

The BULLETIN

LAKE CARRIERS' ASSOCIATION

Vol. 38

August • 1949

Number 4



A NEWS ITEM caught my eye recently, and I read the story twice, first with incredulity, then with a glow of pleasure. An elderly man had returned his old-age pension check to the state, saying he'd been able to find work, and could still take care of himself. In a day when an avalanche of government checks has been streaming out to the unemployed vacationing in Florida, California, and other resort spots and to many other undeserving people, its mighty reassuring to encounter a hardy soul who isn't looking for a lifetime subsidy out of tax funds, but rejoices in the ability to make his own way with no other help than his two good hands, a working brain and an independent spirit.

* * *

Something has been eating its way into that old independent American spirit of self-sufficiency. Something that isn't good. The hand outstretched with palm open has become more typical of the average American than the posture of a man with sleeves rolled up, head back, glad of a job to do, glorying in a chance to stand on his own two feet.

* * *

God keep us individually and as a nation, from further degeneration into a people looking for handouts on any pretext as substitutes for honest effort. Work made America strong by building a rugged breed of men whose initiative won its own rewards. Work makes men big—government or state props make men's minds and souls shrink, and can eat into the very core of our national existence. A cheer for assistance to the deserving who need help during periods when forces beyond their control bring hard times. That sympathy and generosity is a part of America's strength, too. But speed the day when more men, young and old, will return government checks, unendorsed, and rely on their own skill and gumption, while their minds and spirits grow in the rich soil of independence.

Nature Plays Strange Tricks on Ships in Narrow Channels

SHIPS under way, in channels restricted as to width and depth, are subject to movements not always understood, and sometimes not even recognized or appreciated.

In 1945 Congress passed an Act, P.L. 280, providing for a "comprehensive review and study * * * of means for increasing the capacity and security of the Panama Canal to meet future needs of interoceanic commerce and National defense", the duty of making the investigation being assigned to the Governor of the Canal under the supervision of the Secretary of War.

In connection with this investigation, a large number of model tests were made at the David Taylor Model Basin to aid in the determination of the proper width and depth of the proposed sea level canal. In the prosecution of these tests some points were brought out which shed light on problems connected with navigation of the connecting channels of the Great Lakes, particularly the dredged channels of limited cross section.

The results of these tests were reported by Messrs. C. A. Lee and C. E. Bowers in a paper presented to the American Society of Civil

Engineers and published in the Proceedings of the Society for April, 1948. It is to this Report that the following comments refer.

One of the hazards of navigation in restricted channels is referred to as "bank suction", which occurs when a vessel departs materially from the center of a restricted channel, causing the vessel to sheer. This action is referred to as follows: "If the vessel is under way in a restricted channel on a course parallel to but to one side of the center line of the channel, the water surface between the bow and the near bank will build up above the level of the normal water surface, with the result that the bow is forced away from the near bank. As the water flows aft along both sides of the vessel to fill the void left by the stern, the level of the water surface drops below the normal surface level. The level of the water surface between the vessel and the near bank drops lower than the level on the other side, with the result that the stern of the vessel is forced toward the near bank."

If it is assumed the vessel is to the right of the center line, the above action will create a sheer toward the left, and it is pointed out that if the



Two freighters pass in the St. Clair River. The Great Lakes have many narrow waterways connecting the lakes, subject to conditions of "suction" and "squat".

rudder setting were such as to overcome the sheer and maintain a heading parallel to the centerline, the vessel would move bodily toward the near or right bank. To overcome this action, a proper rudder setting will counteract the extreme yaw and slowly return the vessel to the centerline of the channel, when the direct course could be resumed. The determination of this required rudder angle under the various situations examined was the object of the tests, the practical result of which would have a bearing on the safe widths of channels to be adopted.

It is apparent that the effect of the forces indicated will *decrease* as the width and depth of channel are *increased*, and as the proportionate distance which the vessel departs from the centerline is increased.

The models used were prototypes of vessels of various dimensions. The fullest results of the tests for bank suction were reported for a model 20 feet long with 2.51 foot beam, representing a vessel 900 feet long with 113 foot beam. While such a ship is not typical of Great Lakes freighters, the channels also were of more generous dimension, particu-

larly as to depth, and the results can be considered only as relative.

In a channel 45 feet deep and 300 feet wide, an off-center position of the ship of only 20 feet required a rudder angle of about 6 degrees, at speed of 5 knots, and about 10 degrees at speed of 9 knots. If the ship were 40 feet off center, these rudder angles were about 12 and 19 degrees respectively. Thus, roughly, doubling the distance off center doubled the required rudder angle. Also, the rudder angle increased roughly in proportion to the increase in speed.

More complete results are given for a channel 500 feet wide and 45 feet deep, and here again the required rudder angle increased directly with the speed and the proportionate distance the ship was off the center line. The required rudder angle varied from about 4.5 degrees, at speed of 5 knots with vessel 60 feet off center, to about 16 degrees at speed of 9 knots with vessel 120 feet off center.

In the narrowest channels in the connecting waters of the Great Lakes, such as the West Neebish, 300 feet wide and Livingstone Channel, 450 feet wide, meeting or passing is not permitted, so vessels may keep close to the center line. In the Maumee Bay channel, 500 feet wide, meeting is allowed, and in the entrances to the one way channels, 300 feet wide along the range light cribs, this effect of bank suction has been observed

and is one of the reasons for the recommended removal of this center dike. The effect also may be noticed in navigating narrow river channels in the harbors.

"Squat" is a change of level of a ship under way. As a vessel proceeds through the water, the hull displacement causes the water to flow *forward* and *outward* near the bow, changing to a water movement aft and outward along the length, and finally closing in behind the vessel to fill the vacancy caused by the passing of the hull.

The result of these currents, in a channel of restricted cross section, is first to cause a rise in water level at the shore or channel side, followed by a fall while the ship is constantly proceeding in a lowered water surface like a shallow bowl. Thus, while the ship continues to displace only a mass of water equivalent to her displacement in still water, her hull is nearer the bottom. This lowering of the keel is referred to as "squat", and varies with the relative dimensions and speed of the ship and the cross section of the channel.

The tests made with a model representing a large naval vessel 900 feet long with 113 foot beam, indicated that in a channel 45 feet deep and 300 feet wide, the squat was about 1.2 feet at speed of 6 knots, and 5.7 feet at 10 knots. In a similar 45 foot channel 700 feet wide, the corresponding values of squat were 0.6 foot and 1.8 feet.

The results indicated that the



Col. L. C. Sabin, retired LCA executive, and author of this article, poses with Pres. John T. Hutchinson at birthday testimonial luncheon beside barometer-clock gift, and enlargement of photo of himself taken 75 years ago.

section of the ship was about 27 per cent of the water section of the channel, while in the observations of actual ships at the West Neebish, the ship section was only about 16 per cent of the water cross section. The model tests thus would show a greater effect, due to the higher ratio of ship to channel cross section.

While the models used in these tests do not represent the dimensions of ships on the Lakes, and the typical channels are of greater depth, the results confirm in a general way those obtained in observations on actual ships in the West Neebish and elsewhere. If the ships of greater cross section now proposed are to be operated at a somewhat higher speed, a squat of as much as 2 feet or more may be expected in such a channel as the West Neebish.

values in the 700 foot channel were about one-third of those in the 300 foot channel for the same speed. As speed was increased, the squat increased rapidly, or nearly the cube of the speed for the narrower channel. That is, at 10 knots, the squat was about 8 times that at 5 knots.

Observations, made several years ago of vessels passing the West Neebish Rock Cut, indicated a squat of about one foot at speed of 10 miles per hour, but were not sufficient to indicate the relation of squat to speed. Referring to the model tests described above, the submerged cross

Medical Aid at Buffalo

Upon hearing that the U. S. Public Health Service was considering closing the Marine Hospital at Buffalo due to plans for construction of a Veteran's Administration facility, Lake Carriers' Ass'n. wrote the Surgeon General to insure continued and adequate provision for lake seamen at that port. Word came back that the Surgeon General was giving the matter his personal attention, and to date there is no reason to believe that sailors in need of medical attention at Buffalo will not get ample aid.

Port Profiles - - Ft. William - - Port Arthur

GRAIN-SHIPPING CAPITAL of the world, Fort William-Port Arthur stands in busy prominence on the north shore of Lake Superior at the headwaters of the Great Lakes Waterway system, proudly disputing any claim that all of the major lake ports are on United States shores.

Exactly midway across Canada, Fort William is situated at the outlet

of the triple-mouthed Kaministiquia River, which empties into Lake Superior at Thunder Bay. The Indian name of the river has been interpreted both as "long winding river" and "the river with three mouths." Canadian counterpart of Duluth-Superior, the twin cities represent the Canadian Head of the Lakes, a funnel through which millions of tons

Aerial view of the twin cities, Fort William-Port Arthur, one of the busiest harbors on the Great Lakes (Photo courtesy Canadian Department of Transport)



of grain, iron ore, pulp and paper products pour into lake freighter holds each year.

White men began making history in this region as early as 1655 when Radisson and Groseillers, French explorers, paid their first visit. They found Ojibway tribes camped there, whose descendants still live on reservations at the foot of Mt. McKay and at Squaw Bay. In 1678 the founder of Duluth, Daniel Greysolon Sieur De Dulhut, set up a trading post on the south bank of the river at its mouth. This was abandoned shortly afterwards, but the place was visited in 1688 by Jacques De Noyon, a trader from Trois Rivières, Quebec, who was in search of the Pacific Ocean.

In 1717 Robertel De La Noue was sent to rebuild the trading post and fort, but it was finally given up in 1758 when the French concentrated upon the defense of Eastern Canada as a French possession. La Verandrye visited the lakehead in the winter of 1731 during his explorations for the western ocean.

Roderick McKenzie, in 1798 moved northward from Grand Portage (now in Minnesota) and rebuilt the ruins of the old Fort, and the area has remained as a populated center ever since. The two old fur trading companies, The Northwest Fur Trading Company and the Hudson's Bay Company made the district their headquarters amidst great rivalry. In 1803 the Fort was acquired by the North-

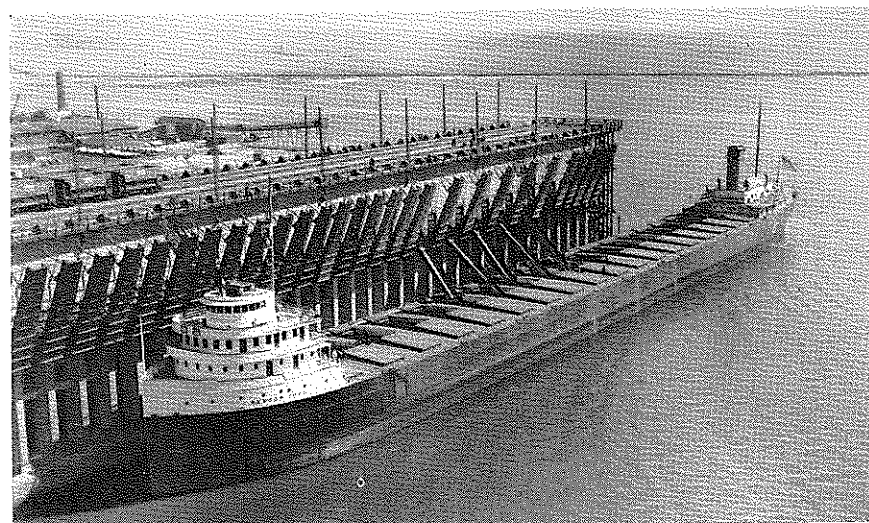
west Fur Trading Company and was called the New Fort. In 1805 it was named Fort William after William McGillivray, Governor of the Northwest Fur Trading Company, by which name it is known now.

Between 1816 and 1821, the two fur companies carried on war-like activities against each other, and the fort was occupied by each at various times. In 1816, Lord Selkirk led a group of Swiss mercenaries against the Northwest Fur Trading Company while he was encamped at the Hudson's Bay post at Point De Meuron a few miles up the river, and as he was on his way to insurrections in the west. Finally the two companies, weary of fighting, united. The post at Point De Meuron was abandoned soon after 1872 when Lord and Lady Milton spent a year there. Today, a cairn marks the spot of the old trading post at Point De Meuron.

The Hudson's Bay Company occupied the fort in 1821. In 1875 the work on the Canadian Pacific Railway Company was started in Fort William. In 1892 it was incorporated as a town, and in 1907 as a city.

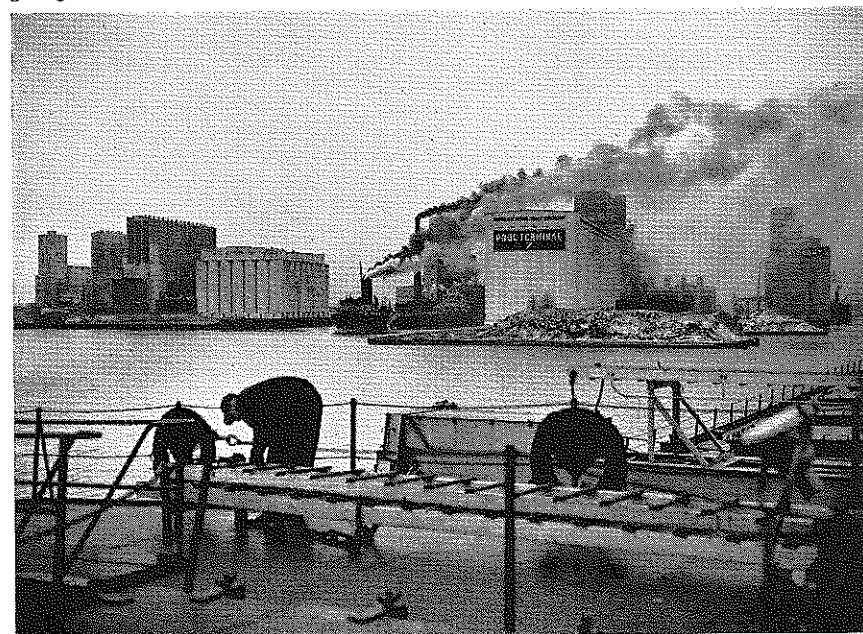
The community thrived as a fur-trading post, and the old Fort was dismantled in 1881 to make way for the building of the steam railway. A granite monument stands today to mark the spot of the old fort.

In 1892, the community was incorporated as a town with John McKellar being the first Mayor. In 1907,



Iron ore from the Canadian Steep Rock mine is loaded at this Port Arthur dock for transit down the lakes. Here the BENSON FORD, U. S. freighter, takes on a cargo. (Photo courtesy Civic Industrial Board, Ft. William, Ont.)

Ft. William-Port Arthur is the world's grain-shipping center. Millions of bushels from the Canadian wheat belt are stored and loaded out of these mammoth elevators during the navigating season.



it was incorporated as a city under the mayoralty of James Murphy. The first white woman to take up residence in the community was Mrs. McIntyre, who arrived in 1855, having crossed Lake Superior with her four small children in a birch-bark canoe. She was the wife of John McIntyre, who was in charge of the Hudson's Bay post at Fort William from 1855 to 1878.

Today the port of Fort William-Port Arthur is primarily recognized as the major loading port for lake transshipment of grain grown in the

Canadian prairie provinces of Manitoba, Saskatchewan, and Alberta. Both of Canada's major rail lines, the Canadian Pacific Railway and the government-owned Canadian National Railways, have extensive terminal facilities at the twin ports with many of the elevators lining the banks of the Kaministiquia River.

All told, there are 26 grain elevators located at Fort William-Port Arthur, with an aggregate capacity of approximately 97 million bushels. Long the major shipping point for grain on the Great Lakes, the twin

With a cargo of wheat aboard, the JOHN T. HUTCHINSON moves out of Port Arthur, as a Canadian freighter moves under the loading chutes.



ports handle more cereal grains than any other point of origin in the world. In only one year since 1918 have grain shipments fallen below one hundred million bushels. In 1945, the record year for Fort William as well as for the lake grain trade, 492,364,092 bushels of grain were loaded at the Canadian head of the lakes. In 1948, the total was 220,029,390 bushels, representing the diminution in export shipments as well as some reduction in out-turn of the growing areas.

In addition to its pre-eminence in the grain trade, Fort William-Port Arthur joined the ranks of ore-loading ports in 1945 when the Canadian National Ore Dock at Port Arthur was completed. The facility was placed in operation on June 16, 1945, and the first cargo was loaded into the steamer MARQUETTE of Cleveland-Cliffs Iron Co. on July 21. The dock was constructed for the purpose of handling iron ore from the Steep Rock Mine located approximately 140 miles northwest of Port Arthur. Peak shipments of iron ore occurred in 1947 when 1,201,807 gross tons were loaded into vessels. In 1948, shipments were 682,566 gross tons.

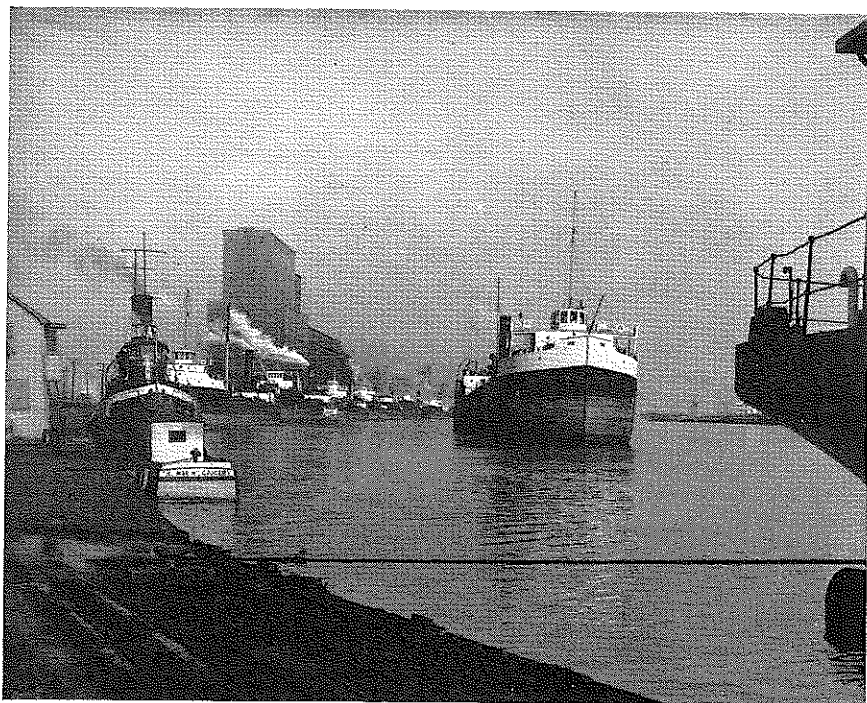
As the only metropolitan area on the Canadian shore of Lake Superior, the twin ports receive substantial tonnages of bituminous coal as well as a moderate amount of anthracite. In 1948, the bituminous receipts approximated 2 million net tons.

At Port Arthur is located the plant of the Port Arthur Shipbuilding Co., which includes the largest dry dock on Lake Superior. That dock, having an overall length of 736 feet, will accommodate any cargo vessel presently engaged in the lake trade. During both World Wars the yard at Port Arthur was actively engaged in the construction of vessels for the Canadian and British Governments.

The largest grouping of elevators is operated by the Saskatchewan Pool Terminals, Ltd., representing grower interests of that Province.

By reason of its location near the vast forests of Northern Ontario, Fort William-Port Arthur is a factor in the paper and pulpwood industry and also serves as the Canadian upper lake terminal for the passenger services operated by Canada Steamship Lines, Ltd. and Canadian Pacific Steamships Ltd. Fort William is the operating headquarters of Paterson Steamships Ltd. which operates the third largest fleet of Great Lakes cargo vessels under the Canadian flag.

A thriving, growing city, Fort William is attracting important new industries each year. Among leading employers, outside elevator, dock and shipping interests, are The Great Lakes Paper Co. Ltd.; Great Lakes Lumber and Shipping, Ltd.; Abitibi Power & Paper Co., Ltd.; Industrial Grain Products, Ltd.; Edible Oils, Ltd.; Canadian Car & Foundry, Ltd.; Canada Iron Foundries, Ltd.; North-



Line-up at Ft. William, Ontario for the final grain cargo of the season. These cargoes will remain in storage during the winter, the freighters serving as floating elevators. Note grocery tug at left.

ern Engineering & Supply Co., Ltd. The Plymouth Cordage Co. and International Harvester Co. have large warehouses; there is a daily newspaper and numerous smaller factories. The city has ample power facilities and owns its utility systems. Water comes from a mountain lake of 330 foot elevation six miles away, soft as rain water, citizens claim.

In easy traveling distance of the city are abundant recreational opportunities appropriate to the season, in-

cluding skiing, boating, curling, skating, golf and tennis. Parks and playgrounds dot the city; modern schools, hospitals and churches, and attractive residential areas make Fort William ideal for pleasant living as well as for good business.

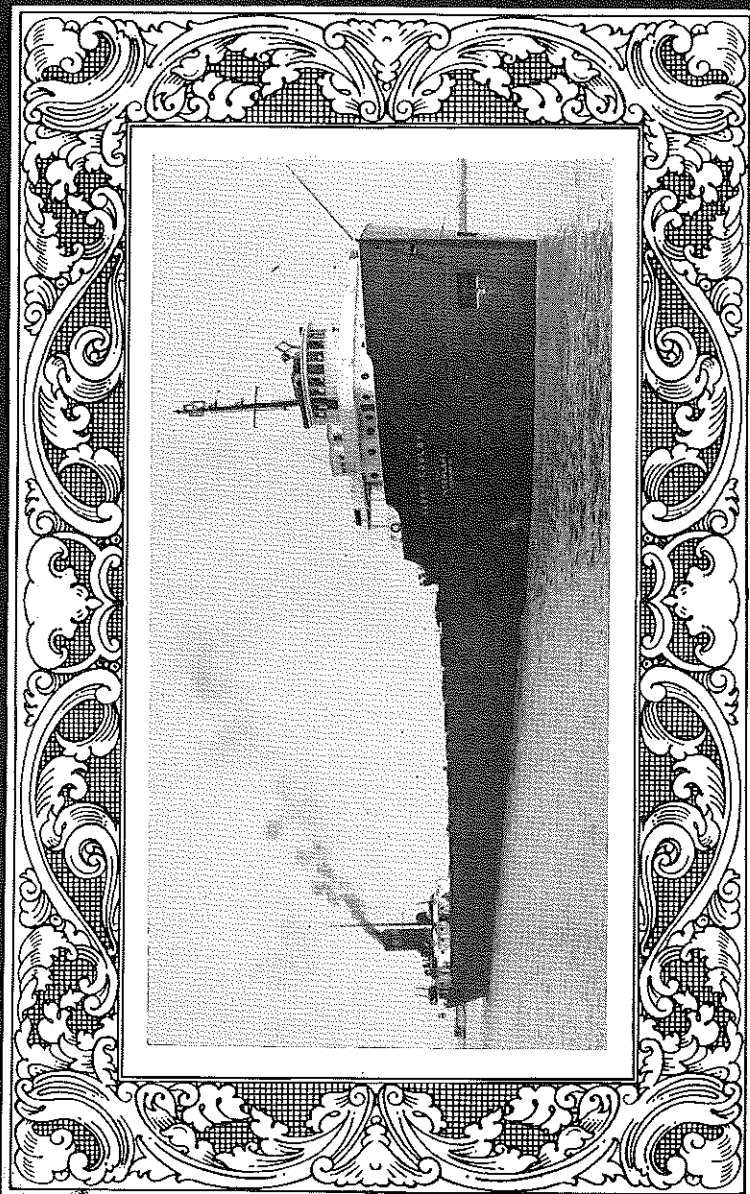
Fort William has easily earned its place in any series on Great Lakes ports, having scored consistently in the record books, with promise of continuing prominence for long years to come.



Thanks on behalf of 12,000 lake sailors went to Miss L. Terry Joyce of Bantam Books, Inc., as Harold Engelke, representative of Lake Carriers' Ass'n. in Chicago accepted 10,000 new pocket-size books and relayed them to the Sault library. All current, plenty of variety,—a real bonanza for sailors' leisure hours.

The flood of new books brought smiles to Mrs. Robert Taylor, librarian, and her husky helper. The "AMMLA" wagon carries portable libraries to the lock wall for exchange with used libraries, as vessels transit the Sault.





• STEAMER HARRY COULBY •

History Written by Harry Coulby Merits Place in Great Lakes Album

ON FEBRUARY 7, 1927 the first keel plates of the Steamer HARRY COULBY were placed on the blocks at the American Shipbuilding yard in Lorain. Getting her first taste of fresh water some 82 days later, the COULBY made her entry into lake shipping with the customary broadside splash on April 30th in 1927. Then, approximately 164 days later the huge new Pickands-Mather carrier was on her way up the lakes laden with 14,650 net tons of coal.

No vessel, at that time—or few in the trade today could equal the ship that Capt. William A. Reed boarded the 10th day in September, for spaciousness, finish and furnishings. The COULBY's engine room was given an unusually high finish so that its fine appearance would be an additional incentive to the officers responsible for its operation to keep it in good condition.

The steady march of time and progress finally wrested away the proud COULBY's old ore record set in 1941 which amounted to 16,498 gross tons of the red mineral. And at one time she had floated the top tonnages in coal and wheat as well.

No story of the Steamer COULBY would be complete without bringing to mind the outstanding man for whom she was named. Harry Coulby born on a farm near Nottingham, England, January 1, 1865, terminated his school career at the age of ten with dreams of adventure, opportunity and fortune which might be had on the great inland seas of America. Working hard in England as a youngster, he saved enough for his passage to America and then penniless, walked the 600 miles from New York to Cleveland, working along the way to earn his expenses. His rise to the most powerful leader of his time in Great Lakes Marine circles is highlighted by the fact that he directed the operations of the two largest fleets on the lakes simultaneously for 19 years. From 1904 to 1924 he headed fleet operations at Pickands-Mather and at the same time served as President of Pittsburgh Steamship Co. Mr. Coulby died suddenly at the Ritz Hotel in London on January 17, 1929. He was stopping at the hotel preparatory to sailing to the West Indies on his return to America.

New Frequency for Great Lakes Aids Radio-phone "Traffic Jam"

"KEEP HER on the course, Borgen. I'm going below," said the Captain, as the giant freighter plowed through Lake Superior's rough waves. A moment later the sound of a thud came to the mate's ears, and hurriedly giving temporary instructions to the wheelsman he rushed out to investigate. There, at the foot of the stairway, on the "Texas deck" lay the inert body of the Captain, and beside him his startled daughter, a passenger for the trip, who had also hurried out at the sound of his fall. The semi-conscious Captain was moaning as blood streamed from a wound in his head. The vessel was 150 miles from the nearest port and a freighter crew of 35 doesn't include a doctor.

Had that accident occurred in 1933 rather than in 1934, it is highly probable that Captain Edw. R. Morton would never have reached port alive. He did recover and lived to sail the lakes as master of his vessel four more years until his death in 1938.

Hero of the incident, which could be multiplied endlessly as to circumstance and characters, was the radiotelephone, first installed on Great Lakes vessels in 1934 and ever since a vital aid in the navigation and operation of the world's greatest inland fleet. For on that date, thanks

to the radiotelephone, the mate, C. H. Borgen, now master of the THOMAS WILSON, was able to call the office of the Wilson Transit Co. who in turn called a surgeon at Lakeside Hospital in Cleveland. The surgeon gave explicit instructions on what to do and these instructions were relayed to the W. C. ATWATER, now the E. J. KULAS and proper action was taken immediately to make the Captain comfortable. The radiotelephone was used to call Marquette and when the vessel arrived an ambulance was waiting at the dock to speed him to the hospital.

Today the radiotelephone is practically 100% universal on Great Lakes freighters and its heavy burden of calls has led to approval by the Federal Communications Commission of a new frequency giving the system more flexibility and efficiency.

Effective August 1, 1949 a new frequency became available for use on the Great Lakes to replace the present ship-to-ship working frequency, 2738 kilocycles. This frequency, 2003 kilocycles, will not be burdened with the serious interference which has been experienced on 2738 kilocycles in recent years. The frequency 2738 kilocycles is called Channel 40 or Channel 4 on United



The radiotelephone is an indispensable communications aid today on Great Lakes steamships. Here Captain George Rapp of the Steamer CLEMENS A. REISS puts through a call while in the middle of Lake Superior. This is a Lorain County Radio Corp. installation. RCA also makes many of the installations on the lakes.

States vessels. Its designation on Canadian vessels is Range 4. The same channel designations will apply to the new frequency, 2003 kilocycles.

The increased and extensive use of 2738 kilocycles in other areas as well as on the lakes has caused considerable congestion and interference. Conditions have been particularly unsatisfactory during the night and early morning hours when the propagation characteristics of this frequency are such that ships intercommunicating with each other on the Great Lakes receive severe interference from communications taking place on the Atlantic and Gulf coasts and on the inland rivers. The new ship-to-ship frequency will not ex-

perience this interference since its use will be confined exclusively to the Great Lakes.

The propagation characteristics of frequencies between 2000 and 3000 kilocycles differ widely for day and night conditions. In the daytime the reliable range of communications is of the order of 50 to 100 miles. No appreciable signal is transmitted to distances in excess of this range. However, at night and during the early morning and early evening hours, strong signals are transmitted over distances of several hundred miles. As a result intercommunication between ships only a few miles apart is seriously disturbed by stations much further away operating

on the same frequency. For example, ships communicating on the Atlantic and Gulf coasts and the inland rivers frequently cause serious interference to intercommunication between ships only a few miles apart on the Lakes. The reverse is also true. Since it is the propagation characteristics of the medium which produces the interference phenomena there is nothing which can be done to correct it by changing the equipment. Therefore, the only cure is the assignment of a frequency exclusively to the Lakes.

The present interference situation on 2738 kilocycles has long been recognized by the Federal Communications Commission. Extensive study and negotiation with the government departments concerned has resulted in the assignment of the frequency 2003 kilocycles exclusively to the Great Lakes area, and an Order has been issued to this effect. The Order provides that Great Lakes ships must cease operations on 2738 kilocycles by January 1, 1950. This means, of course, that the change to the new frequency, 2003 kilocycles, must be completed by the opening of navigation in the spring of 1950.

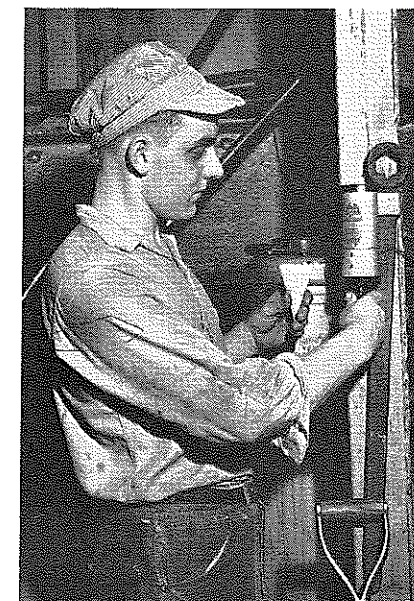
Since 1938, the safety navigational communication system on the Great Lakes has utilized two channels. In addition to the ship-to-ship working channel there is designated and used the safety calling channel 2182 kilocycles. On some U. S. ships this is called Channel 51 and on others Channel 5. On Canadian ships it is

called Range 1. 2182 kilocycles is monitored by all radiotelephone stations operating as a part of the Great Lakes system about as follows:

- 1: 1000 Canadian and United States non-government vessels
- 2: 85 United States Coast Guard shore stations
- 3: A number of United States Coast Guard cutters and other vessels
- 4: 7 United States Coastal Harbor stations
- 5: 7 Canadian Coastal Harbor stations

All stations, both on board ship and on shore, maintain a loud speaker
(continued on next page)

Nothing like those salt tablets in hot weather to keep your energy up. It's a "pause that refreshes," according to Dick Schmitt, oiler on the CORNELL pictured below.



The Scoreboard

The cumulative total tonnage to August 1st was exceeded only by the war years 1942 and 1944. Grain shipments were largest for the month of July and for the season to date since 1945. Here's the score for the season to date, set down against 1948 figures as of August 1st.

	1949 Net Tons	1948 Net Tons
Iron Ore	51,467,683	47,975,105
	*(45,953,288)	*(42,834,915)
Coal	21,629,881	24,070,971
Grain	5,284,230	3,073,921
Total	78,381,794	75,119,997

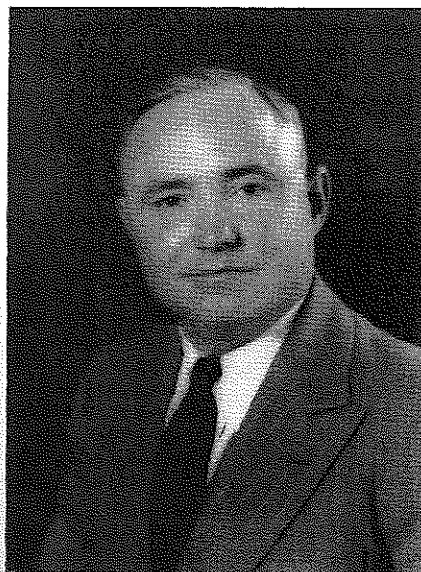
*Denotes gross tons

watch on 2182 kilocycles. The universality of communication which results from this monitoring provides a safety distress communication system whereby a vessel in need of assistance can be certain that any call for help will be heard by any station within range. Also any ship making a safety announcement on 2182 kilocycles can be sure that it will be heard by all ships within range.

In the past, the ship-ship working channel used in conjunction with the safety calling channel, 2182 kilocycles, has been 2738 kilocycles designated as Channel 40, Channel 4 or

Recognize Him?

He's a well-known figure at a lower-lake dock—a complete introduction is given on page 20.



Range 4 as described above. With normal ship-ship communication the procedure is to establish contact on the safety calling frequency 2182 kilocycles following which both ships switch to 2738 kilocycles. However, in the past, because of the serious interference conditions on 2738 described above, frequently it has not been possible to inter-communicate on 2738 kilocycles after contact was established on 2182 kilocycles. In some instances this has led ships to carry on normal message traffic on the safety-calling channel when they should have changed to 2738 kilocycles. Also this situation has resulted in delay in equipping a number of ships for operation on 2738 kilocycles. On these ships there has been no recourse except to inter-communicate on 2182 kilocycles. Replacing 2738 kilocycles with 2003 kilocycles will greatly improve conditions. Since 2003 kilocycles will be used exclusively on the Great Lakes there will no longer be any excuse for carrying on normal ship-ship traffic on 2182 kilocycles.

The assignment of the frequency 2003 kilocycles to the Great Lakes area has not been an easy task. For over two years, the firm of Jansky & Bailey, Lake Carriers' Association's electronics consultants, has been working with the Federal Communication Commission endeavoring to obtain a replacement for 2738 kilocycles. Because of the scarcity of frequencies and the extensive demands

of all services for new frequencies in the 2000 kilocycle band it has been necessary to emphasize in detail the situation existing on the Great Lakes and to point out to those in government who must approve the assignment of new frequencies, the important need for the assignment of a new frequency exclusively to the Great Lakes. It has been only as a result of diligent effort on the part of the Federal Communications Commission, the members of its staff, and the United States Coast Guard that it has been possible to obtain the frequency 2003 kilocycles.

Recognizing the need for improving navigational communication conditions on the Great Lakes as soon as possible, Lake Carriers' Association has recommended to its member companies that the changeover to the

new frequency, (2003 kilocycles) be commenced immediately upon the effective date for the assignment of this new frequency, namely, August 1, 1949. The United States Coast Guard has also recognized the need for expediency and is taking steps to coordinate its activities so as to provide optimum service during the changeover period. A program has been worked out with the manufacturers of Great Lakes radiotelephone equipment to change over equipment on United States Great Lakes vessels as rapidly as possible after August 1st. It is expected that the changeover will take between two and three weeks to complete. During this period it will be necessary that all navigating personnel take pains to keep to an absolute minimum the amount of traffic on 2182 kilocycles.

U.S.M.S.I. Courses - by - Mail for Seamen

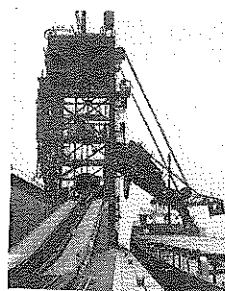
A number of correspondence courses for seamen have been prepared by the U. S. Maritime Service Institute and at the suggestion of LCA's Welfare Committee, have been reviewed by the Fleet Engineers' and Shore Captains' Committees to determine which might merit the study of Great Lakes seamen and be applicable to their tasks and interests. The following is the result of their review: *Engine Department*—Marine Steam Engineering, Marine Boilers, Engine Room Subjects, Ship's Machine Shop, Ma-

rine Electricity, Blueprint Reading, Mathematics for Marine Engineering; *Deck Department*—Elementary Seamanship.

Basic courses are available also in Practical English, Arithmetic, and History of the U. S. Deck officers will find that the course in Radar includes material on the Great Lakes, and many officers are taking the course.

The minimum fee of \$3.00 makes any of these courses available to men on the lakes upon application to the U. S. Maritime Service Institute, Sheepshead Bay, New York.

Birthday for Number 3



Lake sailors in Sandusky Harbor on July 18th noticed the No. 3 Dumper performing its chores in a jaunty, care-free manner, as well it might. For on that day the No. 3 Dumper at the Pennsylvania Dock (see Back Cover) was celebrating its tenth birthday. During that period, according to the offices of The Lower Lake Dock Co., the sturdy loading rig had handled 56,421,626 tons of coal, the equivalent of 940,361 carloads. No. 3 challenges any dumper on the lakes to show a better record than its 6,743,258 tons handled in 1944.

Memorial for Parsons

Following the death of Capt. Frank B. Parsons on June 21st, interest immediately developed in a permanent and appropriate memorial among friends in his home town of Vermilion, Ohio and officers and crews who had served with him on the lakes. As a result, more than \$170 has been sent to the American Merchant Marine Library Ass'n., with the request that it be used for an appropriate memorial which can serve the men on the lakes.

That Photo on Page 18

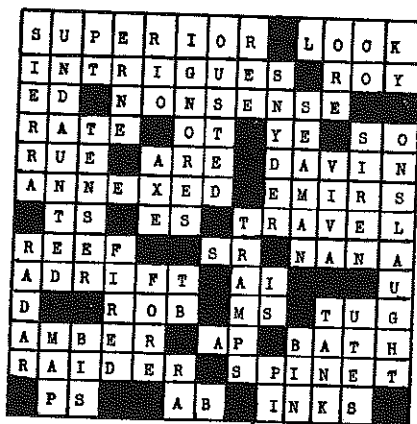
ONE of the most popular dock men on the lower lakes is Claude C. Pund, Superintendent of the Lakefront Dock and Railroad Terminal Company's gigantic new coal and ore handling facilities in Toledo.

Claude, whose service in the stevedoring industry dates back to April 16, 1917, when he was a clerk at the B&O Dock in Toledo, has filled many jobs in his long career.

Claude's hobbies are strictly sports. He is a strong supporter of High School football in Toledo, is a great booster of the Toledo Mud Hens, and is also interested in the major league ball teams in Cleveland and Detroit. He participates in several bowling leagues, and carries an average in the 190's.

Claude is married, has two married daughters, and one granddaughter, Linda, 2 years old, who, incidentally, is his greatest interest.

Answer to July Puzzle



Those School Bells Ring Again for Masters and Chiefs as Well

TIME WAS when school was a subject of interest to oilers and wheelmen going for an original license, or junior officers of the deck and engine room seeking a raise in grade. Time marches on, and what with radar installations on the lakes nearing two hundred, and more and more electrical equipment coming aboard, the master and chief join the others in a return to the classroom.

The Radar School, established last

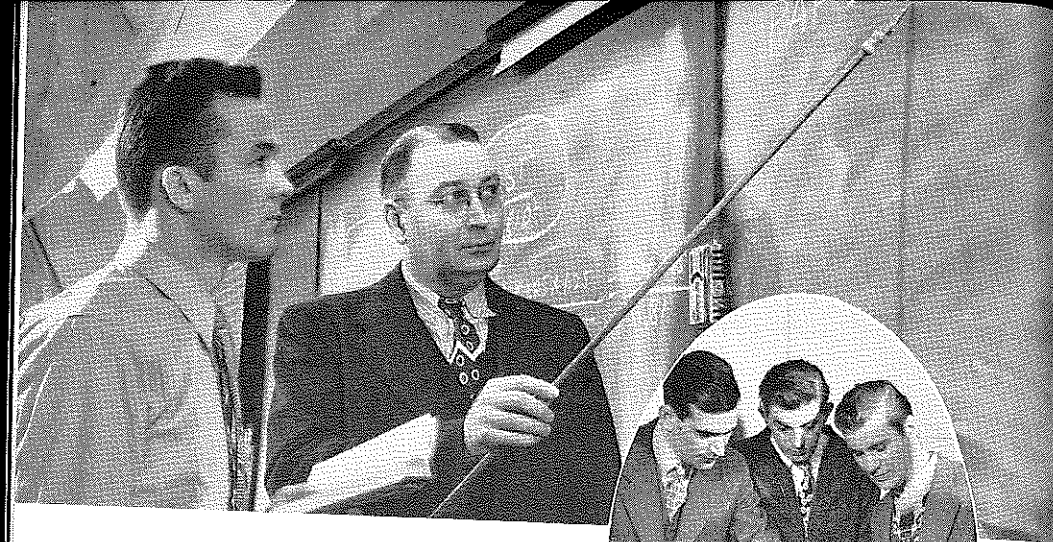
winter by Lake Carrier's Association, with the five radar manufacturers participating, will be conducted again in early 1950. The six classes for captains and mates, each five days in length, will alternate lectures on principles of radar with practical work around the operating sets, trained on Cleveland's harbor. Approximately fifty officers will be enrolled in each class. Last winter 360 captains and mates were students.

Engineering officers will have an opportunity to study Advanced Engineering in the fourth successive School taught by Frank V. Smith, formerly of the Aircraft, Federal & Marine Div., of General Electric, Schenectady, now retired. There will be two courses, each two weeks in length, and about seventy-five engineers are expected in each class. In his Schenectady home, Frank Smith is already preparing his lectures, which have been so popular with the 347 men who completed the course these last three winters. Both the Radar and Engineering Schools open in early January.

The regular winter school, preparing oilers and wheelmen for successfully passing Coast Guard examinations leading to original license, and mates and assistant engineers for

Capt. John C. Murray, Director of the LCA School of Navigation, at work on lectures for the 1950 School.



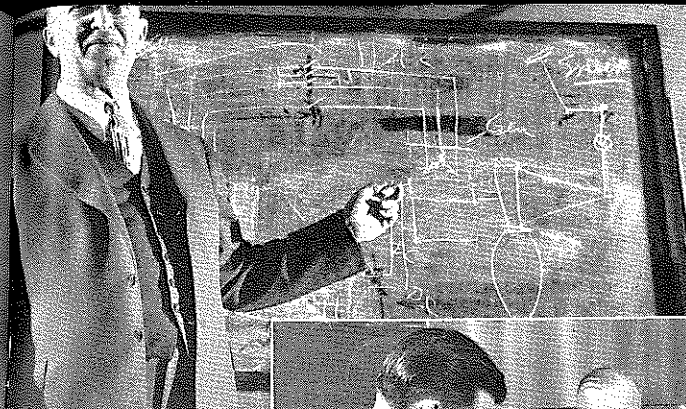


(Top) Howard Anderson, 1st Asst. Engineer aboard the HOWARD M. HANNA, JR. this season is chief instructor of the Engineering course at LCA's winter school. Here he is shown explaining the safety valve formula to Chester Ojdana for his Coast Guard exam last winter. (Oval) Mysteries of the pelorus and compass were unfolded to deck students Wm. E. Cogan and Clyde Trueax by instructor J. N. Rolfson in the 1949 Navigation course. The 1950 school opens January 3rd.



raise-of-grade, opens January 3rd, and at this writing over sixty applications have come to LCA from men intending to enroll. These applications should come directly to Lake Carriers' Assoc., 905 Rockefeller Bldg., Cleveland 13, Ohio. Enrollment for the Radar and Advanced Engineering Schools (first classes January 9th) will be handled by the fleets themselves.

There's the educational bill-of-fare for Great Lakes seamen and officers next winter. Committees of Shore Captains and Fleet Engineers and executives on the Welfare Committee are working with LCA officers to help these schools do a better job each year. For the ambitious and qualified men of the lakes there will be a cordial welcome next winter in these practical "halls of learning."



CH



Upper photo: Frank V. Smith, Director of the LCA School of Advanced Engineering, is a master at diagramming technical problems to make them easily understood. This picture was taken last winter in Cleveland. Over 350 engineers have attended this school, to be repeated in 1950.

Lower photo: Peering at the radarscope where the Cleveland harbor is reflected, are three students of the 1949 school and one of the five instructors. After hearing radar principles explained, captains and mates worked the sets themselves.

Safety Slogan for August

Best safety slogan to come from Safety Committees during recent months is the following: "If you have any plans for tomorrow, obey the safety rules today." Good safety slogan at a lower lake dock is: "A crutch may support you, but can it support your family?"

Savings Cross \$600,000

Savings from the crews of lake freighters totalled a respectable \$319,040 for the month of June, with July figures not available as this magazine went to press. Total savings as of July 1 for all fleets—\$606,918. Honor Roll of "Top Savers" will be printed in September.