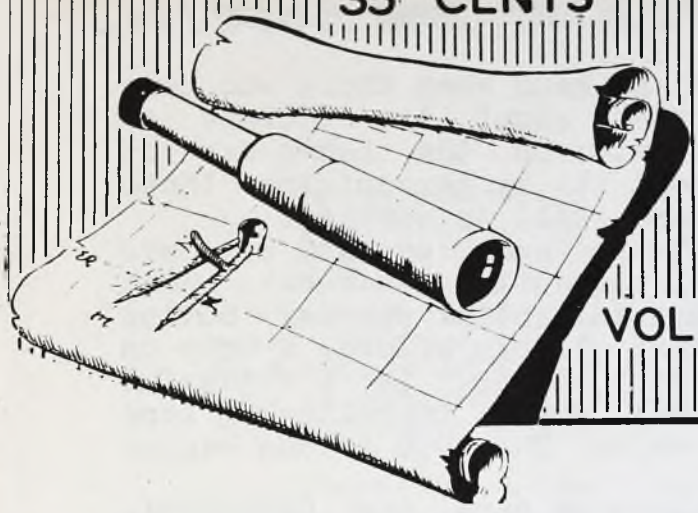
35 CENTS



TELESCOPE

VOL. 7 JUNE 1958 NO. 6

Telescope

PUBLISHED BY

GREAT LAKES MODEL SHIPBUILDERS' GUILD

5401 Woodward Avenue

Detroit 2, Michigan

THE GUILD

Organized in 1952 to locate, acquire, and preserve information and objects related to the history of shipping on the Great Lakes and to make same available to the public through the Museum of Great Lakes History and the columns of Telescope. The construction of authentic scale models of Great Lakes ships is one of the prime objectives of the organization, which has brought into being the largest existing collection of models of these ships. The Museum of Great Lakes History, located at 5401 Woodward Avenue, Detroit 2, Michigan, is official headquarters for the organization and repository of all of its holdings. The Guild is incorporated as an organization for no profit under the laws of the State of Michigan. No member receives any compensation for his services. Donations to the Guild are Deductible for tax income purposes.

Supported in part by
THE
DETROIT HISTORICAL
SOCIETY

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Joseph E.Johnston,
Editor

WINKY, the ship's cat says:

"Of all living things only man has a hell, and he has earned it".

Editorial

KEEP THEM SAILING

The season is at hand when those who have talked so much about the decline of passenger service on the Lakes can do something about it by patronizing those boats which are still in service.

Between Detroit and Cleveland we have the multi-million dollar AQUARAMA which offers a most delightful one-day outing at a price that all can afford. A trip on this magnificent day boat is a wonderful experience well worth traveling a long distance to enjoy. The 1958 season begins June 19.

Out of Toledo we have the CANADIANA, a newcomer in the Lake Erie excursion run out of that port.

The Bois Blanc Island (Bob-Lo) boats are already in service out of Detroit and the Island park is open, with all its old amusements, plus some new ones. For short boat rides this line offers about as much variety as can be found anywhere in America. The Island is of great historic interest,offers many kinds of recreation, including just sitting and resting, for those who prefer to do so, and is just a wonderful place from which to view the Detroit River with its endless stream of vessels passing.

For longer cruises we have the Georgian Bay Line steamers NORTH AMERICAN and SOUTH AMERICAN which offer 7-day cruises to all parts of the upper Lakes. The former will operate between Chicago and Buffalo with visits to Mackinac Island and the 30,000 Island district of Georgian Bay, while the latter will make Buffalo, Cleveland, Detroit, and Duluth, with Mackinac Island Munising, and Houghton as ports of call.

On Lake Michigan we will have the Milwaukee Clipper running between Milwaukee, Wisconsin and Muskegon, Michigan, and the car ferries of the B & O between Manitowoc, Wisconsin and Ludington, Michigan.

As we go about our summer vacations let us all give consideration to these services, arranging our itineries so as to enjoy at least a little water travel. We can have passenger vessels only if they get patronage.

JUNE COVER

Great Lakes lumber schooner

"G.J.BOYCE."

LAWRENCE SEAWAY

In 1535, more than four centuries ago, Jacques Cartier, after a two months' voyage up the tremendous and seemingly endless river he had entered on St. Lawrence's Day, came to an impassable barrier. While his hopes must have been running high that he had found the Northwest Passage at last, he reached what is now Montreal and the Lachine Rapids. Other explorers carried on—Champlain, LaSalle, down through history — and the mid-continent developed and grew, but through all the years it was the great St. Lawrence River that ruled. Today, however, man has not only conquered the river and made deep water navigation possible to the head of the Great Lakes, but he also has harnessed the river to make it produce power for further development of the land.

Thus we come to a new frontier — the frontier of the greatest development era ever known or dreamed of. To Cleveland, to Chicago, to Duluth and all the ports on the Great Lakes come the ships from all the world. Truly, America now has a fourth seacoast right at the heart of the continent.

It is a water highway extraordinary—a deep draft route to 95,000 square miles of fresh water surrounded by the world's greatest industrial and agricultural area . . . an engineering feat without precedent and an example of international friendship and cooperation.

A new source of hydro-electric power — the 2,200,000 horsepower plant at Barnhart Island is but a small portion of the total electrical power available for the future.

THE ROUTE OF THE SEAWAY

The St. Lawrence Seaway Development Corporation was created by Public Law 358 — 83rd Congress, signed by President Eisenhower on May 13, 1954. The St. Lawrence Seaway Authority, the Canadian parallel, was established on December 21, 1951. Actual work on the Seaway commenced in September, 1954, after an agreement had been reached to create a lake in the International Section. This lake also permitted the development of a power project, benefiting both the Province of Ontario and the State of New York.

From the Atlantic Ocean to Montreal, a distance of roughly 1,000 miles, a minimum draft of 35 feet prevails. The current Seaway development begins at Montreal Harbor and is divided into five sections — Lachine, Soulanges, Lake St. Francis, International Rapids and Thousand Islands.

LACHINE SECTION—31 miles from Montreal Harbor to the head of Lake St. Louis, a total rise of 50 feet. The first lock is in Montreal, known as St. Lambert Lock and the second, about 8 miles upstream, is Ste. Catherine Lock.

SOULANGES SECTION—16 miles. At the head of Lake St. Louis are two locks, known as the Beauharnois Twin Flight Locks. Navigation follows the Beauharnois Power Canal, by-passing several rapids and entering the main river again at Lake St. Francis, a total lift of 82 feet.

LAKE ST. FRANCIS SECTION—29 miles from the Beauharnois Canal to the foot of Cornwall Island. There are no locks in this section and only intermittent dredging was required. The total rise is about one foot.

INTERNATIONAL RAPIDS SECTION—44 miles from Cornwall to Chimney Point, about four miles below Ogdensburg, New York. The new channel passes south of Cornwall Island and just above the island reaches the Grasse River Lock. Three miles further is Dwight D. Eisenhower Lock. Both of these locks are between Massena, New York and Cornwall, Ontario. In this vicinity, at the foot of the Long Sault Rapids, is the Long Sault Dam, creating a lake about thirty miles long and a maximum of four miles wide. About four miles below the dam on the international boundary are two power houses, with a capacity of 2,200,000 horsepower.

Navigation then proceeds in a southwesterly direction a distance of 25 miles to the Iroquois Lock on the Canadian side, bypassing another dam at this location. Above the Iroquois Lock, navigation is at the level of the Thousand Islands section, 92 feet above the foot of Grasse River Lock.

THOUSAND ISLANDS SECTION—68 miles from Chimney Point to Tibbetts Point at the lower end of Lake Ontario.

In summary, a vessel leaving Montreal passes through seven locks and travels a distance of 188 miles to Lake Ontario with a total lift of 224 feet. A minimum channel depth of 27 feet is maintained and the locks are 859 feet long by 80 feet wide.

CAPACITY OF THE SEAWAY

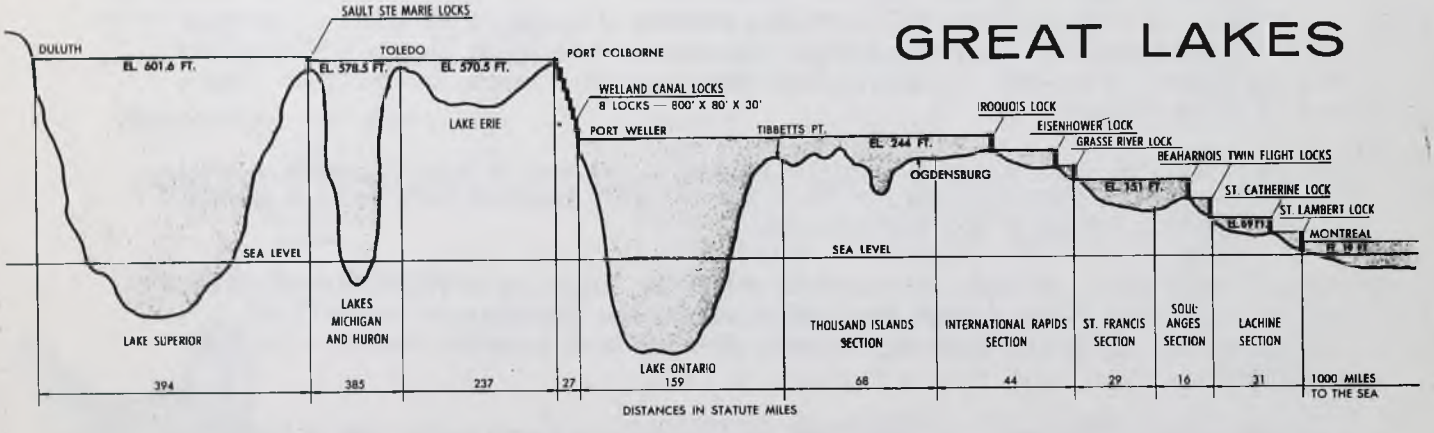
Navigation on the St. Lawrence Seaway and the Great Lakes is limited to about 230 days per year.

There are fifteen locks between Montreal and Lake Erie. Each is 859 feet long, 80 feet wide and 30 feet in depth over the sill. The minimum channel depth throughout the system is 27 feet. The total distance from Montreal to Lake Erie is 375 miles and the total rise in elevation is 550 feet.

Authorities on the Seaway have stated that under the limiting conditions, with consideration for the various types of ships, large and small, and with consideration for usual delays, partial cargoes, etc., the capacity of the St. Lawrence locks and connecting channels is between 50 and 55 million tons per year.

The capacity of the Welland Canal and Locks is believed to be somewhat less — approximately 46 million tons. Of this amount, about 19 million tons has been moving through the canal prior to the deep waterway in the St. Lawrence, so that a potential increase of 27 million tons can be expected. Of this amount at least 10 million tons will be iron ore moving from Labrador to Lake Erie.

DATA ON GREAT LAKES

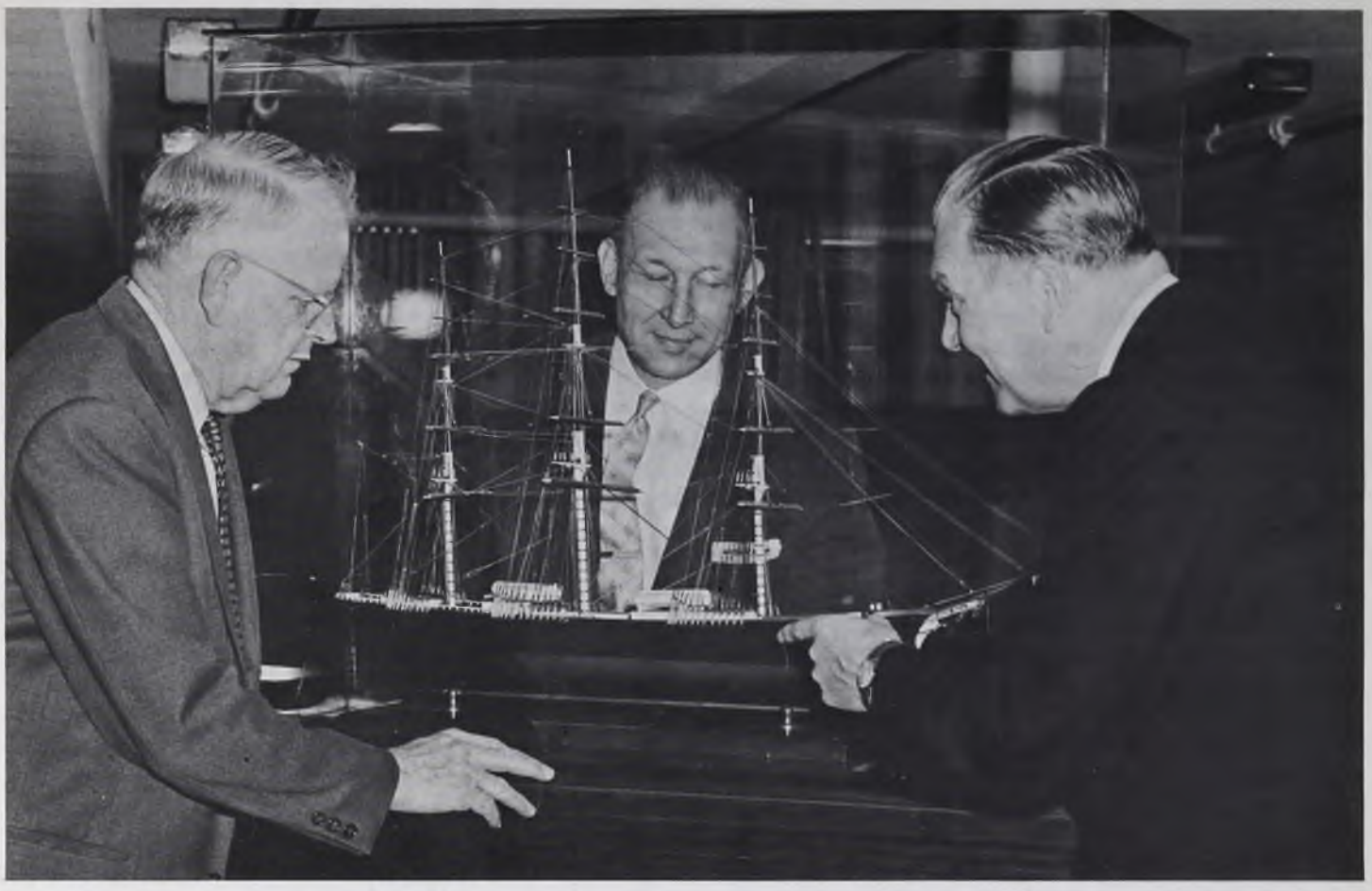


FROM LAKE SUPERIOR TO MONTREAL

...there is a total drop of 583 feet.

1—Sault Ste. Marie Locks and Saint Marys River	23 feet
2—Saint Clair and Detroit Rivers	9 feet
3—Lake Erie to Lake Ontario (Niagara Falls — 167 feet)	326 feet
4—International Rapids Section	93 feet
5—St. Francis and Soulanges Section	82 feet
6—Lachine Section to Montreal	50 feet
	583 feet

See "Data", P.13



MODEL OF CLIPPER SHIP "FLYING CLOUD"

Left to right: Capt.J.E.Johnston, Robert L.Ruhl, and Mr.F.A.Kaiser, Vice President and General Sales Manager, Michigan Consolidated Gas Company.

Through the efforts of Mr. Robert L. Ruhl, past president of the Great Lakes Model Shipbuilders' Guild,this organization has been presented with a very fine model of the clipper ship "Flying Cloud." The Michigan Consolidated Gas Company, donor, has shown a very fine spirit in making this superb example of craftsmanship in the field of model building available to members of the Guild, and through them, to the public.

The model is on exhibit at the Mariners' Church branch of the Dossin Great Lakes Museum where it will remain for some time. While the vessel never sailed the Great Lakes, we believe we are justified in accepting it because of the object lesson it will be to those who wish to improve their skill in rigging detail.

We have been unable to determine who did the actual work on this model. It appears to have been done by a commercial model company but one which employed good craftsmen who were not pressured into taking all the short cuts so commonly found in jobs done for profit. Beginners in the craft can learn much by studying it. The slender spars are beautiful in their relationship to each other and completely lacking in that heavy look so often seen in the work of the novice. There are no unsightly knots and loose ends in the rigging, and the paint job is not overdone.

While there are many differences between Lakes and ocean rigs, good seamanship gave both a neatness that made them pleasing to the eye.Let us hope that the "Flying Cloud" will be an inspiration to all who are working to reconstruct the Great Lakes sailing fleet in model form.

PORT OF DETROIT ONE HUNDRED YEARS AGO.

Prepared by Dr.Neil F.Morrison from
Detroit Daily Advertiser - 1858

Jan. 20 - Navigation still open. Although we are in mid-winter no impediment exists to the free navigation of our rivers and lakes. Either sail or steam vessels might go from this to any port on the lower lakes with no more danger than at any other season of the year. Capt. Day, of the Schooner GRANGER, left this port on Wednesday last for Vermillion, Ohio, after a load of stone for the New Custom House and returned on Sunday night, having had a fine voyage. The scow, CERRO GORDO, also arrived from Vermillion, Ohio, on Tuesday evening, with a load of stone. Steamers have thus far been in constant communication between this port and Port Huron. Since the FORESTER laid up on 1st instant, the tug, GORE, has been running on alternate days. Now the tug EMERALD has also been placed on the route, so that there will be a boat each day the same as in the summer. The EMERALD goes up this morning. The little steamer, SWIFT, is also running between this port and Malden regularly. She leaves each afternoon at three o'clock.

Jan. 29 - For Port Huron: - Capt. E. E. Ward has had the little steamer, RUBY, repaired and fitted up in good style, and she will today commence running on the route between this city and Port Huron, going up one day and returning the next. She goes up this morning.

Feb. 13 - The Steamer, ISLANDER, is to run this coming season between this city and Chatham, C. W.

Feb. 17 - Navigation: - We stated a few days since that the steamer, ISLANDER, was to run during the coming season between Chatham and Detroit. The Chatham Planet understands that the steamer, SWAN, is being refitted also for the purpose of plying on the same route.

March 12 - Extension in lake navigation: - The Canadians are talking about two grand ship canals, to facilitate the lake navigation--one to connect Lakes Erie and Huron, running from Rondeau Harbor to the river St. Clair, 30 miles, and another, from Georgian Bay to Toronto, 100 miles, twenty-three of which will be through Lake Simcoe to connect Lake Ontario with Huron Lake.

March 26 - Steamer ARROW: - This general favorite of the travelling public, we are glad to see, is on her old route from Toledo to Detroit. She arrived last evening with a heavy load of freight from Louisville and Cincinnati and a large number of passengers.

April 16 - The Steamer SWAN: - This excellent clipper steamer ran from Chatham to this city yesterday against a strong head wind in four hours and 35 minutes, showing that since she has been altered and repaired, she is one of the fleetest craft on the water. The SWAN, alias GOOSE, will leave for Chatham this morning at the regular hour. The SWAN is sound on the goose question and so is Capt. McAlpin and all the other captains, big and little who command her.

May 20 - Sailing of the Schooner COL. COOK, for Liverpool: - This vessel which has been lying in the river some days, completed her cargo yesterday, took out a clearance for Liverpool and set sail last evening. She has on board, 70,000 West India staves (white oak) and 10,000 feet of clear black walnut lumber. As we have before stated, the COL. COOK is owned by W. Bissell of this city and is the first Detroit owned vessel to engage in the trans-Atlantic trade. The enterprising owner of the vessel also owns her cargo. Since lying in the river, the COOK has been furnished with entire new canvas throughout. She is an excellent sailer and as Capt. Hall, her commander, is well acquainted with ocean navigation, we shall expect to see her again in our river ahead of any of those which have preceded her this season. Capt. Hall expects to make the round trip

the latter part of August or first of September and should this trip prove successful, which with prosperous gales, there is not a doubt, she will be dispatched upon another voyage. The brig., BLACK HAWK, which cleared from here on the 8th, passed through Welland Canal on Saturday last.

May 21 - Shipping Office: - We have hitherto omitted to mention the fact that Capt. Mann, an old sailor, and one well acquainted with the business he has engaged in, has established a shipping office in this city for the benefit of sailors and ship owners. The crew of the Schooner, COL. COOK, which sailed yesterday for Liverpool, consisting of seven men besides Captain and First Officer, were shipped by him. This is the first shipping office ever established in this city and as Captain Mann is just the man for the business, a liberal patronage should be extended him. His office is on the dock at the foot of Shelby Street.

May 25 - Rondeau Harbor: - Mr. Wm. Scott, chief engineer of Windsor, has made a report to the Canadian Secretary of Public Works, the result of his survey of the works at the above harbor. He reports the improvements in a dilapidated condition--the light-house burned down, etc. He estimates an expenditure of some $67,000 to re-build and place the piers and other works in good condition.

May 26 - The RUBY: - The Steamer, FORESTER, having gone to Lake Michigan to run from Grand Haven to Milwaukee, in connection with the Detroit and Milwaukee Railway, the steamer, RUBY, has taken her place on the St. Clair River where she is an old favorite.

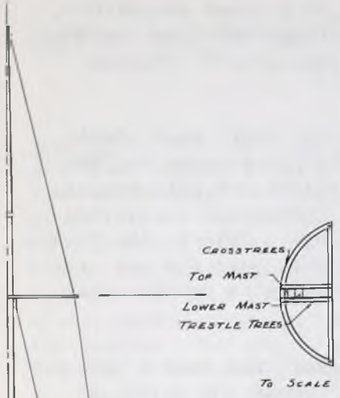
Another vessel for Liverpool: The Schooner, D. B. SEXTON, sailed hence for Liverpool yesterday, having completed her cargo of staves. She carries a large shipment of lumber. The SEXTON is owned in Cleveland and stops there for some necessary supplies. She is the sixth vessel that has sailed from this port and vicinity for England this season.

May 29 - Direct trade between Detroit and London: Direct trade between the lake ports and the Old World, is, it seems, attracting attention on the other side of the Atlantic as well as on this. Messrs. J. Aspinall & Son, produce dealers of this city, have received a letter from a house in London, authorizing them to purchase a cargo of standard pipe staves, white oak, and charter a vessel, if one can be had on reasonable terms, and ship them direct to London. The owner of any A. No. 1 craft wishing to embark in the foreign trade can now find a freight. The letter also stated that the exports to the Canadian Provinces would be large this year and the vessel could be easily filled for a return cargo.

June 3 - The Cleveland and Detroit Steamers: - It is but simple justice to the travelling public that we should speak of this line, (now that this is the only passenger line on the lakes) and call attention to the superior attractions it offers to those in search of health or pleasure or business. It is composed of two magnificent boats, the MAY QUEEN and OCEAN, both under the command of capable and experienced officers and both admirably calculated for the business in which they are engaged. These boats leave Cleveland and Detroit alternately each night, and to the tired and dusty railroad traveler, furnish a relief which is the best of luxuries. By leaving this city half past ten, time is afforded to reach Cleveland and have several hours to spare, for the transaction of business or for the purpose of sight-seeing and then after taking the boat, a brief but delightful excursion lands one in the City of Straits, from which, if further progress is intended, there is the Lake Superior line of steamers, the Michigan Central Railroad, and various other routes, all to be commended for their comfort and dispatch; or after staying a day in Detroit, one may return on the same boat, and find himself at home in a brief space of time, amply compensated by the abundance of pure air, for all the outlay of time and money. - Buffalo Express.

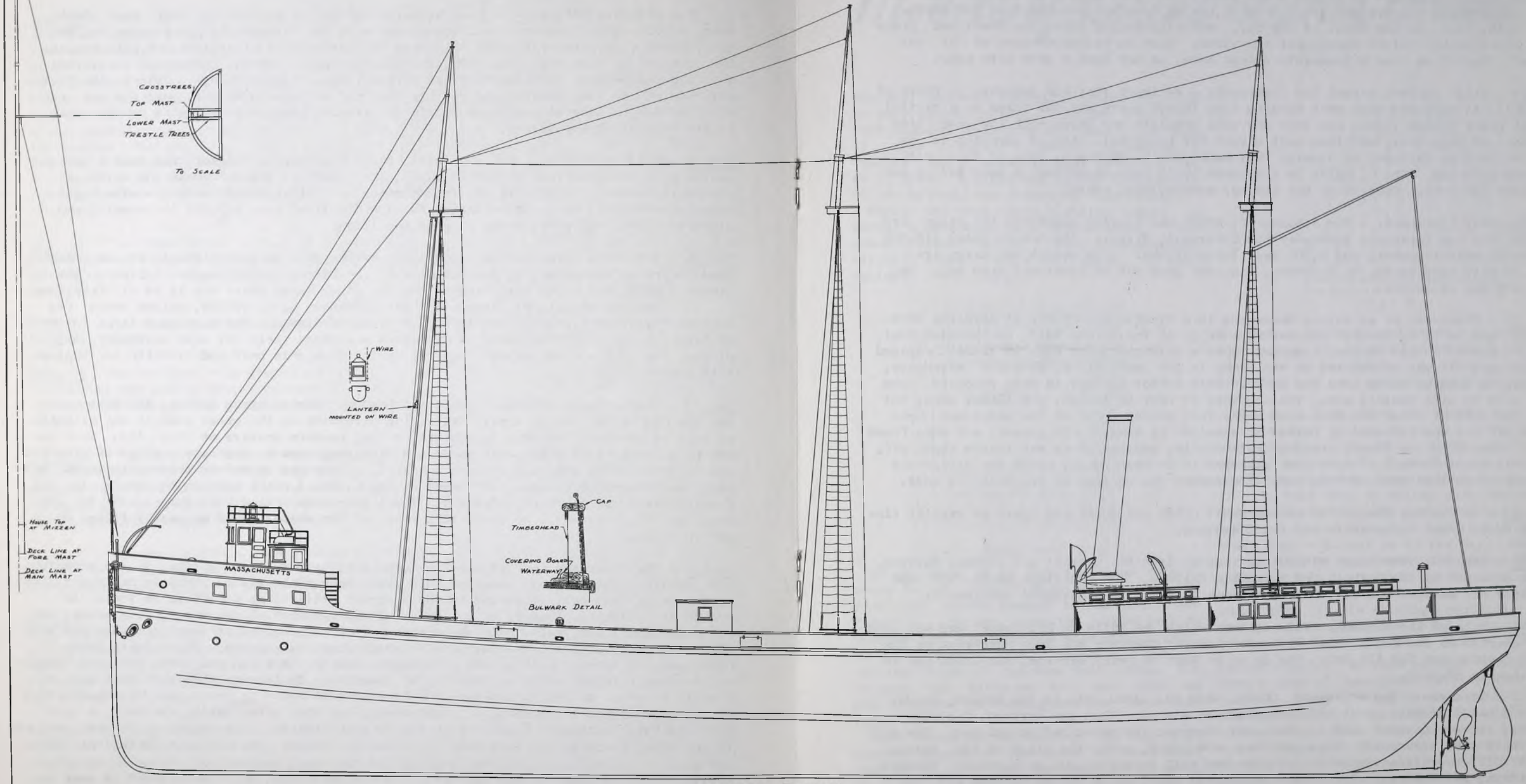
June 11 - High Water: In all parts of the country we hear continued accounts of high water and floods in many places doing great damage. The Mississippi and St. Louis, is higher than it has been since 1844 and is causing much alarm. Lumber, hogs, cattle,

See page 10.



TO SCALE

BULWARK DETAIL



A WOODEN FREIGHTER

SHEET NO. 2 OF 2 SHEETS
SCALE IN FEET
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

STR. MASSACHUSETTS	
BUILT 1881 BY DETROIT DRY DOCK CO.	
GREAT LAKES MODEL SHIPBUILDERS' GUILD	
5401 WOODWARD AVENUE	
DETROIT 2, MICHIGAN	
DRWN BY James B. Jones	CHK'D BY J.B. Johnston
TRC'D BY James B. Jones	DATE 5-13-58

etc., are floating down from the country above where the streams are very high. In this state the Kalamazoo and Grand Rivers are unusually high, and some damage is being done. The Detroit River at this point has not been so high in many years while Lake Superior at Ontanagon is 22 inches lower than it was last year. We have not had so much rain and wet weather for several years, as we have had for the past six weeks. Rain, rain, rain, is the order of the day. Notwithstanding this, the wheat and grass crops never looked better throughout the State. Corn is backward--some of it not planted. Yet if we have a favorable change soon, we may have a good corn crop.

June 24 - Still another vessel for Liverpool: - We learn that the Schooner C. REEVE of this port, is expected here this morning from Toledo where she has taken on a partial load of black walnut lumber and that she will complete her cargo with the same kind of lumber at this port, and then sail direct for Liverpool. She is expected to be ready to sail by Saturday or Sunday. Her owner,Wm. H. Goodenow, Esq. of this city, goes out with her. The C. REEVE is a staunch built fore-and-after, a good sailer and registers 280 tons. Success to her and her enterprising owner.

June 30 - For Liverpool: - The Schooner C. REEVE has finally completed her cargo and took out for her clearance yesterday for Liverpool, direct. She has on board 112,000 feet black walnut lumber, and 6,000 West India staves. Both vessel and cargo are owned in this city by Wm. H. Goodenow, Esq. who goes out to Liverpool with her. He will join her at Quebec.

Sept. 14 - Discovery of an anchor belonging to a British Man-of-War of 1812:The workmen employed by E. W. Hudson, discovered a relic of the War of 1812, on Saturday last, in the shape of an old anchor, supposed to have belonged to an English vessel engaged in that war. It was discovered in the river in the front of Mr. Hudson's warehouse, and about a hundred yards from the shore. This anchor differs in many respects from those used by lake vessels now. The shank is 13 feet in length, the flukes being but about the size of those now used with eight feet shanks. One of the palms had been broken off and was fastened by bolts. Its weight is about 3,000 pounds, and when found it was lying with its flukes resting horizontally, and its stock was broken short off. There was about 20 feet of buoy rope attached to it when found, which was altogether different from that used at this day. The anchor can be seen at Mr. Hudson's dock.

Sept. 14 - On Regular Time: The steamers MAY QUEEN and OCEAN are again on regular time, making their usual trips every day for Cleveland.

Oct. 26 - Removed: The Ferry WINDSOR is removed from the Detroit and Windsor Service, and is employed by the Detroit and Milwaukee Railway. The excellent boats ARGO and GEM still ply between the two points, and are loaded with passengers continually.

Nov. 17 - Sale of the WINDSOR: This steamer which was built by Dr. Russel and has been under charter to the Detroit and Milwaukee Railway Company; has been purchased by the latter corporation for $26,000. She is to be kept on ferry service, for which she is so admirably adapted.

Nov. 22 - Steamers: The steamboat, OCEAN, made her final trip of the season, Friday last and has been laid up at this port for the winter. When she arrived, Saturday morning, she was covered with an icy armor wherever the water had struck her. The MAY QUEEN will make tri-weekly trips, weather permitting, until the close of the season. The BAY CITY has discontinued daily trips and will hereafter run to Sandusky, Mondays, Wednesdays, and Fridays. The FOREST QUEEN will continue to run to Saginaw and the DART and RUBY to Port Huron until ice in the river renders it impassable. The MICHIGAN is now making her last trip to Green Bay. The WABASH VALLEY now in Buffalo is expected to make one more trip to Green Bay before going into winter quarters.

Dec. 4 - Accident to the Steamer DART: - The steamer, DART, broke her shaft at Grosse Pointe, Lake St. Clair. She was towed into this port by the Pearl, and on her arrival, the cargo was re-shipped by the RUBY. The FOREST QUEEN goes up today.

Continued in July issue.

Models of Great Lakes Vessels

Now that you have the hull shaped let's go to work on the decking. In the February, 1958 issue of Telescope we showed, on page 12, John Leonetti's method of making a "tarred" deck, which is very good, as far as it goes. I might add to his explanation of the method, the following suggestions:

Never end your deck planking right against a deckhouse or a hatchcoaming. Instead, always lay in a piece athwartships, slightly wider than a deck plank, to butt against. See Fig.C.

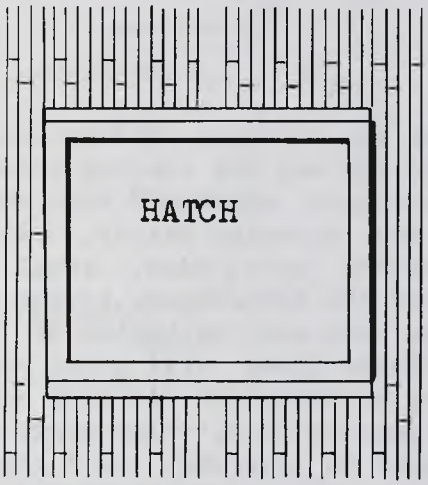


Fig.C. Incorrect butts.

If you wish to go into real fine detail, notch in the ends of each plank where the deck line curves inward at the bow. See Figure B. Do not taper the planks away to nothing but have each one with some square, or nearly square, end. Never butt two adjoining planks at the same deck timber, but stagger the butts so that they will be well distributed throughout the deck surface.

When gluing up the decking for the forecastle disregard the curve of the bows, just being sure that the section is going to be large enough for the purpose. After the glue has set lay out the bow curves and trim neatly to size. Now draw a line following these curves but inboard about one and a half times the width of one deck plank. Next, square off the end of each plank about one half of its width. This will give you the part that is to be

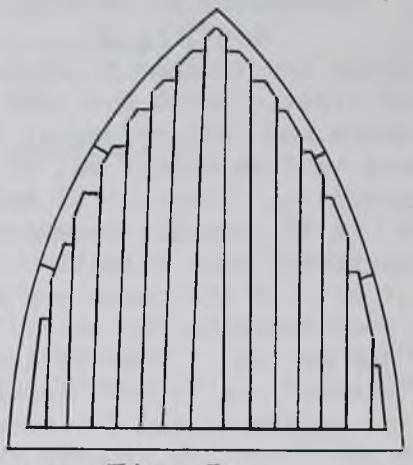
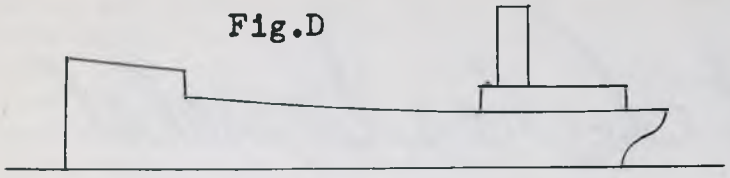


Fig. B

notched in as mentioned above. This can be done with a single-edge razor blade, making each cut perpendicular or even slightly undercut, so a good tight joint can be made.

The piece into which the planks are to be notched must be of the same thickness as the decking. Properly constructed this should be made up of two or more pieces, depending upon the sharpness of the curves. This is best done by making good joints, of wider pieces than the finished pieces require. Fasten them down with brads placed where they will not be in the way. Now lay out a line to represent the edges which will go against the side of the ship. Place over this the section of the deck, being sure that it is exactly centered. Now trace, with a very fine point, the outline of the nibbed-off planks. Trim the curved pieces exactly to this outline which will have a kind of saw-tooth effect when completed. Keep working on this detail until the section of decking will fit nicely at all points. When this is done, trim the outer edges of the curved pieces to the first line, and you will have a job beyond reproach and one which will be a source of pride long after the painstaking effort has been forgotten.

In many cases it is advantageous to glue down the decking on the "castles," or high decks, before securing the castle to the main deck.



Perpendicular Details
See Fig.D

Before going any further a word of warning may be in order. Watch how such details as the forward and aftersides of the superstructures tend to appear out of plumb when they are not so. Because of this optical illusion it is usually necessary to tilt these surfaces very slightly until they "look" right. If the plans you are working from do not indicate the exact slant just do the job by eye. Usually the afterside of a "castle" or other superstructure, forward or amidships, and the forwardside of one aft of that point are the ones to watch. Obviously, because of the sheer, the surfaces in question can not be perpendicular to the deck at the point of intersection, unless they come at that point where the deck is exactly parallel to the water.

Fig. 5.
Marking waterway & covering board strips.

In Figure 5 is shown the first step in preparing the bulwarks which, in the type of vessel we are dealing with at this point, begin with the waterways, directly over the decking at each side. Take the piece of material, which is to be the waterway, along one side, and trim it to exact length, which in this case is from the "break" of the forecastle head to the "break" of the poop, and press it firmly in place. On the underside scribe the curve of the deck, if any. Trim off the wood which extended beyond the side of the ship. Now, from this curve, lay out the inner edge of the waterway as indicated by the plans, and trim to that line. Do the same for both sides of the model, then repeat the process for the covering board, which goes on top of the waterway. Glue waterways to covering boards.

In this model the frames (ribs) extend above the deck, where they are called "timberheads." Since there are no frames in a lift-type hull the timberheads must be mortised into the waterways and the covering boards. See Figure 6. Usually only every other frame forms a timberhead, the one inbetween being sawed off and the covering board fills in over it. The mortising in of the timberheads is a painstaking job, but one that will give you a chance to show your skill as a model builder.

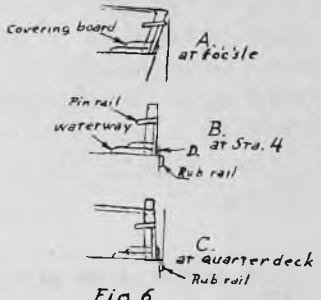
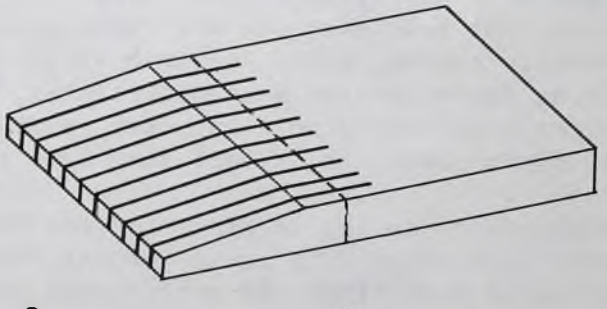


Fig 6.
Bulwark sections

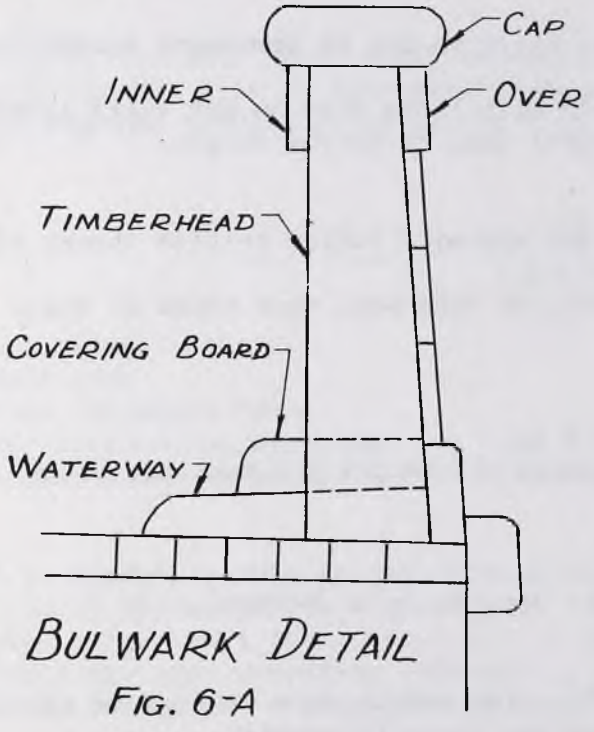
Determine the distance between each timberhead and lay out the spacing accordingly on the outboard edge of the assembled waterways and covering boards. At a distance from the outer edge, equal to the thickness of the timberheads, scribe a light line on the top and the bottom of the assembly. These lines will guide you when cutting the mortises, so you will not go in too far from the side. The width of the mortises must be just what will give you a "pressed fit" when installing the timberheads. Use a tiny drop of glue in each but do not begin installing timberheads until the covering board, and the waterway have been glued down.



Cutting Out Timberheads

A good way to make timberheads is to shape them all at one time. They should taper very slightly, from the bottom upward. First determine the thickness of the timberheads, from inside to outside. Take

a piece of wood, straight-grained and fairly hard, and wide enough to make all the timberheads you will need. Sand the taper on one side only. Cut off the tapered part and then, with a very fine-tooth saw cut off the timberheads. Use a jig for this so all of them will be exactly the same width. When gluing these members in place, it is well to have a jig which will keep them all in line at the top. Install with the tapered side outward so there will be a slight "tumble home," where required. Of course, there may be sections where some flare is needed, as in (A) and (B), Figure 6. The jig should be shaped so as to give flare where needed.



BULWARK DETAIL
FIG. 6-A

The Rails

The bulwarks are capped by the rails, which is really three rails---the inner rail, the outer rail, and the cap rail. The first two are fastened to the timberheads on their respective sides, and form a base for the cap, which must extend over them far enough to allow for rounding along the edges. See Figure 6-A.

When these details have been taken care of, the bulwarks are planked on the outside which completes them. Mooring chocks, pin rails, cavels, and flood gates come under another heading.

To be continued.

DATA (Cont'd)

LAKE SUPERIOR

AREA (Sq. Mi.)	31,800
COAST LINE (Miles)	1,500
LENGTH (Miles)	350
DEPTH (Feet)	1,290
WIDTH (Miles)	160
ABOVE SEA LEVEL (Feet)	601.6
ABOVE LAKE ONTARIO (Feet)	357.6

LAKE MICHIGAN

AREA (Sq. Mi.)	22,400
COAST LINE (Miles)	1,200
LENGTH (Miles)	310
DEPTH (Feet)	923
WIDTH (Miles)	118
ABOVE SEA LEVEL (Feet)	578.5
ABOVE LAKE ONTARIO (Feet)	334.5

LAKE HURON

AREA (Sq. Mi.)	23,200
COAST LINE (Miles)	800
LENGTH (Miles)	220
DEPTH (Feet)	750
WIDTH (Miles)	100
ABOVE SEA LEVEL (Feet)	578.5
ABOVE LAKE ONTARIO (Feet)	334.5

LAKE ERIE

AREA (Sq. Mi.)	9,932
COAST LINE (Miles)	650
LENGTH (Miles)	240
DEPTH (Feet)	210
WIDTH (Miles)	57
ABOVE SEA LEVEL (Feet)	570.5
ABOVE LAKE ONTARIO (Feet)	326.0

LAKE ONTARIO

AREA (Sq. Mi.)	7,540
COAST LINE (Miles)	500
LENGTH (Miles)	190
DEPTH (Feet)	778
WIDTH (Miles)	55
ABOVE SEA LEVEL (Feet)	244.0

GREAT LAKES MARINE NEWS OF 1957
Compiled by Robert B.Radunz
--- Concluded.---

Nov. 1
An era ends--final trip made by Michigan State Ferry fleet. New bridge is opened at Mackinac. Ferry VACATIONLAND makes last official trip at 4:40 p.m. under Capt. Aaron Sweeney. Ferries carried over 35,000,000 passengers and 12,000,000 cars during years they operated.
Heavy fog blanketed lower Michigan. Nearly 50 Lake freighters drop anchor in St. Clair River and Lake St. Clair.

Nov. 4
Capt. E. A. Davies named master of new tanker IMPERIAL QUEBEC.
Senator Potter of Michigan states he opposes switching supervision of the St. Lawrence Seaway from the Army to the Commerce Department.

Nov. 7
Group in St. Ignace start fund to purchase a car ferry to use as permanent museum and tourist attraction in St. Ignace harbor.
Port of Detroit Commission says it will try again at a later date to get voter approval for public financed port facilities. Voters reject plan by narrow margin.

Nov. 13
Canadian pilots on the St. Lawrence River continue week-old strike despite threat of fines by Canada's Department of Transport.
Coal receipts at Toledo during the first 10 months of this year were ahead of those in 1956.

Nov. 20
More than half of Pittsburgh Steamship fleet laid up.
Reasonably serious inquiries from prospective buyers of the retired Mackinac Straits Ferry boats now number about 20.

Nov. 20
Gale winds halt freighters all the way from Sault Ste. Marie to Detroit.

Nov. 21
Possibilities for building terminal port facilities for public hire at Saginaw are undergoing study by a team of researchers at Michigan State University.

Nov. 27
Construction of 12 of the largest ore carriers ever to be built on the Great Lakes at a total cost of $100,000,000 is being discussed by Pittsburgh Steamship Division. New vessels would be 730 feet long. Pittsburgh now has 57 ships, when 12 new ones are built, 29 older and smaller carriers will be retired to reduce total to 40.
The Chesapeake and Ohio Railroad is seeking to consolidate its car ferry operations in Milwaukee putting them all on Jones Island. Project may cost City of Milwaukee $1,000,000. Consolidation might save up to an hour from each car ferry sailing.

Dec. 1
114 mile United States portion of St. Lawrence Seaway is now 75% complete.

Dec. 3
20,000 ton motor vessel ALEXANDER T. WOOD, largest ocean going dry cargo vessel to be built in Canada is launched in Montreal. Ship built for West River Ore Transport, Ltd. Wilson Marine Transit Co. of Cleveland is parent company of the Montreal firm.
Contract for $1,159,680 awarded to Christy Corp. of Sturgeon Bay, Wisconsin for new 100 passenger ferry boat to be used at Isle Royale National Park. Contract calls for completion of all work by August, 1958.

Dec. 4
Sault canal to close December 15. Most Lake freighters now in winter quarters. Before end of season 3,134 crewmen of 110 vessels were given asian flu shots at Sault Ste. Marie.
Interlake Steamship Company's 24,500 ton vessel under construction at Toledo is 80% complete, will be ready for service in 1958.
Cargoes to Conneaut this season totaled 12,699,685 tons.
Total ore delivered from Marquette was 4,620,311 tons. Total of 383 ships loaded.
Attorney General of Michigan, Thomas Kavanagh rules Highway Commissioner, Mackie, can dispose of five ferry vessels valued at $7,000,000 without legislative approval.
Escanaba loads total of 5,907,580 tons. 566 ships loaded.

Dec. 10
Seven million more tons of iron ore shipped on Great Lakes this year than in 1956. Total is 84,614,734 tons.

Dec. 11
Icebreaker MACKINAW heads north to remove Lake Superior lighthouse keepers. On her return trip she will be last ship through Sault locks.
Last freighter through locks expected to be steamer WILLIAM H. WOLF.

END

SOURCES

Detroit Free Press
Detroit News
Pontiac, Michigan Press
Marine Engineering Magazine
Milwaukee items by Ed Sprengeler from the Milwaukee Journal.

Help is needed on this project from members in other ports. If an item appears in your local paper about a special happening in your port, either send us the article or else a few short lines about it. I check every page of two daily newspapers for marine items plus compiling information from our other sources, however, this isn't enough. If we want a complete yearly history we must have more local port news.

RBR

WHO CAN HELP

Miss Margaret Brayton, of the Childrens' Museum, 326 East Kirby,Detroit is planning an exhibit dealing with Michigan resources, and would like to contact someone who will make available to her, on a loan basis, a 22 inch model of an oil tanker.

The exhibit will not open until the first week in September but Miss Brayton would like to conclude all arrangements for the loan as soon as possible.She may be reached by telephone at TRinity 3-2670.

The Guild highly endorses this project and would like to see Miss Brayton's needs supplied.

PICTURES WANTED

Our fellow member, Mr. Erik Heyl, of 136 West Oakwood Place, Buffalo 14, N.Y. wishes to acquire pictures of the following Great Lakes steamers:

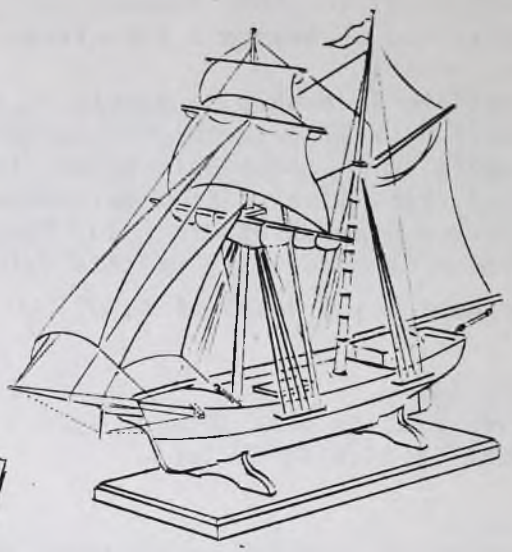
Buena Vista	1847
Canadian	1855
Caspian	1847
De Witt Clinton	1848

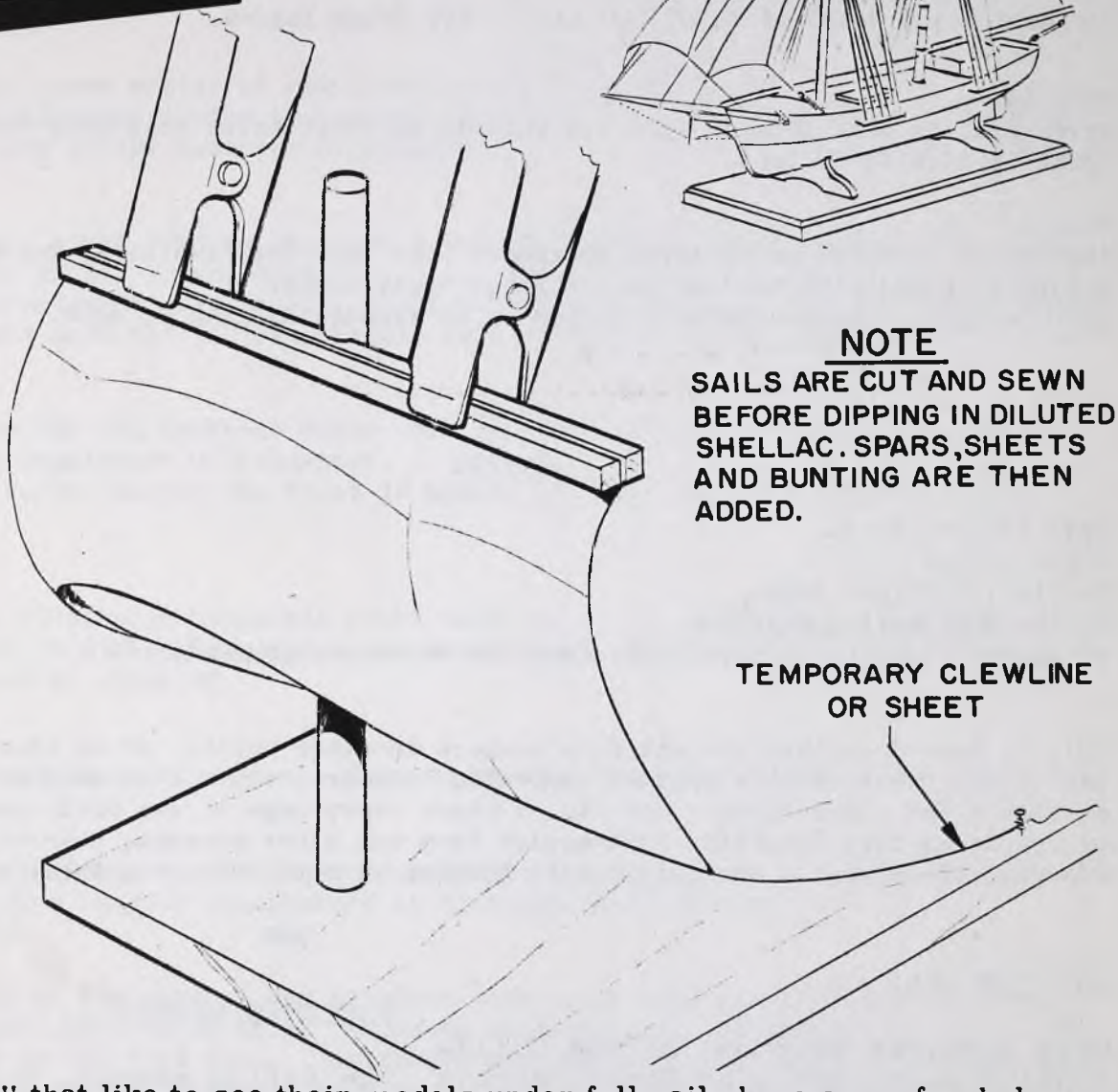
Anyone who can provide Mr.Heyl with these pictures will be doing all of us a very special service as he will use them in making more of his fine drawings of Lakes steamers.

Ship Modelers Log

by John Leonetti

FULL SAIL MODELS





NOTE

SAILS ARE CUT AND SEWN BEFORE DIPPING IN DILUTED SHELLAC. SPARS, SHEETS AND BUNTING ARE THEN ADDED.

For the "salts" that like to see their models under full sail, here are a few helpful ideas.

The material ... to resemble the texture of canvas use cotton handkerchiefs or lightweight linen. Both are readily available.

Age the cloth by dipping into hot tea, coffee, boiled down onion skins solution or diluted, clear or orange shellac. If shellac is used, apply only at time of forming and drying for furled or un-furled sails. Cut sails to desired size, dip in diluted shellac (to form) and mount in Jig. (See sketch) All surfaces of Jig are to be waxed so as to prevent shellac from adhering to its surfaces. Suspend sails, fasten clew lines to the square sail and secure free ends to a point abaft the Jig mast. Place a small fan slightly astern of the Jig and allow to dry. When this is done the sails are now ready to install in your model.