

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 – October 2024

Our Next Meeting: November 16, 2024;  
Hybrid - Classroom "C"  
"Carving" by Loran Black

## Table of Contents

<b>October</b>	1
<b>Reminder Announcements</b>	1
National Museum of the Great Lakes	1
Society for Nautical Research (SNR)	2
Our Web Site:	2
Fall 2024 To Do's	2
Dues:	2
Election of 2025 officers:	2
2025 Presentation Planning	2
Coming to you via mail/email:	3
<b>Presentation:</b>	3
<b>Ships on Deck</b>	5
Le Coureur – Card Model	5
St. Isabella	6
Bleriot XI	6
<b>Other Notes: "Stuff", Tugs &amp; Things</b>	6
Nautical Terms	6
Tip of the Month	7
Tugs: Great Lakes	7
Joe D. Dudley, 1865	7
Charles F. Dunbar, 1898	7
<b>Presentation Schedule:</b>	8
<b>Events &amp; Dates to Note:</b>	8
<b>Cargo Hold</b>	8
<b>Wooden Steamers on the Great Lakes</b>	9
<b>Notes</b>	20

## October

We had a normal turnout for the meeting on a beautiful fall, none OSU home game, day. The meeting was a hybrid with 4 in-person and 9 on zoom.



We covered club business: dues, election of 2025 officers, and develop the 2025 presentation topics, all that have to be completed before the new year.

I have included brief description of each of the above subjects and a timetable for your input on each subject. So read on.

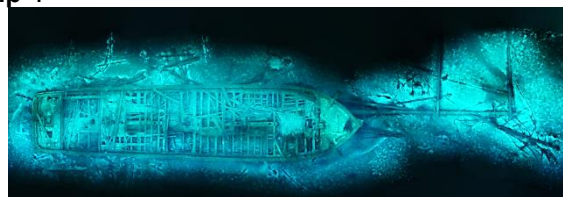
November's meeting will also be a hybrid, but I strongly encourage you to attend in person. The November meeting topic is carving by Loran Black. Loran plans to bring in his carvings and explain how he carved it as well as talk about carving tool and sharpening. Here is your chance to talk with our in-house artist. Hopefully we will see you in-person, if not on-line in November.

As always, take care of yourself and your families, look to those you know who may need help or are lonely or may be in need of human contact. If you have not gotten your Covid & Flu shot, please do. Till next month. Your editor.

## Reminder Announcements

### National Museum of the Great Lakes

Mark your calendars for Wednesday, November 13<sup>th</sup>, 2024, for a 7 PM Zoom broadcast, when marine archaeologist Tamara Thomsen will present on "**Rouse Simmons: The Christmas Tree Ship**".



Thomsen will recount the tale of the *Rouse Simmons*, which set sail on November 22, 1912, from Thompson, Michigan, loaded with Christmas trees destined for Chicago but tragically never reached its destination. The ship's disappearance remained a mystery until its discovery in 1971, submerged in 170 feet of water.

In this lecture, you'll explore the findings from the Wisconsin Historical Society's archaeological survey of the wreck site, which led to its nomination to the National Register of Historic Places. Thomsen will share insights from the dive team's investigations and

historical research, shedding light on what might have occurred on that fateful day.



**Venue:** Hybrid: Online Virtual or In-person at the National Museum of the Great Lakes, 1701 Front Street, Toledo, OH 43605 United States

Register for this event at:

<https://www.eventbrite.com/e/2024-fall-lecture-series-rouse-simmons-the-christmas-tree-ship-tickets-999475577357?aff=oddtcreator>

Or go to: <https://nmgl.org/event/rouse-simmons-the-christmas-tree-ship/>

And register there. This is a free offering.

### Society for Nautical Research (SNR)

Yearly dues to the SNR is £45\* / year (\$59.24 - US). This provides you with access to over 2000 articles, Quarterly - hard copy of *The Mariner's Mirror*, Monthly Topmasts Newsletters, Membership card for free access and discounts; and full forum access \*Same price for UK & international members.

Interested? <https://snr.org.uk/become-a-member/>

Their winter 2024 lecture series, all Zoom access, is:

- Oct 24<sup>th</sup> – *HMS Victory's* – Managing archaeological data
- Nov. 6<sup>th</sup> – "Tempest; the Royal Navy and the Age of Revolution
- Nov. 20<sup>th</sup> – "The Horrible Peace; British Veterans & the end of the Napoleonic Wars
- Dec. 4<sup>th</sup> – Rewriting Women into Maritime History
- December 18<sup>th</sup> – William Shaw Lindsay; Victorian Entrepreneur

The 2025 SNR Series titles announced are:

- January: The past, present and future of shipbuilding
- February: Archaeological exploration of historical shipwrecks in the Irish sea
- March: Diversity at sea: How sharing historical research can make a difference to present and future of the maritime industry and public understanding

### Our Web Site:

<https://shipwrightsofcentralohio.com/>

We need each of you to check out the "Built Models" web page on our web site, above.

- Review what is shown under your name
  - Submit photos of your finished ship models to John at: [boxlink@aol.com](mailto:boxlink@aol.com)
- If your name & photos of completed models are not listed:

- Submit photos of your finished ship models to John at: [boxlink@aol.com](mailto:boxlink@aol.com)

### Fall 2024 To Do's.

The following, we either need your attention or are for your information. There are three items that we, as a club, need to complete before 2025. They are 2025 dues; approval of By Law changes and the election of 2025 officers; Selection and staffing for the 2025 presentation schedule.

#### Dues:

Dues for 2025 will be \$20. If not paid by March 2025, your name will be dropped from roster.

There are four ways to pay your dues: 1, Cash at a meeting; 2, Check - made out to "Shipwrights of Ohio" and either delivered to Lee at a meeting or mailed to Lee Kimmins at: 5298 Timberlake Circle, Orient, OH 43146-9249; 3, Venmo" electronic fund transfer (EFT) to our account; and 4, "Zello", if Chase customer (EFT) to Lee Kimmins account, A letter with contact information will be sent to each of you on Wednesday, Oct. 23, 2024.

#### Election of 2025 officers:

Out club By Laws state:

Article IV, Section 2: The officers shall be elected at the annual meeting from the roster of regular members.

Article V, Section 2: The annual meeting shall be held in November, at which time officers shall be elected.

In the 2021 approved By Laws, the list of club officers are: President; Vice President; Editor; Photographer; Treasurer; Web Master; and Zoom Master.

For approval at the November 2024 meeting, the list of club officers has changed to consolidate the roles of editor and photographer under a new position called Communications. We have also added a new position "Recruitment" (grow member base).

You will be mailed, on Thursday November 24, a copy of the revised By Laws that will be voted on at the November meeting.

The slate of officers that have been nominated or are continuing in their present position are:

- |                    |                |         |
|--------------------|----------------|---------|
| • President -      | Bob Mains      | (New)   |
| • Vice President - | Cliff Mitchell | (New)   |
| • Communications – | Bill Nyberg    | (Cont.) |
| • Recruitment -    | Jeff Northup   | (New)   |
| • Treasurer –      | Lee Kimmins    | (Cont.) |
| • Web Master –     | John Boeck     | (Cont.) |
| • Zoom Master –    | Steven Keller  | (New)   |

### 2025 Presentation Planning

On Friday, October 25<sup>th</sup>, 2024, you will be mailed a list of 79 presentation topics that have been presented in the past or are new this year. The list of presentation topics is organized into the following categories: Fixtures; General; History; Hull Building;



Museum Road trips; Radio Control; Research: Rigging; Techniques: Tools.

From those 79 topics, pick 4 that you would either like to know more about or are willing to present because of your expertise or that you are willing to research and present because it is a weak topic in your building.

You will also find two topics listed under zoom broadcasts; three that have been requested in the past, that require someone to research and present, and three events that we, as a ship modeling club, have participated in in the past.

Review the list, make your selections and list them under 2025 Presentation Plan – Choices on the bottom right side of the list.

Also indicate those you would do the research, presentation development, and present and indicate that on your selection sheet under- 2025 Willing to Present. Also indicate which monthly meeting would work best for you to present.

Your selection can be emailed to me at the email address found in the original notice, or brought to the November meeting. Due date for you input is prior to November 16, 2024.

#### Coming to you via mail/email:

- October Ropewalk - Send out **10/22/24**
- 2025 Dues Collection Instruction – Send out **10/23/24**; Need response before year-end
- New position descriptions – Send out **10/24/24**  
By Laws, Approval vote at November meeting (11/16/24)
- List on nominated candidates – Send out **10/24/24**  
Approval vote at November meeting (11/16/24)
- 2025 presentation list - Send out **10/25/24**  
Make selections (4) what you would like to learn about. Indicate subjects that you would be willing to present. Need your input before the November meeting – 11/16/24

#### Presentation:

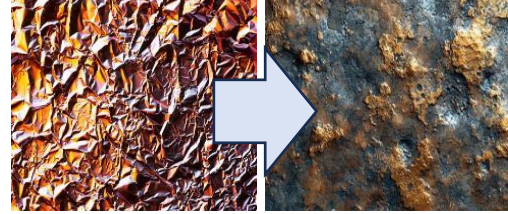
Our presentation, by John Boeck, was called "Realism in Modeling. This talk was a small bite out of the expansive world of "Weathering"

Time, use and the elements create a new appearance and reality of "things" Vessels are significantly impacted by the elements, their users, and their usage.....more and more over time.



The above shows the accumulated dust, dirt, grease, as well as wear, scratches, rust, dents, loose paint, etc.

Some materials change appearance significantly



Some items of appear differently due to material.



Since not all vessels age the same, find examples of similar vessels to identify location and type of weathering. Expect things like:

- Dirt in corners, around loose items on decks or running down walls
- Oxidized paint: color lightens & shine dims
- Rust around edges and places that water consistently runs
- Oil/grease stains near machinery

The ship shown below has:

- Paint fading to different colors on hull
- Flaking paint
- Surface rust across the upper hull; significant rust below scuppers, rails and other breaks in the bulwarks
- Rust appears black on the lower hull
- Light coating of gray dirt also present



Your editors current build from a photo, show wear and aging to the hull.



#### Planning:

Plan what age/state (showcase, new-built, battle-tested, past-its-prime, etc.) the model represents.

Where does the appropriate aging appear? Don't overlook usage wear. The crispness of detail will fade with age. Avoid getting carried away. Retain focus

Tinting, rubbing, fading a small area can tend to carry into a broader application, ruining the effect and causing rework.



Was this intended to look like a ship past its prime?

Techniques:



Most common weathering tasks are:

- Worn paint
- Rust
- Weathered wood
- Flaking paint
- Aging blocks and cables

Dents, broken windows, missing or broken parts and other effects of aging can be encountered too

Colored paint, stains and powders are useful for many weathering effects. Common colors for:

- Rust: barn red to orange
- Dirt: black to brown
- Grease: black
- Copper: Red-Orange to turquoise
- Bare steel: Varied light gray

Highlights/Emphasis can be achieved with thinned black or dark brown wash



- Colored base coat acts as primer and enhances look of rust

- Combining brown, dark red, orange and black in patches simulates rust
- Add turquoise, evergreen green and blue for corrosion

Add the rust colors in small drops to simulate a rupture in the paint coat, exposing the metal which then developed rust.

Wooden surfaces, due to grain and wear can show age and usage. Here are some examples.



Plain wood



Gray & brown wash



Black-wash edges



Burnt cork applied to the wood surface



Worn Paint

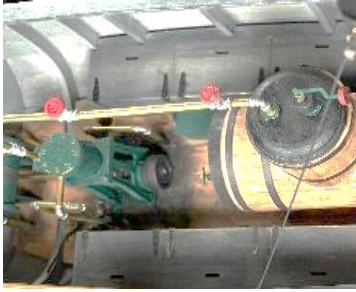


Multi-layer paint

Most items on a ship will show dirt, scrapes, rubs, wear, rust and dust. Sailors, tending the lines and sails had to climb and their hands and feet got coated with Swedish tar that coats the standing rigging. That in turn rubs off on the deck and ladders. Why do you think, on naval vessels, they holystone the decks every morning?



Here are two examples:



Engine wear and usage.



Seats, deck and railings on a sailing vessel, showing wear.

When you treat each fixture and then combine the pieces, you get:



### Supplies

- Materials
  - Powder – dust, dirt, smudges, emphasis
  - Paint – color variations, age marks, dent & crevice highlights
  - Rubber cement – rust patches, stippling
  - Abrasives – thinning paint, scratches, wear patches
  - Thinners – color variations, plastic stippling/melting
  - Tin Foil – crumpled, torn/metal
  - Weathering solutions – commercial specialty products
  - Vendors: local hobby shops, MicroMark, Model Expo, Michaels, JoAnne Fabrics, Hobbylinc, ...
- Tools
  - Sandpaper
  - Scrapers: knives,
  - Applicators – disposable brushes, steel wool, sponge
  - "Distressers": small flat or rounded head tools, hammers
  - Rotary tool - with brushes and cutters
  - Heating tools – blower, irons



- Usually, weathering consists of mimicking rubs or dirt...some sail wear and rope aging
- It should be consistent with known examples to maintain authenticity
- Common tools and materials are fine
- Not always necessary, but can lend character to a model

### Ships on Deck

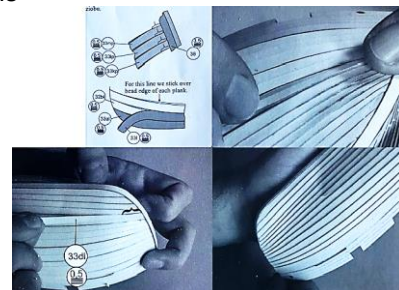
The intro photos for each ship shown after the title are for reference to what the model could look like when finished.

#### **Le Coureur** – Card Model

Julia Holloway



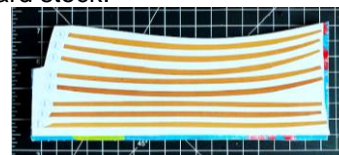
Instructions



Card Stock used – French Rice Krispies box that Julia sanded the box label off to get to the card stock.



The next photo shows the cutout plank patterns laid out on the card stock.



The next photo shows the model with its second planking begun.



The colored planks are the color of the pattern from the kit as laid out on the card stock.

The next two models are from Rob Washburn



### ***St. Isabella***

Rob Washburn

A Vanguard Model, of a Scottish herring fishing vessel. And yes, it does looklike the sails are on backwards, but the bow is almost vertical and the stern is a slooping curve with a rudder attached.



Planking the hull



Deck furniture & Rigging sails



### ***Bleriot XI***

Rob Washburn



Also from Rob, is a 1:16 scale Bleriot XI, the plane Louis Bleriot flew over the English Channel. His comments: Good model; Stumped me more than once; Wire wheels took a week and I never got them right. This was his third 1:16 scale plane.



### **Other Notes: "Stuff", Tugs & Things**

#### ***Nautical Terms***

***Ship over:*** To reenlist. When a sailor extends his or her service another term.



**Ship-polacca:** A three-masted Polacca (A 17th-century sailing vessel commonly seen in the Mediterranean, similar to a xebec with two or three masts.

**Ship stores:** The materials, supplies and equipment required for the navigation, maintenance, operation and upkeep of a ship.

**Ship's bell:** Striking the ship's bell is the traditional method of marking time and regulating the crew's watches. Each bell (from one to eight) represents a 30-minute period since the beginning of a four-hour watch. For example, in the classical system, "Three bells in the morning watch" represents 90 minutes since the beginning of the morning watch, or 5:30 AM. "Eight bells" indicates the end of a watch.

**Ship's company:** The crew of a ship including officers.

**Ship's Husband:** A legal term for an agent based on land, who has authority to make repairs and attend to the management, equipment, and general management of a ship in the home port.

**Ship breach:** Another name for a shipwreck.

**Shipping:** Passage or transport on a ship; Maritime Transport; 2. The body of ships belonging to one country, port, or industry.

**Shipsshape:** Meticulously neat and tidy. A sailor is expected to keep his or her quarters shipsshape, with all items arranged neatly and securely, both to save space aboard ship and because of the danger posed by loose objects if the ship encounters turbulent seas.

**Shipwreck:** The remains of a ship that has sunk; The remains of a ship that has run aground such that she is no longer seaworthy; An event in which a ship sinks or otherwise becomes a wreck.

**Shipwrecking:** To wreck a ship through a mishap.

**Shipwrecked:** A person marooned due to the loss of a ship he or she was aboard is said to be shipwrecked.

**Shipwright:** A person who designs, builds, and repairs ships, especially wooden ones.

**Shipyard:** A facility where ships or boats are built and repaired. Routinely used as a synonym for dockyard, although dockyard is sometimes associated more closely with a facility used for maintenance and basing activities, while shipyard sometimes is associated more closely with a facility used in construction.

Nautical Terms Wikipedia

### Tip of the Month

This tip is from "thelastnald" on Model Ship World, via BlueJacket Ship Crafters monthly newsletter.

*"Titebond is the strongest wood glue on the market, and everyone likes it. But few know how to quick and easy unglue it. This is the trick:*

*All you need is Acetic Acid (CH<sub>3</sub>COOH, available on Amazon), and a plastic dropper, a hair dryer and some cleaning water.*

*Using the dropper for sucking Acetic Acid, then drop on the gap of the wood which is stuck. And try to wobble and tap on it, you'll find it has become loose. Take the piece off and grind of the glue. Before you reassemble them with glue, using a cloth or toilet paper moistened with water (baking soda + water is better) then wrung well, and wipe gently to clean the pieces which you took apart, and blow dry them.*

*This tip is suitable for Titebond I, II, III. No matter how long it is left, this way will always work."*

October 21, 2024

### Tugs: Great Lakes

#### Joe D. Dudley, 1865



Built by George Notter & Co. at Buffalo, her measures were: 64.5' x 15.1' x 7.1'; 55.1 grt, 28.56 net. Her official number was 12957. She was owned out of Marquette, MI in 1866, then by C.E. Benham, Cleveland. She was rebuilt in 1892 and then owned by the Stevens Tug Line, Duluth in 1895. In 1903 she was sold Canadian, and in 1910 was owned by Great Lakes Dredging & Co. In 1940 she was owned by Consolidating Dredging Contracting Co, Port Arthur, Ont. She was dropped from registry in 1943..

BGSU University Libraries; Historical Collections of the Lakes & Alpena County the George N. Fletcher Public Library

#### Charles F. Dunbar, 1898



The Charles F. Dunbar was built at Buffalo, NY by King Iron Works, at the Union Dry Dock. She was iron hulled, and her measures were: 86.2' x 23.4' x 10.8'; 136 grt, 92 net. She was powered by a three cylinder engine, 14", 25" 40" bore x 27" stroke, 800 hp @ 95 rpm built by H.G. Trout, Buffalo. Steam, at 210 psi, was generated by Roberts Safety Watertube Boiler Co, Red Bank, NJ. She was originally used to haul gravel on the Niagara river breakwater extension. In 1913, ownership was changed Canadian, and she was renamed *Betty D.*, C131010. In 1937, she was sold American, to Material Service Co., Chicago and renamed *Sol R. Crown*, US127241. In 1946 she was renamed *Minnicog*.

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

## **Presentation Schedule:**

### **2024 – Schedule Tentative**

Jan 20 CAD, 3D Printing  
Feb 17 Display Case  
Mar 16 CAD, 3D Printing, Advanced  
Apr 20 Dioramas  
May 18 Adhesives  
June 22 Workshop  
July 20 Air Brushing  
Aug 17 Scratch Building  
Sep 21 "Scratch Building Ultimate"  
Oct 19 Weathering  
Nov 16 Carving  
Dec 14

## **Events & Dates to Note:**

### **2024 Tentative Schedule**

**Columbus Woodworking Show**  
**Ohio Expo Center**  
**January 19-21, 2024**

**IPMS Columbus**  
**BLIZZCON 2024**  
**Makoy Center, Hilliard, OH**  
**Saturday, February 24, 2024**

**Miami Valley Woodcarving Show**  
**Christ United Methodist Church**  
**Middletown, OH**  
**March 3-4, 2024**

**46<sup>th</sup> Midwestern Model & Boat Show,**  
**Wisconsin Maritime Museum, Manitowoc, WI**  
**May 17-19, 2024**

**Westerville Library Display**  
**June 1 – 28, 2024**

**Columbus Air Show**  
**U.S. Air Force "Thunderbirds"**  
**Columbus Rickenbacker International Airport**  
**June 14-16, 2024**

**Ship Modeling Workshop**  
**Westerville Public Library**  
**June 22, 2024, Noon – 4 pm**

**Lakeside Antique & Classic Wooden Boat**  
**Lakeside Hotel, Lakeside, OH**  
**July 14, 2024**

**Great Lakes Tall Ships Festival**  
**200<sup>th</sup> anniversary, Battle of Lake Erie re-enactment at**  
**Put-In-Bay, September 2, 2024**  
**Erie, PA dockage, Sept. 6-8, 2024**

**Ohio River Sternwheel Festival**  
**Riverfront Park, Marietta, OH**  
**September 6-8, 2024**

**LST-325 Cruise on Ohio River**  
**Wheeling, WV – Sept. 5-10, 2024**  
**Marietta, OH, Sept. 12-15, 2024**

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## **Cargo Hold**

[www.shipwrightsofohio.com/cargo\\_hold/](http://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.
- Other events: 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.

### 1873-B

**Calabria:** A. Muir & Bros. Port Dalhousie, Ont. built a wooden propeller for D. Butters, et al, Toronto, to be used as a steambarge in the bulk freight trade. She ran between Montreal & St. Catharines. The vessel was built on the bottom of the wooden propeller *Brantford* (C-1851). The *Calabria* was enrolled at Hamilton, Ont. in April 1875. Her measures were: 145.6' x 22.3' x 7.3';

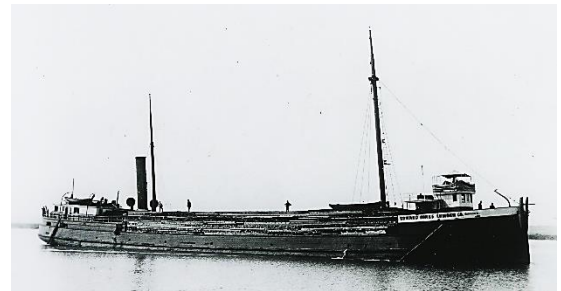
391.0 grt. She was powered by a 100 hp engine, 26" bore x 36" stroke. Built by the Becket & co., Hamilton, Ont. The *Calabria* was assigned official Canadian number 77695. In 1875, she was rebuilt and her measures changed to: 158.4' x 26.0' x 11.4'; 656.21 grt, 4254.13 net. During winter layup 1876 she received large repairs.

In October 1878, ownership of the steambarge *Calabria* was held by D. Butters & H. Zealand, both for Hamilton. She ran between Montreal and Chicago.

July 1879, ownership of the steambarge *Calabria* was changed to the Merchants Line, Montreal.

May 1880, ownership of the of the steambarge *Calabria* was changed to A. Turner & H. Zealand, both from St. Catharines. She was rebuilt at Port Dalhousie in June 1880. In March 1881, her name was changed to *Glenfinlas*, and she ran between Fort Williams & Montreal in the grain trade. In August 1883, while docked at St. Catharines, to unload her cargo of 21,000 bushels corn plus 700 hides and 10 barrels of whiskey plus other miscellaneous freight, the steambarge caught fire and burned to her waterline.

Her enrollment was surrendered on September 14, 1883.



**Cormorant:** Ira Lafrinier, at Cleveland, built a wooden propeller for R.K. Winslow, Cleveland; and H.J. Winslow, New York. To be used in the bulk freight, grain and iron ore, trade. She was estimated to be able to carry 1,300 tons of iron ore or 45,000 bushels of corn. The *Cormorant* was enrolled at Cleveland, OH on September 8, 1873 and her measures recorded as: 218.33' x 34.50' x 14.00'; 872 grt. She was powered by a condensing steam engine with: 30" bore x 30" stroke built by Globe Iron Works, Cleveland. Her two boilers, also built by Globe Iron Works, each 7' 3" by 17', produced 95 pounds steam. She was assigned official number 125334. She was originally painted "iron ore" red and was sisterships with *Raleigh* (110154) and *Egyptian* (8988). Master of the steam barge *Cormorant*, for the 1873 season, was Captain Albert Little with James Lord as chief engineer. In May 1874, the steam barge *Cormorant* went aground on the rocks in the Neebish Rapids, Saint Mary's River, Straits of Mackinaw. Assessed \$500 damage to hull. She was released and repaired. During winter layup, 1877/78, the steam barge *Cormorant* received an upper deck which would render her more seaworthy and increase

her carry capacity from 3,000 to 5,000 bushels of grain. She was readmeasured at Cleveland, in April 1878, with her tonnage recorded as: 1,200 grt, 1041 net. During the 1880's to the 1890's she towed the schooner barge *Charles Wall* (4372). Her master for the 1883-84 seasons of the steam barge *Cormorant* was Captain William Carlisle with George Waterbury assigned chief engineer in 1879. In August 1883, while on Lake Huron she lost her mast at Detour, MI. In June 1884, off Round Island, St. Mary's River, her machinery became disabled. Hull damage estimated at \$750. Repaired. In August 1886, during dense fog, the steam barge *Cormorant*, with her consort *Richard Winslow* (U110003), went aground near Round Island, Waiska Bay, Lake Superior. Released. She received a new deck during winter layup of 1888.

In May 1888, ownership of the steam barge *Cormorant* was transferred to: R.K. Winslow, 5/12, Cleveland, OH; H.J. Winslow, 1/2, New York, NY; John R. Chadwick, 1/12, Cleveland, OH. In September 1889, the steam barge *Cormorant* stranded on Chickenolee Reef, Pelee Island, Lake Erie. Repaired.

In March 1890, ownership of the steam barge *Cormorant* was transferred to the estate of H.J. Winslow. In November 1890, the steam barge *Cormorant* caught fire from an exploding lamp and burned while at Toledo. The vessel was valued at \$50,000. She was rebuilt and received new steel arches during winter layup 1890/91.

Ownership shares of the steam barge *Cormorant* were transferred, in April 1891, to the estate of H. J. Winslow, 1/2, New York; R.K. Winslow, 7/24, Cleveland; Captain Carlton Graves, 1/8; et al.

In March 1892, ownership of the steam barge *Cormorant* was changed to Henry W. Watson, 7/8, Buffalo; Captain F. S. Lawson, 1/8, Erie, PA. Her master for the 1893 season was Captain Carlton Graves.

Ownership of the steam barge *Cormorant* was transferred, in May 1895, to the estate of R.K. Winslow, 9/24, Cleveland, OH; Richard Winslow, 8/24, New York, NY; et al. Her master for the 1896 season was Captain William Clancy with William J. Slater as chief engineer.

Ownership of the steam barge *Cormorant* was changed, in April 1896, to John R. Crosthwaite, 1/3, Buffalo; Emma Hall, 1/3, and Oliva M. Munson, 1/3, both from Bay Mills, MI; et al. Her new owners spent \$11,000 on the steam barge, rebuilding her as a lumber carrier. *Cormorant* and she was fitted with a new: 24" x 44" x 30", 450 hp at 85 rpm steeple compound engine; one 12' x 14' scotch boiler at Globe Iron Works, Cleveland. In September 1897, she was readmeasured at Buffalo and her tonnage changed to: 977 grt, 817 net. In 1898, she towed the schooner barge *Alice Norris* (105971) with a capacity 825,000 feet lumber.

In February 1899, ownership of the steam barge *Cormorant* was transferred to John R.

October 21, 2024

Crosthwaite, 1/3, Buffalo; Emma Hall, 1/3, Bay Mills; et al. Master of the steam barge *Cormorant* for the 1899 to 1901 seasons was Captain John Milne with chief engineers G.A. Rogers in 1899; A.W. Carlisle in 1900; and C.E. Redner in 1901.

Ownership of the steam barge *Cormorant* was changed in February 1900 to Edward Hines Lumber Co., Chicago. Her master of the steam barge *Cormorant* for the 1903 – 1907 was Captain Kenneth A. McKenzie with chief engineers Reuben Ellis, 1903-04, and Theodore Brinker, 1905 – 07. November 1903, in dense weather, the steam barge *Cormorant* went aground on Simmons Reef, near the Straits of Mackinaw, Lake Michigan. Released. In December 1905, bound from Tonawanda, NY to Buffalo, the steam barge *Cormorant* lost her wheel and went aground on Grand Island, Niagara River. During the release effort the vessel caught fire and had her cabin, boiler room and part of upper deck burned. She was released and towed to Buffalo for repairs. In October 1907, the steam barge *Cormorant*, bound light from Duluth, MN across the lake with the schooner *Helvetia* (U95213) in tow, burned off Basswood Island, Apostle Islands, WI. Lake Superior. No lives lost. In December 1909, the *Cormorant's* hull was raised and towed to Duluth, where her machinery was salvaged. The hulk was removed to a position just off Red Cliff, WI and scuttled.



**William L. Crippen:** On the shore of Lake Michigan and the Little Manistee River, Jacob Randall of Manistee, built a wooden propeller for the bulk freight trade, for William Crippen, Manistee. Enrolled at grand Haven, MI January 1, 1874, her measures were: 150.0' x 30.0' x 11.0'; 365.38 grt, 279.08 net. She was powered by a high-pressure engine, 26" bore x 30" stroke, 275hp @ 96rpm, built by Manistee Iron Works, Manistee. Her official number was 80394.

In March 1874, ownership shares of the *William Crippen* were transferred to: William Crippen, ¾ shares; and Henry A. Luce, ¼ share, both from Manistee, MI.

In April of that same year, ownership of the steamer *William Crippen* was transferred to: William Crippen, 5/12 share; Henry A. Luce, 3/12 share; et al.

In November of 1874, ownership shares were changed to: Louis Sands, ½ shares; Christian Nemyer, ¼ share; and Fred L. Miller, ¼ share; all from Manistee, MI.



In July 1875, the ownership shares of the propeller *William Crippin* were transferred to: Louis Sands,  $\frac{3}{4}$ ; and Christian Nemyer,  $\frac{1}{4}$ ; both from Manistee, MI.

In August 1876, ownership shares of the propeller *William Crippin* were changed to: Solomon Rothschild,  $\frac{1}{4}$  share; and Louis Sands, maintained his  $\frac{3}{4}$  share; both from Manistee, MI.

In September of that same year, ownership of the propeller *William Crippin* was transferred to: Louis Sands, Manistee, MI. The chief engineer for the 1880 season of the propeller *William Crippin* was William Winne. During winter layup of 1881, the *William Crippin* was rebuilt and renamed *Maggie Marshall*, US 80394, 150.0 x 30.0 x 11.0; 365.38 grt, 279.08 net; home port: Grand Haven, MI.

In February 1886, ownership of the propeller *Maggie Marshall* was transferred to Louis Sands Salt & Lumber Co., Manistee, MI. In 1895, she was rebuilt, receiving a 8' 6" x 16' firebox boiler, 100 pounds steam, built by A. Jack & Co., Manistee. Her enrolled dimensions of the propeller *Maggie Marshall* were updated to: 150' x 30' x 11.25'. Masters and chief engineers of the propeller *Maggie Marshall* were:

Season 1896-98, Christian Dahl served as chief engineer

Seasons 1901 & 02: Captain August Johnson with William Martin from 1900-01 as chief engineer.

Seasons 1903 to 1909, Captain Andrew Olson with chief engineer R. Winkler for the 1902-03 season; John Peterson for the 1904 to 08 seasons and Frank R. Winkle for the 1909 season.

Seasons 1910 & 11, Captain Nels C. Thompson with Thomas Green in 1910, and Frank R. Winkle in 1911 as chiefs.

Season 1912, master was Captain Thomas J. Peterson with John Nelson as chief engineer for the 1912-15 season.

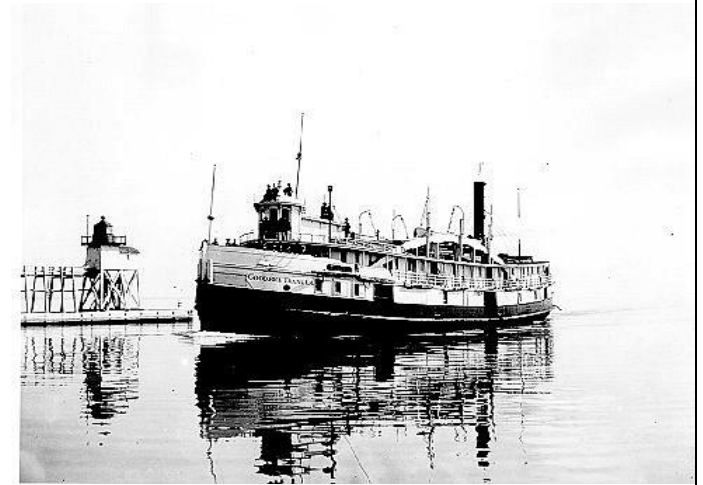
For seasons 1913 to 1917, master was Captain Edward Skeels with and Edwin Woodruff in 1917 as chief engineers.

In July 1917, ownership of the propeller *Maggie Marshall* was changed to Nessen Transportation Co., Michigan City, MI. For the remaining 1917 season, Skeels and Woodruff were replaced by Nessen Transportation master Captain John Elbe with Claire Woodrow as chief engineer.

Ownership of the propeller *Maggie Marshall* was changed, February 1918, to George A. Douglas, Detroit. Her master for that year was Captain George A. Douglass with John W. Douglass as chief engineer. In January 1919, the propeller *Maggie Marshall* was sold Canadian to Reid Towing & Wrecking Co., Sarnia, Ont. She was registered Canadian in October 1919, as *Maggie Marshall*, C141454, with measure: 150' x 30' x 11.25'; 570 grt, 385 net.

In 1920, ownership of the propeller *Maggie Marshall* was changed to Maritime Salvage & Wrecking Co., Montreal, Que. In May 1923, the propeller *Maggie Marshall* stranded on Cape Hogan, Cape Breton Island, Nova Scotia, Gulf of St. Lawrence.

Her Canadian registration was surrendered May 29, 1923, and endorsed "total loss".



**De Pere:** Rand & Burger, on the Manitowoc River at Manitowoc, WI, built a wooden propeller for the Goodrich Transportation Co. of Manitowoc. Enrolled at Milwaukee in July 1873, her measures were: 165.0' x 29.0' x 10.0', 736.22 grt, 639.81 net. The propeller *De Pere* was built for the passenger, package freight trade and was intended for the Chicago to Green Bay, WI run. Cost when ready for sea was \$80,000. The vessel was assigned official number 6849.

In February 1876 the propeller *De Pere* struck bottom in Manistee harbor and broke her wheel. August 1876, she received arches at Manitowoc. For the 1880 season, she ran between Milwaukee, Grand Haven and Ludington. After extensive repairs, especially her decks, she ran on the Chicago, Green Bay, Escanaba route. In December of 1882, bound up from Chicago on Lake Michigan, laden with general cargo, the propeller *De Pere* became stuck in ice and went ashore at Two Rivers Point, WI. April 1883, she was released and went into winter layup and was thoroughly rebuilt and was put back in commission in July 1883. Her enrollment measures were updated to: 165.4' x 29' x 10'; 736 grt. She also received a 9' x 14' firebox boiler, built by Variety Ironworks, Cleveland. Her master was Captain Raleigh with Henry Johnson as chief engineer for the 1884-88 seasons. In 1884, she ran Milwaukee, Ludington, Manistee & Frankfort route and by 1889, her route was Green Bay, Escanaba, Menominee & Manistique.

Ownership of the propeller *De Pere* was changed in January 1892, to S.B. Grummond, Detroit. The *De Pere* was re-engine with a high-pressure engine, 36" bore x 40" stroke, built by Murphy Ironworks, Detroit in 1869 for the tug *William A. Moore*. She also received an electric plant. The *De*

*Pere* has been adapted for shore business due to light draft, large freight capacity and comfortable cabins. She would run from Cleveland, Toledo and Detroit for Mackinaw, MI and intermediate ports in 1892. In 1892, her master of the propeller *De Pere* was Captain Thomas Meikleham. In 1893, the propeller *De Pere* received a new Steeple Compound engine, 22", 40" bore x 36" stroke. In April 1893, the propeller *De Pere* was renamed *State of Michigan*, U6849, with tonnage 736.22 grt, 639.81 net. Her master for the 1895-98 seasons was Captain John J. Pearson. In August 1896, during a high northwest wind, the propeller *State of Michigan*, bound up, with 35 passengers and a cargo of fruit and general merchandise, burst a pipe in her stern. She flooded and the captain beached the vessel 5 miles north of Pointe Aux Barques, MI, Lake Huron. She was released and temporarily repaired at Sand Beach, MI.

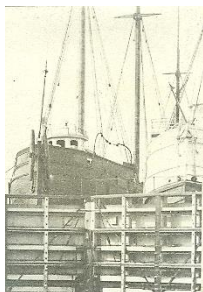
Ownership of the propeller *State of Michigan* was changed in October 1897, to Peoples Steamship Line, Detroit.

At her enrollment of the owner change the *State of Michigan* had her enrolled dimensions changed to: 165.33' x 29' x 10' in 1897.

Ownership of the propeller *State of Michigan* was changed in April 1899 to George McCullagh, Detroit.

In April 1900, ownership of the propeller was changed to Captain Miles Barry of the Chicago & Muskegon Transportation Co., Chicago. Purchase cost was \$19,000. Master of the *State of Michigan* for 1901 was Captain Davidson with Frank Barney and Peter Kerr as chief engineer. In October 1901, while entering the port of Racine, IL, the vessel Collided amidships into the moored tug *Kate Williams* (U14040). No lives lost. Later that month, bound from Muskegon, to Manistee, MI on the last trip of season, the propeller *State of Michigan* foundered about 3 miles off White River, MI, north of Muskegon, MI, on Lake Michigan, in fifty feet of water. A connecting rod broke and punctured a hole in the bottom of the vessel.

Final enrollment for the propeller *State of Michigan* was surrendered on October 22, 1901, at Chicago, and endorsed "vessel lost". In September 1908, attempts were made to salvage the propeller, but the effort was abandoned when it was found that the hull was covered by hundreds of tons of white sand.



***Egyptian*:** Quelos & Peck, at Black River (Lorain), OH, built a wooden propeller to be used in the iron ore trade. At her initial enrollment at Cleveland in July 1873, her measures were recorded as: 228.0' x 36.0' x 14.66'; 1065.08 grt. She was powered by the first fore & aft compound engine in use on the Great Lakes, a 28", 56' bore x 36" stroke. She was equipped with a tubular boiler, 8'7" x 17', 90 pounds steam, built by Globe Iron Works. Her owners were listed as R.K. Winslow, 1/2, Cleveland, and H.J. Winslow, 1/2, New York. The propeller was issued official number 8988. Her master for the 1873 season was Captain J. Smith. In May 1874, the steambarge *Egyptian*, with a cargo of iron ore, sprang a leak on Lake Huron. Damage loss set at \$800. The following month, the steambarge *Egyptian* had her machinery disabled at on the Canadian side of the Detroit River at Bar Point (mouth of Detroit River). Loss set at \$300. During winter layup, 1877/78, the steambarge *Egyptian* received upper decks which increased her carrying capacity from 3,000 to 5,000 bushels of grain. Readmeasured at Cleveland in April 1878: 232.33' x 36.16' x 14.00'; 1429 grt, 1206 net. In June of that year, the steambarge *Egyptian* with her consort went ashore, in heavy fog, a short distance from Sault Ste. Marie, on Lake Superior. Released.

Ownership of the steambarge *Egyptian* was transferred in July 1884 to: R.K. Winslow, 1/2, Cleveland; estate of H.J. Winslow, 1/2, New York. Master of the steambarge *Egyptian* for the 1885 season was Captain William Carlisle. Up bound from Buffalo, NY in May 1885, laden with a cargo of coal, the steambarge *Egyptian* went ashore on Strawberry Island, one of the Apostle Group, near the head of Lake Superior. Released. In November 1887, the steambarge *Egyptian*, bound from Ashland, OH to Lorain, OH, with 1,500 tons of ore, ran over the summer 1887 wreck of the steamer *Philip Walter* (U20414), and stove a large hole in her bottom, quickly sinking to the bottom. Loss to the hull \$5,000. No lives lost. The vessel was raised and repaired.

Ownership shares of the steambarge *Egyptian* were changed in May 1888 to: R.K. Winslow, 5/12 share; John R. Chadwick, 1/12 share, both from Cleveland; and the estate of H.J. Winslow, 1/2 share, New York, NY.

In March 1889, ownership of the steambarge *Egyptian* was changed to: Estate of H.J. Winslow, 1/2, New York, NY; George R. Teller, 1/12, Buffalo. For the 1890/91 season, the chief engineer for the steambarge *Egyptian* was G.M. Newton. In August 1890, the steambarge *Egyptian* collided with the schooner *Belle Hanscom* near Marine City, MI on the Saint Clair River. Neither vessel sank, but damage was done to the *Hanscom*.

April 1893, ownership of the steambarge *Egyptian* was changed to John J. Warde, Chicago. Master of the steambarge *Egyptian* in 1894, was Captain Thomas Beggs with Robert Walker as chief engineer. September 1894,



down bound from Milwaukee to Buffalo with a cargo grain, the steambarge *Egyptian* went aground on South Manitou Island, Lake Michigan while in dense smoke which covered the lake. Released.

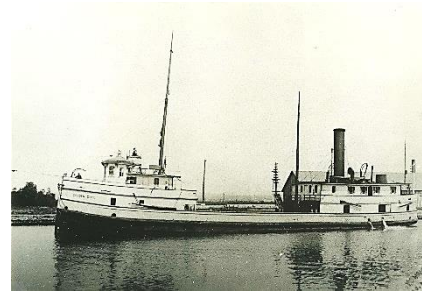
July 1895, George R. Teller, representing the H. W. Winslow estate, purchased the steambarge *Egyptian* at a U.S. Marshal Sale in Chicago for \$7,500. Later that month, her enrollment record was updated with her owners were listed as: Richard Winslow, 2/3, and Helen M. Winslow, 1/3, both from Buffalo, NY

Ownership of the steambarge *Egyptian* was changed in November 1895, to: Nelson S. Whipple, Detroit. Her master for the 1896 season was Captain Nelson S. Whipple with William Harling as chief engineer. For the 1897 season, her master was Captain Frank Goodrow. In September 1897, bound down from Escanaba, MI for Cleveland, the steambarge *Egyptian*, with a cargo of ore, ran on St. Helena Shoals, Strait of Mackinaw, Lake Michigan. Released after 400 tons of ore were jettisoned, they found that her forefoot was gone. She was taken to St. Ignace for temporary repairs. In December of that same year, bound up, from Cleveland for Milwaukee, with a cargo of 2,000 tons of coal, the steambarge *Egyptian* caught fire burned and sank fifteen miles below Thunder Bay and 10 miles from shore on Lake Huron. The vessel was valued at \$35,000 and cargo valued at \$4,000. No lives lost.

**Fletcher:** George Notter, at Buffalo, built a wooden propeller for the Niagara River Transportation Co., Suspension Bridge, NY, to be used in the bulk freight iron ore trade. At enrollment at Suspension Bridge, NY, June 1873, her measures were 186.20' x 33.50' x 13.50'; 772.88 grt. She had a 1,100 gross ton capacity and would tow the barge consort *Ironton* (100122) with a 1,200 gross ton capacity. At enrollment she was issued official number 120142.

December 1873, the steambarge *Fletcher* collided with the International Bridge at Buffalo. Damage estimated at \$100. She made six round trips from Buffalo to Lake Superior in 1874. In 1877, the steambarge was rebuilt at Black Rock, a neighborhood of Buffalo: 2 – decks, 3-masts, 985.62 grt, 670.90 net.

Sometime after 1877, ownership of the steambarge *Fletcher* was changed to James Ash, F.L. Danforth, and P.P. Pratt, all from Buffalo. In November 1880, down bound from Chicago for Buffalo, the steambarge *Fletcher*, laden with 34,000 bushels of corn, was driven ashore, during a blizzard, on South Fox Island, Lake Michigan. Her hull was wrenched so that her cargo was leaking through the sides of her hull. She was declared a total loss. No lives lost.



**Garden City:** The St. Lawrence Marine Railway, at Ogdensburg, NY - Hugh Miller, master carpenter, built a wooden propeller for the Northern Transportation Co., Cleveland, a subsidiary of the Central Vermont Railway, for the bulk freight trade. Initial enrollment was listed at Cleveland, in October 1873. Her measures were: 133.53' x 26.0' x 11.66'; 457.0 grt. She was originally powered by an engine with a 26.5' bore x 36' stroke. Assigned official number 85293. The *Garden City* was re-engine in 1875 with: steeple compound engine, 21", 38" bore x 36" stroke, built by Cuyahoga Steam Furnace Co., Cleveland, and rated at 540 indicated horsepower.

In 1875, Northern Transportation Co. went into receivership, and the reorganization led to the Northern Transit Co. in March 1876, led by Philo Chamberlain, with investors: Philo Chamberlain, A.W. French and W.W. Butler. In 1880, the *Garden City* was rebuilt at Alpena, MI as a steambarge with one deck and two masts.

Ownership of the steambarge *Garden City* was changed in April 1881, to Frank W. Gilchrist, 1/2; and George N. Fletcher, 1/2, both from Alpena, MI. In July, 1881, the *Garden City* was rebuilt as a steambarge for the lumber trade, at Port Huron, MI. She would operate from the Lake Huron lumber ports to the lower lakes. Her enrolled measures were updated to: 351.83 grt, 276.23 net.

In February 1882, ownership of the steambarge *Garden City* was transferred to George N. Fletcher, 1/2; Frank W. Gilchrist, 1/4; and Charles H. Richardson, 1/4, all from Alpena, MI.

In April 1887, ownership of the steambarge *Garden City* was consolidated to Frank W. Gilchrist, 1/2 and George N. Fletcher, 1/2, both from Alpena, MI. In May 1887, the steambarge *Garden City* ran on to the middle ground, during a dense fog, abreast of Harsens Island, Saint Clair River. Her cargo was lightered to release her. In November of that same year, the steambarge *Garden City*, bound up, Cleveland, for Alpena, laden with coal and oil and towing the schooner barges *Light Guard* (U14711), *Wend the Wave* (U26836), *Russian* (U21476), and *S. H. Lathrop* (U22396); went ashore on Black River Reef, Lake Huron in dense fog. Her wheel and shoe were lost and she was leaking badly when released and repaired. Her master for the 1892 season was Captain Nelson J. Wigle and Captain E. Rathbun in the 1894 season.

In May 1897, while moored at her dock, a fire, which started near the smokestack of the steambarge *Garden City*, gutted her cabins, engine and boiler rooms, but her machinery was saved. The vessel was rebuilt. Loss set due to the fire was \$3,000. In July of that same year, the steambarge *Garden City*, while on the Detroit River, blew out her main valve scalding her two firemen. The firemen were brought ashore by the mail tug. The steambarge was towed into drydock for repairs.

In April 1898, ownership of the steambarge *Garden City* was changed to David O'Hagan, 5/8; and John J. Boland, 3/8, both from Buffalo. October 1902, the steambarge *Garden City*, which had just unloaded lumber from Lake Superior ports, was bound for Saginaw, MI to lay up for the season, when she caught fire and burned to water's edge four miles south of Bay City, MI on the Saginaw River. Loss estimated at \$40,000. The vessel sank 4 miles above Bay City, near the old interurban railroad bridge. No lives lost.

November 04, 1902, enrollment documents for the steambarge *Garden City* were surrendered and endorsed "sank".



**Gatineau:** A composite (iron frame, wooden planking, sidewheel towboat was built by Simpson, at Quebec for the St. Lawrence Steam Navigation Co., also of Quebec. Her measures were: 116.0' x 23.0' x 6.0'; 417 grt, 280 net. She was assigned official number C69595.

In 1898, ownership of the composite towboat *Gatineau* was changed to Adirondack & St. Lawrence Rapid Transit Line; her measures were: 118.2' X 23.4' X 6.8', 293 gross, 161 net tons. She was renamed the *Paul Smith*. In 1901, she was rebuilt, after a fire in May 1900 . at Montreal, Que. In 1902, her ownership was changed to E. Robineault, Valleyfield, Que and was renamed the *Valleyfield*.

In 1909, ownership of the *Valleyfield* was changed to Joseph A. Lamare, Montreal, Que.

In 1915, ownership of the *Valleyfield* was changed to J.H. Fearnside, Hamilton, Ont.

In 1916, ownership of the *Valleyfield* was changed to the Hamilton Shipbuilding & Ferry Co., Hamilton, Ont.

In 1918, ownership of the *Valleyfield* was changed to the Navy League of Canada (Ontario Division) Toronto, Ont.

Final disposition "broken up" in 1917. The last record for the *Valleyfield* was listed in the 1920 list of Merchant Vessels US.

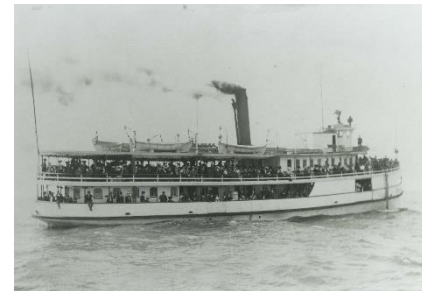
**Gatineau:** R. Anglin Jr., Brewers Mills, Ontario, built a wooden propeller for Hebrin Harris, Kemptville, Ont. She was built as a Rideau Canal steambarge. Her recorded measures, July 1873, were: 102.5' x 22.6' x 6.0'; 121 1524/3500 tons, 85 registered tons, steambarge.

Ownership of the steambarge *Gatineau* was changed to George A. Harris, Ottawa, Ont. in 1877. In 1888, the steambarge *Gatineau* was rebuilt at Ottawa, Ont: 108.0 x 24.0; 254 grt, 184 net. She was renamed *Harry Bate* and given register number C94623.

Ownership of the steambarge *Harry Bate* was changed in 1895, to the Ottawa Transportation Co.

Ownership of the steambarge *Harry Bate* was changed in 1901, to Ottawa Forwarding Co. In 1902, the steambarge *Harry Bate* was rebuilt at Ottawa, Ont: 108.0 x 24.0; 158 grt, 88 net; she was renamed *Sand King*.

Final disposition unclear. Ownership of a steambarge *Sand King* was changed to W. Fraser, Montreal in 1917. Mill's shows the *Sand King* as retired in 1913. Thunder Bay National Marine Sanctuary Collection lists the *Sand King* as "broken up" in 1912. "Lists of Vessels on Registry Books of the Dominion of Canada" lists the *Sand King* as still on the books December 31, 1920.



**Gazelle:** J.P. Clark, with George Irwin as master carpenter, built at Detroit, a wooden propeller excursion steamer. J. P. Clark was listed as the original owner. The excursion steamer was powered by a 25" bore X 24" stroke or 24" bore X 25" stroke engine non-condensing from Detroit Locomotive Works, built in 1873. She was assigned official number 85272. As an excursion steamer she originally ran between Sandusky, OH to the Lake Erie Islands (Put-In-Bay). She was rebuilt in 1882.

Ownership of the excursion steamer *Gazelle* was changed in 1884, to W.O. Ashley, Detroit. In July 1886, the excursion steamer *Gazelle*, collide with and sank the yacht *Josie*. On the 10<sup>th</sup> of July, 1886, the *Gazelle* went ashore on Chittenham Beach. She was towed to Chicago next day and rebuilt.



Ownership of the excursion steamer *Gazelle* was changed to Sloan & Cowles, Buffalo.

In May of that same year, ownership of the *Gazelle* was changed to J. E. Rebstock, Buffalo.

In May 1893, ownership of the excursion steamer *Gazelle* was changed to the Crystal Beach Steamboat & Ferry Co., Buffalo

Early in 1897, the excursion steamer *Gazelle* was listed as owned by A.W. Hickman, Buffalo.

On March 1, 1897, ownership changed to Udo V. Schanroth, Buffalo.

On March 6, 1897, ownership changed to Marie Burger, Buffalo. March 3, 1901, the excursion steamer *Gazelle* was renamed *Eagle*.

Ownership of the excursion steamer *Eagle* was changed Oct 25, 1901 to Daniel Mahoney et al.

In May 1902, enrollment for the excursion steamer *Eagle* was transferred to Grand Haven, MI and her ownership was changed to M. Wilson, Montague, MI. In 1904, the *Eagle* received a 25" x 24" high pressure engine; 8' X 14' firebox boiler.

Ownership of the excursion steamer *Eagle* was changed on July 1905, to George P. Gubbins et al, Chicago and her enrollment was transferred to Chicago. Sometime after, in 1905, the steamer *Eagle* was abandoned in the Chicago River.

On December 21, 1908, the steamer *Eagle* was purposely burned and then sunk. She lies about 2-mi, SE of 4-mile Crib in the Chicago River. Her enrollment documents were surrendered and endorsed as "burned and destroyed".

**Geneva:** Quayle & Martin, Cleveland, built a wooden propeller for the Cleveland Transportation Co., to be used for the bulk freight iron ore trade between Cleveland, and Marquette, MI. Her initial enrollment, May 28, 1873, listed her measures as: 188.0' x 33.6' x 14.0'; 741.0 grt. Her engine was provided by the Globe Iron Works. The *Geneva* was assigned official number 85275. Her consort was the schooner barge *Genoa* (U85276) built by William Radcliffe, Cleveland.

The propeller *Geneva* was one of four steamers built for Cleveland Transportation Co., Cleveland, OH operating in the iron ore trade. The other three were the propeller *Vienna* (U25875) built in 1873; the propeller *Havana* (U95278) and propeller *Sparta* (U115242) built in 1874. The four ships were known as the "Black Boats".

Master of the propeller *Geneva* for the 1873 season was Captain George McKay. October 1873, down bound, the propeller *Geneva*, with her consort *Genoa* (U85276) in tow, both laden with wheat, sank 15 miles off Caribou Island, Lake Superior during a violent storm. The violence of the storm damaged her stern pipe and bent her propeller shaft. The flailing blades cut a large hole in her stern counter and she went down by the stern. Her crew evacuated in her small boat and made it to the *Genoa*. No lives lost. Loss to the ship \$70,000. Loss to the cargo \$50,000. October 21, 2024

Final enrollment for the propeller *Geneva* was surrendered at Cleveland, September 7, 1875 and endorsed "vessel lost & abandoned".



**Mary Groh:** Henry D. Root, at Black River (Lorain), OH, built a wooden steam barge for Michael Groh, Chicago, for use in the bulk freight trade. Her measures, as recorded in July 1887, at her initial enrollment, were: 112.70' x 22.60' x 8.0'; 139.48 grt, 69.74 net. She was powered by a high pressure, non-condensing engine, 18" bore x 20" stroke, 275 horsepower, built by Stovering & Co., Cleveland, in 1873. Steam was generated by a firebox boiler, 6 ½' x 13', 90 pounds steam, built by Connelly & Co., Cleveland, in 1873. In March 1874, the steam barge *Mary Groh* broke her machinery on Lake Erie. Repaired. In May of that same year, loaded with limestone, the *Mary Groh* sank at her dock at Cleveland. Part of her deck load was removed to raise her.

In May 1875, ownership of the steam barge *Mary Groh* was changed to Ashland Lumber Co., Ashland, WI. She would be used to carry too carry lumber from Lake Superior.

Ownership of the steam barge *Mary Groh* was changed to William H. & William A. Snyder, Chicago in November 1877.

In February 1879, ownership of the steam barge *Mary Groh* was transferred to William H. Snyder & George Hannahs, South Haven, MI. In May 1883, the steam barge *Mary Groh* collided with the tug *Lorena* (U140588). Repaired. In May of 1884, the steam barge *Mary Groh* collided with the canal boat *C. Walker*, dumping her deck cargo of stone in the Chicago River, near the Sixteenth Street Bridge. Master of the steam barge *Mary Groh*, for the 1885 season, was Captain John Stufflebeam.

In May 1886, ownership of the steam barge *Mary Groh* was transferred to George Hannahs, South Haven, MI.

In July 1887, ownership of the steam barge *Mary Groh* was changed to Samuel & Sidney O. Neff, Oshkosh, WI. The steam barge *Mary Groh* initial enrollment was issued at Milwaukee, July 12, 1887. Her official number was 90489.

In February 1889, ownership of the steam barge *Mary Groh* was changed to Henry McMorran, Port Huron, MI.

Masters of the steambarge *Mary Groh* were Captain Lew Carey for the 1894 season, and Captain Charles Diefenbach with DeWitt Stevens as engineer for the 1897 season. In 1902, the steambarge *Mary Groh* was rebuilt and converted into a wrecking tug.

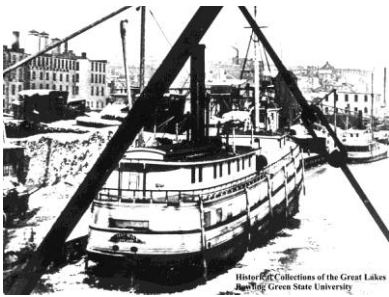
Ownership of the wrecking tug *Mary Groh* was changed to Port Huron Transportation & Wrecking Co. In May 1904. Her master was Captain George Bowen in 1905.

In February 1912, ownership of the wrecking tug *Mary Groh* was changed to Andrew B. Meter & Edward Ohlemacher, Sandusky, OH. They converted the wrecking tug into a sand dredge.

Ownership of the sand dredge *Mary Groh* was changed to Lake Erie Sand Co., Sandusky, OH in July 1918.

In April 1920, ownership of the sand dredge *Mary Groh* was changed to Toledo Plaster & Supply Co., Toledo.

In March 31, 1925, the sand dredge *Mary Groh* was abandoned at Toledo. Her final enrollment was surrendered.



**C. Hickox:** Henry D. Root, Black River (Lorain), OH, built a wooden propeller, designated for the bulk freight trade, for Charles Hickox, George W. Calkins, M. C. Younglove all from Cleveland. Her measures at her initial enrollment at Cleveland, July 11, 1873, were: 130.58' x 24.66' x 9.00'; 314.35 grt. Original engine unknown. She was assigned official number 125133.

Ownership of the propeller *C. Hickox* was transferred to Kelly Island Lime Co. Charles Hickox, president. in July 1874.

Ownership of the propeller *C. Hickox* was changed to B. Wilds et al, Detroit, in March 1879.

In May 1879, ownership of the propeller *C. Hickox* was changed to Alex V. Mann et al, Muskegon, MI and she operated as a lumber carrier between Muskegon, MI and Chicago. In June 1881, the *C. Hickox* collided with and sank a canal boat on the Chicago River, Chicago. She was rebuilt and her measures recorded in June 1881 as: 1 deck, 130.7' x 24.8' x 9.0', 208.38 grt, 140.72 net. Her master for the 1881 to 88 seasons was Captain Simon O'Day with John Miller as chief engineer from 1883 to 1886. In April 1882, the propeller *C. Hickox* was disabled by her machinery. In June of that same year, the *C. Hickox* was sunk in a collision with the propeller *Albert Soper* (105977) at Chicago. She was raised and repaired. In

1884, the *C. Hickox* received a firebox boiler, 7' 6" x 14', 90 pounds steam, built by Johnson Brothers, Ferrysburg, MI. In July 1886, the *C. Hickox* collided with the steambarge *Milwaukee* (U17984), sinking her in mid-lake, about thirty miles off Muskegon, MI, Lake Michigan; one life lost. The *Milwaukee* was bound from Chicago for Muskegon at time of loss.

June 1891, ownership of the propeller *C. Hickox* was changed to Charles G. Forster et al, Milwaukee.

January 1892, ownership of the propeller *C. Hickox* was changed to William G. Inglis. In 1893, she was powered by a high pressure non-condensing engine, 22" bore x 24" stroke, 300 horsepower at 95rpm, built by Excelsior Iron Works, Cleveland, OH in that year.

In April 1900, ownership of the propeller *C. Hickox* was changed to John M. Reed, Toledo, OH.

U.S. enrollment for the propeller *C. Hickox* was surrendered at Port Huron, June 05, 1906 and endorsed "sold alien".

Ownership of the propeller *C. Hickox* was sold Canadian to Mrs. Amanda Smith, Belleville, ONT and enrolled July 1906 as *C. Hickox* (C103817) with measurements 130.7 x 24.80 x 9.8, 208.38 grt, 140.72 net. Master of the vessel for the 1906 season was Captain Smith.

In December 1906, bound from Oswego, NY for Belleville, ONT, the propeller *C. Hickox*, laden with a cargo of coal, ran aground and then caught fire and burned off Main Duck Island, Lake Ontario. Wreckage from the vessel can be viewed partially on shore and includes the boiler and other parts of the vessel.



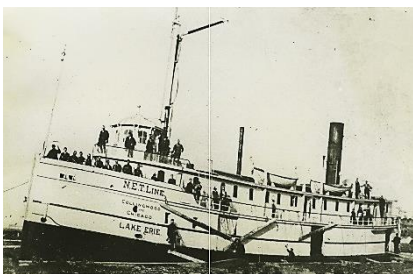
**Chauncey Hurlbut:** Simon Langell, at St. Clair, MI, built a wooden propeller for the bulk freight trade. Launched November 27, 1873, she was first enrolled at Detroit in September 1874. Owned by the Candler Brothers, Detroit, her measures were: 184.8' x 32.2' x 21.3'; 1009.0 grt, 829.0 net. She had a capacity for 40,000 bushels. The bulk freighter *Chauncey Hurlbut* was assigned official number 125238. She was powered by an engine built by Fulton Ironworks and installed in the propeller *Edith* (U7334), no description available. In November 1874, the propeller *Chauncey Hurlbut* went aground on Middle Island, in Lake Erie. Released.



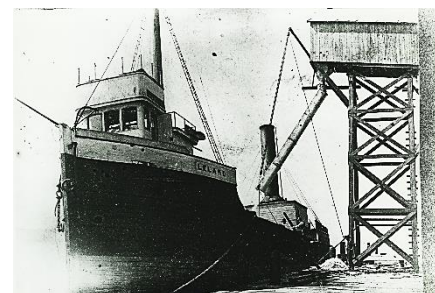
In 1875, the propeller *Chauncey Hurlbut* was chartered to the Pidgeon Line; to ran the Chicago to Sarnia, Ont. route. In July 1877, she went aground on Rissell island, in the St. Clair River. In early summer of 1881, she towed schooner barges *Annie Wright* (105851) and *Senator* (22917) hauling coal; on the Erie, PA to Chicago route; Periodically also towed the barges *John A. Vought* and *Annie Vought* (No vessel history found on either). In 1883, the *Chauncey Hurlbut* towed the barge *Thomas P. Sheldon* (59147) in the Marquette ore trade. During the 1886 season, she towed the schooner barge *C. J. King* (5847) and the *Senator* (No history on her). In 1887, the *Chauncey Hurlbut* received a steeple compound engine, 18" + 36" cylinder bore x 32" stroke, 370hp at 95rpm; built by the Detroit Drydock Engine Works. In 1889, she towed the barge *C. L. Butts* (15850) and the schooner barge *D. K. Clint* (6732). In August 1889, an on-board fire destroyed the upper works of the *Chauncey Hurlbut* while at Superior, WI, Lake Superior. She was repaired by Napoleon Grignon, Duluth, MN, the following month. During the 1890 season, the *Chauncey Hurlbut*, towing the barge *C. L. Butts* (15850) and the schooner barge *D. K. Clint* (6732), operated in the ore trade between Escanaba, MI & Fruitport, on Spring Lake off the Grand River. In November 1891, the *Chauncey Hurlbut* developed a leak, making port for repairs at Cheboygan, MI. Her consort, schooner barge *Emma Hutchinson* (8900) broke loose from the tow and made port. In November 1894, up bound, laden with coal and with navigation hindered by dense smoke, the *Chauncey Hurlbut* went aground near Terren's Mill in the St. Mary's River. She was released by the tug *Merritt*.

Ownership of the *Chauncey Hurlbut* was changed in 1899 to John O. Teagan, Detroit, MI. In November 1906, the *Chauncey Hurlbut* went aground in Pigeon Bay, off Point Pelee, Canada in Lake Erie. She was released and towed to Amherstburg, Ont. for repairs. In September 1908, bound down, from lake Linden, MI for Toledo, OH, laden with a cargo of stamp sand (a coarse sand left over from the processing of ore in a stamp mill), she sprang a leak during a gale on Lake Superior and was beached, 10 mi. west of Whitefish Point, ½-mile northwest of Vermillion, MI. Her crew was rescued.

August 1910, the wreck of the *Chauncey Hurlbut* was removed from shore and sunk in deep water.



**Lake Erie:** Melancthon Simpson, at St. Catharines, Ont., built a wooden package freighter propeller for the Lake and River Steamship Co., Hamilton, Ont., R. O. McKay, president. She was built for the package freight trade and was a duplicate of the propellers *Lake Michigan* and *Lake Ontario*. The propeller *Lake Erie* ran Montreal, Que. to Chicago, connecting Chicago with Liverpool & Glasgow Lines and the London Temperley Line and their European ports. She was launched Mat 23, 1873. Enrolled at Hamilton, Ont. in 1873, her measures were: 136.0' x 23.33' x 7.33'; 367-unit tons. She was powered by a fore & aft engine, 20", 34" bore x 34" stroke, built by Thomas Wilson & Co., Dundas, Ont. Her master for the 1873 season was Captain Perritte. In November 1873, the *Lake Erie* experienced machinery problems and became disabled. She anchored near Presque Isles on Lake Huron. Her engineers found that the flues in her boiler were burned out. In April 1874, bound up for Chicago, light, the propeller *Lake Erie*, went ashore at the lower end of Bois Blanc Island in the Detroit River. Released. In May 1874, bound down from Chicago for Montreal, laden with wheat, the *Lake Erie* sprang a leak in her steam pipe, when fifteen miles from Port Colbourne, Ont. on Lake Erie. She went into port with water in her hold and immediately proceeded to the elevator for her cargo to be off loaded. A good portion of her cargo was wet. Loss to the hull set at \$800, and to the cargo \$1,000. In 1875, the propeller *Lake Erie* was placed on a daily line and ran between Montreal, Toronto, Hamilton and St. Catharines. In September 1876, bound down, Detroit to Montreal, laden with 10,500 bushels wheat, the propeller *Lake Erie*, went aground on Frazier's shoals, near Ogdensburg, NY, on the St. Lawrence River. Released. Re-measured in June 1877, her tonnage was changed to 464.01 unit tons. September 1880, bound up, Collingwood, Ont. to Chicago, the propeller *Lake Erie* went aground at Club Island in Georgian Bay. She was released after eight days. Master of the propeller *Lake Erie*, for the 1881 season, was Captain J. M. Johnson. In November of that year, during a severe and blinding snowstorm, the propeller *Lake Erie*, laden with 15,000 bushels of corn, and the propeller *Northern Queen* (US110043) collided near Poverty Island, at the mouth of Green Bay, Lake Michigan. The *Lake Erie* was struck near the after gangway and sank. Her crew was rescued by the *Northern Queen*. One life lost.



**Leland:** A. McLeod, at New Jerusalem on Maumee Bay built a wooden steambarge, owned by Eber Ward, Detroit, to be used in the bulk freight trade. The *Leland* was enrolled at Detroit, July 8, 1873. Her measures were listed as: 148.0' x 27.5' x 11.0'; 324.96 grt, 236.37 net. She was powered by a Steeple Compound engine, 23", 39" bore x 21" stroke. 130 horse power. Builder unknown. Steam was generated by a firebox boiler, 10' x 14'. She was assigned official number 15917.

Ownership of the steambarge *Leland* was changed to F.C. Owen, Ypsilanti, MI, in June 1877.

In October 1878, her ownership was changed to N.K. Fairbank, 1/2, Chicago, IL; et al. In May 1879, the steambarge *Leland* went ashore at Cathead Point, Grand Traverse Bay, Lake Michigan. Released. In March 1882, the steambarge *Leland*, running at a great rate of speed in heavy fog, collided with the schooner *E.M. Portch* (8300), between Manitowoc and Sheboygan, WI on Lake Michigan. The schooner *Portch* was towed near Sheboygan harbor entrance where she sank against south pier;

Ownership of the steambarge *Leland* was changed to Elk Rapids Iron Co., Charlevoix, MI. in April 1883.

Ownership of the steambarge *Leland* was changed in April 1887, to L.L. Slyfield, 1/2, China, MI.; Robert H. Jenks, 1/4, St. Clair, MI; Bela W. Jenks, 1/4, St. Clair, MI. Chief engineer of the boat in 1888 was William Carrick. In November 1888, while lying at one of the Wheeling & Lake Erie Railway slips, Huron, OH, Lake Erie, laden with 300 tons of coal, a coal lantern exploded in one of the cabins catching the steambarge *Leland* on fire, burning to the water's edge and sank. Loss estimated at \$15,000. She was raised in December of 1888 and rebuilt.

In August 1889, ownership of the steambarge *Leland* was changed to Miles Q. Fox, 2/3, Marblehead, OH; J.V. Lutts, 1/3, Port Clinton, OH. The steambarge *Leland* was readmeasured, and her Detroit, MI enrollment update to: 148 x 27.5 x 11.16; 366.15 grt, 318.36 net. Master of the steambarge *Leland* for the 1894 season was Captain R. Woodruff with Henry Odette chief engineer. In October 1894, the steambarge *Leland*, with the schooner barges *Hiawatha* and *G.C. King* (U5847) in tow, all lumber laden, were struck by a squall off Rondeau Point, ONT, Lake Erie. The tow line parted and the barges broke adrift.

In April 1896, the ownership shares of the steam barge *Leland* were transferred to Henry Graefe, 2/3, Sandusky, OH; J.V. Lutts, 1/3, Port Clinton, OH.

In November 1897, ownership shares in the steambarge *Leland* were transferred to Henry Graefe, 2/3, Sandusky, OH; J.V. Lutts, 1/6, Port Clinton, OH; William W. Collins, 1/6, Sandusky, OH.

In January 1898, ownership of the steambarge *Leland* was changed to John Perew, Buffalo, NY.

In February 1898, ownership of the steambarge *Leland* was changed to Burton W. Wilson, Port Clinton, OH.

In May 1898, ownership shares of the steambarge *Leland* were transferred to Burton W. Wilson, 2/3, Port Clinton, OH; Alexander Hitchcock, 1/3, Port Clinton, OH.

In April 1900, ownership shares of the steambarge *Leland* were transferred to Clara H. Lutts, 2/3, Port Clinton, OH; Alexander Hitchcock, 1/3, Port Clinton, OH.

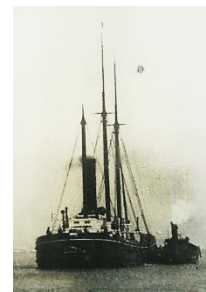
April 1901, ownership of the steambarge *Leland* was changed to Port Clinton Transportation, Co. Port Clinton, OH. Master of the steambarge *Leland* for the 1901 & 02 seasons was Captain Fred H. Rae with W.H. Stackhouse chief engineer. In May 1904, the steambarge *Leland* caught fire at Port Clinton, OH. She was damaged to the extent of \$3,000. Repaired.

May 1908, ownership of the steambarge *Leland* was changed to Theobald Emig, St. Clair, MI.

In November 1909, ownership of the steambarge *Leland* was changed to William Burns, Detroit, MI. In December 1910, while at her dock at Huron, OH, the steambarge *Leland* caught fire, burned and sank.

In May 1911, ownership of the steambarge *Leland* hulk was changed to Guy Wyman, Painesville, OH. Some sources say the hulk of the steambarge *Leland* was recovered, rebuilt and later abandoned at Marine City, MI.

The enrollment certificate for the steambarge *Leland* was removed from certification and endorsed "abandoned". In September 13, 1913.



**Jarvis Lord:** William B. Morley & Hill, at Marine City, MI, built a wooden propeller for a consortium of owners consisting of John J. Morley, 1/4, Rochester, NY; William B. Morley, 1/4, Marine City, MI; et al, to be used for the grain and iron ore bulk freight trade. At her initial enrollment, at Port Huron, MI on May 19, 1873, her measures were recorded as: 178.30' x 32.60' x 18.0'; 770.97 grt, 641.06 net. She was assigned official number 75499. She was powered by a low-pressure engine, 42" bore x 32" stroke, 500 horsepower, built by Desotelle & Hutton, Detroit. Her master for the 1873 season was Captain Charles Tyler Morley. In April 1874, the propeller *Jarvis Lord* was damaged in Chicago harbor and her damage loss was set at \$100. For the 1874 season, the *Jarvis Lord* ran on Ward's



Lake Superior Line; making 11 round trips to Lake Superior. In June 1874, her engine broke at Sault Ste. Marie on the Saint Mary's River. Loss was set at \$3,000.

In April 1875, ownership of the propeller *Jarvis Lord* was changed to John H. Bartow, 1/2 Marcus M. Drake, 1/4, all from Buffalo; and A. B. Drake, 1/4, Dunkirk, NY. Her master for the 1876 – 82 seasons was Captain Albert B. Drake with John Broderick in 1876 and Charles Rice in 1883, as engineers.

Ownership of the propeller *Jarvis Lord* was transferred, April 1879, to Pauline L. Bartow, 1/4; Marcus M. Drake, 1/4; and E.A. Georger, 1/4 all from Buffalo; and A.B. Drake, 1/4, Dunkirk, NY. November 1880, the propeller *Jarvis Lord*, bound down, Toledo to Buffalo, laden with 24,000 bushels wheat and 10,000 bushels corn, struck a snag, 1/2 mile east of Turtle Island, located about five miles (8.0 km) northeast of the mouth of the Maumee, and was run aground on the island. Her cargo was lightered to release the vessel. In September 1881, the propeller *Jarvis Lord* went aground on Ile Parisienne, Lake Superior. Released.

In March 1883, shares in the ownership of the propeller *Jarvis Lord* were transferred to Francis A. Georger, 1/4; Marcus M. Drake, 1/4; E.A. Georger, 1/4 all from Buffalo; and A.B. Drake, 1/4, Dunkirk, NY.

Within that same month, ownership of the propeller *Jarvis Lord* was changed to; John W. Moore, 1/4; Harvey H. Brown, 1/4; Pauline L. Bartow, 1/4; and John B. Coffinberry, 1/4, all from Cleveland, OH. The sale price was \$28,000.

Ownership of the propeller *Jarvis Lord* was transferred, in April 1885, to John W. Moore; Harvey H. Brown; Pauline L. Bartow; all from Cleveland; et al. Master of the propeller *Jarvis Lord* was Captain Richard Neville for the 1885 season. In July of 1885, the *Jarvis Lord* collided with the schooner *E. P. Royce* (US8912) off Skillagalee Light, Lake Michigan. The following month, bound up from St. Ignace, MI to Chicago, the propeller *Jarvis Lord*, laden with iron ore, picked up a log in her propeller that was driven through her planking, springing a leak and she foundered at South Manitou Inlands, Lake Michigan. Value of vessel and cargo loss was set at \$35,000.

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

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 steam barge *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 fore-castle 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.)