletcher-Class In Action (Detail & Scale)
- Destroyers Sumner/Gearing-Class In Action (Detail & Scale)
- Heavy Cruisers (New Orleans/Baltimore) In Action
- PT Boats In Action (Warships No. 3)
- Submarines In Action (Fleet Boats/Nautilus)
- Amphibious Assault Ships In Action (LSTs, LCI)

• Plastic kit sources

Flyhawk	Academy SHIPS
AIRFIX shipmodels	Aoshima
Atlantic Models	Cyber –Hobby
Doyusha	Dragon Models
Fujimi	Hasegawa
Heller	ICM Models
Italeri Models	Lindberg Models
Meng Models	Minicraft
Model Ship Depot	Revell Germany
Riich Models	Takom Models
Tamiya Models	Trumpeter Models
Vee Models	Very Fire
Yamashita Models	Zvezda Models

• Choosing A Large Model

- **Pros:**
 - Realism- especially for radio-controlled models
 - Detail – larger parts are easier to see
 - Developing new skills such as fiberglass, soldering and 3D printing etc.
- **Cons:**
 - Time Commitment
 - Cost
 - Storage and display
 - Risk of failure



- **There are four options when picking out a model (1:24 to 1:96)**
 - **Hull only**-everything else must be sourced or scratch built
 - **Starter-set**-includes hull, plan, and running gear
 - **Semi Kit**-includes plan, superstructure parts, and fittings
 - **Kit:** advantage is all parts, materials and fittings provided

- **Some Kit Examples**

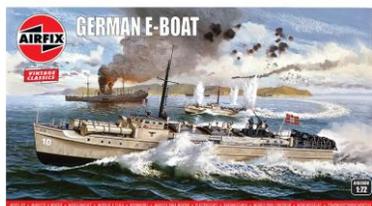
- **Fleetscale** ex: 1/128th HMS Victorious 1941 Aircraft Carrier



- **Caldercraft** (as well as Bluejacket) ex :Sir Kay Round Table minesweeper 1:48. RC



- **Airfix** : German E Boat 1:72



- **Trumpeter**: ex HMS Hood. 1:200 plastic



- **Revell** ex Flower Class Corvette 1:72



- **Deans Marine** ex HMS Hardy 1:72



- **Sources: Fittings and Accessories**

- Scale Warship
- Eduard
- RB Model
- Bluejacket
- Model Expo
- Modelerscentral
- Model Ship World

- **Modeling SMALL WWII Warships**

- **Consider building a waterline kit**
Waterline models are designed to represent ships at the waterline, which can simplify the building process. This makes them a great option for beginners or those looking for a less time-consuming project.

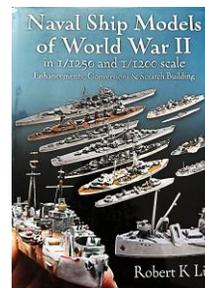
Since waterline models don't require a full hull, they take up less space when displayed. This is ideal for hobbyists who may have limited display areas.

Quicker to complete, less expense, great selection
Ideal for creating realistic dioramas

- **Cons: 1:700, 1:1200 and 1:1250**

With these scales, parts are very small and dexterity is a must.

- **A Recommended Book**



- **Another one:**



Pages 64-89

- **Dioramas**





- **Modeling Techniques**
 - **The Hunting Party** by David Griffith
This is a forced perspective diorama, using various techniques, not just models of various scales, to give the impression of distance.
 - **Scale Differential**
Models of three different scales are used, 1/350, 1/700 and 1/1400.
Viewed from a comfortable distance of 45cm, the closest models, in 1/350 scale, appear to be 157m away. [0.45 x 350 = 157 illuminated.

Cliff has also started adding crows feet to the Fore & Main masts.



HMS Endurance

By Jeffrey Northup
Final photos below! The model is shown locked in ice, with crew off-loading supplies and equipment. The ship carries the correct boats-2 cutters, a whaleboat (James Caird) and a motor launch (not provided by the kit.)



There was also a pram (clinker built) that was obtained during the voyage and lashed to the port lower mizzen ratlines.



The scale is 1:70 and is reasonably accurate. The rigging is not completely correct. Build time 2 plus years.



Three boats were named but not the motor launch or pram. The lettering is 5 point.

Ships on Deck

Where shown, the intro photos for each ship shown after the title are for reference to what the model may look like when finished.

USS Constitution – Cross Section

By Henry Martinez



Building the USS Constitution Cross Section by Mamoli in 1:93 scale. Cross Section of the hull completed and painted in Constitution colors. Also added ballast and copper sheeting. Will add barrels and planking next.

HMS Sphinx

By Cliff Mitchell

After five months, Cliff has resumed building the Vanguard model. The fore and mains yards are attached using pins. The yards have all fittings attached





Buccaneer

by Jim Oberst

I'm working on my first ship, the OcCre *Buccaneer*



I've completed the first hull lining, but it still needs shaping, sanding and some filling. Attached are two photos.



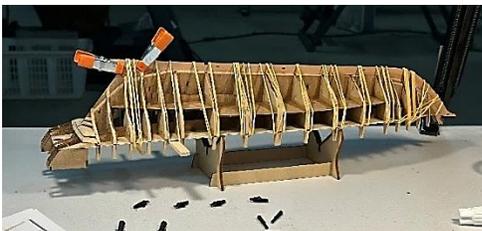
At the meeting, Jim was asked what type of wood was used. After the meeting, Jim responded with: 1st planking: Limewood 2x5 mm (similar to Basswood); 2nd planking: Sapele 0.6x5 mm (also called African Mahogany). Thanks, Jim for the FUP.



Grecien

A Baltimore privateer Schooner, By Robert Washburn

Interesting hull shape, rigging and gun ports. Working my way through first layer of planking. Limewood. Second is pear. I am spending a lot of time on the first planking, hoping to complete it without using any filler. Another excellent offering from Vanguard.



Other Notes: "Stuff", Tugs & Things

Nautical Terms "C"

crab: A winch used for raising the leeboard with a barrel for pulling in the staysail sheets.

cranse iron: Also, **crance**, **crans**, or **cranze iron**. The metal fitting mounted at the end of a bowsprit to which the forestay (or jibstay), bobstay, and bowsprit shrouds are attached. It is also where the tack of the outermost headsail is fastened.

crew: On warships and merchant ships, all of those members of a ship's company who are not officers. On leisure vessels with no formal chain of command, all of those persons who are not the skipper or passengers.

crew boat: A vessel specialized for the transportation of offshore support personnel and cargo to and from offshore installations such as oil platforms, drilling rigs, drill ships, dive ships, and wind farms. Also known as a **fast support vessel** or **fast supply vessel**.

cringle: A loop of rope, usually at the corners of a sail, for fixing the sail to a spar. They are often reinforced with a metal eye.

cro'jack Also **crossjack:** The square sail set on the lower mizzen yard of a square-rigged ship. Many full-rigged ships would not set a sail in this position, as it would be interfered with by the spanker.

cross the line: Cross the equator.

crosstrees: Two horizontal struts at the upper ends of the topmast of sailboats, used to anchor the shrouds

from the topgallant mast. Lateral spreaders for the topmast shrouds (standing back stays).

crow's nest: A masthead constructed with sides and sometimes a roof to shelter the lookouts from the weather, generally by whaling vessels. The term has also become generic for what is properly called a masthead.

crutches: Metal Y-shaped pins used to fix oars while rowing.

Tugs: Great Lakes

Favorite - 1919



The towboat Favorite was built by the Great Lakes Towing Co, yard at Old River Bed, Cleveland in 1919. When enrolled, her measures were: 158.0' x 40.2' x 13.25'; 746.0 grt, 393.0 net. Her official number was 217520. In 1972, owned by American Ship Building Co. in 1972, she was towed to Sault Ste. Marie, MI for use as a museum. Operated by La Sault de Sainte Marie Historic Sites, Inc. at the Soo. She was listed "Out-of-documentation" in July 1974. In 1980, she was taken to Detour, MI and scrapped.

BGSU University Libraries; Historical Collections of the Great Lakes & Alpena County George N. Fletcher; Public Library; C. Patrick Labadie Collection

Edward Fiske - 1883



Built by Union Dry Dock Co., O'Grady & Maher, master carpenters, her measures were: 66.0' x 16.2' x 9.0; 43.85 grt, 21.93 net. She was powered by a high-pressure engine, 18' x 20', 300 horsepower @ 150 rpm. Steam was generated by a firebox boiler 6'6" x 13' built by M. Riter, Buffalo. In 1887, she sank at Buffalo. Raised and repaired. 1890 owned by John Gillett, Marquette, MI. August 1893, she sank in a collision with the tug Carrington as part of a tug war. Raised, she was owned by B.B. Inman, Duluth. Ownership changed to Great Lakes Towing in 1899. Her ownership was changed to Chicago & Great Lakes Dredging in 1906. Rebuilt at Port Arthur, Ont. and enrolled under Canadian ownership as C116389; 70' x 16' x 9'; 73 grt, 49 net.: 1928, her ownership was changed to Great Lakes Dredging & construction Co. Ltd., Port Arthur, Ont. 1936, the tug Edward Fiske was removed from the registry.

BGSU University Libraries; Historical Collections of the Great Lakes & Alpena County George N. Fletcher; Public Library; C. Patrick Labadie Collection

Events & Dates to Note:

2025 Tentative Schedule

Columbus Woodworking Show
Ohio Expo Center
January 17-19, 2025

IPMS Columbus
BLIZZCON 2025
Makoy Center, Hilliard, OH
Saturday, February 22, 2025

Miami Valley Woodcarving Show
Christ United Methodist Church
Middletown, OH
March 1-2, 2025

46th Midwest Model & Boat Show,
Wisconsin Maritime Museum, Manitowoc, WI
May 16-18, 2025

Bluejacket Rigging Class
Fireside Inn, Belfast, ME
<https://www.bluejacketinc.com>
May 18-22, 2025

2025 Photographic Ship Model Competition
NRG Sponsored
Registration opens June 16, 2025
\$30 entry fee
Entries must be submitted by July 31, 2025
Winners will be announced at Annual Members Meeting

Great Lakes Tall Ship Festival,
Cleveland
July 4-7, 2025

Lakeside Antique & Classic Wooden Boat
Lakeside Hotel, Lakeside, OH
July 20, 2025

Columbus Air Show
U.S. Navy "Blue Angles"
Rickenbacker International Airport
August 22-24, 2025

Ohio River Sternwheel Festival
Riverfront Park, Marietta, OH
September 5-7, 2025

"America's River Roots Festival"
Cincinnati, Covington and Newport riverfronts
Oct. 08 - 12, 2025

"The Art of Wood" – woodcarvers show
Sauder Village, Archbold, OH
October 24 & 25, 2025

Miniature Society Show & Sale
St. John's Evangelical Lutheran Church
Grove City, OH
November 15, 2025

Shipwrights of Ohio 2025 Officers & Staff

President – Bob Mains.....614-306-6866
Vice Pres. – Cliff Mitchell614-890-6164
Communications – Bill Nyberg..614-370-5895
Recruitment – Jeff Northup740-585-0383
Treasurer – Lee Kimmins.....614-378-9344
Web Master – John Boeck..... 937-620-0258
Zoom Master – Steven Keller.. 513-280-2210
Web Site: www.shipwrightsofohio.com
Email: shipwright@breezelineohio.net

Presentation Schedule:

2025 – Schedule Tentative

Jan 18 – Scale Comparison Thread to Actual Rope Lines
Feb 15 – ~~(to be rescheduled)~~
Mar 15 – Fixtures: Anchors
Apr 19 – Ships in a Bottle
May 17 – History of Ships WW 2
June 21 – Photo Etching Brass Parts
July 19 – Jigs & Fixtures – ship modeling
Aug 16 – Planking a Wooden-hulled Ship
Sep 20 – Bending Wood
Oct 18 – Lofting & Reading Ships Plans
Nov 15 – Power & Hand Tools in Ship Modeling
Dec 20 – Card Modeling

Editor: William Nyberg
Shipwrights of Ohio
Shipwright@breezelineohio.net



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.



Wooden Steamers on the Great Lakes

Researched & Written
By William E. Nyberg

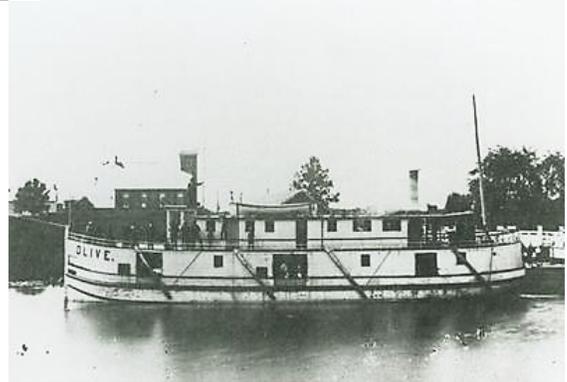
The Gilded Age was a period in the United States from 1873 to the early 1890s, and was marked by rapid economic growth, political corruption, and social inequality:

- 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 was 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.

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 first two iron hulled vessels were built 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.

1875-B



Olive: W. O'Mara, at Smith's Falls, Ont., built a wooden propeller for the passenger, package freight trade, running between Montreal and Kingston via the Ottawa River and Rideau Canal. Enrolled at Brockville, Ont. In September 1875, her measures were" 95' x 18.5' x 6.4'; 88.94 grt, 81.14 net. She was powered by a steam engine, 13" bore x 12' stroke, 40 horsepower, built by Pound Manufacturing Co., Lockport, NY. Her original owner is uncertain. She was assigned official number C71084.

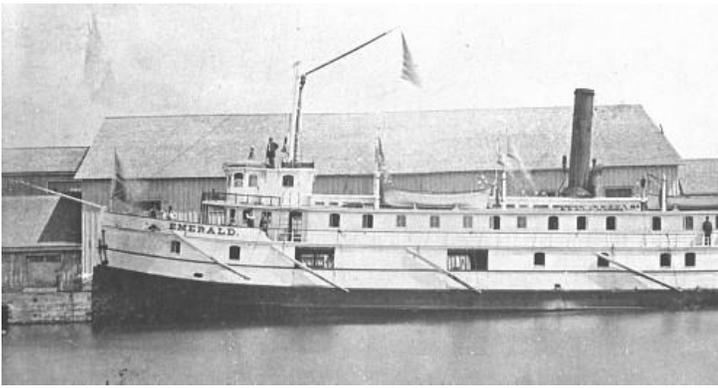
Ownership of the propeller *Olive* was changed to A. Foster, Brockville, Ont. in 1877, and her master for the 1878 season was Captain A. Foster. In October 1878, Downbound on the Rideau Canal for Kingston, the propeller *Olive* and the tug *Peerless* collided near Merrickville, Ont., sinking the tug. The collision was caused when the tug, out of her course, attempted to cross the propellers bow. No lives lost. In November 1880, the propeller *Olive*, entering Kingston harbor from Kingston Bay during a storm, experienced a rough passage and had her forecabin and cabin flooded and part of her cargo damaged by the water. In October 1881, the propeller *Olive* had to run between Montreal and Kingston via the St. Lawrence River due to the low water in the Ottawa River.

Ownership of the propeller *Olive* was changed to Captain Ogle Crass in November 1881. Her owner was her master for the 1881 through 1883 seasons with James Quigley as engineer. In May 1885, loaded with a large cargo of freight, the propeller *Olive* became stuck in the Cataraqui River, at Kingston Mills. Released.

Ownership of the propeller *Olive* was changed in 1887, to Captain J. Forgie & A. Findlay, Smith's Falls, Ont. Her master for the 1888 season was Captain J. Forgie. She was re-built and re-measured in April 1889, with her enrollment measures updated to: 96' x 19.5' x 6.4'; 213.44 grt, 123.70 net.

Ownership of the propeller *Olive* was changed in 1895, to the Ottawa Forwarding Co. Ltd., Ottawa, Ont. In 1900, the propeller *Olive* underwent her second rebuild, and her enrollment measures changed: 95' x 18', 151 tons. During the rebuild, she received a new engine, 13" bore x 12" stroke, built by J. & R. Weir, Montreal, P.Q.

Enrollment for the propeller *Olive* was surrendered in 1904 and endorsed "condemned".



Oswego Belle: Melancthon Simpson, at St. Catharines, Ont. built a wooden propeller for the Bay of Quinte & Oswego Navigation Company, to be used for passenger, package freight trade on the Bay of Quinte. She was launched, November 2, 1875, and had a capacity for 10,000 bushels of wheat and cost of \$34,000 to build. She would operate out of Napanee, Ont. Her measures were: 137' x 26.25' x 9'; 462.75 grt, 378.84 net. She was powered by a compound low pressure engine, 22" bore x 24" stroke, built by Oille, St. Catharines, Ont. Her official number was C71068. Master of the *Oswego Belle* was Captain J. N. L. Mosher for her 1875 trials and Captain Ely for the 1876 season with McFall as chief engineer. In May 1876, the propeller *Oswego Belle* went aground in the Napanee River, Napanee, Ont., Bay of Quinte. starboard windows stove in, the gangway washed away, and waves that reached her promenade deck. Her master for the 1877 season was Captain George Reid. In September 1877, the *Oswego Belle* struck the sidewheel steamer *Pierrepoint* (C-1871) while she lay at Garden Island, inflicting considerable damage.

Ownership of the propeller *Oswego Belle* was changed to Major David Andrews, Toronto, Ont. in December 1878.

Master of the propeller for the 1879 season was Captain John Pender with Robert McCaul as chief engineer. In June 1879, in heavy fog, the propeller *Oswego Belle* struck the sidewheel steamer *Chicora* (C53588) in Toronto harbor. The speed of the propeller made her difficult to stop and she would have sunk the steamer if she had not reversed her engines.

In March 1880, ownership of the propeller *Oswego Belle* was changed to the Great Northern Transit Co., Collingwood, Ont. for a price of \$13,000. She was renamed *Emerald* in May 1880. In August of that year, the propeller *Emerald* went ashore on Vail's Shoal, near Meaford, Ont. Georgian Bay. Released. At the end of the 1880 season the *Emerald* was badly cut by ice. During the winter her hull was sheeted with iron. Master of the propeller *Emerald* was Captain James Foote for the 1881 & 82 seasons, and she ran between Collingwood, on Georgian Bay, and the Sault, touching at Killarney and the Manitoulin Islands carrying passengers and freight. In September 1882, the Canadian Department of Marine and Fisheries canceled the propeller *Emerald* certificate to carry passengers. The propeller *Emerald* was converted to a barge in 1885 and her master was Captain George A. McCoy.

Final enrollment for the barge *Emerald* was surrendered March 26, 1907 and endorsed "broken up".



Pearl: John P. Clark, Detroit, MI; with J. Drackett, as master carpenter, built a wooden sidewheel steamer for the passenger and excursion steamer service at Put-In-Bay, and for Lake Erie service. She was first enrolled at Detroit in July 1875. Her measures were recorded as: 177.0' x 28.7' x 10.0'; 551.66 grt, 405.12 net. She was equipped with a Low Pressure, Vertical Beam engine, 46" bore x 108" stroke. Rated at 400 horsepower and built by Fletcher, Harrison & Co. Steam was generated by a boiler, 11' 6" x 22', built by Detroit Locomotive Works. Her official number was 150032. Her masters from 1877 through 1893 were: Captain John Edwards, 1877 – 83, and again 1886 – 1893; and Captain William R. Kuehle, 1884 & 1885. Charles L. Barron was chief engineer from 1877 to 1889. In the late 1870s, she was chartered by the Ashley & Mitchell's Peoples Line. In September 1878, the sidewheel steamer *Pearl*, breaking free of her moorings at Fairport Harbor, OH, during a storm, drifted out into Lake Erie and then went aground on a sandy beach east of the harbor. Released. In June 1884, the steamer *Pearl* went ashore near White Rock, MI, Lake Huron.

Ownership of the sidewheel steamer *Pearl* changed in September 1892, to World's Fair Steamship Co., Chicago.

In February 1893, the steamer was owned by J.E. Rebstock, et al, Buffalo, in a mortgage sale. Bid price was \$10,000. Master of the steamer *Pearl* was Captain James McLarty in 1894, with Nicholas Larson as chief engineer for the 1894 to 1898 seasons. In June 1894, the sidewheel steamers *Pearl* and *Idle Hour* (U100559) collided while trying to make their docks at Buffalo, NY. The *Pearl* had her stem crushed and went into drydock for repairs.

In February 1895, ownership of the sidewheel steamer *Pearl* was changed to Crystal Beach Steamboat & Ferry Co., Buffalo, NY.

The sidewheel steamer *Pearl*, because of a libel suit from Rochester & Pittsburg Coal & Iron Co., was sold at public auction to Henry A. Menker for \$1,030, in November 1896. Master of the sidewheel steamer *Pearl* was Captain Alexander Walters for the 1896-98 seasons. During winter layup, 1897/1898, the sidewheel steamer *Pearl* was rebuilt at Davidson's Shipyard, West Bay City, MI. The rebuild cost \$10,000.

Ownership of the sidewheel steamer *Pearl* changed in 1899 to A. Hickman, Buffalo. Master of the

sidewheel steamer *Pearl* was Captain D. Johns in 1899. In July 1900, fire broke out in the engine room while she was at Buffalo. Extinguished. She was dry docked to receive arches during winter layup 1900-01. She was renamed and registered as *Crystal* (U150032) in 1901. In 1904, while laid up at the end of Ferry Street, Buffalo, NY, steamer *Crystal* sank when the low water in the river caused the boat to settle on pilings. She dipped and took on water. In an appraisal, April 1904, the steamer *Crystal*, sunk at her dock on the Niagara River, was been badly damaged by ice.

Ownership of the steamer *Crystal* was changed to William F. Kasting in September 1906. He had her raised and towed to the Erie Basin, where she was dismantled and her machinery taken out and sold. Federal authorities libeled the old sidewheel steamer *Crystal* to secure payment for the bill of \$500 for raising the steamer. in 1905.

Final enrollment for the sidewheel steamer *Crystal* was surrendered at Buffalo, NY, June 30, 1907, and endorsed "abandoned".



Portage: Union Dry Dock Co., Buffalo, NY, built a wooden package freighter for the Union Steamboat Co., Buffalo, to be used in the package freight trade between Buffalo and Chicago. Her cost to build was set at of \$90,000. Enrolled at Buffalo, September 1875, her measures were recorded as: 238.0' x 34.66' x 14.50'; 1608.22 grt, 1451.46 net. She was powered by a Steeple compound engine, of the Perry & Lay's patent, 26", 54" bore x 36" stroke, 400 horsepower, built by King Iron Works, Buffalo, NY in 1875. Steam was generated by a firebox boiler, 9' x 18' @ 80 pounds steam, built by M. Ritter, Buffalo, NY in 1874. She was assigned official number 150042. Her masters for the 1875 season were Captain W.D. Douglas and Captain David Bordeaux with Joseph Phillips as chief engineer. In October 1875, bound down, the package freighter *Portage* went ashore at Bar Point, Lake Erie. She required lightering to be released. June 1878, the package freighter *Portage* collided with the schooner *B.F. Wade* while she was lying at Wells Street Bridge, Chicago. The *Portage* suffered slight damage. In 1884, master of the package freighter *Portage* was Captain Walter Robinson, with John L. Rawson in 1880-84 and Frederick Rehbaum Sr in 1885 as chief engineer.

In April 1892, ownership of the package freighter *Portage* was changed to Henry C. French, 51/100, John Gordon, 25/100, and William B. Meadowcroft, 24/100, all from Buffalo NY.

In April 1893, ownership of the package freighter *Portage* was transferred to Henry C. French, 51/100, William J. Conners, 49/100, both from Buffalo.

In September 1895, ownership of the package freighter *Portage* was transferred to Henry C. French, 51/100, and John Gordon, 49/100, both from Buffalo NY.

Later that same month, ownership of the package freighter *Portage* was changed to Union Transit Co., Buffalo, NY. Her masters for the 1899 to 1903 seasons were: Captain John Tyrney, 1899-1901 & 1903, Captain William Rice, 1902 with the following as chief engineers: George Fritchie, 1887 & 1890; George W. Haig, 1898-1901; Dennis Strubel, 1902; Edward Oag, 1903. In 1903, the package freighter *Portage* had her arches broken while sailing in heavy seas west of Fairport, OH, Lake Erie.

In 1905, ownership of the package freighter was sold to Portage Transit Co., Toledo, OH. She was cut down to make a coarse freight carrier for use in the lumber trade. Her recorded enrollment measures were: 238' x 34.8' x 12.9'; 1020 grt, 940 net. Bound for Duluth, in November 1905, laden with salt, the steam barge *Portage* stranded on a rock three-fourths of a mile from Point au Sable, Lake Superior. Released. Master of the steam barge, for the 1907 season, *Portage* was Captain William J. Cowles with J. W. Kennedy as chief engineer. In September 1907, the steam barge *Portage* suffered a boiler room fire at dock in Marquette, MI. She was towed to Duluth for repairs.

In December 1909, ownership of the steam barge *Portage* was changed to Petrol Traffic Co. Toledo, OH and renamed to *George H. Van Vleck*, (U150042). In August 1914, the steam barge *George H. Van Vleck*, laden with 1,000,000 feet of pine lumber, caught fire near Outer Island, Lake Superior and burned. Towed to Duluth, MN harbor, she sank in 21 feet of water. Raised and repaired.

Ownership of the steam barge *George H. Van Vleck* was changed to C.A. Ulsh, Toledo, OH, October 1917. In December 1918, blown off her moorings and into the channel, the steam barge *George H. Van Vleck* was driven aground by the strong current and was wrecked in the Detroit River, off Ecorse, MI. Hulk was abandoned. Her remains were removed in 1919.

Final enrollment for the steam barge *George H. Van Vleck* was surrendered December 1918, at Duluth, MN, and endorsed "abandoned".



John Pridgeon, Jr.: John P. Clark at Detroit, built a wooden steambarge for Captain John Pridgeon, also from Detroit, to be used in the package freight trade. Initial enrollment was issued at Detroit in May 1875. Her measures as recorded were: 221.42' x 36.25' x 14.0'; 1211.88 grt, 1037.71 net. She was powered by a low-pressure engine, 46" bore x 40" stroke, rated at 375 horsepower, built by Detroit Locomotive Works, Detroit in 1870. The engine was originally installed in the steambarge *B. F. Wade* (U2156). Steam was generated by a boiler, 11' x 22'. Her official number was 75756. Her master for the 1875 season was Captain J. N. Lewis. In November 1877, the steambarge collided with the tug *Goonenow*. Little damage. In May 1883, the steambarge *John Pridgeon Jr.* and the schooner *J.H. Mead* (U75722) collided at Cheboygan, MI. Both vessels were badly damaged and required repairs. During 1883 layup, the steambarge *John Pridgeon Jr.* received a new firebox boiler, 10' x 16', 50 pounds steam, built by McGregor, Detroit, MI.

Ownership of the steambarge *John Pridgeon Jr.* was transferred in 1886, to John Pridgeon, Jr., Detroit, MI. October 1886, in thick fog, the steambarge *John Pridgeon Jr.* and the steambarge *Selah Chamberlain* (U115147) collided six miles east of Cheboygan, MI, on Lake Michigan. The *Selah Chamberlain* went to the bottom and five lives were lost. In April 1893, the steambarge *John Pridgeon Jr.* went ashore nine miles above Ashtabula, OH, on Lake Erie. She was released and towed to Detroit for repairs. Estimate for repairs was \$25,121.

In June 1893, ownership shares in the steambarge *John Pridgeon Jr.* were transferred to: John Pridgeon, ½ shares; Alvin A. Parker, ¼ shares; and Byron W. Parker, ¼ shares, all from Detroit, MI.

January 1896, ownership of the steambarge *John Pridgeon Jr.* was changed to State Transit Co., Hamtramck. Master of the steambarge *John Pridgeon Jr.* was Captain D.N. Sherwood, 1899-1901; with John Mogan as chief engineer during the same period.

In March 1902, ownership of the steambarge *John Pridgeon Jr.* was changed to Frank Roneker; Joseph D. Kropp; and James O'Connor, all from Tonawanda, NY; et al. Master of the steambarge *John Pridgeon Jr.* was Captain John J. O'Hagan for the 1902-04 seasons, with H. Malon as chief engineer. In May 1902, the steambarge *John Pridgeon Jr.* was cut down to bulk carrier at Buffalo, NY and her enrollment tonnage changed to: 1173 grt, 836 net.

In 1903, ownership of the steambarge *John Pridgeon Jr.* was changed to John J. Boland, Buffalo, NY. Masters of the steambarge *John Pridgeon Jr.* were Captain Charles Clarke, 1906 season; Captain Hugh O'Hagan, 1907-08 seasons, with John Mallon in 1906, W. Scott in 1907 and S. Scott in 1908 as chief engineers. In September 1909, the steambarge *John Pridgeon Jr.* caught in a westerly gale, turned sideways to the wave-troughs, became waterlogged and sank twelve miles northwest of Cleveland, OH, Lake Erie. No lives lost.

Final enrollment for the steambarge *John Pridgeon Jr.* was surrendered at Buffalo, NY, December 28, 1909 and endorsed "lost, foundered".



Ruby: Alvin A. Turner, at Trenton, MI, built a wooden sidewheel steamer for Northwest Transportation Co. Robert J. & Henry Hackett, Detroit, MI owners. She was enrolled at Detroit April 1875 and her measures were recorded as: 119.33; x 20.2' x 5.66'; 134.58 grt. The steamer *Ruby* was built for the passenger, package freight trade, between Toledo and Perrysburg, OH on the Maumee River. She was equipped with a Crosshead, HPNC, 22 ½" bore x 60" stroke engine. Her official number was 110236. Master, for the 1875 season was Captain Albert Mitchell with Locke as chief engineer. In September 1875, the engine of the sidewheel steamer *Ruby* was converted from high pressure to low pressure for her run on the Maumee River.

In June 1876, ownership of the sidewheel steamer *Ruby* was changed to the Western Transportation & Coal Company, Detroit, MI. In 1877, she ran between Detroit and Amherstburg, Ont. on the Detroit River.

In November 1877, ownership of the sidewheel steamer *Ruby* was changed to Cyrus V. Coy, Toledo, OH and she ran between Cleveland, OH, Put-in-Bay and Kelly's Island, on Lake Erie.

In March 1878, ownership of the sidewheel steamer *Ruby* was changed to Toledo, Lake Erie & Islands Steamboat Company, Toledo, OH. In May 1879, the sidewheel steamer *Ruby* was chartered by Henry Baly to run excursions at Chicago. In May 1880, the sidewheel steamer *Ruby* caught fire and burned while lying in the lighthouse slip at Chicago. In June 1881, the *Ruby*, rebuilt as a three-mast schooner; measure were changed to: 109.5' x 20.6' x 6.3'; 106.71 grt. She was

owned by Carl Gottlieb Von Platen & Fred Mueller, Chicago, and will be used in the lumber trade.

October 1883, ownership of the schooner *Ruby* was changed to Thomas Copp, Racine, WI & F.C. Maxon, M.O. Parker & John Saveland, all from Milwaukee, WI.

Final enrollment for the schooner *Ruby* was surrendered at Chicago, IL, June 30, 1894, and endorsed "abandoned".



St. Maries: Edward Lambert, at Homestead, Sugar Island, MI, built a wooden propeller for the passenger, package freight trade. Enrolled at Marquette, MI, November 20, 1875, her measures were 96.8' x 19.5' x 5.0'; 75.63 grt. Both her original owner and engine are unknown. Her official number was 115473. In 1877, the propeller *Ste. Maries* came ashore near Crisp Point, MI, Lake Superior. Her passengers waded ashore. The vessel was salvaged with little damage. In March 1878, the enrollment rig was changed at Marquette, to tug, propeller.

In 1879, ownership of the propeller *Ste. Maries* was changed to Greenough, Sault Ste. Marie, MI. She was rebuilt and her tonnage changed to 132.44 grt in May 1881.

In 1884, ownership of the propeller *Ste. Maries* was changed to L. P. Trempe, Sault Ste. Marie, MI. In 1886, the propeller *Ste. Maries* was blown at Deer Park, MI, Lake Superior and was scuttled to save her from damages. She was later released. In 1888, the propeller *Ste. Maries* sank 4 miles SE of Sturgeon Point Light, MI., Lake Huron. Raised.

In 1890, ownership of the propeller *Ste. Maries* was changed to J. F. Williams, Manitowoc, WI.

In August 1892, ownership of the propeller *Ste. Maries* was changed to F. H. Endress, Port Huron, MI. Bound up from St. Clair, MI to Harrisville, MI on Lake Huron, the propeller *Ste. Maries* caught fire and burned to a total loss. No lives lost.

Final enrollment was surrendered at Port Huron, MI, September 5, 1892 and endorsed "burned August 30, 1892.



Emma E. Thompson: Dave F. Edwards at Saginaw, MI, built a wooden propeller for A.W. & William Thompson, from Saginaw to be used for the bulk freight trade with a capacity for 450 tons or 325,000 feet lumber. Enrolled at Port Huron, MI in October 1875, her measures were: 126.1' x 25.0' x 9.8'; 260.54 grt, 176.0 net. The *Emma E. Thompson* was powered by a high-pressure engine, 22" bore x 22" stroke, 380 horsepower, built by W.B. Hatch Company, St. Joseph, MI in 1875. Her official number was 13568. In June 1875, the propeller *Emma E. Thompson* went aground on Carrollton bar, Saginaw River and had her boiler explode.

In April 1878, ownership of the propeller *Emma E. Thompson* was changed to William Callum, Saginaw, MI.

In April 1879, ownership of the propeller *Emma E. Thompson* was changed to Stephen C. Hall, Muskegon, MI.

In March 1880, ownership of the propeller *Emma E. Thompson* was changed to Charles T. Brown, Port Sherman, MI & Stephen C. Hall, Muskegon, MI. In May 1880, the *Emma E. Thompson* and the schooner *Kate Lyons* (US14063) collided at Chicago, IL during heavy fog.

August 1880, ownership of the *Emma E. Thompson* was changed to Simeon Cobb, Chicago, IL. Her machinery was removed and her rig was changed to a 2-masted schooner barge. The *Emma E. Thompson* was rebuilt as a steambarge with the measurements: 238.82 grt, 159.44 net, and she ran between Chicago, IL to Muskegon, MI. In April 1881, she was given the engine from the propeller *Akron* (U394). (04/29/1881)

July 1881, ownership of the *Emma E. Thompson* was transferred to Simeon Cobb, Chicago & H.L. Simonds, Boston, MA. In 1884, the *Emma E. Thompson* was rebuilt, and her measurements were changed at Chicago, IL to: 126' x 25' x 9.66'; 260.62 grt, 176.23 net. August 1886, bound from Muskegon, MI to Chicago, IL, laden with hemlock lumber, the *Emma E. Thompson* had her seams open and became waterlogged. She made port and was re-caulked. In April 1888, the propeller *Emma E. Thompson* was readmeasured, and her enrollment at Chicago was update to: 125.75' x 27.5' x 12.66'; 276.28 grt, 198.98 net.

Ownership of the propeller *Emma E. Thompson* was transferred to Simeon Cobb, H.L. Simonds & W.G. Phelps, all from Chicago, In May 1888. In 1889, she received a new boiler 7' x 12' built by Johnston Brothers.

February 1893, ownership of the propeller *Emma E. Thompson* was transferred to Simeon Cobb & W.G. Phelps, Chicago, IL.

In July 1894, ownership of the *Emma E. Thompson* was transferred to Simeon Cobb.

September 1895, ownership of the *Emma E. Thompson* was changed to Brice A. Miller, Chicago.

April 1897, ownership of the *Emma E. Thompson* was changed to E.N. Hatch, St. Joseph, MI.

April 1898, ownership of the *Emma E. Thompson* was changed to Cameron Lumber Company & Henry Bennett, Milwaukee, WI. On May 1898, the *Emma E. Thompson* went ashore on Fisherman's Island, MI, Lake Michigan. Inspection showed damaged – a broken shoe. Master of the propeller *Emma E. Thompson* was Captain Henry Bennett from 1899 to 1906 with Frank Kimber and Walter Kimber as chief engineers. In June 1901, the propeller *Emma E. Thompson* capsized at Charlevoix, MI, Lake Michigan.

In November 1902, ownership of the propeller *Emma E. Thompson* was changed to Kelley's Shingle Company, Traverse City, MI. Master of the *Emma E. Thompson* 1907 & 1908 was Captain Martin Peterson and Captain Frank Eber also in 1908 with John Hatton, 1907-08, and William H. Garrett in 1908 as chief engineer.

June 1908, ownership of the propeller *Emma E. Thompson* was changed to Henry G. Oberbauer & William H. Johnson, Alpena, MI.

In March 1911, ownership of the *Emma E. Thompson* was changed to James B. Maddock, Detroit, MI. Bound from French River, ONT for Manistee, MI in May 1914, laden with lumber, the propeller *Emma E. Thompson* caught fire while at anchor, in shelter from a storm, behind Ennis Island, Georgian Bay and burned to the waterline. No lives lost.

Traveller: Calvin & Breck, at Garden Island, Ont.; with Henry Roney as master carpenter, built a wooden sidewheel steamer. She was enrolled at Kingston, Ont. in May 1876, and her measures recorded as: 126.0' x 23.1' x 7.8'; 207.52 grt, 58.14 net. She was powered by a low-pressure engine, 34" bore x 84" stroke, built by Ward & Co., Montreal, P.Q. in 1854. Her official number was C72569. The sidewheel steamer *Traveller* was built for towing and wrecking.

Master of the wrecking tug *Traveller* for 1878 to 1881 was Captain J. Sullivan and Captain John Donnelly in 1881. In October 1881, the wrecking tug *Traveller* was struck and sunk in 40 feet of water, bottom up, near Nunn's Island, Lake St. Louis, St Lawrence River by the sidewheel steamer *Passport* (C112142). The tug was raised. No lives lost. Master of the wrecking tug *Traveller* for 1883 to 1888, was Captain J. Sullivan with George Sauve as engineer. In October 1885, the wrecking tug *Traveller* with barges *Beaufort* (C-1873), laden with 400,000 feet of deals, *Adventure* (C88575), laden with 75,000 bushels of wheat and a deck load of stone, and *Dakota* (C88571), laden with coal, in tow, had the tow lines break at Cardinal, Ont., while on the St. Lawrence

River, losing the *Beaufort* aground in the Galop Rapids and the *Adventure* going on the rocks and sinking. No lives lost.

Masters of the wrecking tug *Traveller* were Captain Alfred Forrest in 1891) and Captain Althouse Cosette in 1892 to 1895, with George Sauve as engineer in 1895. In May 1891, bound for Quebec, P.Q., the tug *Traveller*, with a large raft of square timber, had the raft go to pieces in the Lachine Rapids. The fourteen men tending to the raft when she came apart drifted down past Victoria Bridge and were rescued. No lives lost. In July 1892, the tug *Traveller* ran aground at Grindstone Island, St. Lawrence River, near Clayton, NY. She was released and dry docked to have her bottom caulked.

In March 1896, the tug *Traveller* was dismantled and her machinery installed in a new tug built at Garden Island.

Justin R. Whiting: Simon Langell, at St. Clair, MI, built a wooden, non-powered, barge for the bulk freight trade. She was enrolled at Port Huron, October 1875 and her measures recorded as: 138.2' x 26.2' x 15.8'; 458.32 grt. Her official number was 46130. The barge *Justin R. Whiting* was owned by Simon Langell, $\frac{3}{4}$ share, St. Clair, MI; and Agnes Durling, $\frac{1}{4}$ share, Marine City, MI. Masters listed for the barge *Justin R. Whiting* were Captain Emory in 1875, and Captain Simon Langell for 1877.

In April 1879, ownership of the barge *Justin R. Whiting* was changed to: William Livingston, $\frac{1}{2}$ share, and Cornelia S. Barnes, $\frac{1}{4}$ share, et al, both from Detroit, MI. During winter layup, the barge *Justin R. Whiting* was rebuilt as screw steambarge; tonnage 436.32 grt, 325.93 net. She was supplied with a high-pressure engine, 30" bore x 20" stroke; and a boiler: 8.5' x 20', with both coming from the tug *Clematis* (U5396).

Ownership shares in the steambarge *Justin R. Whiting* were changed, June 1879, to William Livingston, $\frac{3}{4}$ share, and Cornelia S. Barnes, $\frac{1}{4}$ share, both from Detroit, MI.

In March 1880, ownership of the steambarge *Justin R. Whiting* was changed to Louis V. Spencer, 3/12, Waukegan, IL; Samuel Leopold, 4/12; John Pridgeon, 3/12; and Joseph Austrian, 2/12, the last three from Chicago, IL. Enrollment changed to the port of Chicago, IL.

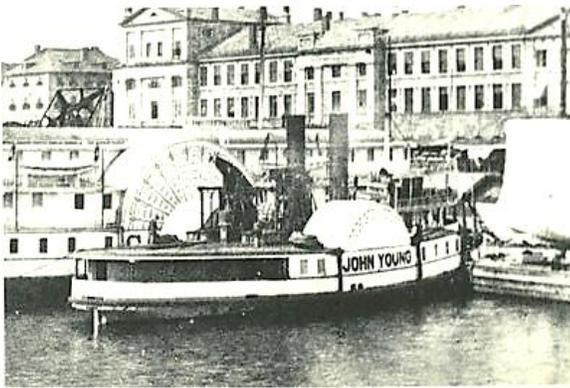
April 1881, ownership of the steambarge *Justin R. Whiting* was transferred to: Louis V. Spencer, 3/12 shares; Samuel Leopold, 4/12 shares; Charles F.A. Spencer, 3/12 share; and Joseph Austrian, 2/12 shares, Chicago, IL.

April 1883, ownership of the steambarge *Justin R. Whiting* was transferred to: Louis V. Spencer, 3/12 shares; Samuel Leopold, 2/12 shares; Charles F.A. Spencer, 3/12 shares; Joseph Austrian, 2/12 shares; Aron Leopold, 2/12 shares. In November of 1883, the steambarge *Justin R. Whiting* broke her machinery on Lake Superior. Repaired at Marquette, MI. Master of the steambarge *Justin R. Whiting* for the 1884 – 1886 seasons was Captain J. McArthur. In October 1884, the

steambarge *Justin R. Whiting* was damaged during a gale on Lake Michigan. Repaired. Hull loss set at \$450.

May 1885, ownership shares in the *Justin R. Whiting* was transferred to Leopold & Austrian of Chicago, IL. Primary investors were: Samuel Leopold, ¼ shares; Louis V. Spencer, ¼ shares; Charles F.A. Spencer, ¼ shares; and Joseph Austrian, ¼ share. During winter layup, 1885-86, while at Milwaukee, the steambarge *Justin R. Whiting* was lengthened forty feet and rebuilt as a package freighter with passenger cabins. She was renamed *Bessemer* and her enrollment measures changed to: 177.7' x 28.2' x 15.5'; 590.38 grt, 440.27 net. In November 1886, the propeller *Bessemer* had her rudder chains parted during a gale on Lake Superior. She was adrift on Lake Superior until the *B. W. Blanchard* (U2806) came to her assistance and helped in the repairs. May 1887, down bound, the propeller *Bessemer*, laden with iron ore, had her bow stove in by ice on Lake Superior. Repaired. Hull damage set at \$1,500.

In March 1888, ownership of the propeller *Bessemer* was changed to Lake Michigan & Lake Superior Transportation Co. Chicago, IL. October 1889, down bound, the propeller *Bessemer* and her consort schooner barge *Schuylkill* (U115145), both laden with iron ore, stranded at the entrance breakwater for the Portage Lake Ship Canal, Lake Superior during a heavy north-west gale. They were trying to make safe harbor. Both vessels became total losses. No lives lost.



John Young: W. P. Bartley, at Montreal, P.Q., built a wooden sidewheel steamer to be used for towing on the St. Lawrence River. She was enrolled at Montreal July 1875, and her measures recorded as: 125.0' x 22.0' x 8.1'; 163.99 grt, 103.32 net. Her owner was listed as the Harbour Commissioners of Montreal. She was equipped with two Low pressure engines, 30" bore x 96" stroke, built by W. P. Bartley, Montreal, P.Q. Her combined horsepower was: 500.0. Registered Canadian, her official number was 71619.

In 1882, her ownership was changed to Sincennes-McNaughton, Montreal, P.Q.

February 1894, the sidewheel steamer *John Young* registration was closed, and endorsed "broken up".

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.

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: $Tonnage = ((length - (beam \times 3/5)) \times Beam \times Beam/2)/94$

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 $1533\frac{3}{4}$ 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, which 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.)