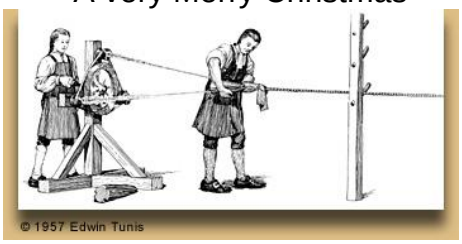
A very Merry Christmas



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 – December 2024

Our Next Meeting: January 18, 2025;
Hybrid –
"Scale Comparison: Thread to Actual Rope Lines"
by B. Nyberg

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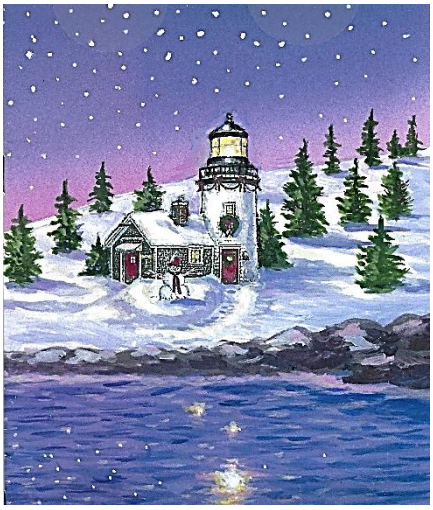


To all ship modelers, their families and extended families, wishing you a very Merry Christmas, and fair winds and calm seas throughout 2025.

December

We split the membership attendees, present for our December meeting, between in-person and zoom.

A large welcome to Richard Aschenbrenner, a novice ship modeler from East Liverpool, and a new member of the Nautical Research Guild. Rich, feel free to ask for guidance and/or help as you learn and experience this great, challenging hobby.

As reported previously, this was my last act as president, hosting of the meeting. January 1, 2025, Bob Mains will take over managing the direction of the club and our meetings. I have the chore of gathering all the resources of the club that I have accumulated since the club was founded in 2003. The question will be save or trash.

In 2025, I in turn, go forward, as editor of this newsletter and hopefully, with the free time, finish the two models I have on the work bench.

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 and/or RSV shots, please do.

Till next month. Your editor.

Reminders & Announcements

Dues:

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

Checks should be made out to "Shipwrights of Ohio" and either delivered to Lee at a meeting or mailed to Shipwrights of Ohio, at: 5298 Timberlake Circle, Orient, OH 43146-9249;

_____

2025 Presentation Planning

The 2025 event schedule is almost set. We still need to do some fine tuning of the schedule. The list, plus presenters are listed below:

01/18 – Rigging: Comparison: Thread to Actual Rope size – Nyberg
02/15 – History: Ships WW 2 – Mitchell
03/15 – Fixtures: Anchors – Holloway
04/19 – Ships in a Bottle – Boeck
05/17 – Planking a Wooden-hulled Ship – Buchanan
06/21 – Photo Etching Brass Parts – Keller
07/19 – Road Trip: Warther Carving Museum
08/16 – Jigs & Fixtures – Markijohn
09/20 – Bending Wood - Keller
10/18 – Lofting Ships Plans – Nyberg
11/15 – Power & Hand tools – Northup
12/20 – Card Modeling - Holloway/Nyberg

Presenters: Review the list, and the schedule, for your selection; - reply back to me if there is a problem.

The following activities/events are scheduled for 2025 are for your information and possible attendance.

- 01/17-19 – Columbus Woodworking Show
- 02/22 – IPMS, BLIZZCON 2025
- 03/1-2 – Miami Valley Woodcarving Show
- 05/16-18 – MW Model Ship Competition
- 07/13 – Lakeside Classic Wooden Boat Show
- 08/22-24 – Columbus Air Show: "Blue Angles"
- 09/5-7 - Ohio River Sternwheel Festival
- 11/15 – Columbus Miniature Show

Details can be found on the "Events and Dates to Note" page (page 10) of this newsletter.

Christmas Shopping

Question: How many of you have sons or daughters, grandsons/daughters, or great grandsons/daughters who you wished were interested in your ship modeling? Are they interested in LEGOS and play with them often?

Maybe it is time to combine the two! Take a look at this:



Ship models made from Legos. A whole new source of possible members now and in the future. I wonder if "Model Ship World" or "Ships of Scale" will be adding Lego models to their coverage?

For those interested in checking out possible Christmas gifts, they are available at:

Bricks and Minifig Grandview
867 Goodale Blvd Grandview Heights, OH 43212

Grand opening was held Saturday Dec 14
The Grandview location joins

- **Ohio – Powell** 3970 Powell Rd Powell OH 43065 are listed below:
- **Ohio – Hilliard** 3436 Heritage Club Dr Hilliard OH 43026
- **Ohio – Toledo** 4204 W. Sylvania Ave., Suite 100 Toledo Ohio 43623are in the overall
- **Ohio – Hamilton** 3320 Tylersville Rd STE F-G Hamilton OH 45011

And for Jeff:

- **Idaho – Boise** 10150 W Fairview Ave Boise ID 83704, (208)377-4386.
- **Idaho – Idaho Falls** 3160 E 17th St Ste 150 Ammon ID 83406

Happy Christmas shopping.

Update to November's presentation

Loran Black, shared a writeup on carving decorative ships carving and figurehead.

The article covers carving of the eagle above. Ship carving is an old and honored art. The addition of decorative carvings to vessels reached a peak of absurdity in the 1600's and 1700s. Why? Partly because of pride in the vessel and "to show the flag" with great grandeur, but partly for the same reason Detroit put chrome and racing strips on a new car; to sell the product.

If you are interested in trying this craft, let either Loran or myself know and we can provide a copy on how to carve the eagle above. It is from the book: "The Shipcarver's Handbook" by Jay Hanna, WoodenBoat Publications, ISBN 0-937822-14-0.

Presentation:

Small Boats

By Bill Nyberg (shipwright@breezelineohio.net)

Small boats – all ships, sail or power, have them; all work boats with crew are required to have them, and you cannot build a realistic ship model without them.

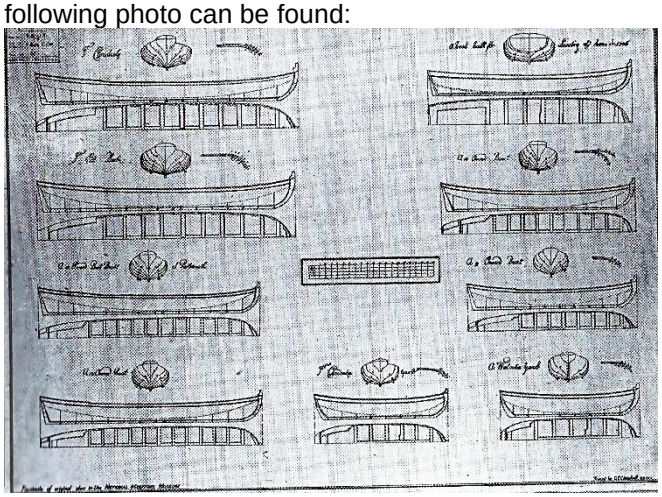
Their purpose: Saving lives: man overboard; ship sinking, rescue from shore; they are used to transport personnel, and supplies or communicate between ships; they are needed to assist in mooring to a floating bollard and raising or setting the anchor; and finally to towing a sailing ship when the wind dies or to move a vessel in port for shifting a berthing.

On board, they are: found hung over the stern, attached to davits, mounted on the deck, or towed behind the vessel.

Here is a list of small boats:

longboat,
launch,
pinnace,
barge,
skiff,
cutter,
as well as: jolly boats, wherry, gig, yawl, and canoe, and kayak.

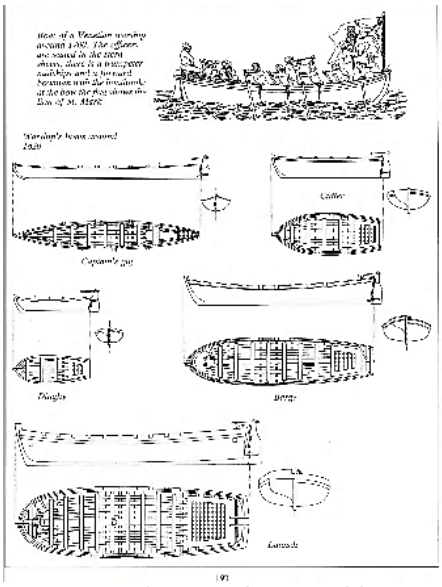
In W.E. May's "The Boats of Men of War" the following photo can be found:



When building small ship boats at scale, the actual lengths were:

Longboat: between 21 and 52 feet
Barge: 36 feet
Pinnaces: 25 – 32 feet
Shallop: 27 feet

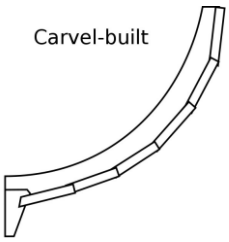
In Wolfram Mondfeld's "Historic Ship Models" is a photo, on page 193, showing:



Top: Boat of a venetian warship 1700
Left captains gig – 6 oared Right: Cutter – 8 oared
Left: dinghy Right: barge – 16 oared
Botton: Launch – 20 oared

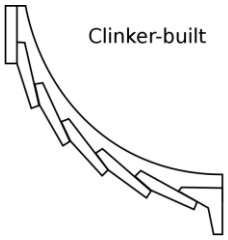
Many small boats are constructed either Carvel or Clinker.

Carvel Built:



Keel, sternpost and bow are fitted first. The keel may be a single piece or multiple pieces scarfed together. The frames are fitted next and the hull is planked edge to edge. On larger launch/longboats they sometimes had wales. Beside inner planking, thwarts, etc. fitted last

Clinker Built:



Keel, sternpost and bow fitted first. Keel may be a single piece or multiple pieces scarfed together – same as carvel. The difference is in the planking, which is thinner making the boat lighter. The hull is planked overlayed with "Clenching": driving a nail through both planks and then bent over on the inside. Clinker built boats are more difficult to maintain. Internal details similar to Carvel built boats.

The advantage or disadvantage of both are: A Clinker-built boat has ¼ the weight but requires more

maintenance and is easier to damage. To replace one plank, requires all planks above to be removed first.

A Carvel-built boat is sturdier, requires less repairs and repairs are easier to do when required.

The Clinker-built boat does not suffer from "Nail sickness" and rot.

Building Small Boats Techniques:

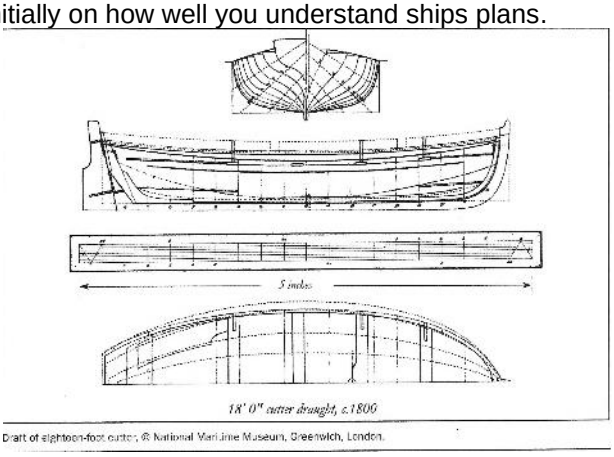
There are multiple techniques that can be employed in modeling small boats. They are:

- Plug or Molds – Wood or Kammerlander;
- Frame;
- Stacking;
- Carving;
- Solid.

Before we start through the techniques, Below is a photo of small boats made of plastic. The come with white hull and a fitting representing interior supports and thwarts.

That is a six-inch rule below the large boat at the top as a reference. Each small boat was supplied with a ship model kit.

Techniques in building small boats depends initially on how well you understand ships plans.



Above are the plans for a 18' Clinker-built cutter. The original draft is from the National Maritime Museum, Greenwich, London. It appeared in David Antscherl article in the Nautical Research Journal, Vol. 55, #1, Spring 2010.

Shown: The draught for an 18-foot cutter built at a 1:48 scale. Includes:

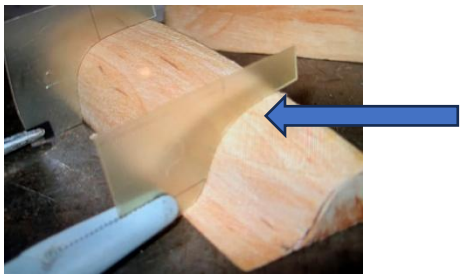
- Upper: **Body plan**, showing all sections grouped around a common centerline
  - Left side – looking forward
  - Right side – looking aft
- Middle: **Profile plan**: showing details of keel, stem & stern, rudder and section lines
- **Half-Breath plan**: looking down for shape and interior fittings

The 5-inch scale, in the middle, contains the sections lines at 1:48 scale. If you need to change the scale, any good copy center could use it to reduce or enlarge scale of the boat.

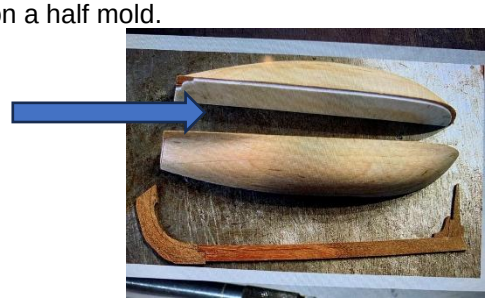
For modeling small boats, many of the following techniques, will use the "Body Plan" and the "Profile Plan". Make multiple copies of both, in fact count the number of sections in the "Profile", in this case there are 17, so make 17 copies so that you have one/section. The "Half-Breath Plan' will be used to cut out the outside form of the wood hull blank. The "Profile" gives you the side view for the wood boat blank. The "Section: plan gives you the shape of the wood hull blank.

Plug or Mold:

Half Mold

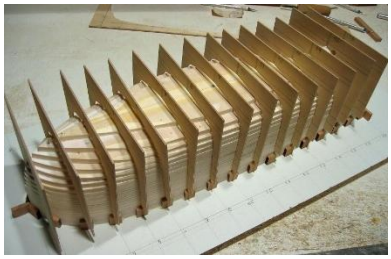


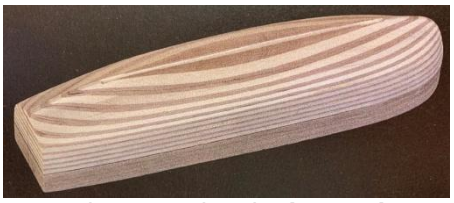
The blue arrow points to a section shape used to check the hull form on a half mold.



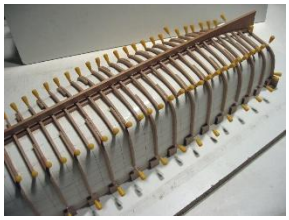
The blue arrow on the lower photo shows the profile plan that is used to check the shape of the half-hull.

Full Mold





Cut out the section templates – using the **internal** shape of the boat. Form the exterior of the internal mold – carve and sand.



Add frame ribs first**:**
Frame ribs are added to the mold before planking (Mold has to be sized to the interior of the boat.) The mold can be smooth or slotted for frames on the section lines with a Luther fret file. Once the frames are in place, add the keel, stem & stern. When all glue joints are dry, plank the boat.

Full Mold, ribs second technique.

Plank the hull on the mold. When glue set, free shell from the mold and then add the ribs to interior.

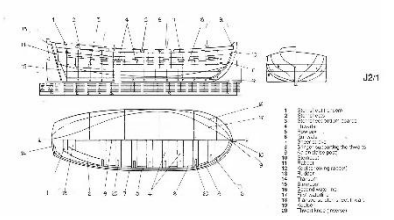
Caution:
Remember: to coat the mold so that the frames and/or planks do not adhere to the mold. In the photo below, the full mold is at the top.

As you can see, a lot of work is going into the waste bin. To prevent this, sand and shellac the mold first, Rup down the mold with Bees Wax and then polish the mold – test it with a drop of glue to check that it does not fasten to the blank firmly before starting.

Kammerlander Method

This method comes from Germany and the kits were sold through G.K. Modellbau. The kits were available through "Across the Pond" which appears to no longer be in business. Our member, George Montag built his models using this method and his work can be seen at www.shipwrightsofohio.com/built-models/ and scroll down to view his models.

This method uses wood, water and heat.



Above is a plan for a longboat at ¼" scale. The photo on right are the forms from the body, profile and half-breath plan for the longboat.

The photo above is the mold for the interior of the longboat. Two things to notice:

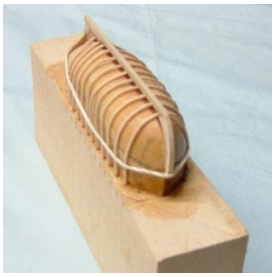
1, The mold is mounted on a base that allows for clamping to keep a small work surface stable.

2, Note the holes in the base aligned with the section lines.

The wood used for frames and planks in this build is .023 thickness or 3/128". The wood strips need straight grain and be pliable.

Trim the wood to the width that would fit in the holes of the base. Soak the wood strips in water then insert the one end into the hole in the base. Apply heat from a 50w soldering iron to dry the wood as it is bent over the mold and slide the other end into the hole on the opposite side of the mold.

The above photo shows the soldering iron and the two soldering tips that came from G.K. Modellbau.



The photo above shows a mold with the frames in place and with the keel, stern and stem installed. Ready for planking. The rubber band keeps the ribs in place.

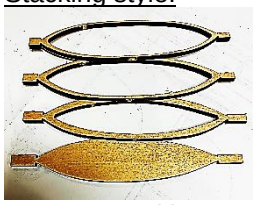
Frame Style:
This is a plank-on-bulkhead method.


Either mount the frames Hahn style (left upper) or right side up as shown in the right upper photo.

Build mold frame bulkheads using the section plans and mount on a base (Upper two frames); add keel, then add planking.

Once the glue is dry, release from mold, sand interior to remove lumps, then add interior ribs, interior fittings, etc.

Stacking style:



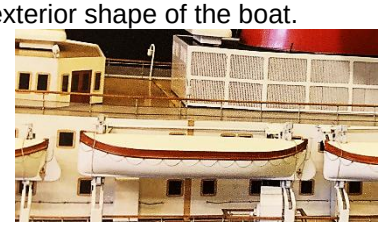

Used by some kits. Pieces are laser cut and found in a wood sheet. They are stacked and glued in order – bottom to top. The exterior hull is then carved and sanded. You may have to add the stem/stern/keel. Interior is then carved/sanded before ribs, thwarts etc. are added.

Carved

Start with solid, straight grain, wood stock. Required are the profile, Half-breadth and body cross sections. Carve to shape the exterior then hollow out the interior. Biggest problem is maintaining a realistic thickness of the boats shell while carving.

Solid:

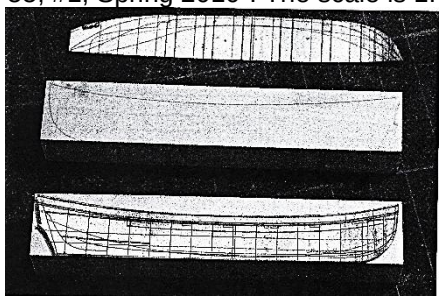
Like the craved technique but without hollowing out the interior. Mostly seen on more modern ships where small boats will be covered. Required are the profile, half-breadth and body cross sections to carve the exterior shape of the boat.



The boat is represented with a cover on, so no internal details can be seen. External detailing can be time consuming.

Building a 18’ Clinker-built Cutter model.

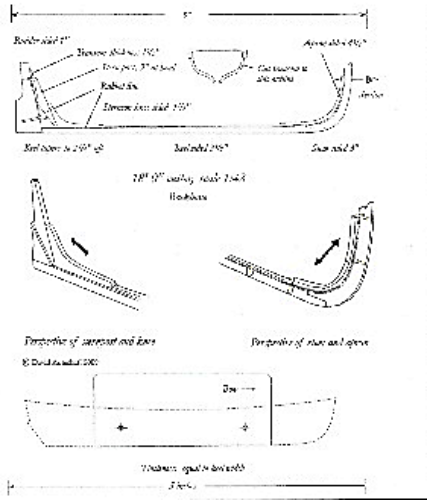
This is a recap from “David Antscherl article in NRJ Vol. 55, #1, Spring 2010”. The scale is 1:48.



Copy the plans. Make multiple copies of the Profile (side view), Half-Breadth (top view), and the body plan. Cut out carefully: transfer the profile and half-breadth paper copies to a stiffer medium (cardboard/thin wood).

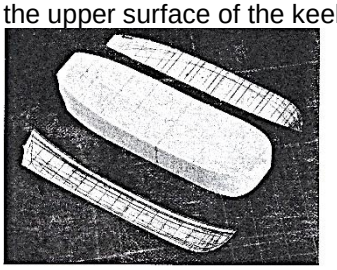
Using the multiple copies of the Body Plan, glue each section to a stiffer medium and then cut to the shape of each section. Leave finger holding material for each section.

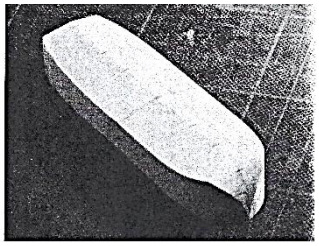
Cut out carefully, from the profile plan, the stem, stern, and keel. Mark the section lines on the keel.



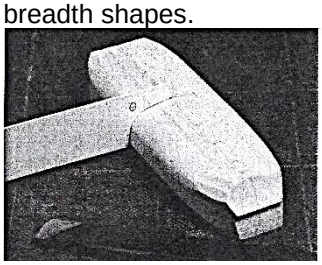
The above panel: shows the steps in preparing the keel for the stenson knee and the stem and apron.

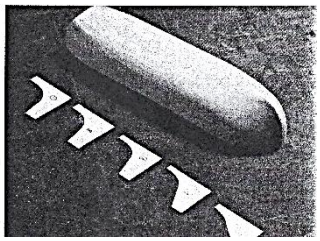
Carefully and clearly mark out all the station lines on the upper surface of the keel.





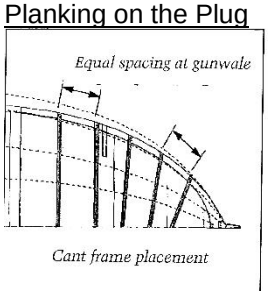
Scroll saw the plug to the profile and then the half-breadth shapes.

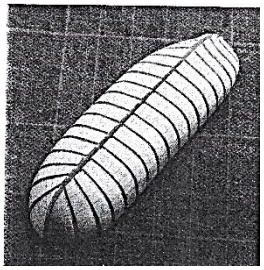




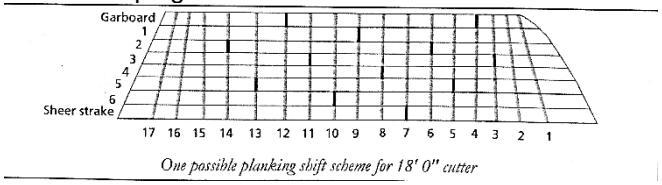
Using the sections from the Body Plan carve the plug to shape. When satisfied with the plug shape, lightly wax the plug and then buff it gently.

Planking on the Plug



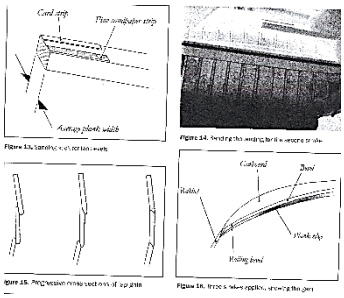


Mark each station bottom and top. Using a luthier’s fret cutting file, cut the grooves for the frames. ID the planking shifts. (A Luther’s guitar fret file is a simple way to crown frets that are worn). Fit the frames and keel to the plug.



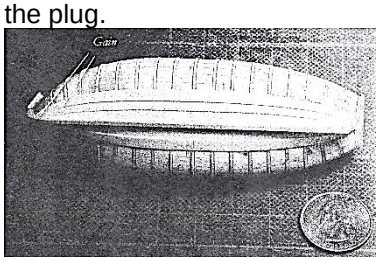
One possible planking shift scheme for 18′ 0″ cutter

The planking layout is a suggestion. Note the bold lines.

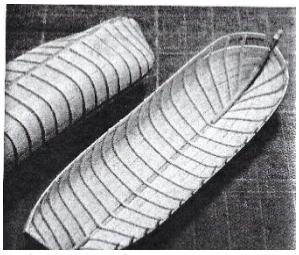


Make a decision to plank Carvel or Clinker. The right panel describes Clinker planking.

If you are building your boat by planking on to the plug.

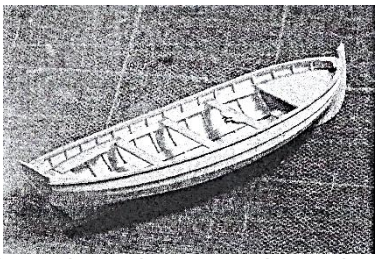


With the frames in place, start your planking from the keel. Start with your planking stock and gently bend it to the shell at each station, gluing it to the frames. Let dry. When the planking is complete, gently tap the hull to break any glue that has attached the hull to the plug.

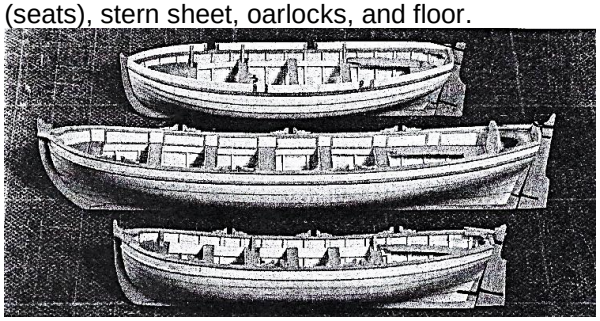


Remove the framing gently.

You did wax the mold before you started gluing, didn’t you?



Fit the interior Stringer (Supports thwarts), Thwarts (seats), stern sheet, oarlocks, and floor.



Above photo is the authors trio of boats for a model of the *Resolution, 1772-1773.*

Final step, clean the plug/mold and rewax it. Store away safely for the next small boat you will need.

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.

Mayflower

by Doug Buchanan

Doug, has been planking the decks and bulkheads of his Model Shipways. Below are photos of his progress.

Le Coureur

By Julia Holloway

Julia, shared her progress building a card model.

The adhesives used for the card prep for the second planking and the card stock to provide strength to the paper planking.

And the outcome of her second planking.

HMS Endurance

By Jeff Northup

Jeff is working on the *Endurance* rigging. While waiting for his order of rigging thread from “Ropes of Scale”, he began a model of the *James Caird.*

James Caird

By Jeff Northup

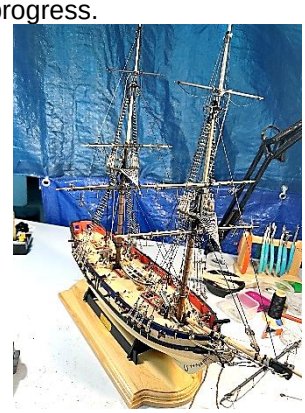
The James Caird, a 23 foot whaler, that Sir Ernest Shackleton and five companions made their epic open boat voyage of 800 miles (1300 km) from Elephant Island.

The kit is from the Australian company: Modellers Central.

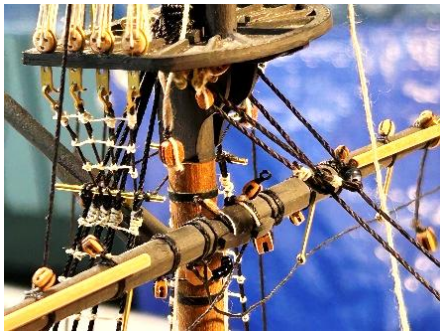
The model kit of Shackleton's *James Caird* is expertly designed and built by John Staib – master model ship designer and builder. The kit is double planked and comes with highly detailed English written building instructions with extensive color photos showing every step on the model boat's construction.

HMS Flirt *1782*
by Rob Washburn

Rob is working on rigging. Here are a few photos showing progress.



The model on the bench.



Yard Tackle

Crows feet rigging details

Other Notes: "Stuff", Tugs & Things

Nautical Terms

Nautical Terms Wikipedia

Auxiliary: An engine installed on a sailing vessel to provide mechanical power when entering a harbour or in light or contrary winds. A vessel in naval service but manned entirely or mostly by a civilian crew (as in Royal Fleet Auxiliary Service and Royal Naval Auxiliary Service).

Auxiliary ship: A naval ship designed to operate in any number of roles supporting combatant ships and other naval operations, including a wide range of activities related to replenishment, transport, repair, harbor services and research.

Avast: Stop, cease or desist from whatever is being done. From the Dutch *hou' vast* ("hold on"), the imperative form of *vasthouden* ("to hold on to") or the Italian word *basta.*

Aviso: A kind of dispatch boat or advice boat, surviving particularly in the French Navy. They are considered equivalent to modern sloops.

Awash: So low in the water that the water is constantly washing across the surface.

Aweigh: The position of an anchor that is just clear of making contact with the bottom.

Axial fire: Fire oriented towards the ends of the ship; the opposite of broadside fire. In the Age of Sail, this was known as "raking fire".

Aye, aye: A reply to an order or command to indicate that it, firstly, is heard; and, secondly, is understood and will be carried out (e.g. "Aye, aye, sir" to officers). Also, the proper reply from a hailed boat, to indicate that an officer is on board.

Azimuth circle: An instrument used to take the bearings of celestial objects.

Azimuth compass: An instrument employed for ascertaining the position of the Sun with respect to magnetic north. The azimuth of an object is its bearing from the observer measured as an angle clockwise from true north.

Azimuth thruster: A steerable drive leg fitted through the bottom of a hull, carrying a propeller. Compare stern drive and sail drive.

Tugs: Great Lakes

Elmer, 1882

The tug *Elmer* was built at Mt. Clemens, MI, in 1882, by William Dulac, with S. Chamberlain as master carpenter. She was built for the Chicago Lumber Co., Escanaba, MI and used in the lumber rafting business. Enrolled, her measures were recorded as: 60’ x 16’ x 6’; 31 grt, 16 net. She was powered by a high pressure (HPNC) engine, 16” x 18”, 375 hp @ 150rpm, built by the Phoenix Iron Works, Port Huron, MI. Steam was generated by a 6’ x 12’ firebox boiler, 110# steam, built by the Phoenix Iron Works.

Ownership was changed to W.H. Hill, Manistque, MI in 1890. In 1892, her ownership was changed to M.H. Quick from the same location. In 1902, she was sold to W.C. Jones, Cleveland, OH. In 1907, she was transferred to T.R. Robinson, Cleveland who then sold her to the Citizens Sand Co, Cleveland.

On April 13, 1916, The tug *Elmer* foundered on Lake st. Clair, MI. Her enrollment was removed from registry in 1919.

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

E.M.B.A. 1891

Duncan Robertson built the wooden tug *E.M.B.A.* at Grand Haven, MI. Her measures were recorded when enrolled at Grand haven in April 1891 as 71.5’ x 17.6’ x 7.5’, 43.77 grt, 37.22’ net. She was assigned official number 136186. In May 1891, she operated in Canadian waters. In 1892, she transported passengers on Lake Superior with the steamer *City of Green Bay*.

In April 1892 she was readmeasured at grand Haven: 99.55 grt, 58.63 net. July 1901, she was again readmeasured: 44 grt, 21 net.

She was listed as abandoned in 1935 and her enrollment closed.

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

Presentation Schedule:

2025 – Schedule Tentative

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

Events & Dates to Note:

2025 Tentative Schedule

Columbus Woodworking Show
Ohio Expo Center
January 19-21, 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 Midwestern Model & Boat Show,
Wisconsin Maritime Museum, Manitowoc, WI
May 16-18, 2025

Lakeside Antique & Classic Wooden Boat
Lakeside Hotel, Lakeside, OH
July 13, 2025

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

Great Lakes Tall Ships Festival
Dates not set at this time

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

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

Editor: Wiliam Nyberg
Shipwrights of Ohio
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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

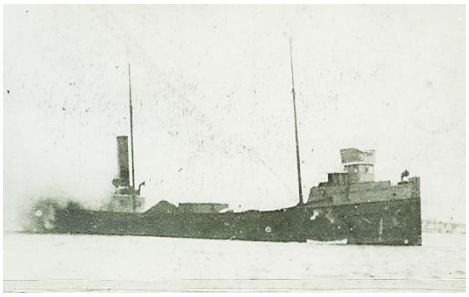
The Gilded Age was a period in the United States from 1873 to the early 1890s, and was marked by rapid economic growth, political corruption, and social inequality:

- 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 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 bult on the Great Lakes in 1844, The *Colonel Albert* for the U.S. Army, at Buffalo, NY; and the *USS Michigan*, for the U.S. Navy, at Erie, PA. The first steel vessel was the propeller*, William Chisholm* built by Globe Iron Works at Cleveland, OH in 1884.

1873-D



Anna Smith: At the Abram Smith Shipyard, located at Algonac, MI; James Navagh, master carpenter built, in 1873, a wooden propeller for a consortium of investors: Abram Smith, 1/3, Algonac MI; S.L. Smith, Lansing MI & William Harris, Houghton MI, 1/2 share jointly; M.H. Murch, 1/6, Cleveland OH. The bulk freighter *Anna Smith* was enrolled at Port Huron, MI, on August 21, 1873 and her measures recorded as: 178'5" x 32'6"x 13'8"; 636.99 grt, 515.52 net. She was equipped with a high-pressure engine, 27" bore x 32" stroke, built by Samuel F. Hodge Engine Works, Detroit; and a tubular boiler, 6'8" x 17', 77 pounds steam, built by Carroll Brothers Boiler Works. She was assigned official number 105276. In May 1874, bound for Chicago, the propeller *Anna Smith*, sprang a leak on Lake Michigan. She was repaired at Chicago.

Ownership shares of the propeller *Anna Smith* was transferred, in April 1877 to: Abram Smith, 1/3, Algonac; S.L. Smith, 1/4, Lansing; William Harris, 1/4, Houghton; and M.H. Murch, 1/6, Cleveland OH. Her master for the 1877 season was Captain Rathburn.

Ownership shares of the propeller *Anna Smith* were transferred, November 1877, to: Abram Smith, 1/3, Algonac; S.L. Smith, 1/3, Lansing; and William Harris, 1/3, Houghton. During winter 1877/78 layup, the propeller *Anna Smith,* while lying at Burt's dock, Detroit, on the Detroit River, caught fire near the engine. The fire was quickly extinguished with slight damage to the boat.

In August 1878, ownership of the propeller *Anna Smith* was changed to Edwards, Townsend & Co., 7/10; and William Bingham & Co., 3/10; both located at Cleveland.

In April 1879, ownership shares in the propeller *Anna Smith* was changed to R.K. Winslow, ¼; B.L. Pennington, ¼, and John Robertson, 1/4, all from Cleveland OH; and H.J. Winslow, 1/4, New York NY.

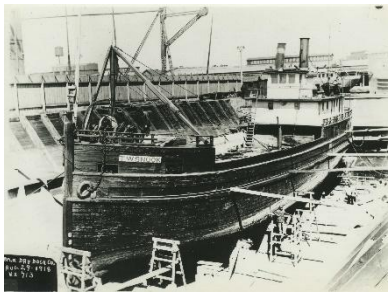
In April 1881, ownership shares in the propeller *Anna Smith* were changed to: Hugh W. Dyas, 1/2; Alvin A. Parker, 1/4; and Byron W. Parker, 1/4, all from Detroit MI. In August 1883, the propeller *Anna Smith* went aground at Thousand Island Park, St. Lawrence River. Released.

In April 1884, ownership of the propeller *Anna Smith* was transferred to Parker Transportation Co. Detroit MI. For the 1884 to 1887 seasons, the chief engineer for the propeller *Anna Smith* was James Falconer. During the 1885/86 winter layup, the *Anna*

Smith was rebuilt, and her enrollment measure recorded at Detroit, April 1886 as: 178.5' x 32.6' x 13.8'; 939.49 grt, 656.83 net. In October 1887, the propeller *Anna Smith* went aground on Grosse Point, Lake Saint Clair. Released. Her master for the 1889 season was Captain Thermistacle LeMay. In November 1889, the propeller *Anna Smith,* bound from Toledo for Milwaukee with a cargo of coal, was driven ashore during a gale on Lake Huron and stranded 5 – 9 miles SE of Cheboygan Light, Hammonds Bay MI. One life lost.

December 1889, the wreck of the propeller *Anna Smith* was salvaged.

January 24, 1890, the final enrollment for the propeller *Anna Smith* was surrendered at Detroit and endorsed "wrecked".



T. W. Snook: A wooden steambarge was launched from William Dulac's shipyard in 1873 by Frank C. Leighton, Mount Clemens, MI, her original owner was T.W. Snook, also from Mt Clemens. The steambarge *T. W. Snook* initial enrollment was issued at Detroit, July 19, 1873 and her measures were: 113.50' x 24.58' x 9.16'; 168.54 grt, 124.19' net. She was powered by a high-pressure engine, 16" bore x 18" stroke, 260 horsepower, originally installed in the steambarge Arizona (U1414) also owned by T. W. Snook. At enrollment she was issued official number 24949. She had been built as a steambarge for the bulk "lumber" trade, with a capacity for 200,000 feet lumber and towed the barge *Arizona* (U1414). She would operate between lower Lake Huron ports and Toledo, Sandusky and Cleveland, ports on Lake Erie. In November 1873. The steambarge *T. W. Snook* went ashore at Alcona, ONT, Lake Huron. Released. Her master for the 1876 & 77 seasons was Captain Syd. Scott with William J. Robinson, 1876-78, as chief engineer.

Ownership of the steambarge *T.W. Snook* was changed in 1879 to C.H. Cook and others, Whitehall, MI. John Miller was chief engineer for the steambarge *T.W. Snook,* during the 1881 & 82 seasons. In November 1883, bound from Chicago to White Lake, MI, on her last trip for the season, the steambarge *T.W. Snook,* running for shelter from a severe storm, holed herself on a pier at South Haven, MI, and settled in 18 feet of water. She was raised and repaired. In September 1887, the steambarge *T.W. Snook,* laden with lumber and bound up on the Chicago River, collided with the down bound canal-boat *Georgia* (85445), laden with 6,200 bushels of corn, and undertow of the canal boat *City of Henry.* Both vessels entered the last draw of the Eighteen Street Bridge, Chicago. The *City of Henry* passed but the *Georgia* was struck, crushing her bow and sinking. The *T.W. Snook* had her stem twisted off by the blow.

In 1888, ownership of the steambarge *T.W. Snook* was changed to W.E. Rice and others, St. Clair, MI.

In November 1893, ownership of the steambarge *T.W. Snook* was changed to Schultz and Brooks, Alpena, MI for $4,500.

In 1894, ownership of the steambarge *T.W. Snook* was changed to Captain Harris W. Baker, Detroit, MI for $1,700 cash, and she was rebuilt as a wrecking steamer. In July 1911, the wrecking steamer *T.W. Snook* went aground and sank near Guinea Bay, Buffalo, during a severe windstorm on Lake Erie. The vessel was not raised for 30 days.

In 1916, ownership of the wrecking steamer *T.W. Snook* was changed to D.W. Lockhart, Sandusky, OH and outfitted with sand dredging gear for dredging work on Lake Erie.

In 1918, ownership of the sand dredge *T.W. Snook* was changed to Jacob Roth, Erie, PA.

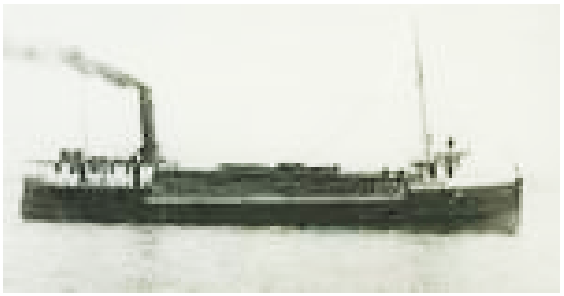
In 1919, ownership of the sand dredge *T.W. Snook* was changed to Joseph A. Boland, Buffalo.

In 1902, ownership of the sand dredge *T.W. Snook* was changed to Mae Lockhart, Detroit. In 1921, the sand dredge *T.W. Snook* was laid up and abandoned on the St. Clair River.

Sovereign: Lewis Shickluna, at St. Catharines, Ont., built a wooden propeller, that was canal size, for the North-West Transportation Co., Sarnia, Ont.; S. Neilon, president. She would be used in the passenger, package freight trade, between Montreal to Chicago. Enrolled at St. Catharines, Ont., April 29, 1873, her measures were: 139' 7" x 23' 7" x 7' 4"; 684.08 grt, 425.55 net. She was powered by a Steeple Compound engine, 34", 34" bore x 34" stroke, 750 horsepower. At enrollment she was assigned official number C96841. Her master for the 1873-78 seasons was Captain J. McMaugh. April 1874, in the Chicago River, the propeller *Sovereign* collided with the bark *Lafrinier* (U14665) inflicting $300 damage to the bark. In July of that same year, while in the Welland Canal, the propeller *Sovereign* broke her rudder. Loss $200

In 1877, ownership of the propeller *Sovereign* was changed to the Northwest Transportation Co., Sarnia, Ont. Due to the Depression od 1882-85, the propeller *Sovereign,* laid up for 1882 – 83 seasons and was overhauled. She left for Duluth with a full cargo of Canadian Pacific Railway supplies in May of that year. Her master for the 1885 season was Captain J. Clifford with W. Davidson, 1885 – 86 seasons, as chief engineer.

Ownership of the propeller *Sovereign* was changed to Patrick Kerwin, Sarnia, Ont. in 1890. She was cut down to a steambarge for the bulk freight trade. Her master for the 1890 & 91 seasons was Captain Kerwin. In October 1891, bound down from Port Arthur for Kingston, Ont., the propeller *Sovereign,* laden with wheat, broke a stern pipe during a storm and foundered in 70 fathoms of water, 12 miles southwest of Lamb Island Lake Superior. No lives lost.



Rhoda Stewart: James Galloway, Algonac, MI, built a wooden barge for Abram Smith et al, also from Algonac, to be used in the lumber trade. Her first enrollment was issued at Port Huron, August 14, 1873. Her measures were: 138.68' x 29.33' x 10.75'; 323.92 grt. She was issued official number 56488. In November 1876, the barge *Rhoda Stewart,* laden with lumber, under the tow of the propeller *Antelope,* broke adrift and went ashore 20 miles east of Long Point, Ont., Lake Erie. She was released but her deck load was lost.

Ownership of the barge *Rhoda Stewart* was changed in April 1880, to Jesse H. Farwell et al, Detroit. In May of 1880, the barge *Rhoda Stewart* was converted to a steambarge for the sand trade. Her register was updated: 2 masts, 447.10 grt. She was powered by a Steeple compound engine, 19', 36' bore x 36' stroke, 280 horsepower, built by S. F. Hodge & Co. in 1865. She was equipped with a firebox boiler: 8' x 16', 90 pounds steam, Built by Detroit Locomotive Works in 1880.

Ownership of the steambarge *Rhoda Stewart* was changed to George Prentis, Detroit. Her enrollment tonnage was updated March 1881: 447.1 grt, 356.69 net. William J. Graves served as chief engineer for the 1881-83 seasons.

Ownership of the steambarge *Rhoda Stewart* was changed in September 1883, to H. Howard, Port Huron.

Ownership of the steambarge *Rhoda Stewart* was changed to E. C. Recor et al, St. Clair, MI in April 1884. Her master for the 1885 season was Captain D. W. Dana, with Captain Hiram D. Moore as master for the 1889 & 90 seasons.

In April 1892, ownership of the steambarge *Rhoda Stewart* was changed to W. E. Rice, Harbor Beach, MI. In June of that year, bound down, the steambarge *Rhoda Stewart* and her consort, both laden with lumber, went aground on Mamajuda Island, Detroit River. Released. Master of the steambarge *Rhoda Stewart* for the 1896-98 seasons was Captain W. E. Rice with William T. Walker in 1894, and James A. Southgate, 1896-99 as chief engineers. In June 1896,
laden with lumber, the barge *Rhoda Stewart* had her boiler explode. Three crewmen were killer aboard the steambarge *Rhoda Stewart* when her boiler exploded off Middle Island near Alpena, MI, Lake Huron. The boiler had been overhauled just prior to the season start and inspected by U.S. Government inspectors just prior to starting on this trip. Blame for the explosion was placed upon the inspectors. Master of the steambarge *Rhoda Stewart* was Captain William J. Cowles for the 1899-1904 seasons, with Gilbert R. McLelland as chief engineer from 1900 – 1903.

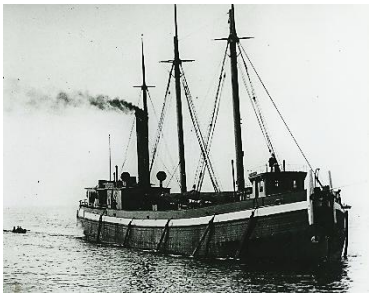
Ownership of the steambarge *Rhoda Stewart* was changed in February 1900, to Mary C. Rice, Harbor Beach, MI.

In June 1904, ownership of the steambarge *Rhoda Stewart* was changed to L.P. & J.A. Smith, Cleveland. Master of the steambarge *Rhoda Stewart* was Captain G. H. Ferguson for the 1905 & 06 seasons with P. H. Benham in 1904 and L. Gelinas in 1905 as chief engineer.

In July 1906, ownership of the steambarge *Rhoda Stewart* was changed to Cleveland Dredge & Dock Co., Cleveland. In August 1906, during a fierce gale on Lake Erie, the steambarge *Rhoda Stewarts* towline with consort barges *William Grandy* and *Agnes Potter* parted off Euclid Beach, Cleveland. The barges went aground and the *Potter* caught fire and was destroyed. The steambarge weathered the gale but was badly crippled by a broken steam pipe. The *Rhoda Stewart* and *William Grandy* sought safety off the breakwater.

In March 1907, ownership of the steambarge *Rhoda Stewart* was changed to Great Lakes Dredge & Dock Co., New Jersey. She was registered at Duluth, MN as a sand & gravel carrier. Her master for the 1908 season was Captain K. Brogan with George Allshaft as chief engineer. In 1921, the steambarge *Rhoda Stewart* was abandoned at the breakwater outside of Cleveland.

Final enrollment documents for the steambarge *Rhoda Stewart* were surrendered at Cleveland, August 16, 1921, and endorsed "vessel abandoned".



Superior: Linn & Craig, at Gibraltar, MI, built a wooden hulled, #00014, steam powered propeller for the Western Transportation & Coal Co. located at Detroit, to be used for the bulk freight "iron ore" trade. Initial enrollment issued at Detroit, recorded her measures as: 187.66' x 33.00' x 12.16'; 586.70 grt. Her original engine was not recorded. The propeller *Superior* was assigned official number 115158. Masters of the propeller *Superior* were: Captain John McKay for the 1873 season with Boyd as chief engineer; Captain Eugene Rathbun for the 1874-78 seasons; and Captain Stone for the 1880 season.

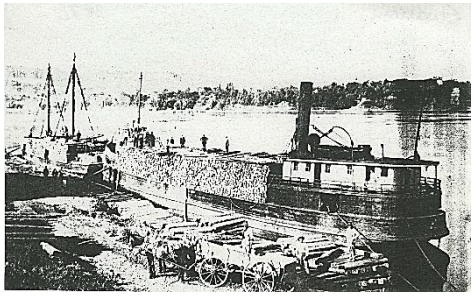
Ownership of the propeller *Superior* was changed in May 1878 to Alva Bradley, 5/8, Cleveland, OH; et al. She had been rebuilt during winter layup and her measures were recorded at Cleveland as: two decks; tonnage - 854.59 grt, 785.44 net. In 1879, the propeller *Superior* received a high pressure, non-condensing engine, 28" bore x 34" stroke and two tubular boilers, 6'10" x 17', 95 pounds steam, built by Detroit Locomotive Works, Detroit. In May 1881, the propeller *Superior,* laden with coal, went ashore, in fog, at the north end of North Manitou Island, Lake Michigan. Released.

In May 1883, ownership of the propeller *Superior* was transferred to Bradley Transportation Co., ½ shares, et al.

Master of the propeller *Superior* for the 1884 & 1885 seasons was Captain Henry W. Stone. During the 1888 winter layup, the propeller *Superior* received a new fore & aft compound engine, 20", 38" bore x 24" stroke, built by Cleveland Ship Building Company, Cleveland and a firebox boiler, 9.5' x 15'. She had been rebuilt and her measures were changed at Cleveland: 187.66' x 33' x 19.42'; 964.40 grt, 838.35 net. In June 1889, the propeller *Superior* went aground in Nipigon Bay, Ont., Lake Superior. Released. The following month, she received a new shoe at West Superior, WI.

Her masters and chief engineers were: 1891 & 92 seasons, Captain Paul Howell with W. H. Bond as chief engineer; 1893 season, Captain George A. McLoed with P.J. Carr as chief engineer for the 1893 & 94 seasons; for the 1894 season, Captain John A. Donahue; for the 1895 season, Captain Francis M. Stenton; for the 1895 & 96 seasons, Captain James Lawless with John William Greene as chief engineer; and for the 1896 & 97 season, Captain George A. McCoy with Cassius M. Williams as chief engineers. In August 1898, bound down from Escanaba, MI for Toledo, the propeller *Superior,* laden with iron ore, sprang a leak during a gale, fifteen miles from Poverty Island on Lake Michigan and ran into the shallows on the north side of Gull Island where she broke apart. No lives lost.

Final enrollment for the propeller *Superior* was surrendered at Cleveland, February 7, 1899, and endorsed "vessel lost".



Swallow: Alvin A. Turner, at Trenton, MI, built a wooden steambarge for David C. Whitney and Captain James Chase, both from Detroit, to be used in the bulk lumber trade. Enrolled at Detroit on August 9, 1873, her measures were recorded as:133.80' x 25.80' x 10.80'; 256.0 grt, 203.0 net. Her official number was 115184. The steambarge *Swallow* was powered by a high-pressure engine, 22" bore x 26" stroke, built by S. F. Hodge. Steam was generated by a firebox boiler, 6' 9" x 16' 9", 90 psi. Her master for the 1873 season was Captain James Chase. In May 1875, the steambarge *Swallow* was holed and sank, in a collision with double deck bulk freighter *Fred Kelley* (120074) at Toledo, OH. She was raised and repaired. In November 1877, the steambarge *Swallow* went aground during a three-day gale at Port Stanley, Ont. Released.

Ownership of the steambarge *Swallow* was changed in April 1879, to Simon J. Murphy, Joseph Heald and Ernest Crippen, all from Montague, MI.

Ownership of the steambarge *Swallow* was changed in July 1882, to E. E. Crippen and Simon Murphy. In 1884, the steambarge *Swallow* received a high-pressure engine, 20" bore x 26" stroke built by Riverside Iron Works, Detroit.

Ownership of the steambarge *Swallow* was transferred, in May 1886, to E. E. Crippen, Chicago and Andrew Flagsted, Montague, MI. In June 1886, bound from Muskegon, MI for Chicago, laden with lumber, the steambarge *Swallow* was struck broadside by a gale on Lake Michigan. The storm and waves filled her and put out her boiler fires. She lost her deck load and was towed to Chicago, sinking at the harbor entrance during a Lake Michigan squall. Raised.

In April 1887, ownership of the steambarge *Swallow* was changed to A. D. Campbell and H. W. Cook, both from Michigan City, IN. Her chief engineer for the 1887 & 1888 seasons was Alfred A. Green.

In April 1889, ownership of the steambarge *Swallow* was changed to Theo Lutz, St. Joseph, MI;

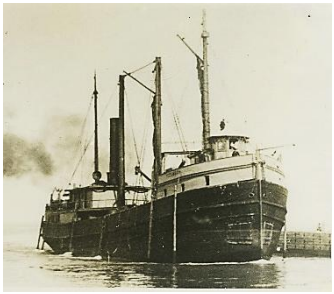
Alex D. Campbell and Henry Cook, both from Michigan City, IN.

Ownership of the steambarge *Swallow* was changed in May 1890, to James Innes, Thomas Cowan and Penoyer Brothers, AuSable, MI.

In September 1890, ownership of the steambarge *Swallow* was transferred to James Innes, Penoyer brothers AuSable, MI and E. K. Porter, Lorain, OH. She would operate in the lumber business between Oscoda, MI and Lake Erie ports.

In February 1891, ownership of the steambarge *Swallow* was changed to Carlos Liebert, William Quinlan and James Lennae, all from Detroit. July 1896, the steambarge *Swallow* stranded on rocks off Point Lafayette while towing *Surprise* and *Cascade* near Bois Blanc Island, Detroit River. In October 1900, the steambarge *Swallow* sank in a collision with the steel bulk freighter *Sir William Siemens* (116732) in St. Clair River. The *Swallow* was laden with cedar posts and shingles. Raised later that month.

Ownership of the steambarge *Swallow* was changed in May 1901, to William E. Lennae, Detroit. October 1901, bound down, from Emerson, MI for Buffalo, laden with lumber and shingles, the steambarge *Swallow* foundered in a heavy gale, ten miles off Long Point, Lake Erie. The crew was rescued by her tow barge *Manitou;* After 39 hours, they were picked up by the steel bulk freighter *Walter Scranton* (81743).



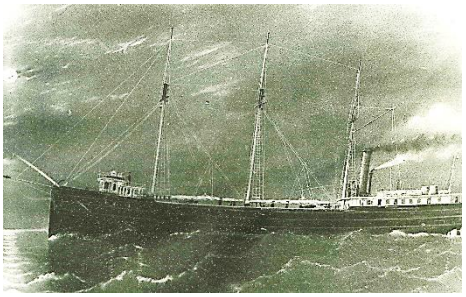
Tecumseh: Hyslop & Ronald, at Chatham, Ont., built a wooden steambarge for the bulk freight trade between Lake Ontario ports and the upper lakes. She had a capacity for 40,000 bushels, and was considered, at the time, the largest Canadian built propeller on the lakes. The steambarge *Tecumseh* was first enrolled at Sarnia, Ont. her measures recorded were: 200.0' x 29.9' x 13.2'; 839.67 grt, 529.97 net. She was powered by a fore & aft compound engine, 26", 48" bore x 28" stroke, 300 horsepower, built by Hyslop & Ronald, Chatham, in 1873. She was assigned official number C80774. Her original owners were Hyslop & Ronald, Chatham. In April 1874, the steambarge *Tecumseh* was inspected at Windsor, Ont. and her tonnage recorded as: 633 grt, 543 net. In May 1874, the steambarge *Tecumseh* and the schooner *Florida* (U9757) collided at Port Colborne, Ont., Lake Erie. Damage loss set at $300. In July of that same year, the steambarge *Tecumseh* had her mizzen topmast carried away by lighting during a storm in Kingston, Ont. harbour. In September, the steambarge ran aground outside Port Colborne, Ont. harbour, Released. Two months later, in November, the steambarge *Tecumseh* went ashore at Port Colborne, Ont., Lake Erie. Property loss set at $200. In November 1875, due to low water, the steambarge *Tecumseh* went aground between the piers at Port Colborne, Ont., while attempting to reach the elevator to discharge her cargo. In September 1876, bound up for Chicago, the steambarge *Tecumseh* left Walkerton, Ont., Georgian Bay, with a cargo of 975 tons of salt from Mr. Rightmyer. In November of that same year, bound down from Chicago, the steambarge *Tecumseh,* laden with 35,235 bushels of corn, arrived at Collingwood, Ont.

Ownership of the steambarge *Tecumseh* was changed in March 1880, to A. N. Moffat, Henry Howard and Captain John Sloan, Port Huron, for $19,000 cash. Her master for the 1880 season was Captain John Sloan. Due to confusion on whether her tow was American or Canadian owned and registered, the steambarge *Tecumseh* was liable to a tonnage tax of $163 for towing the American schooner barge *Keating* (U105346) from Sarnia, Ont. to Chicago. In May 1881, bound for Alpena, MI, the steambarge *Tecumseh,* towing the schooner *George C. Finney* (U10545), run on the wreck of the schooner *Sweetheart* (U22397) sunk north of the St. Clair River, in Lake Huron. The *Tecumseh* broke her bottom planks and settled onto the wreck. Pontoons were put under the *Tecumseh's* bow to raise her. She was raised and repaired. In December 1882, the steambarge *Tecumseh,* who trades to Chicago, up bound with coal, down bound with grain, went ashore near Flat Point, Lake Ontario. Released. In December 1883, the steambarge *Tecumseh* went ashore near Sault Ste. Marie, MI. Released.

Ownership of the steambarge *Tecumseh* was changed in April 1884, to the McArthur Brothers, Toronto, and chartered to Northern Transportation Co., Ltd., Sarnia, Ont. The steambarge *Tecumseh* was valued at $35,000 to McArthur Brothers and they took the tug *Porter,* (U980) valued at $10,000 in exchange. June 1884, bound for Collinsby, Ont. (Collins Bay), the steambarge *Tecumseh,* with barkentine *Cavalier* (C-1867) and schooner *M.C. Cameron* (C61159) in tow*,* all laden with square lumber, blew her cylinder off Thirty Mile Point, NY, Lake Ontario. Her tow was released to proceed independently to sail for Collinsby to unload their cargo. The steambarge *Tecumseh* arrived at Kingston and entered Davis Dock for repairs. In July of that same year, the steambarge *Tecumseh* stranded on Lake Erie, Released. Hull loss set at $500. Later that same month, the steambarge *Tecumseh* and her tow of barges, laden with lumber, went ashore on Stag Island, Ont., St. Clair River. Released. In December of 1884, the steambarge *Tecumseh* went ashore on Manitoulin Island, Lake Huron. Released. Master of the steambarge *Tecumseh* for the 1885 & 86

seasons was Captain W. Manson with T. Milne as chief engineer. In September 1885, bound down, the steambarge *Tecumseh* lost her consorts when they went ashore and filled with water near Kincardine, Ont., Lake Huron. Both were lumber laden. In June 1886, bound from Traverse City, MI for Collinsby, Ont., the steambarge *Tecumseh* had five drams (a dram was made up of 600 to 700 pieces of wood (sticks) lashed together to make a 20-metre-wide vessel from 80 to 120-metre in length.) in tow.
In May 1887, bound up with one consort, the steambarge *Tecumseh* and the iron sidewheel steamer *City of Alpena* (U125808) collided in heavy fog, four miles northeast of Sand Beach, MI, Lake Huron. The *Tecumseh* was struck amidships, leaking badly, she kept herself afloat with her pumps. Repaired. April 11, 1890, the steambarge *Tecumseh* with consorts barkentine *Cavalier* and schooner *Cameron* departed for Bay City, MI to load lumber and were the first departures from Kingston, Ont., for the 1890 season. June 1892, the steambarge *Tecumseh* with tow and the composite built (iron framed/wooden planked), sidewheel steamer *Algerian* (C71609) collided in thick fog off the Ducks, Lake Ontario. The *Tecumseh* was struck above her quarter on the starboard side. She was repaired at Port Dalhousie, Ont. May 1897, down bound from Lake Superior, the steambarge *Tecumseh* struck and sank the sidewheel steamer *Louis Shickluna* (C100752) off Long Point, Ont., Lake Erie. No lives lost. During winter lay up 1898, the steambarge *Tecumseh* received a new scotch boiler, 11' x 11'6", 133 pounds steam, built by Bertram Iron Works, Toronto, Ont. For the 1895 to 97 seasons, the steambarge *Tecumseh* with consorts, operated between Lake Superior and Lake Ontario in the lumber and iron ore trades. Masters of the steambarge *Tecumseh* were: for the 1903 to 1905 seasons, Captain Alexander Anderson with W. C. Spencer and A. E. Kennedy as chief engineers; for the 1906 & 07 seasons, Captain Charles Beaupre with Alex Barton and Dan Brisban as chief engineers.

In March 1908, ownership of the steambarge *Tecumseh* was changed to Captain T. H. Tretheway & Sons, Sarnia, Ont. Master of the steambarge *Tecumseh* for the 1908 season was Captain John E. Cornwall with Captain and Mrs. T. H. Tretheway on board for the season. While in winter quarters, 1908/09, at Goderich, Ont., Lake Huron, and moored on the north side of the Maitland River; on a stormy morning, the steambarge *Tecumseh* caught fire and burned to the water's edge, sinking as the ice melted. Goderich fire department responded to the fire but could not cross the ice. Captain and Mrs. T. H. Tretheway and the captain's brother were living on-board and doing work on the vessel. The steambarge *Tecumseh* was insured for $15,000. The remains of the steambarge *Tecumseh* were removed from the harbor in 1911.



Oscar Townsend: E. Fitzgerald, Port Huron, built a wooden propeller for Edward Kelly, Cleveland, to be used in the bulk freight trade. At her initial enrollment at Port Huron in August 1873, her measures recorded were: 192.0’ x 34.0’ x 14.4’; 817.85 grt. She was assigned official number 19385. Her original engine is unknown.

In August 1873, ownership of the propeller *Oscar Townsend* was changed to Lake Superior Transportation Co. In April 1878, her enrollment tonnage for the propeller *Oscar Townsend* was changed: two decks, 1,037 grt. Her chief engineer for the 1878 season was William W. Tyler.

Ownership of the propeller *Oscar Townsend* was changed in March 1880, to Robert R. Rhodes, Cleveland, et al.
Master of the propeller *Oscar Townsend* was Captain William H. Humphrey for the 1881 to 88 seasons. In May 1882, the propeller *Oscar Townsend* received a high-pressure engine, 28” bore x 36" stroke, 458 horsepower, and two tubular boilers, 6' 9" x 17', 90 pounds steam, from Cuyahoga Iron Works, Cleveland, OH. In April 1883, her enrollment tonnage for was changed to: 835.50 net. In November of 1883, the propeller *Oscar Townsend* caught fire, after a lamp exploded in an alleyway near the engine. She was burnt between decks aft of the smoke stack. Repaired.

Ownership of the propeller *Oscar Townsend* was changed, February 1888, to William Hayden, 8/24; Oscar P. Bills, 8/24; and J. Root, 5/24, all from Tecumseh, MI, plus E.D. Chilson, 3/24, Lorain, OH. In October 1891, bound for Escanaba, MI, the propeller *Oscar Townsend* caught fire, when a lamp exploded in the lamp room, off Port Sanilac, Lake Huron. She burned to total loss, sinking eight miles off Lexington, MI. No lives lost.

Final enrollment for the propeller *Oscar Townsend* was surrendered, June 23, 1894.

Alvin A. Turner: A. A. Turner, at Trenton, MI, built a wooden steambarge for the David C. Whitney, Jr. & Co., Detroit, to be used in the bulk freight "lumber' trade. She had a capacity for 800 tons. Enrolled at Detroit, April 23, 1873, her measures recorded were: 135.16' x 26.0' x 11.42'; 309.87 grt, 220.81 net. She was assigned official number 105227. The steambarge was powered by a Steeple Compound engine, 20", 40" bore x 32" stroke, 350 horsepower, built by Samuel F. Hodge, Detroit, in 1873. Steam was generated by a firebox boiler, 9' x 15', 110 psi. Her master for the 1873 season was Captain James Chase.

Ownership of the steambarge *Alvin A. Turner* was changed in April 1874, to E.T. Slackford, 1/3; M.S. Fellers, 1/3; and Eugene Robinson, 1/3; all from Detroit. That same month, bound down for Ogdensburg, NY, laden with lumber, the steambarge *Alvin A. Turner* ran on a rock, during a snowstorm, below Cape Vincent on Lake Ontario. She sprang a leak and was obliged to run ashore. Released. Loss set at $2,200. The steambarge *Alvin A. Turner* went ashore at Alexander House on the Detroit River in November 1875.

In April 1876, ownership of the steambarge *Alvin A. Turner* was transferred to William Rankin, 2/3, Grosse Pointe MI and Eugene Robinson, 1/3, Detroit. Master of the steambarge *Alvin A. Turner* for the 1876 to 1885 seasons was Captain George U. Williams with James Speir as chief engineer.

In April 1879, ownership shares in the steambarge *Alvin A. Turner* were transferred to William Rankin, 1/2, Grosse Pointe; Eugene Robinson, 1/3; and George W. Wilson, 1/6; both from Detroit MI.

In April 1881, ownership shares in the steambarge *Alvin A. Turner* were transferred to Helen Rankin, 1/2, Grosse Pointe; Eugene Robinson, 1/3; and George W. Wilson, 1/6; both from Detroit MI.

In May 1882, ownership of the steambarge *Alvin A. Turner* was changed to A.A. Farmer Transportation Co. Detroit MI.

In October 1886, ownership of the steambarge *Alvin A. Turner* was changed to Allen C. McLean, 1/4, East Saginaw MI; Willard H. Bridges, 1/4, Bay City MI; William H. Scott, ¼; and Mathew P. Scott, 1/4, both from Marine City MI.

Ownership shares in the steambarge *Alvin A. Turner* were transferred in February 1888 to: Allen C. McLean, 1/3, East Saginaw MI; Willard H. Bridges, 1/3, Bay City MI; William H. Scott, 1/3, Marine City MI; Master of the steambarge *Alvin A. Turner* for the 1901 season was Captain John Stone with Charles W. Adler in 1889; Frank Hausbeck for the 1897-98 seasons and Joseph Hall, in 1901, as chief engineers.

In June 1904, ownership of the steambarge *Alvin A. Turner* was changed to Patrick McTigue, Cleveland OH.

In September 1905, ownership shares of the steambarge *Alvin A. Turner* were changed to: Bernard W. Shean, 21/72; Charlotte Ryan, 21/72; Patrick Gallagher, 21/72; and J.W. Karr, 9/72, all from the Cleveland OH area. The following month, October 1905, enroute from Spanish Mills, ONT to Cleveland with a cargo of lumber, the steambarge *Alvin A. Turner* had after steering gear fail and stranded on St. Mary's Rock, in Little Detroit Passage, St. Mary's River. The steambarge *Alvin A. Turner* spun in the river current, caught fire and burned for a total loss and sank. No lives lost.

Vanderbilt: J. Simpson, at Chatham, Ont., built a wooden steambarge for G. D. Ferguson, Fergus, Ont. Enrolled at Chatham in 1873, her measures were: 93.0' x 22.4' x 8.6'; 169.0 grt, 90.0 net. She was equipped with the engine and boiler from the 1870, Canadian built propeller *Adelaide Horton* (C-1870). She was built for the package freight trade with some passenger accommodations. In December 1873, she went ashore near Saginaw, MI, Saginaw Bay. Released. In September 1874, the steambarge *Vanderbilt* broke her rudder on Lake Huron. Repaired. The following month, October, the steambarge *Vanderbilt* went ashore at Pointe aux Barques, Lake Huron. Released. Masters of the steambarge *Vanderbilt* were Captain George McDougall for the 1876 season and Captain John M. Johnson for the 1877 season with C. Castle as chief engineer, 1873-75, and Henry F. McGinnis, 1875-76, as chief engineers.

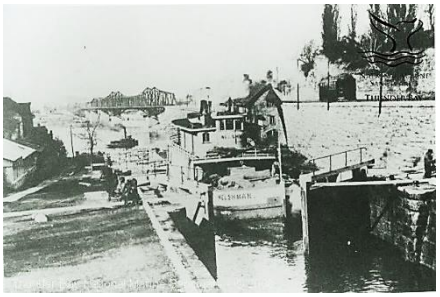
In 1877, ownership of the steambarge *Vanderbilt* was changed to the Georgian Bay Steam Barge Co. where she would ply between Parry Sound and Sarnia, Ont. In September 1879, bound from Midland, MI for Goderich, Ont., the steambarge *Vanderbilt,* laden with lumber and lath, encountered heavy weather and became waterlogged, lost her deck load, and had water enter her stoke hole, extinguishing her fires. When found, she was under sail and heading for shelter. The *Vanderbilt* was taken in tow by the *Prince Alfred* who also became disabled. Both vessels were taken in tow by the steamer *Northern Belle* to the mouth of the Sydenham River where they were grounded. Later released and repaired.

In 1882, ownership of the steambarge *Vanderbilt* was changed to the J. W. Appleton, Chatham, Ont. her master for that year was Captain Birnie. In June of that year, bound down from Lake Superior for Midland, Ont., the steambarge *Vanderbilt* caught fire, beached on Serpent Island, Meldrum Bay, North Channel, Lake Huron, and burned to a total loss. No lives lost.

Vienna: Quayle & Martin, Cleveland, built a wooden propeller, for the Cleveland Transportation Co., Cleveland, OH, to be used in the bulk freight trade. Her initial enrollment was issued at Cleveland, OH, June 27, 1873; and her recorded measures were: 191.33' x 33.66' x 14.00'; 745.07 grt. She was powered by a low-pressure engine, 40" bore x 36" stroke, 528 horsepower. Steam was generated by a tubular boiler, 9'6" x 18', 45 pounds steam, built by Globe Iron Works, Cleveland. She was assigned official number 25875. Master of the propeller *Vienna* for the 1873 season, was Captain H. Maksehorn. In her first year, 1873, the propeller *Vienna* went ashore at Presque Isle, Lake Huron; and in August, laden with grain, sank in Lake Superior. Raised. She was rebuilt during winter layup 1875/76 and her enrollment measures updated to: 2 decks, 3 masts, 1005.79 grt. In September 1883, the Cleveland, Willow Street Bridge, over the Cuyahoga River, swung into her, causing considerable damage. Masters of the propeller *Vienna* were: Captain Paul Powell, 1884 season; and Captain Ed Turner for the 1887 season. In June of 1887, down bound, laden with iron ore, the propeller *Vienna* stranded on an uncharted 14' shoal, 1 1/2-2 mi. SW. of Waugashance Light, Straits of Mackinaw. She was released, suffering a hull loss set at &1,800. Master of the propeller *Vienna* for the 1888 season was Captain John Dunn.

Ownership of the propeller *Vienna* was changed in March 1889, to Orient Transportation Co., Rockport, OH. Master of the propeller *Vienna* for the 1892 season was Captain J. W. Nicholson. September 1892, bound down from Marquette, MI with a cargo of iron ore, the propeller *Vienna* collided with propeller *Nipigon* (130272), about four miles below Whitefish Point, Whitefish Bay, Lake Superior and sank in 60 fathoms of water. No lives lost.

Final enrollment surrendered at Cleveland, OH, September 28, 1892. The wreck site was discovered by scuba divers in 1974.

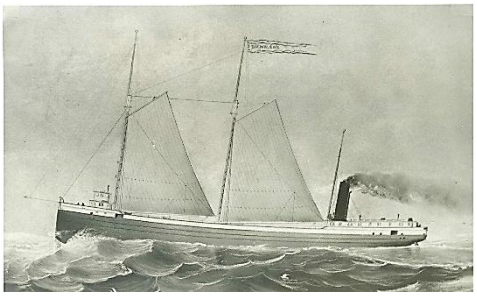


Welshman: William Powers, built at Kingston, Ont., a wooden steambarge for C. F. Gildersleeve, Kingston to be used for the package freight trade on the Rideau Canal (connecting the Ottawa river to Kingston). Her initial enrollment was issued at Kingston and her measures recorded as: 100.3' x 23' x 6.4', 129.62 grt, 90.0 net. Her engine is unknown.

In 1877, ownership of the steambarge *Welshman* was changed to W. Little, Ottawa, Ont. The steambarge was remeasured, based upon the "40th Victoria, Chap. 19" and her measures up dated to: 143.43 grt, 85.95 net. Her master of the steambarge *Welshman* prior to 1884, was Captain W. Garrett.

Ownership of the steambarge *Welshman* was changed in 1886, to E. A. Hall. For the 1888 season, the steambarge *Welshman* ran Kingston to Montreal. In 1891, the steambarge *Welshman* connected with the propeller *Rideau Belle* at Ottawa to complete a connection from Kingston, via the Rideau Canal to Ottawa and via the Ottawa River to Montreal.

In March 1892, ownership of the steambarge *Welshman* was changed the Ottawa Forwarding Co. In 1900, the enrollment for the steambarge *Welshman* was closed and the vessel was listed as broken up and scrapped.



D. M. Wilson: Simon Langell, at St. Clair, MI, built a wooden propeller for Thomas Wilson, Cleveland. The first enrollment was issued as temporary at Detroit, June 18, 1873, with the actual enrollment issued at Cleveland, July 02, 1873. Her measures were recorded as: 757.76' x 32.58' x 12.16'; 757.76 grt, 591.74 net. The wooden propeller was assigned official number 6772. The propeller *D. M. Wilson* was powered by a high-pressure engine, 27" bore x 30" stroke, built by Globe Iron Works, Cleveland. Steam was generated by a tubular marine boiler, 6.5' x 16', 90 pounds steam. The propeller *D. M. Wilson* was built for the bulk freight "iron ore" trade. Master of the propeller *D. M. Wilson* for the 1873 season was Captain Thomas Wilson. In June 1874, the propeller *D. M. Wilson* was damaged in the Sault Canal, Saint Mary's River. Repaired. In October of that same year, the propeller *D. M. Wilson* fouled with the wreck of the barkentine *Board of Trade* (U4331) near Niagara Reef, Lake Erie. Property loss was set at $400. Master of the propeller *D. M. Wilson* for the 1878 to 1880 seasons was Captain John Lowe.

In October 1880, ownership shares for the propeller *D. M. Wilson* were transferred to Thomas

Wilson, Cleveland; et al. In September 1881, the propeller *D. M. Wilson* went aground in the Saint Mary’s River. She was released and required a new fore-foot.

In May 1883, ownership of the propeller *D. M. Wilson* was changed to Charles H. Lane, 1/3; and Lorenzo Dimick, 1/3, both from Buffalo; Alfred Wright, 1/6, Portville, NY; Martha A. Simpson, 1/6, E. Saginaw, MI. Her enrollment was transferred to Buffalo, NY. Chief engineers of the propeller *D. M. Wilson* were Thomas Walker for the 1883-84 seasons; and Abraham Walker for the 1887-88 seasons.

Ownership of the propeller *D. M. Wilson* was transferred in March 1888 to: Charles H. Lane, 1/2, Buffalo; Alfred Wright, 1/6, Portville, NY; and Martha A. Simpson, 1/3, E. Saginaw, MI.

In April 1889, ownership of the propeller *D. M. Wilson* was transferred to: Charles H. Lane, 1/2, Buffalo, NY; and Martha A. Simpson, 1/2, E. Saginaw, MI.

In April 1890, ownership shares of the propeller *D. M. Wilson* were changed to: John A. Miller, 1/8; William L. Day, 1/8; Thomas J. Harper, 1/8; and Jay McKinney, 1/8, all from Buffalo; et al.

In June 1892, prime ownership of the propeller *D. M. Wilson* was transferred to John A. Miller, Buffalo; et al.

In September 1893, ownership of the propeller *D. M. Wilson* was transferred to Emma Miller, Buffalo, NY.; et al.

In October 1894, bound from Cleveland to Milwaukee, the propeller *D. M. Wilson,* laden with coal, sprang a leak during a gale on Lake Huron and foundered two miles NNE of Thunder Bay Island, Saginaw Bay. No lives lost.

Final enrollment surrendered November 23, 1896 and endorsed “vessel lost by sinking”.

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 x 3/5)) x Beam x Beam/2)/94

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

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

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

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

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

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

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

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

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

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

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

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

The current system of measurement for ships includes:

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

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

P.Q.: Province of Quebec

Packet Freight: 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.)