

Telescope

Editorial

WANTED:

GREAT LAKES MODEL SHIPBUILDERS' GUILD

5401 Woodward Avenue Detroit 2. Michigan

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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 located at 5401 Woodward History, located at 5401 Woodward Avenue, Detroit 2, Michigan, is of-ficial 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 SOC IETY where subservations and the Joseph E.Johnston,

Editor

MEETINGS January 30, 1959 7-30 PM. Detroit

Historical Museum 5401 Woodward Ave. A MARINE MUSEUM EXHIBITOR

The City of Detroit, Civil Service Commission, 6th Floor, City-County Building is accepting applications for competitive examinations for This is the position that the above position. has been filled by your Editor for the past 10 years and involves the responsibility for the operation of the Dossin Great Lakes Museum, the Maritime Division of the Detroit Historical Museum.

Minimum Entrance Qualifications: Education equivalent to graduation from an accredited 4year high school and preferably two years of college with courses related to American history; experience at sea or on the Great Lakes preferably as an officer, or reasonable technical museum experience; demonstrated skill in historical research; interest in maritime history; reasonable knowledge of shipping on the Great Lakes and its historical development and background; ability to speak in public and stimulate groups interested in maritime history; considerable skill in the use of woodworking tools; physically active; tact in dealing with the public; no disabling impairments of vision, speach, hearing, or members. Age limits: Minimum - 30.

Salary: \$5405 to\$5792.

Residence Requirements: Any citizen of the U.S. is eligible to apply, but must reside within the city if employed.

Filing Period: Until June 30, 1959.

For complete information apply to the above address.

REGARDING THE ABOVE.

Certain persons who have learned of the above examination have thought it to be advantageous to discuss the matter with the Director, Mr.Henry D.Brown, or with me. While I can not speak for Mr.Brown I may say that I will be happy to talk briefly with interested persons but can give any specific information such as answers to questions in the examination. The examination and appointment arein

the hands of the Commission and no one else.

The story of the Arnold Line was made available to us by Mr.George A.Osborn publisher of the Sault Ste. Marie Evening News



ARNOLD TRANSIT COMPANY PLAYS MAJOR ROLE IN DEVELOPING UPPER LAKES

By John T. Nevill

MACKINAC ISLAND, Mich.--The trim and spotless little motorship, "Chippewa," carrying tourists from St. Ignace, rounded the Mackinac Island breakwater, and headed for her home dock on the Island.

Some minutes before the "Chippewa's" skipper for the benefit of his passengers had concluded a brief talk over the vessel's public address system during which he'd pointed out many things of interest about the historic island, the Straits, and the Great Lakes in general.

The "Chippewa's" skipper didn't do it, but he might have included something about the Arnold Transit Company, owners of the "Chippewa," whose nearly seventy years of service on the Straits make that company one of the oldest boat operators on the Great Lakes!

He might have mentioned, for example, that the "Chippewa" herself is the third Arnold Line boat bearing that name--the first of the Arnold "Chippewas," built in 1900 being still in use as an auto ferry between Bremerton and Seattle, Wash.

He might also have said that, in addition to three "Chippewas," and the two "Algomahs," Arnold Line vessels have included such well-known excursion boats as the "Mary," the "Martel," the "Minnie M.," the "Ossifrage," the "D. P. Perry," the "T. S. Faxton," the "Charles West," the "Mackinac Islander," the "Elva," the "Eugene Hart," the "Iroquois," and the "Ottawa."

Just a few minutes later, in the Arnold Line offices on the Island, Otto W. Lang, president and general manager, briefed us on the long and interesting history of this pioneer operating company.

TO EARLY 80s

"The Arnold story dates back to the early eighties," said Mr. Lang, who has himself been associated with Arnold operations for thirty years. "Our company came into existence as an adjunct to this area's lumbering and fishing industries. Back in 1880, Mr. Lang went on,

Back in 1880, Mr. Lang went on, George Thomas Arnold, then in his early twenties, ran a general merchandise store in the town of Saugatuck, at the mouth of the Kalamazoo River. He also was postmaster, and his brother-in-law, U. S. Sen. Francis B. Stockbridge, had a heavy interest in lumbering operations in the Allegan Plains area.

When lumbering played out in the Allegan area, about 1883, Sen. Stockbridge and O. W. Johnson (later Mayor of St. Ignace), who had acquired timber holdings in this area, transferred their operations here under the name, Mackinaw Lumber Company. The Island was an important provisioning point for lumbering and fishing camps, so Arnold came up with his brother-in-law to establish a marine freighting service.

Arnold's original boat service was a partnership arrangement, Capt. L. B. Coats, a local fisherman, being his partner. That gave George Arnold time to establish and operate a general store and serve as postmaster on the Island.

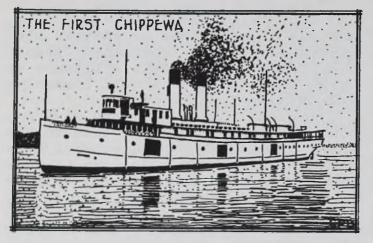
In 1885, a group including the Michigan Central Railroad, the G. R. & I., and the D. & C. Navigation Company, promoted the Grand Hotel, and business on the Island began to boom. Capt. Coats and Anthony Hamel for several years had been operating commercial fisheries in Les Cheneaux, and now the entire area was beginning to blossom as a tourist haven.

NEEDED PROVISIONS

Most of the lumber and logs went

out of the Straits on schooners, but the camps were constantly in need of provisions. The fishing camps also required supplies, but much of their fish, barreled and salted, was sent to Mackinac Island, from where it was trans-shipped to markets.

This constituted the principal business of Arnold Line Steamers, by



which name the company was first known, but when Les Cheneaux opened up, passengers gradually grew in importance. By 1893, about ten years after the partnership's beginning, Arnold and Coats were operating three steamers---the "Minnie M.," the "T. S. Faxton," and the "Charles West"--between Cheboygan, Mackinaw City, St. Ignace, Mackinac Island, and Sault Ste. Marie, in addition to maintaining a "working agreement" on an "Inland Route" through Mullet and Burt Lakes to Oden, Michigan.

The company's 1893 literature advertised the steamers, "Minnie M." and "Faxton" as being assigned to the "Soo River Division," while the steamer "Charles West" handled the "Snow Islands Division." It is interesting to note that service over "The Inland Route"--Cheboygan to Oden--did not open until July 5. Passenger agents of the company that year included Mr. Arnold himself on Mackinac Island; E. Fitch, at St. Ignace; T. R. Harvey, at the Soo; and T. C. Anthony, at DeTour.

In the middle nineties, George Arnold retired completely from the fishing business, purchased Coats' interest in the boat business and sold his store, which became (and still is the Doud Mercantile Company. He purchased the Islander (1895) and he managed to remain sole owner of the business until February, 1900, when Arnold Transit Company, a corporation, came into being.

NEW STOCKHOLDERS

This brought a dozen or more new stockholders into the picture--but it provided funds to build two new. and larger steamers, the "Iroquois," and the first "Chippewa," both of which, after a short time, were found to be too large and expensive for the Arnold operations.

Both steamers were sold to the Puget Sound Navigation Company, and sailed over the long route around Cape Horn to Seattle. The "Chippewa" was converted into the first bow-end-loading auto ferry in the country, and still is being used as such. The "Iroquois" later was returned to the Lakes, and again saw service on Lake Michigan.

Proceeds from the sale of the two new boats (1905) were used to call in most of the stock, leaving Arnold, his nephew, Harold L. Arnold, and George L. Craig, Toledo shipbuilder, as sole owners. Arnold Transit, however, was no more than a holding company for Arnold Line steamers, which continued as operating company until 1909, when a merger between the two took place.

The first "Algomah" and the "Elva" were acquired through the Island Transportation Company, a three-way partnership, in which Mr. Arnold was one of the partners. The "Algomah," a wooden ice-breaking ferry built by the railroad in 1885, was acquired in 1895, and the "Elva," which once was Capt. Henry Bundy's famous Gospel-ship, "Glad Tidings," was added to the Arnold fleet about 1907.

About four years later in 1911, the company stubbed its toe once more by purchasing the second "Chippewa" and the "Mackinac," both of which like the first "Chippewa" and "Iroquois"--were too large and costly to operate. The second "Chippewa" had been the "Fessenden" last of the government revenue cutters. She was retired from Arnold service in 1920, after losing nearly \$50,000

on the St. Mary's River run. She remained idle through 1921, was chartered to a Chicago-Milwaukee service in 1922 (another moneylosing venture), then was sold to Sanduskey-Put-in-Bay operators in Lake Erie.

GOVERNMENT BOAT

"Mackinac" also had been a The government boat. She was removed from Arnold service, and chartered in 1916, then sold to eastern interests to be placed in ferry ser-

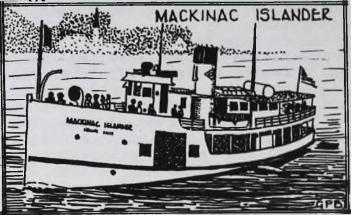
vice in Connecticut. The "Eugene Hart," operated for a few years prior to 1910, was sold and went to the Atlantic Ocean. She returned to the Lakes in the fallof 1925, however, as the "Norland," carrying freight between Milwaukee and Chicago. She foundered and sank in a storm off Waukegan the following year.

The "Perry," purchased in Hol-land, Michigan in 1917, was widened and served Arnold until 1940, when she was sold and removed to Sugar Island. The "Islander," built in Benton Harbor, and once the pride of Arnold's fleet, was sold to a Cheboygan man to be used as a barge. She was then denied even that humble capacity, and lies there unused and rotting.

When Arnold Transit abandoned its Soo-to-DeTour run in 1922, it sold the "Elva," to Capt. Mike Bishop and an associate. Bishop operated the was acquired in 1938; the motorship vessel on the river run during the "Ottawa," which used to run from 1923 season, but couldn't make it Munising to Grand Island, was pur-pay. So Arnold bought it back that chased from Cleveland-Cliffs in fall, and used it on the Cheboygan. 1941; and the steamer, "Algomah II," Mackinaw City, St. Ignace, Mackinac built at East Booth Bay, Me., as a Island and "Snows" run--until 1938 trawler, was brought to the Lakes when the "last of the Gospel-ships" was cut down and demoted to a barge.

George T. Arnold died in 1921, and turned her over to Arnold Tran-and his widow, Susan B. Arnold, be- sit in the 1946 merger. came president and general manager, The company's present motorship came president and general manager, The company's present motorship which position she held until her "Chippewa," was built by Defoe at death in 1932. Lang, who had come Bay City as the "Mary Margaret." with the company as auditor in 1922, Arnold acquired her in 1948. Arnold following the death of Mr. Arnold, also operates a fifth boat, a cabin and had successively become traffic cruiser called "Fairy Isle. manager, and acting assistant general manager, succeeded her.

When Henry Hoffman, St. Ignace attorney, died in 1920, Arnold's legal business went to Prentiss M. Brown. Following Mr. Arnold's death a year later, Mr. Brown became secretary and legal counsel of the transit company. Following Mrs. Arnold's death, the Arnold heirs sold their interest to Brown and Lang.



Besides Mr. Lang, present officers are P. M. Brown, vice president and general counsel; R. W. Brinn, vice president; Mrs. M. M. Lang, secretary-treasurer; and Hugh Rudolph assistant secretary-trea-surer. Mr. Brinn of Grand Rapids, is the husband of a niece of one of the Island Transportation Company owners (with which Arnold Transit was merged in 1946), and Mr. Rudolph is a son-in-law of P. M. Brown.

Among the company's present fleet, the steamer "Mackinac Is-lander," built for the state of Ohio as the "Oliver H. Perry" in 1924, and rebuilt at Manitowoc as the "Bainbridge" Island Transportation She now nears the end of her days in Company ultimately bought her, had that lowly capacity. her rebuilt again at Sturgeon Bay,

Arnold boats have plied Straits waters continuously since 1883.

A SEASON ON THE SCHOONER SAN DIEGO 1878

Frequently we are asked if we have any old log books from Great Lakes vessels. Not only do we have no such books but we have never seen one. If any of our readers have any real log books from lakes vessels we would be very happy to have an opportunity to study them.

All we have been able to find are a few account books, sometimes called "expense books". If the entries in these books are legible, dated, and the ports are mentioned with the dates much can be learned from them.

We have just completed a careful study of the expense book for the season of 1878 from the schooner SAN DIEGO, Captain William J.Waters. The SAN DIEGO was owned by John Persons Clark who is known to historians as a Detroit shipbuilder, ship owner, and philanthropist. It was he who gave to the City of Detroit Clark Park. His name was given to one of Detroit's important streets on the west side. The name of Clark will long be remembered while that of the skipper of the schooner SAN DIEGO. for the year 1878 has been forgotten and remains unrecorded except in the expense books in which he reported his financial transactions to his owners. He was no star penman but his entries are perfectly legible, and from them we can learn much of what life was like on a Great Lakes sailing vessel eighty years ago.

Undated, but certainly prior to March 19, 1878 (probably on the 16th day of that month) there is an entry which records that Captain Waters was advanced \$8.00 for train fare to Chicago, presumably from Detroit, as it was from J.P.Clark. The next expense recorded was, \$9.50 for help loading at Chicago. Then \$53.00 for trimming cargo. This indicates grain as cargo. \$10.00 was paid for ship keeping and \$5.00 to a policeman for watching the ship, and 70¢ for the clearance papers. Help in shifting the ship to or from the elevator is recorded as costing \$1.50.

Straw for the crew bunks was purchased for \$2.25 and washing bed clothes cost \$3.80. Undated, but at some time prior to April 1 we find that \$13.50 was paid for board for Captain Waters, for 16 days.

In the record of money paid to the crew we find that a cook was hired on April 1. Now what do these entries tell? First: the ship had been laid up during the winter of 1877-78 in the port of Chicago. Second: A grain cargo had been offered to, and accepted by Clark early in March. It was too early in the season for the ship to venture out but Clark hired the skipper and sent him to Chicago to load the cargo and get the ship fitted out. To hire a crew at once was not necessary, so help for moving the vessel was hired, just for a day or perhaps parts of two days.

Then straw was purchased for the bunks and the bedding washed so it would be ready when the crew came on board. It appears that spring came early that year as an entry shows that the cook was on board on April 1, cleaning up the galley and making ready for serving meals.

On April 3, a mate, one William Holdridge, was hired at \$60.00 per month for the season. The Second Mate was hired with the understanding that he would receive 25¢ per day more than the wages of seamen. His name was Martin White and it appears that he had frequent need of money. He left the ship on July 3, having made six draws against his pay in that time. His record shows the following draws, all undated except the last:

Fifteen days @ \$1.75	\$ 26.25
Sixteen days @ 1.50	
Eight days @ 1.75	14.00
Eighteen days@ 1.50	27.00
Twelve days @ 1.75	21.00
Twenty-three	
days @ 1.50	. 34.00

1.50.... <u>34.00</u> \$146.75

Less hospital fees.... 1.23

Total received.. \$145.52 Two things are indicated here. One is that White may have been a family man who had to send home his pay. The other is that there was some fluctuation in the wages paid to seamen.

See P. 16

entry to indicate when the schooner sailed from Chicago, but the crew drew money at Buffalo on April 17. Allowing ten days for the trip we

Allowing ten days for the trip we gather that the SAN DIEGO laid in Chicago about 17 days after being loaded. This delay must have been on account of weather. Ice in the Mackinaw Straits, or in the St. Clair River is quite common at a much later date, so the spring of 1878 must have been very mild.

It is interesting to note that the last entry in the book, dated at the port of Buffalo was on April 19, indicating that little time was lost there. On April 28 the ship was back in Chicago, and six days later was on her way back to Buffalo where she arrived on May 13, just nine days on the way.

Numerous entries made between the ports indicate that she was towed through the St. Clair and Detroit Rivers. During the season the SAN DIEGO called for tug service thirtyfive times. The total cost of this service was \$1,264.40, or about one third of the cost of officers and seamen. This ratio compares with the cost of fuel for a steamer running under power at all times and highlights the disadvantages under which sailing vessels operated on the Great Lakes.

Captain Waters kept a very proper record of payments to crew members, always recording the day that each began work, the number of days worked, rate of pay, and the date of signing off. Each man signed for the pay he received. Some signed with an "X", some in a poor scrawl, and some in a fine Spencerian hand.

Over a long period of time it was required of the captain that he deduct "Hospital fees" from the wages paid to seamen. A study of the wages paid on the SAN DIEGO indicate that this was done only when the seaman left the vessel. Roughly, it came to about 1% of earnings. The total for

year 1878, for the SAN DIEGO amounted to \$22.20. There is nothing to show that the captain paid anything, but this matter may have been handled at the home office at the end of the season. The deductions went to the maintenance of the U.S.Marine Hospitals and seems to have been enough for all needs.

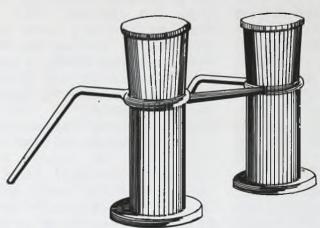
Unfortunately Captain Waters did not itemize when it came to accounting for food. It would be interesting to know it detail what was purchased in the way of food, and what it cost in 1878. Probably he turned in his bills to the home office and simply stated in his book, "Godhue's bill", and let it go at that.

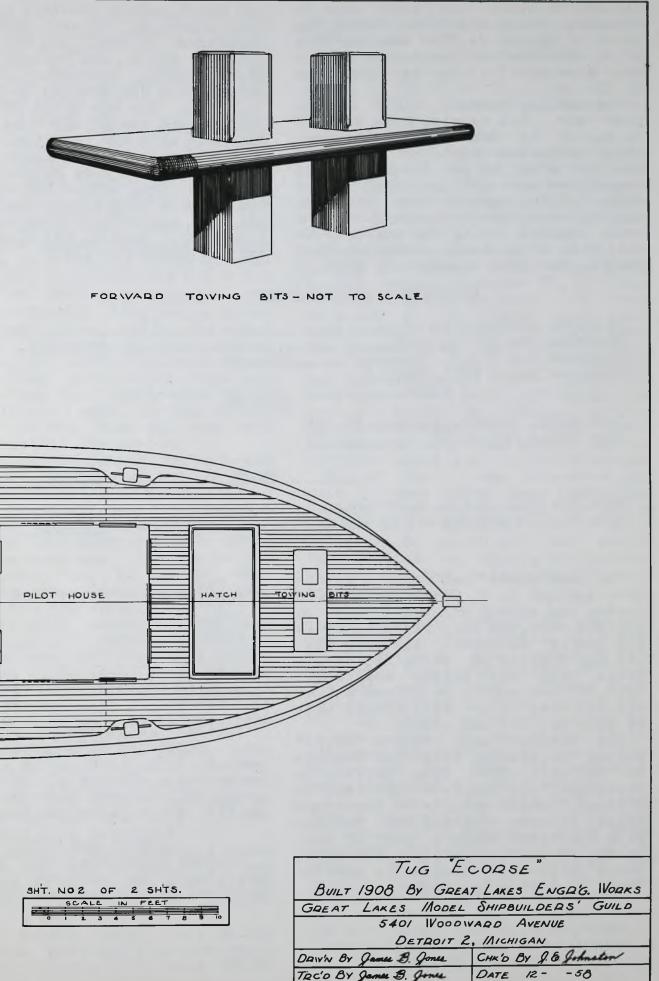
One item at least indicates that salt meat, the seamans old stand-by, was relied upon at least for emergencies even though the ship was not at any time out of sight of land and always within a few hours of some port. At the start of the season we find this entry: "One large cask for brining". Beef, it is recorded, sold for 5¢ a pound, and pork for around ten cents. Purchases of both in more quantity than could be kept fresh until eaten also bears out this, as does a number of purchases of salt in lots of about twenty or thirty pounds.

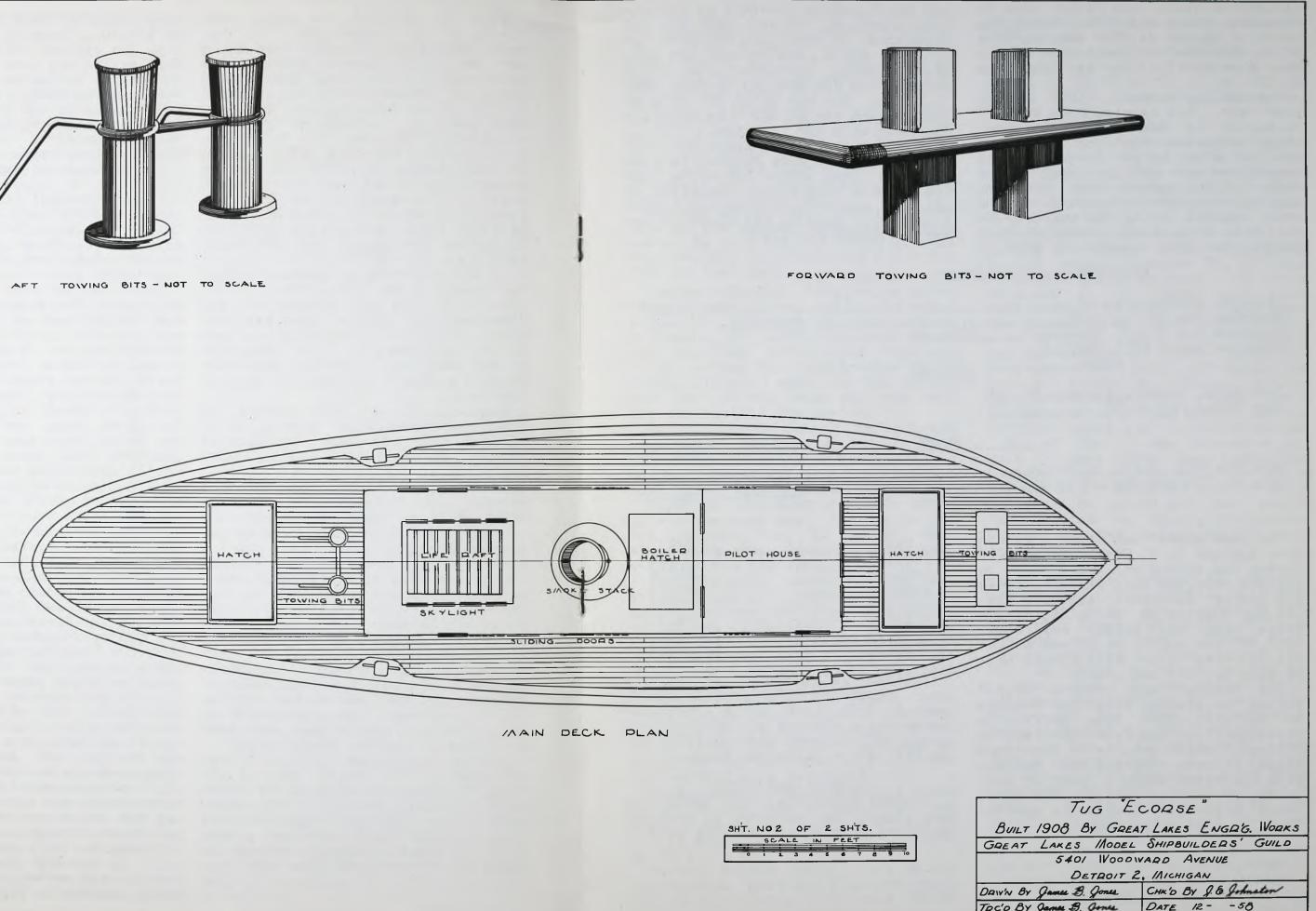
Frequent calls at ports would have made fresh vegetables available at all times, but there is little to show that they appeared on the table. Potatoes varied in price from 50% to 75% a bushel and flour at the beginning of the season cost \$4.50 a barrel but by fall had gone up to nearly twice that price, \$8.00. Eggs are mentioned at 10% a dozen and sugar at 10% a pound.

An older expense book, covering 1852-53-54, for another vessel goes much more into detail about prices but it is done in a very poor hand and the ink has faded so that not very much can be reconstructed from it. For that period some food prices were lower and some higher and the pay for seamen was uniformly \$12.50 per month throughout the season.

During the 1878 season seamen were paid by the day instead of by the month, and varied from \$1.75 in the early months to \$2.50 by the end of







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navigation which was rather late in November, about the 25th. During the month of August we find some entries which show that at least some of the men were working for as little as \$1.25.

For sailing vessels, 1878 was a poor year. All entries from June 22 to August 10 were made in Chicago, which indicates that the SAN DIEGO was not able to get a cargo. The propellers were getting the lion's share of the cargoes and thirteen sailing vessels were wrecked or severely damaged during the season. At the end of a long season she had earned for her owners only \$222.02

per month, before interest on operating expenses, to say nothing of insurance, if any. She wintered in Chicago again and lasted ten more years, being chartered for ocean service and was wrecked on salt water in 1898. She was built in 1874 at Detroit and was of 809 tons gross, a fine big ship for her time.

At the end of each season the Captain's accounts were audited by a man from the home office who wrote into the expense book a recapitulation of all the master's entries and struck a balance. Here is his findings for the SAN DIEGO for 1878:

RECEIPTS & DISBURSEMENTS SEASON 1878

Receipts during season.....\$11,764.00 & Son..... 165.00 \$275.00 Less bill, Vosburg & Baker.\$14.25 Less Union Dry Dock..... 20.73 9.373.48 34.98 240.02 2,391.07

615.00 Net Profits 1,776,07

The book shows that Captain Waters drew against J. P. Clark for \$650.00 during the season and had \$550.00 to collect when the ship was laid up at the end of November. Assuming that his pay started on March 16, it appears that his salary was about \$140.00 per month, which was not at all bad when it is established that he also got bed and board.

The schooner made twelve "trips" during the season, five from Chicago to Buffalo, five from Buffalo to Cleveland, and one from Cleveland to Chicago, which amounts to ten round trips between Chicago and Buffalo with Cleveland being a port of call on one of these. Receipts for eastbound cargo were noticeably greater than for that going west:

East	West
\$ 1601.27	\$ 305.11
1504.12	409.35
1120.82	420.30
1457.66	250.00
2123.00	368.73
1500.79	622,40
\$ 9309.99	\$2375.89

This may be accounted for in this way. Eastbound cargo, usually grain, made a full load while westbound cargo was a mixture of manufactured goods and whatever else could be had to fill space, -- general cargo.

MATES AND COOKS

Wilbert Holdridge, the Mate who was signed on on April 3, remained with the ship until she was laid up for the winter. Apparently he was a capable, sober, and ambitious officer. Also a thrifty one. In the eight months and eight days which he was with the ship he made no drawing against his wages and paid off with \$496.00, less \$3.30 hospital dues. He received, in addition \$12.00 for railroad fare from Chicago to Buffalo. It would not be surprising to find the name Wilbert Holdridge as Master of some Lakes vessel at some time shortly after 1879.

Martin White, the First Second mate of the season we have discussed above. He left the SAN DIEGO at Chicago on July 3, while she was lying idle in that port.

The next Second Mate, Orange Holdridge, (perhaps related to the Mate) signed on on August 15, and paid off on October 26, having received \$2.00 per day for thirty-four days and \$2.25 per day for thirty-nine days, making his pay equal to that of the Mate part of the time and even more for the rest of the period.

On October 30 John F. Burke began as Second Mate, starting at \$2.25 and after fifteen days was raised to \$2.75. Seamen's wages had by that time risen to as much as \$2.50.

There is nothing to indicate definitely how many men it took to man the schooner, but it appears that there were ten, including officers, sailors, and the cook.

Traditionally cooks were the bigest problems with which the skipper had to contend and those who sailed on the SAN DIEGO in 1878 ran true to form. They were supposed to receive 25¢ a day more than sailors but may or may not have done so in this case as the wage records show.

The first cook of the season was James McGurk who began on April 1, and left on May 24, signing for his pay with an "X". He made one draw at \$1.75 per day and one at \$1.50 when the sailors were getting \$1.50.

Frank Napolis took McGurk's place on May 25 and left on August 28, and drew as high as \$1.75 a day and as low as \$1.00. He too signed off with an "X".

Oliver Fornia began work on the day Napolis left and remained until October 2, having been paid \$2.00 and \$2.25 per day, also signing with "X" when he left.

John McGregor took over the galley one October 3 and finished out the season at \$2.25 to \$2.75 per day. He signed off in beautiful spencerian.

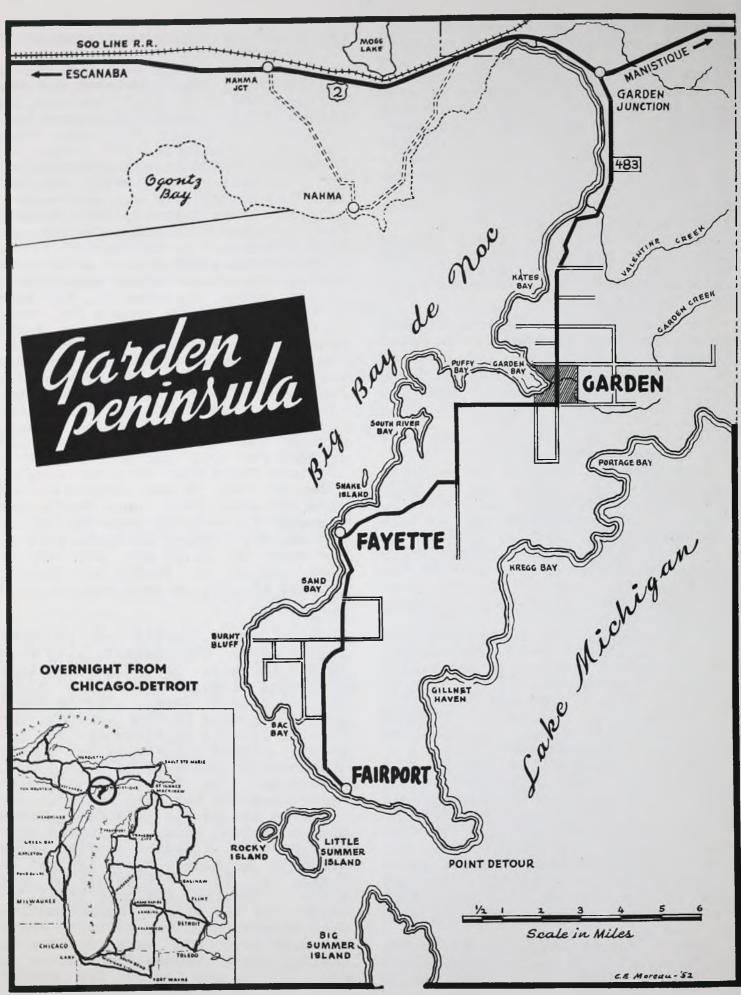
SAILORS

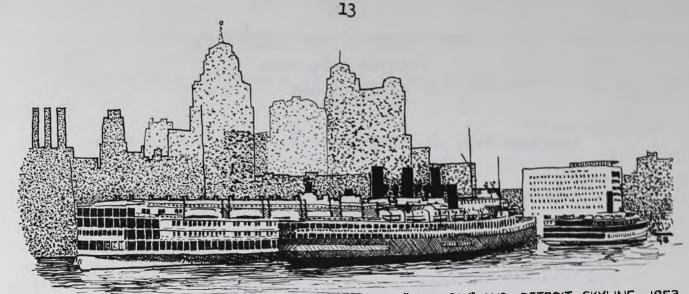
Among the first names appearing on the crew list the following indicate that the Emeral Isle was well-represented: James Kearney, John Donlon, Mike Maloney, P. McKnight, and Cornelius O'Brien.

Thirty-six names appear as sailors during the season which began April 1, and ended November 25, 239 days in all. Had there been a full crew on board at all times they would have worked a total of 1434 days. The record shows that only 967 days were paid for, a loss of 467 man days for the sailors. Quite likely the deck crew was laid off during the days of lay-up in Chicago between June 22 and August 10. This could account for 296 man hours, leaving 273 lost hours due to other causes. Ten of the 36 man signed on and paid off more than once during the season. The average days per man on pay was 27. Wages in April were at the rate of \$1.50 per day and in June dropped to \$1.25, but towards the end of the season were as high as \$2.50.

The shortest period of service was $8\frac{1}{2}$ days. The longest, $111\frac{1}{2}$ days, by Sid Selleck, who signed on five different times for periods of 13,14 24, $30\frac{1}{2}$, and 30 days. Thomas Shell worked $69\frac{1}{2}$ days in four periods, and William Schutt, in three periods got in 65. Among all who sailed in the schooner SAN DIEGO in 1878 only Capt. Waters and the Mate, Wilbert Holdredge remained the full season.

So, we see in all this data, taken from a account book, a fairly good picture of life aboard a Great Lakes schooner of eighty years ago may be drawn. It is not complete by any means. Missing entirely in all the drama, all the play of human emotion that enters into any activity where men must live and work together in limited space twenty-four hours a day, day in and day out for months





IDLE STEAMERS "GREATER DETROIT," "EASTERN STATES" AND "PUT-IN-BAY" AND DETROIT SKYLINE, 1952

In between voyages, a ship may be an important "prop" in the composition of a city skyline. Out of the neutral city mass we select several dominant landmarks which may create an identifying impression emblematic of that city. A shoreline claims attention in separating this pattern from the uncluttered surface of the water. And a ship takes precedence over low landforms in placing itself between the shoreline and the observer.



The core of Detroit has remained close to its river. Visiting Great Lakes passenger steamers once sought the center of the city, arraying themselves along the shore in jagged berths carved out for them.

These transient "props" served in "shifts." The excursion steamers idled at night in clusters near the foot of Woodward, Detroits main avenue, where pleasure seekers easily found them the next day. From here also, diminutive ferries shuttled across the river to Windsor. With the excursion steamers gone in daytime, overnight steamers of the Detroit and Cleveland Line came in to form a cluster downriver toward the foot of Third St: An additional scattered selection of visitors from the Upper Lakes varied the composition.

In the present century the downtown core grew up in a distinct pyramidal tendency. But the ships also grew longer, a horizontal counterpoint concealing the low, irregular riverfront growth. Both dimensions ceased expanding in the late Twenties.

Following decades thinned out the marine array. The Upper Lakes "propellors" dwindled to a pair of cruise ships of the Georgian Bay Line, and excursion fleets were reduced to a single line to Bob-Lo. A culminating blow saw the great D.&C. sidewheelers permanently idled after 1950, retreating downstream as the city made over its waterfront into a Civic Center, and obliterated the jagged, tell-tale wharves. These ships were later nibbled away at their moorings and towed away.

The Civic Center, which will orient downtown Detroit to its river, is nearly complete. But whether it will come to life or remain a white marble monument, stillborn from architects' renderings, remains to be seen. One may hope that the remaining active steamers will not be considered incongruous to this dignity and banished to remote moorings. One may hope that they may find their place to enrich and enliven this new ordering of Detroit's skyline.

SHIP YARDS OF THE GREAT LAKES William N.Stevens.

Continued

Milwaukee-

American Sbg. Co. Milwaukee Dry Dock Co. Division. 2 dry docks.

Muskegon-

Racine Boat Mfg. Co. Tugs, yachts, Lighthouse Tenders, etc;

Pt. Huron-

Jenks Shipbuilding Co. Later known as the Port Huron Shipyard, Inc. This yard built several freighters, the Fire Boat "James R. Elliott" for Detroit, and the ill fated Passenger ship "Eastland". Owned one dry dock.

River Rouge-

*Great Lakes Engineering Works. In 1902 the S.F.Hodge Co. at the foot of Rivard St. in Detroit was bought by interests headed by Mr. Antonio C. Pessano. This was a long established machinery builder, and became the engine shop of the new company, a site in the marshes down river at Ecorse, being filled in for the new shipyard. A large floating dry dock was built, and 3 building ways were provided, and were kept busy as Mr. Pessano proved to be a good salesman, especially when it is considered that this was a new company with a reputation to be established. Mr. Pessano ably managed this company until his death in 1923, being succeeded by Mr. Frederick G. Morley. The late Dwight True was the Naval Architect of this company, up to recent years, setting up a record of long service not even approached by any other man in a similar position on the lakes.

Saginaw-

Saginaw Sbg. Co. 1st. World War built 6 freighters.

C. E. Wheeler Wooden ships

St. Clair-

- Great Lakes Engineering Works. This yard organized as the Columbia Iron Works was sold to the Great Lakes company in 1905 and closed in 1909 when the Ashtabula yard was established. Several ore carriers, two package freighters, the car ferry "Ashtabula" were built here, also the steel sections of the Michigan Central R. R. tunnel.
- Langell Shipyard. This yard was started by Simon Langell in 1862 to build wooden ships, and from the start to 1900, built 23 ships both sail and steam.

Sandusky-

Lake Erie Dry Dock & Mill Co. (1st. World War)

Sault Ste. Marie-Heckler Bros. General Repairs

Sturgeon Bay-

*Christy Corp. Formerly Leatham & Smith Co. which company specialized in converting ore carriers into self-unloaders. Most important work in recent years was the car ferries "Sparton" and "Trojan".

"Sturgeon Bay Shipbuilding & Dry Dock Co.

Universal Shipbuilding Co. (1st. World War)

Toledo-

**American Sbg. Co. This plant was originally that of the Craig Shipbuilding Co. established in the eighties and which did a good business building medium size passenger ships, some car ferries, and some ore carriers. In 1906 this plant was sold to a group formerly with the Detroit Dry Dock Co. backed by capital furnished by L. C. Smith a typewriter manufacturer, also a lake shipowner. The Toledo Sbg. Co. was formed, and operated this yard until the World War II, when it was purchased by the American Company. Has the widest dry dock on the lakes.

Wyandotte-

American Sbg. Co. This yard was established about 1874 by Capt. Eber Ward, owner of the Wyandotte Rolling Mills, and Frank E. Kirby and his brother were hired to take charge of the designing work. In 1878 the Detroit Dry Dock Co. bought this plant, and used it to build iron and steel tonnage, the Detroit yard being a wooden shipyard. In 1899 it became part of the American group, and continued to build steel ships until its last work in 1920 the large ore carriers "James Davidson" and "M.E.Farr". Sold to the Michigan Alkali Co. in the twenties.

CANADIAN SHIPYARDS

Bridgeburg-Canadian Sbg. Co.

Collingwood-

*Canadian Sbg. & Eng. Co. Ltd. Formerly the Collingwood Shipbuilding Co. founded by Capt. Alexander McDougall in 1900. This company has lately built some ore carriers of the largest size, some oil tankers and smaller tonnage, and in its earlier years built several passenger steamers.

Kingston-

*Canadian Sbg. & Eng. Ltd.

Midland-

A yard owned by the Canada S. S. Lines built the freighter "Lemoyne" which was the largest lake steamer for a number of years and carried several record cargoes.

Port Arthur-

*Canadian Shipbuilding & Engineering Ltd. This yard was established in 1912 by the American Shipbuilding Co. as the Western Dry Dock & Shipbuilding Co. and was known later as the Pt. Arthur Dry Dock & Sbg. Co. Several large ore carriers and the passenger steamer "Noronic" were built here.

Port Weller-*Port Weller Dry Docks. Some large ore carriers built here.

SAN DIEGO (Cont'd from P.11)

on end. No mention is made of the close friendships built up nor the inevitable antipathies which develope under those circumstances. There is nothing of the weather encountered--the storms, the calms, the balmy days of summer not the biting cold of November.

Still, it is better than nothing and through these routine entries in Captain Waters' expense book we see, as through the summer haze of the northern lakes a handsome ship moving majestically over the wide-open stretches under full sail, or gliding quietly through the rivers behind a steam tug but always contributing her tiny bit to the building up of the richest, freest, nation the worlds has ever seen.