

PORTS and HARBORS

DECEMBER 1959 Vol. 4 No. 4



THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

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"MARINE TERMINAL CHARGES AT LEADING PORTS OF JAPAN"

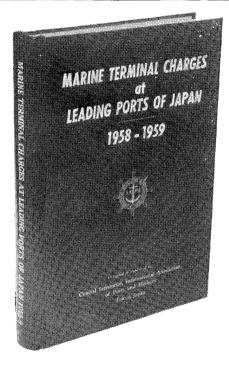
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THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

OBJECTS AND PURPOSES (Per Article 3 of Constitution)

The objects and purposes of this Association shall be:

(a) To associate its members from all countries together in the common cause of mutual international friendship and understanding;

(b) To exchange information relative to port and harbor organization, administration. management, development, operation and promotion;

(c) To encourage, develop and promote waterborne commerce to and from all world ports and harbors; and

(d) To encourage the standardization and simplification of procedure governing imports and exports and the clearance of vessels in international trade:—

thereby promoting the peace in the world and the welfare of mankind.

UNDERTAKINGS

(Per Article 3 of Constitution)

This Association shall carry out the following undertakings in order to accomplish the objects and purposes specified in the foregoing Article:

(a) The holding of conferences of the International Association of Ports and Harbors as provided in the By-Laws;

(b) The publication of the minutes of Conferences, an official Association journal or other publication and other special publications concerning ports and harbors, as may be authorized by this Association;

(c) The establishment of relations with other international organizations, associations and agencies on matters of mutual international interest concerning ports and harbors;

(d) The establishment of a center or centers for the collection, tabulation and distribution of information concerning ports and harbors from throughout the world for the benefit of members of this Association and other interested persons;

(e) The dissemination to ports and harbors, and governmental agencies and private operators thereof, of the accomplishments of this Association as expressed in resolutions, bills, reports of committees, and the published proceedings thereof;

(f) The establishment of committees from among the membership of this Association for reference purposes of members engaging in the organization, administration, development, operation, utilization, management or promotion of ports, harbors and other waterfront facilities;

(g) The assumption of other undertakings necessary to effectuate and realize the objects and purposes of this Association.

PORTS and HARBORS

PORTS AND HARBORS is quarterly published by the Central Secretariat of the International Association of Ports and Harbors as an official journal of the Association, to provide its members with information concerning port and harbor development in the world.

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From The Central Secretariat

By Gaku Matsumoto Chief of the Central Secretariat I. A. P. H.

It is with great pleasure that the Central Secretariat sends to our members the last issue for 1959 of the "Ports and Harbors", along with best wishes for the New Year.

Looking Back on 1959

The year we are now sending out was very significant for this Association as marking a step forward in its activities. The Second Triennial Conference of this Association was held this year from June 22 to 25 in Mexico City, Mexico, hosted by Secretaria de Marina and with a great cooperation of the Mexican Government. The success of this conference has contributed, to a large extent, to further promote the friendship and mutual understanding between members. Furthermore, Mr. Lloyd A. Menveg, President of the Board of Harbor Commissioners, City of Los Angeles, was elected President of the Association for the next three years, on whose excellent leadership and ability, coupled with youthful energy, are placed hopes for a further development of Association. this Concurrently, Gen. Huang Jen Ling, Taiwan, China, and Mr. Francisco A. Medrano, Manila, The Philippines, were elected First Vice President and Second Vice President, respectively, who will contribute towards further cementing ties of closer relationships between the Pacific member ports.

As one of the Conference resolutions, it was decided to set up an Institute of Information for the collection and colligation of data on all world ports, whose management world be taken care of by the Port of Los Angeles. To discuss ways and means to realize this and other matters adopted by the Conference, the first meeting of the new Board of Directors was held, following the close of the Mexico Conference, where it was decided to appoint Executive Directors from among the Directors and Alternate Directors. They are to meet once or twice every year during the triennium, in order to

deal with the current important problems for the Association.

President Menveg's Visit to Japan

President Lloyd A. Menveg visited Japan last October, heading the Los Angeles Goodwill Mission to Nagoya City. He was accompanied by Mr. Bernard J. Caughlin, General Manager, Port of Los Angeles, Mr. Robert M. Wilkinson Secretary, Los Angeles Board of Harbor Commissioners, Mr. S. Willard Isaacs, Harbor Commissioner, and other city representatives. Their visit certainly afforded an opportunity to Japanese members for better mutual understanding and closer friendship. The Central Secretariat had a business meeting with President Menveg, Mr. Caughlin and Mr. Wilkinson on affairs relative to the Executive Directors, appointment of Standing Committees, etc.

Happened to be in Japan immediately after the worst typhoon in history which hit Nagoya, Mr. Menveg, who had witnessed the typhoon and flood devastated Nagoya port, lost no time to send out an urgent appeal to all members for help to assist this stricken member port. This quick and pertinent measure taken by him has been greatly appreciated not only in Japan but also throughout the world, as may be seen from a few examples of letters of reaction quoted elsewhere in these pages.

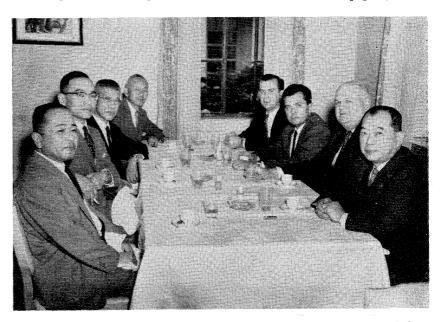
Second Vice President Medrano

It was our great pleasure that Mr. Francisco A. Medrano, Second Vice President, who was visiting Japan accompanied by Mrs. Medrano, found time to attend the 31st General Meeting of the Japan Port and Harbor Association held on October 16 in Shimizu City. His congratulatory speech delivered on behalf of our President, Mr. Manila Port Service, was much appreciated by the attending over 1,000 members of the Japanese Association and also by the Central Secretariat as adding much to the prestige of this Association.

Conference Minutes

The Minutes of the Second Triennial Conference are now in the last stage of proof reading, to be published and forwarded to each member early in January, 1960.

Further, the Central Secretariat in collaboration with the Japan Port and Harbor Association is (Continued on page 8)



A business conference took place on October 10 in the Shipping Club, Tokyo, between President Menveg and other Los Angeles Port executives and the Central Secretariat staff.

A Message of Appreciation

Ichizo Maeda General Manager, Nagoya Port Authority

(In the last issue our President, Mr. Lloyd A. Menveg, President of the Board of Harbor Commissioners, City of Los Angeles, who happened to visit Nagoya City just after the typhoon, was shocked by the seriousness of damage inflicted on the city and port, made an appeal to members of this Association and others for immediate aid to help this stricken member port. Mr. Ichizo Maeda, General Manager, Nagoya Port Authority, desires to express through these pages his heartfelt gratitude for all the sympathies and kindnesses accorded to the port by our members and others.—Ed.)

In regard to the severe damage suffered by the Port of Nagoya as a result of Typhoon Vera which, accompanied by tidal waves, swept across the entire Ise Bay district around midnight of September 26th, 1959, I hereby beg to tender my deepest sense of gratitude to all members of the International Association of Ports and Harbors, the various port and harbor authorities and shipping circles throughout the world for having promptly extended their warm tokens of sympathy toward us.

I also take pleasure in being able to state that, as a result of the joint collaboration of the various parties concerned with the Port of Nagoya, port operations were partially resumed on October 8th, and all port facilities became duly restored to their original (pretyphoon) state as from November 1st. In this connection, I cannot help but greatly regret for having put the various shippers and shipping companies to considerable inconvenience for such a lengthy period.

While assuring you all of our firm determination to make utmost use of the said bitter but precious experience in formulating adequate plans for the protection of this Port against any future typhoons and tidal waves, I wish to once more express my heartfelt thanks for the kind sympathies shown toward us from the various countries of the world.

Big Ship Enters Nagoya Port

The Greek supertanker World Harmony (33,040 tons d.w.) arrived at the Port of Nagoya on November 7 from San Francisco with 13,000 tons of heavy oil on board. The ship is the largest to enter the port since its opening. First, its entrance to the port was declined due to the depth of water and other conditions but was approved as a result of negotiations between pilots and the port authorities.

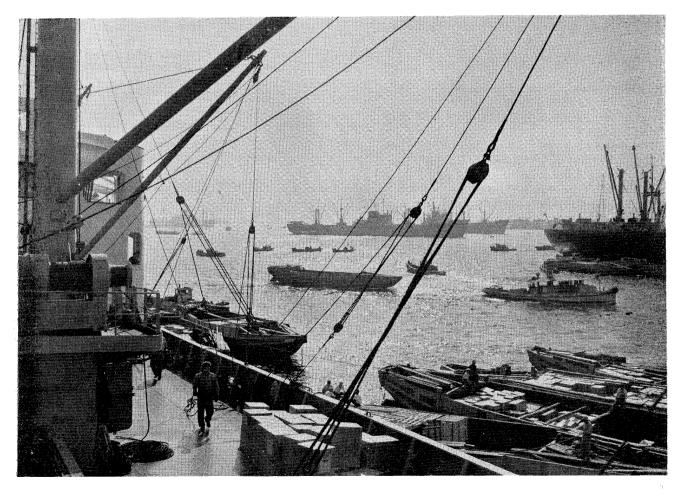


Photo shows the busy activities of the Port of Nagoya, whose facilities and operations have been completely restored to pre-typhoon state.



On the next morning of the typhoon the entire area of Nagoya harbor was found to be covered with drifting lumber and oil drums the tidal waves had washed off from the timber basin and the docks.

Rehabilitation of Typhoon-Damaged Port of Nagoya

Typhoon Vera which struck at Central Japan on September 26 inflicted considerable damage on the Port of Nagoya as well as adjacent areas. Nagoya City was placed in the maximum adverse plight due to the center of the typhoon having passed in a N.N.E. direction at a point approximately 30 kms. west of the City.

The Nagoya Meteorological Observatory registered this district's record-high figures comprising a maximum wind velocity of 45.7 meters per second and minimum atmospheric pressure of 958.5 millibars.

Furthermore, the maximum wind velocity at the Port of Nagoya registered 50 meters per second, where as that at Komaki Airport was registered at the astoundingly high mark of 60 meters per second.

Highest Tide-Level Recorded

It is also noteworthy that the unusually high tidal waves were responsible in a large measure for intensifying the degree of typhoon-damage. Precisely speaking, the tide-level in Nagoya Port as at 9.35 p.m. on September 26 reached +5.31 meters (as based on the Lowest Tide Water Level). Inasmuch as the scheduled tidelevel for the said hour was +1.70meters, this represents an abnormal high-tide of as much as 3.61 meters. Not only is the occurrence of such a high-tide unprecedented in the history of Nagoya Port, but it also constitutes the maximum high ever recorded as yet throughout Japan.

Due to the figure of +4.80

meters having been set as the standard in the construction of the various port and harbor facilities, it obviously follows that the whole of Nagoya Port was victimized by this tidal wave, which resulted in numerous instances of destruction of coastal enbankments around Nagoya Port as well as of river enbankments within Nagoya City.

Unfortunately, due to the large number of residences, factories and mercantile houses that were set up in the low-lying districts adjoining Nagoya Port-representing reclaimed land at practically sea-level-a colossal number of houses were destroyed and a heavy death-toll was caused by the sudden onrush of sea-water. Even within Nagoya City alone, approximately 12,000 houses were either wholly demolished or washed away and 2,000 persons were either killed or reported as missing.

It is also extremely regrettable that the extent of damage was increasingly aggravated by a portion of the 250,000 tons of lumber

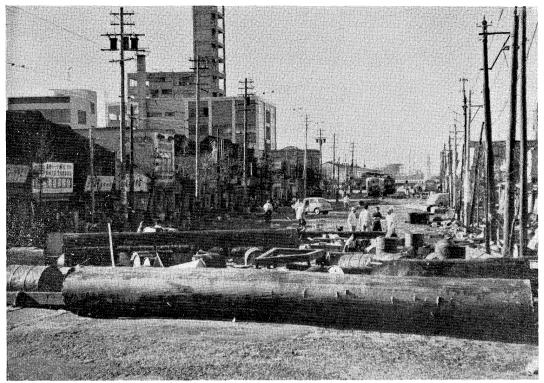


Photo shows lumber, oil drums and everything thrown up on the street near the Nagoya Port Authority building, in left background, by tidal waves.

moored within Nagoya Port at the time having drifted into the lowlying residential district due to the enbankments of the lumber ponds which were destroyed by the force of the tidal waves.

Notwithstanding the foregoing, the wharf and anchorage facilities as well as the fairway of Nagoya Port were sufficiently fortunate as not to suffer any serious damage. However, all ship navigation within the harbor was brought to a temporary standstill even after the passing of the typhoon due to the large quantity of floating lumber as well as gasoline and oil drums. Furthermore, a portion of the cargo stored within the wharf sheds and warehouses were damaged by sea-water. Moreover, there occurred a considerable falling-off in the number of available port workers due to their home having

1. Arrivals of Ocean-going Vessels

	193	59	195	8	
Month	No. of Ships	Gross Tons	No. of Ships	Gross Tons	
Aug.	331	2,101,425	261	1,626,658	
Sept.	238	1,525,120	251	1,612,654	
Oct.	165	1,091,810	270	1,680,178	
Nov.	299	2,013,000	249	1.579.624	

2. Export Cargo

	19	59	193	58
Month	Quantity (1,000 tons)	Value (¥ 1 Million)	Quantity (1,000 tons)	Value (¥ 1 Million)
Aug.	140	8,805	107	6,331
Sept.	90	5,628	98	6,108
Oct.	89	6,089	91	5,547
Nov.	90	6,818	80	4,797

3. Import Cargo

	1959		19	58
Month	Quantity (1,000 tons)	Value (¥ 1 Million)	Quantity	Value
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	• • •	(1,000 tons)	(¥1 Million)
Aug.	335	9,757	213	8,541
Sept.	192	6,915	185	6,872
Oct.	75	4,214	196	7,889
Nov.	254	8,320	215	6,921

been either destroyed or washed away. Available lighters also witnessed a marked decrease due to a large number having been washed ashore.

Quick Rehabilitation

Due to the afore-mentioned state of affairs, all port operations at Nagoya were unavoidably brought to a temporary standstill. Thereupon, the various parties connected with the Port of Nagoya promptly gathered together in order to appoint a special Rehabilitation Committee who, while holding daily meetings for discussing the necessary counter-measurers, lost no time in actively commencing rehabilitation operations.

As the initial steps for ensuring the safe navigation of vessels, the colossal number of logs as well as gasoline and oil drums floating on the water surface were salvaged, in addition to which depth soundings were taken apart from clearing the sea of all dangerous objects and obstacles. Moreover, as regards land facilities, strenuous efforts were exerted in effecting emergency repairs to the sheds and warehouses destroyed by the winds and tidal waves accompanying Typhoon Vera, as well as in grouping and assorting the damaged cargo in the warehouses so as to speedily restore the functioning of Nagoya Port.

Pre-Typhoon State Restored

The afore-mentioned efforts came to gradually bear fruit, as seen from the fact that loading and unloading operations were resumed as from October 8, and with the steady increase in the number of port workers reporting back for duty as a result of the relatively speedy rehabilitation of their dwellings, the various functions of the Port of Nagoya were fully restored to their pre-typhcon normal state as from November 1.

Having thus regained its former activity, the Port of Nagoya has again become able to satisfactorily carry out its important mission as the ocean gateway to Central Japan. The following figures will serve to show the recent arrivals of ocean-going vessels at the Port of Nagoya as well as present a general survey of export and import cargoes.

15% Cargo Increase Per Annum Predicted

Gains in foreign general cargo shipped through Los Angeles Harbor in fiscal 1959 (ended June 30) will continue and grow in volume during the coming five years at least, "possibly averaging as much as 15 per cent a year," Traffic Manager Kermit R. Sadler predicted.

Sadler, in New York to attend the annual National Foreign Trade Convention (week of Nov. 16), based his prediction on: last year's record; the upsurge in shipments in the last four months; the grow-

ing demand by the Southern California market for six major overseas commodities and the need by world markets for five major products from that area; and expanding port facilities.

Total general cargo trade between the Port of Los Angeles and world markets rose to 2,134,434 tons in fiscal '59, a gain of 10 per cent over the 1,935,822 tons of the previous year, according to Sadler.

"Imports of general cargo last year totaled 1,287,117 tons vs. 1,-078,343 tons—up 19 per cent while exports showed a slight decline—847,317 tons in fiscal '59; 857,479 tons in '58," he said.

Total foreign trade, including bulk petroleum and bunkers, was 7,761,684 tons in fiscal '59 compared to 8,179,062 tons in fiscal '58. This decline, Sadler noted, was due entirely to a drop in bulk petroleum.

Los Angeles Harbor's traffic of all types, domestic and foreign, amounted to 23,298,602 tons last year, compared to 21,859,026 tons in '58—a gain of 6.5 per cent.

On his five-year outlook for world trade through the port, Sadler cited these major commodities as leading imports—molasses, pipe, steel mill products, steel wire and manufactures, automobiles, and window and plate glass.

"Largest gains were scored by overseas exporters of steel who shipped 203,090 tons in '59, or 87 per cent more than in fiscal '58. And the gains started long before there was even talk of a steel strike." Chief suppliers of steel products were Japan (86,532 tons), Belgium (64,712 tons), Australia (24,549 tons) and United Kingdom (21,217 tons).

Makers of foreign cars in fiscal '59 rolled up a 56 per cent gain in their exports to Los Angeles Harbor—60,636 units compared with 38,869 in fiscal '58. These auto imports, by country of origin, ranked as follows: France, Germany, U.K., Italy, Sweden and Japan.

"The Far East and especially Japan comprise the chief markets for most of five top exports. One exception is borga," he said. "Last year 15 countries of Europe imported 76 per cent (31,270 tons) of the total shipments absorbed by 58 world markets.

"Shipments of industrial chemicals," he pointed out, "nealry doubled last year with 16 countries of Asia, out of a total of 63 markets, importing 61 per cent. Chief takers were the Philippines, Japan, India, Indonesia and Hong Kong, in that order."

Sadler pointed to multi-million dollar improvements—the new supertanker terminal, and projects now under construction, such as the general cargo terminal, marine grain terminal, push-button container terminal and APL passenger-cargo terminal—as further reasons for his predictions of rising world trade through Los Angeles Harbor. "But our greatest asset is the dynamic market we serve—Southern California and especially the Greater Los Angeles area."



Barges moored in the basin against the typhoon were never safe from tidal waves. They were thrown up on the shore and the street as seen in photo.

Some Responses to Our President's Appeal

In response to our President's appeal to our members to help the typhoon devastated port of Nagoya, many of them have acted to aid in many ways this stricken member port in its early rehabilitation and recovery. Some of the responses are quoted below:

October 20, 1959

Mr. Lloyd A Menveg, President, International Association of Ports and Harbors Dear Sir,

I acknowledge receipt of your letter of October 12, 1959 encouraging me and my organization to render prompt help to the stricken port of Nagoya and its suffering citizens.

I certainly devote myself to the work of extending help to those suffering people and facilities. And actually, the Kobe Chamber of Commerce and Industry is under an active campaign for the relief of sufferers by typhoon Vera, and has been accepting donation from various quarters.

I wish to thank you deeply for your lofty and benevolent movement shown to our fellow-countrymen in this unhappy disaster.

Yours very truly,

The Kobe Chamber of Commerce and Industry

Shinichi Okazaki

President

* * October 22, 1959

Mr. Lloyd A. Menveg President The International Association of Ports and Harbors Dear Sir,

We have just received with thanks your kind letter dated 12th October, 1959 in regard to the relief of the recent typhoon victims in the disaster area in Nagoya.

Kindly note that we have suffered considerable damages in our offices and warehouses, etc. in the area in and around Nagoya and our prompt arrangements for relief had been made immediately after the disaster, and we have also done our utmost to the help for the government offices concerned as well as those concerned with our company in business.

Thanking you again for your kindness,

Yours sincerely.

Suzuyo & Co., Ltd.

Y. Suzuki Vice President

" October 30, 1959

Mr. Gaku Matsumoto Chief of Central Secretariat, IAPH. Dear Sir,

I beg to acknowledge the receipt of the letter No. 77/PM, deated the Oct. 12th, from Mr. Lloyd A. Menveg, President of IAPH. I feel very sorry to learn that typhoon Vera has caused devastation and human suffering to our member Port of Nagoya and the central part of Japan. Since our Island Taiwan has suffered great disaster due to flood, typhoon and earthquake in the last three months, I feel most sympathetic to the same suffering caused in part of your country. People in our country are striving hard and making strenuous efforts in the recovery and reconstruction in those damaged areas of our Island, and so we should at the same time express our earnest wishes for your speedy recovery.

Mr. Liu Keh-Shu went to Geneva for a conference and General J. L. Huang just returned from U.S.A. They want me to write you to express jointly our hearty sympathy. We would much appreciate, if you could kindly convey our best regards and condolence to the Nagoya Port Authority & Municipality.

Yours sincely, R. S. Hsu, Director,

Keelung Harbor Bureau Taiwan, China

*

November 6, 1959

Mr. A. Landman Port Director Port of Haifa Authority Ministry of Transport State of Israel (P. O. Box 539) Dear Mr. Landman,

On behalf of the International Association of Ports and Harbors, I wish to thank you for the prompt action in contacting your relevant department for the aid to the people of Nagoya.

The gift from the State of Israel was very gratifying to me.

Best personal regards, and sincerely,

Lloyd A. Menveg President

* * *

November 6, 1959

Mr. Dudley W. Frost Executive Director Port of Oakland California Dear Dud:

-X-

On behalf of the International Association of Ports and Harbors, I wish to thank you for the prompt action you took regarding the disaster in Nagoya, Japan.

The appeal to the people of Oakland and the Bay Area was very gratifying to me.

As I understand, a great deal of help has come through the Red Cross and in other ways to the people of Nagoya and other parts of Japan, because of your part in the appeal.

> Best Personal Regards and Sincerely,

Lloyd A. Menveg President November 10, 1959

Mr. Lloyd A. Menveg President, IAPH. Dear Sir,

By your letter of October 1959, I was deeply moved with sympathy to hear of the great devastation and hardship caused to the city and people of Nagoya by typhoon Vera. We are fully aware of human suffering under such hard time. In response to this, our Government has been arranging to forward to the Japanese Government an aid in the form of a rice shipment of 100 tons which I think will reach Japan in due course.

> Yours faithfully, Prachuab Suntrangkoon Acting Deputy Director (Opn.)

Port Authority of Thailand

From Central Secretariat (Continued from Page 3)

now working on a revised edition of "Principal Ports in Japan" published in 1952. This publication is expected to be out of press about March next year.

Visitors

Besides those people mentioned elsewhere in these pages, the visitors from our member ports to the Central Secretariat during the past three months were: *Mr. John P. Davis*, Commissioner, the Port of Long Beach, on September 22; *Mr. Nat Levy*, Vice President, Board of Port Commissioners, Port of Oakland, on October 20; and Mr. and *Mrs. L.D. Hotchkiss*, Harbir Commissioner, the Port of Los Angeles, on November 7.

Chief of the Secretariat, Etc. Honored

On the Culture Day or November 3, Mr. Gaku Matsumoto, Chief of the Central Secretariat and some other Japanese members of this Association were honored by the Government for their meritorious services in the nation's communications and transportation development. Mr. Matsumoto was granted the Purple Riband and Dr. Shigeru Mamejima, Director of the Japan Port and Harbor Association, the Communications Culture Modal. He attended the Triennial Conference in Mexico City this year. Other recipients of the Purple Riband were: Mr. Masayasu Takeda, President, Japan Warehouse Association, and Dr. Saburo Okabe, President, Japan Reclamation Association.

Export Cargo Containers Made in Japan

Ten export cargo containers ordered by Kawasaki Steamship Co. from Nippon Rolling Stock Co., Nagoya were recently completed. The containers, each of which cost \$170,000, were used to pack chinaware for the United States. The company's liner Montana Maru which arrived at the Port of Nagoya on November 28 was loaded with the containers and left for the United States. This is the second time containers were used for packing export chinaware.

Big Wharf to be Constructed in Kobe

Attended by all concerned, a ceremony was held in October 20 at Pier No. 8 in the port of Kobe for commencing the construction of the Maya Wharf, largest in Japan to handle export goods only. The wharf will be able to accommodate sixteen 20,000/30,000-ton ships at the same time and to handle 3,000,000 tons of cargo a year.

* * * Gulf Service to be Separated

With the approval of the fivemember cargo-liner group serving the Gulf ports route, Kawasaki Steamship Company has decided to separate its Gulf service from the Japan-Latin America Eastbound service. The Daian Maru (9,895 tons d.w.) scheduled to sail from Japan in December will be the first to run the new route. The separation of the Gulf service will

Mr. Lloyd A. Menveg President, IAPH. Dear Sir,

Through your letter of October 12, I learnt with deepest sympathy the great devastation and human suffering caused to the city and people of Nagoya by typhoon Vera as well as your request for any aid that could be given by us.

I would inform that our Government has been arranging to forward to Japan an aid in the form of a rice shipment of 100 tons which will reach Japan in no time.

We remain, dear sir,

Yours faithfully, Kamol Bahalayodhin Director Port Authority of Thailand

result in the reduction of sailing days by about a week.

World Largest Marine Diesel

Iino-Sulzer-12RD76 type The diesel engine now being built at Maizuru shipyard of Iino Heavy Industries, Ltd. as propelling machinery for the Tanker Kakuho Maru (47,300 tons d.w.) built under the 14th official shipbuilding program for Iino Line has been completed and its trial operation was shown to the public on November 10 at the internal combustion engine works of the vard. The engine capable of developing 16,-000 b.h.p. is the largest ever built in the world.

More U.S.-Bound Liners Call Moji

Calls of U.S.-bound liners at Moji Port have been rapidly increasing since the abrogation of surcharge there in September. According to the Kanmon Marine Carriers' Association, 36 vessels (16 Japanese and 20 foreign) are scheduled to visit the port in November. Classified by services, vessels bound for U.S. Atlantic coast ports number 14, (8 Japanese and 6 foreign), those for Gulf ports 7 (4 Japanese and 3 foreign), those for Pacific Coast ports such as San Francisco and Los Angeles 9 (1 Japanese and 8 foreign) and those for Northern Pacific Coast ports such as Seattle and Vancouver 6 (3 Japanese and 3 foreign).

THE ST. LAWRENCE SEAWAY AND ITS ECONOMIC PROSPECTS

B. J. Roberts, C.E.B.

President, St. Lawrence Seaway

(The following article dealing with the important problem relative to the St. Lawrence Seaway is the text of a speech he delivered in October, 1958, prior to its opening to world shipping.—Ed.)

Looking backward we can survev the physical results of over three years intensive work on the construction of the vast navigational and hydro-electric installations that comprise the Seaway project. For we are fast reaching the point of completion on all aspects of the project so that with the opening of navigation on the St. Lawrence in the spring of 1959, the Seaway will be a going concern Partial completion has been achieved on many separate phases of the project: electric power is already being generated at the Barnhart Power Dam: the vast changes resulting from the power development have largely been carried through. Where the old narrow river channel with the spectacular Long Sault Rapids lav. there is now the new Lake St. Lawrence, a man-made addition to the great chain of lakes on the St. Lawrence system. On the shores of the new lake are new towns relocated from the old river bank. Beneath the waters of the new lake lie also some of the historic canals that have carried the river commerce for more than a hundred years. At the western head of the Lake stands the Iroquois Control Dam, a United States work, and parallel with it the new Iroquois lock, the first of seven such on the Seaway, a Canadian undertaking, these two standing side by side as a reminder of the close and harmonious relationship between the two countries in the building of this project. Toward the lower end of the Lake, bypassing the Power Dam on the United States side, are the Eisenhower lock, the Wiley-Dondero Ship Channel and the Snell lock, which are today in full operation and through which all St. Lawrence traffic is now passing. Further down in the Montreal area, the remaining four Canadian locks and their accompanying channels, bridges and tunnels are to be ready for traffic at the open-

ing date of navigation next spring.

Looking forward, on the other hand, we can contemplate the future of the Seaway as an economic undertaking. For in this coming winter the Seaway reaches a point of suspended animation, so to speak. The work will be completed but for some finishing touches, but the actual use must await the spring. The clock has been put together and wound up, but it won't start to tick for some months.

You have asked me to touch upon the economic aspects of the Seaway as it may affect certain Recently the following areas. quotation in reference to St. Lawrence canals came to my notice: "The objects in view were the cheapening of transportation, the diversion to the St. Lawrence route of the products of the great west, the building up of our own ocean ports, and the encouragement of the Canadian carrying trade coupled with the employment of Canadian seamen."

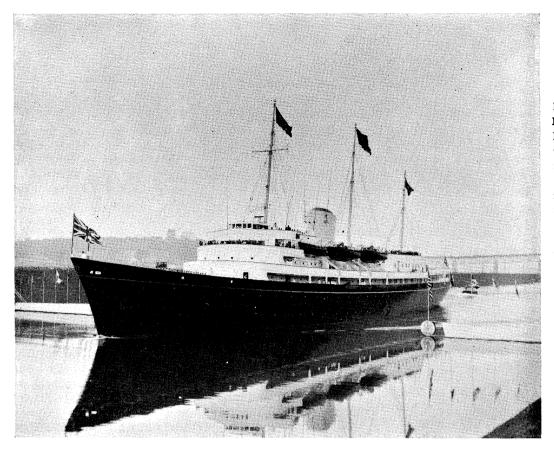
This was said in 1898 by Mr. D. R. Wilkie, then President of the Imperial Bank and of the Canadian Bankers Association, in relation to the provision of 14foot navigation around the turn of the century. Fundamentally, the objective today is similar-to improve the means and reduce the cost of transportation by water. The Seaway will do this, not only by accommodating deeper draft vessels, but by speeding up transit through the use of 7 modern locks in place of 22 out-moded locks. Even now, with only 3 of the new Seaway locks in service, the transit time for 14-foot navigation shows a reduction of from 12 to 18 hours.

I should like to begin by referring to the matter of tolls and toll policy on the Seaway, for this particular aspect has been receiving close attention in recent months since the announcement of the proposed toll rates by the two

Seaway organizations. In recommending tolls for the Seaway, the United States and respective Canadian Seaway organizations are of course merely fulfilling the explicit instructions given them in the Seaway legislation passed by the United States Congress and the Canadian Parliament. Given the requirement to charge tolls. every effort was made to trace the probable impact of various types of tolls on Seaway traffic and financial position.

Early in these studies it became apparent that the peculiar conditions of commercial operations on the Seaway to the extent that these could be visualized would make it imperative that the toll structure be specially tailored to fit those conditions. The Seaway is not in a monopoly position for there are many routes that will actively compete for its traffic. Furthermore, the Seaway's position is like that of a merchant who must regard every customer as a repeat customer. Every vessel moving up the Seaway will sooner or later be returning by the same route. This means that the toll impact will be felt over movements in both directions, and the level of tolls must be such that would induce ships to use the Seaway, even though it might mean a light return trip.

The toll committees have proposed a composite toll, consisting of a relatively small charge based on the gross registered tonnage of the vessel, plus a charge based on the cargo carried. Preliminary hearings were held in both countries in which interested parties were asked to give their views of such a toll principle. From the concensus of views thus obtained, we were satisfied of the soundness of this toll principle for application to Seaway traffic, and subsequently the proposed toll rates themselves were made public. Again hearings were held on these rates both in Washington and Ottawa. One could hardly expect unanimity to result from the widely-different interests of the parties concerned, but I think some satisfaction may be taken from the fact that the calculations of prospective traffic in relation to financial requirements produced a toll level somewhat midway between the anticipation of pro-



Pictured here is Her Majesty's Yacht sailing Britannia through the ceremonial gates marking the official opening of the St. Lawrence Seaway. The action took place June 26, 1959, on the seaway channel distance а short downstream of the St. Lambert Lock, the most easterly of the seven new seaway locks, which is located near Montreal.

ponents and the views of certain others. There have been demands for the scrapping of the toll principle altogether. This, as I have said, is not a responsibility of either Seaway entity.

I suppose it is no more a coincidence that the demand for higher tolls seem to have come for the most part from Seaway opponents or competitors, than it is that the demand for no tolls has come from prospective Seaway users. With that, one can have no quarrel, for it serves as a reminder to those who advocate a free waterway that there are other interests that cannot be summarily dismissed as of no consequence. In such a situation a judicial view must be taken of the opposing interests. If tolls cannot be lowered without regard to the consequences, neither can they be so raised. A toll level that is based on simple mathematical calculations and does not take into account the essential requirements for developing traffic on the Seaway in the longer run would be highly unrealistic.

The proposed tolls are as follows:

On the St. Lawrence canals— Montreal to Lake Ontario—on bulk traffic (as defined, 40 cents per ton of cargo plus 4 cents per gross registered ton of the vessels; for other traffic, 90 cents per ton and 4 cents per ton respectively.

On the Welland Canal, the suggested bulk traffic toll is 2 cents per ton of cargo, plus 2 cents per gross registered ton of the vessel; for other traffic, 5 cents per cargo ton and 2 cents per gross registered ton.

The tolls are, of course, subject to final determination by the Governments concerned.

Protests have been made against any toll on the Welland canal, on the ground that it represents a departure from long standing policy. will affect established industry, and could possibly give rise to retaliatory measures in respect of other channels and locks in the Great Lakes region. The toll is admittedly small, designed to cover the operating cost of the canal, and debt charges on the current expenditure of \$29,000,000 for deepening, with no regard for the original expenditure of \$132,000,-000 incurred by Canada for its While the objecconstruction. tions relate to the comparatively low toll presently required, the implication for the future is not overlooked, many being of the view that before long it will be necessary to make a further large expenditure to completely twin the Welland locks.

The traffic through the new Seaway facilities is expected to be of the same general character as that which has been passing through the old St. Lawrence canals and the Welland canal. It is estimated that 10 to 12 per cent will be general cargo and the balance bulk cargo, largely made up of iron ore, grain, coal, petroleum products and forest products.

It has been estimated that on the opening of the new Seaway facilities, the cargo tonnage will be some 25.000,000 tons a year. or about double that now passing through the old St. Lawrence canals, the increase being primaridue to anticipated greater ly volumes of iron ore and grain, including U.S. grain, and other bulk products. Subsequent increases in traffic are expected to bring the total to 50,000,000 tons a year by the end of a 10-year period. Similarly, for the Welland canal, the traffic is expected to rise from the current 23,000,000 tons yearly to 40,000,000 tons with the opening of the Seaway, and reach its maximum capacity of 60,000,000 tons after 10 years.

The new deeper channels with

fewer but larger locks will provide a basis for the further growth and development of the St. Lawrence and Great Lakes hinterland. The major ports of Canada and the United States are investing many millions of dollars in development of water approaches and port facilities to accommodate larger vessels in domestic and foreign trade.

The grain trade of Canada and the United States will undergo revolutionary changes in the longestablished marketing pattern. Nearly all vessels now being built for the bulk trades are of the laker variety, up to 700 feet long, and some smaller vessels are being lengthened to increase their carrying capacity. The former transfer of export grain from large "upper lakers" to small 250-foot "canallers" at such points as Prescott and Port Colborne will, in the main, be a thing of the past with the opening of the Seaway. Most of these small canallers are quite old and will not be able to compete in the grain trade with the new 700-foot vessels with their attendant economies. Most of them will either be scrapped or transferred to other trades. Under the old system it required 7 canallers operating between Prescott and Montreal to keep pace with one large vessel bringing grain from the Lakehead to Prescott. Now with the increased capacity of the Seaway, the same large vessel will be able to carry grain all the way through to Montreal, or even farther down the Lower St. Lawrence.

The question in everyone's mind of course is ',What will the rate be?" Wheat has been moving for quite some time now at 16.0 cents per bushel between Lakehead and Montreal, the maximum rate allowed by the Board of Grain Commissioners. Tolls will amount to something over 1 cent per bushel, varying with the size of vessel and cargo, but despite the tolls substantial rate reductions are expected.

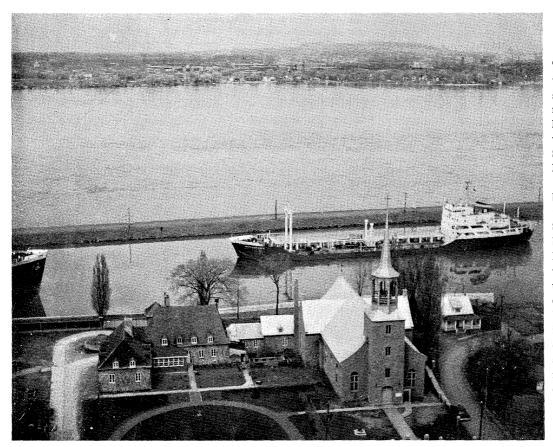
Another question of vital interest is that of the trans-shipment from laker to ocean vessels. Where will it take place? In the past the predominant movement has been by water to Montreal and other St. Lawrence River ports, either direct or by trans-shipment above the St. Lawrence canals. The grain delivered to the Georgian Bay ports in the Fall of the year has moved in the past through the winter months to Saint John and Halifax, and this movement will no doubt continue. It is expected that water trans-shipment in the Lakes area will be greatly reduced or eliminated. Such elevators as that at Port Colborne could continue to supply grain to ore vessels returning to Seven Islands, but this would require the absorption of the additional costs. Recently a United States grain company announced its intention to establish a grain elevator at Baie Comeau on the Lower St. Lawrence 225 miles below Quebec City. This facility is expected to attract a considerable volume of new traffic in United States grain. It will in addition be required to handle Canadian grain, and in view of its location near to ocean shipping lanes may contribute to alteration of the Canadian grain movement.

The Royal Commission on Coasting Trade was required to report on the probable effects of the development of the St. Lawrence Seaway on the coasting trade of Canada. The factors which may influence changes in the movement of export grain are succinctly reviewed in a summary which reads as follows:

"The conclusions...are subject to the reservation that it may take some time before new traffic patterns become established with any degree of stability. Thus there may be an initial period of uncertainty as to whether additional transfer facilities are required and at what locations it would be most appropriate to expand. This may be of particular importance in that a development of congestion at transfer ports may prevent realization of maximum economy in the transport of grain. Other uncertainties that can be resolved only with experience are the most efficient patterns of two-way cargo movements of ore and wheat, ore and coal, and other combinations, and the schedules of freight rates per ton of these cargoes which will emerge. Experience alone can answer such further questions as

the time taken for a lakes voyage by an itinerant ocean vessel, and the role and effectiveness of unscheduled tramps in the ore movement. With these reservations the following conclusions emerge:

- (1) General cargo liners may be expected to compete effectively for export cargoes of grain. However, they may complement more than they compete with the inland bulk carriers, in that a considerable volume of inland grain movement may be required to meet liner demands at terminal ports or ports of call.
- (2) Ocean tramps entering the Lakes with inbound cargo will be in a position to quote comparatively low rates for overseas grain shipments, but will not necessarily be in a better competitive position than the cargo liners, whether the latter take on grain at Chicago or Montreal or another transfer port. Tramps with this advantage may be comparatively few in number, aside from the possibility of carrying iron ore from Sept-Iles to lake ports.
- (3) If a tramp vessel can secure an ore cargo at Sept-Iles without incurring undue delay there or at the unloading port, whether the ore cargo is loaded on entering the Gulf of St. Lawrence in ballast or after discharge of other cargo at a St. Lawrence port, it will be in a strong competitive position to quote a comparatively low rate for moving grain from the Lakehead directly overseas, as compared with grain shipped via a transfer Whether this advanport. tage will materialize in fact, and for how many vessels per season, will depend on experience with spot cargoes of ore. If the experience proves favourable, tramp competition on this basis can be expected except at times when ocean rates are high enough to make other employment even more profitable.
- (4) Tramp vessels not carrying iron ore or other cargo into



This picture shows two vessels in the channel seawav near the Indian village of Caughnawaga, on the South Shore of the St. Lawrence river opposite Montreal (in background). In foreground is Fort St. Louis which was built in 1725 by the French for the protection of the christian Iroquois Indians. The small building at the left the original is church. At right is a new church built near the turn of the century.

the Lakes would be most likely to load at the most convenient transfer port at which the required cargo could be had. For example, if the vessel became available on discharge of other cargo at or near Montreal it would likely load grain there or at Sorel, or if the vessel were to be brought into the St. Lawrence in ballast it would likely load at Quebec or Trois-Rivieres.

On the whole, the inland fleet (which may include other vessels as well as Canadian lakers may expect to carry not only all the domestic grain movement but also considerable quantities of export grain to be transferred to liners and other ocean vessels at various transfer ports, although direct overseas shipments may be keenly competitive, and there may be a considerable variation from season to season in the proportion of exports that are handled at the transfer ports as compared with the proportion shipped directly overseas.'

Whatever the pattern of movement, a large increase in the volume of grain carried by the Seaway can be expected. The route has always been favourable to the movement of United States grain, but restricted in recent years through the use of the existing elevator facilities for the storage of Canadian grain. With improved and increased facilities at St. Lawrence River ports, as well as possibilities for direct shipments from the lakes to overseas destinations, the current volume of $3\frac{1}{2}$ million tons a year on the old canals may be more than doubled.

The canal movement of iron ore from Seven Islands to Lake Erie was 2.2 million tons in 1957. In the past several years this traffic has come as far as Contrecouer, just below Montreal in ocean-size vessels, and has been carried upstream to Lake Erie in "canallers." On the Seaway, large 700foot vessels will be able to effect the movement from Seven Islands or the new operations at Shelter Bay, to Lake Ontario or Lake Erie without trans-shipment.

A sustained demand for iron ore holds prospects for greatly increased tonnages of this product through the Seaway, although it must be recognized that other routes for the transportation of Quebec-Labrador iron ore to certain interior sections of the United States will be competitive with the Seaway. Representatives of the Iron Ore Company of Canada have stated that, with respect to their 1957 shipments, and had the Seaway been in operation, 47 per cent would definitively have taken the ocean route to East Coast ports and foreign steel mills, and 53 per cent would have been Seaway potential. The proportion of this latter figure which would actually go via the Seaway would depend upon competitive transportation charges, including tolls.

Other bulk cargo should enjoy advantages from the new waterway, and with a general growth of industry this traffic should expand appreciably. Domestic package freight has moved on the lakes above Prescott quite economically in recent years in vessels too large for the old canals. In the years ahead, with the introduction of new efficient vessels, this traffic should show an appreciable growth also.

Forward strides are expected in the general cargo trade, that is, import and export package freight traffic with overseas countries. This movement has grown steadily during the past ten years to about 800,000 tons in 1957. Various shipping services to both U.S. and Canadian lake ports have been established in anticipation of the opening of the Seaway when larger vessels can be used. Further developments in this field will be watched with closest interest, as it involves an area of keen competition with other transportation agencies, bringing into play such factors as regularity of services, adequate and efficient port terminals and the extent to which land transportation systems are prepared to go to meet water competition.

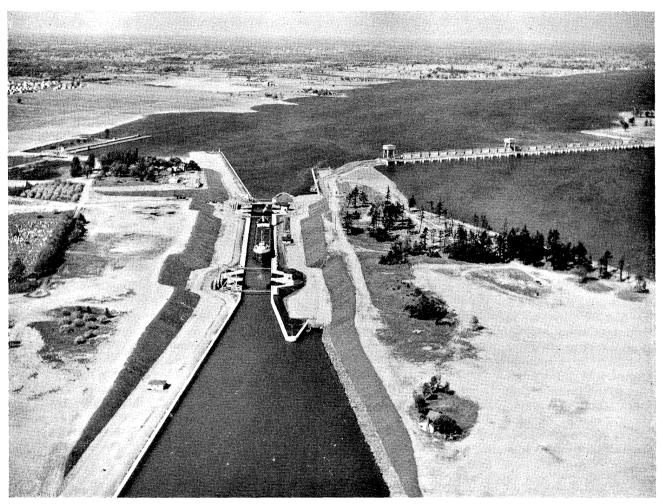
Not all Great Lakes ports will enjoy the full advantage of the new Seaway depths. Many do not have harbour depths, port facilities nor traffic to attract the large vessels. The major inland ports of Canada and the United States are proceeding with programs which will enable them to serve foreign trade. Fort William and Port Arthur are organizing a joint Harbour Commission designed to produce a co-ordinated development of the port area as a gateway to the West. Sarnia, the great petrochemical center on the St. Clair River, and Windsor, with all its automotive industry, are likewise contemplating improvements.

The Harbour Commission of Hamilton is launching a major reconstruction program to accommodate overseas trade. Coal and iron ore moving on the lakes have been the biggest items in the past, but general freight traffic is expanding.

Development of a full 27-foot harbour is proceeding at Toronto. Dredging alone will probably cost \$7.5 million. A long range development program has been drawn up.

Below the Seaway, work is well advanced now on Montreal Harbour's \$60 million improvement program. New berths with a depth of 35 feet are expected to be completed by the summer of 1959; grain elevator capacity will be increased to nearly 22 million bushels.

The Seaway has been developed to meet the needs of the rapidly expanding industry and trade of the interior of Canada and the United States. All signs point to its exploitation to the full. This does not mean that its potentialities will be realized as soon as some may expect, or that relatively small harbours on the lakes will rapidly blossom into great ports. It has been said that the Seaway has been "oversold." Time will give the answer and without doubt justify the vision which has finally brought about this great international undertaking.



Here at Iroquois, Ontario, is the Iroquois Lock, the most westerly of seven new locks built for the St. Lawrence Seaway. The Iroquois Lock, alike all Seaway locks, has a length of 768 feet, a width of 80 feet and 30 feet of water over the sills. Lift of the lock is from 2 to 6 feet. It was the first major completed structure of the Seaway. Canada has built five of the seven new locks and the United States has built two. This lock provides access between the power pool or Lake St. Lawrence, at top, and the Thousand Islands Section of the St. Lawrence River, at bottom, leading upstream to Lake Ontario. On the right is the Iroquois Dam which controls the level of Lake Ontario.

Background of the St. Lawrence Seaway and Power Projects

A 400 year old dream was realized when, in April of 1959, ships began using the St. Lawrence Seaway.

The St. Lawrence Seaway in its broadest sense is a deep waterway extending some 2300 miles from the Atlantic Ocean to the head of the Great Lakes at the heart of North America; strictly speaking, however, within the meaning of the legislation which permitted construction to get underway, the St. Lawrence Seaway extends from Montreal Harbour to Lake Erie and includes the Welland Ship Canal.

In the early part of the sixteenth thecentury French explorer, Jacques Cartier, was turned back by the rushing waters of the Lachine Rapids just west of what is now Montreal and was thereby forced to abandon his dream of finding the Northwest Passage and the route to the rich and glamorous East. At various times during the intervening 300-odd years, canals have been dug and locks built around the natural barriers to navigation in the St. Lawrence River and in the waters connecting the Great Lakes. This activity was spurred on by the desire to make use of the economical water route which the waters of the Great Lakes Basin offered for the transportation of goods in and out of this important area of the continent. The first such canals were built in 1783 but were only two feet deep. By 1850, 9 foot canals had been completed in Canada right through to the Upper Lakes. By 1900, 14 feet was the regulating depth in these canals, although certain of them-Sault Ste. Marie, for example—were deeper. In 1932 Canada completed the Welland Ship Canal, 27 miles in length with a governing depth of 25 feet in some reaches. This canal and its eight locks overcomes the differences in level of 326 feet between Lake Ontario and Lake Erie. Its construction may be considered as the first and a decisive step in the construction of the present St. Lawrence Seaway.

The needs of commerce pointed to the desirability of providing even greater depths in the St.

Lawrence Canals, its locks, and the connecting channels, and by 1959, as a result of the joint efforts of the Canadian St. Lawrence Seaway Authority and the United States Saint Lawrence Seaway Development Corporation. 27 foot depths were available from Montreal to Lake Erie. The improvements to the Welland Ship Canal between Lake Ontario and Lake Erie around the barrier of the Niagara Falls have been the sole responsibility of the St. Lawrence Seaway Authority. Deepening the channels above Lake Erie to seaway standards is proceeding apace, and by 1963, 27 foot depths will be available into the Upper Lakes.

Concurrently with this development, the Hydro Electric Power Commission of Ontario (HEPCO) and the Power Authority of the State of New York (PASNY) have completed works in the International Rapids Seticon of the St. Lawrence River to convert into electricity the energy that once itselfexpended by tumbling through the Rapids west of Cornwall. When all turbines have been installed and are in production at the Barnhart-Cornwall generating plants, these works will be producing 840,000 kw in each country.

Historical Background

Negotiations between Canada and the United States aimed at developing these twin resources of the St. Lawrence River and the Great Lakes for the benefit of both countries began towards the end of the last century, although, as has been shown, piecemeal development of navigation by Canada in the Great Lakes Basin started centuries ago. Power was first developed at Niagara at the turn of the century. In 1912, the Canadian Government decided to improve the Welland Canal to provide 27 foot depths with locks 800 feet long and 80 feet wide. Work began in 1913, was suspended during the first World War, and was finally completed at a cost of approximately \$143 million in 1932. In the same year, Canada and the United States signed the St. Lawrence Deep Waterway Treaty

which was to provide for the joint development of the resources in the Great Lakes Basin in the interests of both navigation and power. In 1934, this Treaty was rejected by the United States Senate.

After further studies, and urged on by the power needs created by war production, Canada and the United States signed the Great Lakes-St. Lawrence Basin Agreement in 1941 with the same object in view. This Agreement, which like its predecessor was submitted to the United States Senate for approval, remained unratified by 1949.

The 1941 Agreement was intended, amongst other things, to permit the development, as a joint project, of the power resources available at Niagara Falls, where, over the falls alone, 160 feet of drop is available for the production of power. Since there was little prospect by 1949 that the Agreement would be approved, a separate treaty was signed and ratified in 1950 setting forth the principles under which the water in the Niagara River could be turned into power by Canada and the United States.

At more or less the same time the Canadian Government let it be known that Canada was prepared to proceed with an "all-Canadian" seaway as far west as Lake Erie, once the means had been found to have the power works constructed concurrently in the International Rapids Section of the St. Lawrence River. Bv December of 1951 the St. Lawrence Seaway Authority Act and the International Rapids Power Development Act were approved by the Canadian Parliament, the first authorizing the construction of navigation works on the Canadian side of the river from Montreal to Lake Ontario as well as in the Welland Ship Canal, the second authorizing the Hydro Electric Power Commission of Ontario (HEPCO) to join a United States power generating entity in constructing the necessary power works in the International Rapids Section of the St. Lawrence River.

In 1952, in order to get the power project underway, the Canadian and United States Governments submitted joint applications for the approval of the International Joint Commission to the proposed power development, on the understanding that the Canadian Government would undertake to construct, more or less concurrently, and to operate all the works necessary to insure uninterrupted 27 foot navigation between Montreal and Lake Erie. Approval of this proposal was given by the International Joint Commission in an Order of Approval dated October 29, 1952.

In 1953, the U.S. Federal Power Commission granted a 50-year license to the Power Authority of the State of New York (PASNY) for the development of the United States half of this power project. Because the Order granting this license to PASNY was contested in U.S. courts, it was not until June of 1954 that PASNY had clear authority to join HEPCO in making a start on these works.

In the meantime, however, the United States Congress had enacted the Wiley-Dondero Bill (P.L. 83-358) which authorized and directed the Saint Lawrence Seaway Development Corporation to construct, on United States territory, all the 27 foot navigation facilities required to get shipping around the navigational barriers in the International Rapids Section. The situation thereby created required close consultation between the Canadian and the United States Governments in order to avoid a duplication of locks and canals. The number of compromises and accommodations were eventually worked out and embodied in a series of exchanges of Notes according to which the United States agreed to build a canal and two locks on United States territory to by-pass the Barnhart-Cornwall generating dam at the foot of the Long Sault Rapids and, in addition to do some essential dredging elsewhere, while Canada agreed to build a lock and canal around the Iroquois Control Dam some 30 miles upstream and, in addition, to complete to a common standard all the necessary navigation facilities in Canadian territory, i.e. between Montreal and Cornwall and in the Welland Ship Canal. The estimated cost to the United States of these works was of the order of \$100 million while the estimated cost to Canada was to amount to about \$200 million.

The first sod on the St. Law-

rence Power Project was turned on August 10, 1954. Work on the Seaway began in September of 1954. As already stated, all the works are to be ready for more or less full scale operation by June of 1959.

Description of Navigation Facilities

Some idea of the magnitude of the work undertaken can be obtained by taking an imaginary voyage on a ship west-bound from Montreal.

(a) St, Lambert Lock:

More or less opposite the pool of Montreal harbour can be seen the protecting dyke of the channel giving access to the Seaway. This channel begins just east of the Jacques Cartier Bridge, passes beneath the bridge and extends for three miles before reaching the first lock of the Seaway, the *St. Lambert Lock*, at the southern end of the Victoria Bridge. (At Victoria Bridge are lift spans and a system of rail and road traffic diversion.)

The St. Lambert Lock will lift the ship some 15 feet from the level of Montreal harbour to the level of Laprairie Basin through



The St. Lambert Lock, the most eastof the seven erly Seaway locks. new Alike the other six locks, this one is 80 768 feet long, wide with 30 feet feet of water above sills. the Ships Seaway enter the short distance а downstream of the Jacques Cartier Bridge seen in background. In middleground are the two vertical lift spans of Victoria Bridge the which, through alternate use, provide uninterrupted traffic on the bridge while a ship is in the lock. Also in background is a portion of the 20-mile long channel which extends from the entrance the in Montreal harbour to Lake St. Louis, up-This chanstream. nel has a minimum width of 200 feet. Lift of the lock is 15 feet.

which the ship channel sweeps in a great arc $8\frac{1}{2}$ miles long between its protecting embankments to the second lock.

(b) Cote Ste. Catherine Lock

The Cote Ste. Catherine Lock, like the other six new seaway locks and the seven lift locks on the Welland Ship Canal, has been built to the following standard dimensions:

length	768 feet
length between stop	
signs in lock	715 feet
width	80 feet
depth over sills	30 feet

This lock, which will require 24 million gallons of water to fill, can be filled or emptied in less than ten minutes. It will lift ships from the level of Laprairie Basin through 30 feet to the level of Lake St. Louis.

The function of this lock is to by-pass the Lachine Rapids. Beyond it, the channel runs $7\frac{1}{2}$ miles before reaching Lake St. Louis.

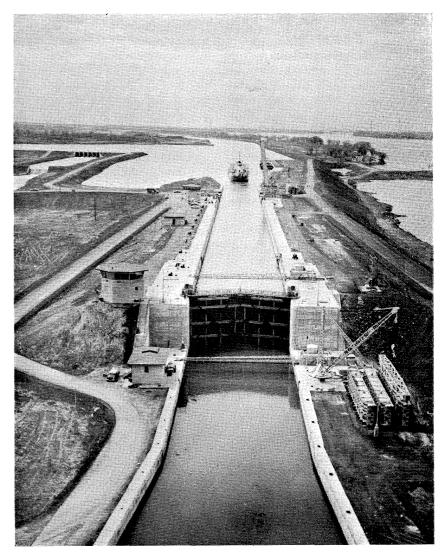
Over this channel at one point tower the piers which give Honore Mercier highway bridge 120 feet of clearance for ships. Further upstream the Canadian Pacific Railway bridge has had two lift spans installed to allow for the passage of ships. These lift spans can be raised or lowered in a minute and a half.

(c) Lake St. Louis & the Beauharnois Locks

Entering Lake St. Louis the ship will proceed some 12 miles by dredged channels before reaching the *Lower Beauharnois Lock* at the west end of the Lake.

The minimum width of St. Lawrence Seaway channels is 200 feet when provided with two embankments, 300 feet when there is only one embankment, and 450 feet in the open reaches. The depth in canals and channels is 27 feet.

The Lower Beauharnois Lock by-passing the Beauharnois Power House lifts the ship 41 feet so that it may pass through a short canal to the *Upper Beauharnois Lock*, where it is again lifted 41 feet so as to reach the level of Lake St. Francis; after some 13 miles in the Beauharnois Canal, the ship enters Lake St. Francis. It sails westward for some 30 miles by dredged channels to the head of the lake.



Pictured here is the Cote Ste. Catherine Lock, one of two locks in the Montreal area of the Seaway. It is built overland to by-pass the Lachino Rapids (out of sight on the right) long considered the natural barrier to navigation on the St. Lawrence River. Lift of this lock is some 30 feet. Although some 20,000,000 gallons of water are required to fill the lock, this is done in less than 10 minutes.

All locks and channels to this point have been built by Canal's St. Lawrence Seaway Authority.

(d) United States Locks:

The ship canal leaves Lake St. Francis at the southwest corner and before long crosses the International Boundary just opposite St. Regis, Quebec. From here to the first lock on the United States side is only five miles. Entering the Snell Lock, the ship is lifted 45 feet into the Wiley-Dondero Canal (10 miles long) and is then lifted another 38 feet by the Eisenhower Lock into Lake St. Lawrence, the power pool on which HEPCO and PASNY will draw for the water used in the turbines at Barnhart Island-Cornwall Power House Dam, just a mile to the north. The ship canal through Lake St. Lawrence passes where

rapids once tossed the water into an angry foam.

(e) Iroquois Lock:

At the western end of Lake St. Lawrence, the Seaway Authority of Canada has built a lock to allow ships to by-pass the Iroquois Control Dam. Once in the water of the St. Lawrence west of Iroquois, the ship channel meanders through the Thousand Islands past Prescott, Brockville and on to Kingston on Lake Ontario.

(f) Welland Ship Canal:

From Port Weller on Lake Ontario to Port Colborne on Lake Erie is 27 miles. Through a series of eight locks (three of them twin locks allowing passage of ships in both directions simultaneously) the ship is raised through 326 feet to the level of Lake Erie.

The Economy of the Seaway

By most recent figures, new work on the Seaway proper from Montreal to Lake Erie will cost Canada about \$330 million; work in the International reaches of the River will cost United States \$128 million. (The two power entities will have spent \$600 million in developing the power at Barnhart, \$300 million by HEPCO and \$300 million by PASNY. These sums, which have been raised by floating bonds and by other types of borrowing, will be financed out of revenues realized from the sale of power).

To finance the navigation projects, tolls are to be charged. Costs of construction, operation and caintenance are to be recovered

in fifty years. The toll levies have been carefully worked out on econemic forecasts of expected traffic, with an eye always to competitive carriers-rail and road-and on the assumption that the use of the new facilities will increase progressively from a first year total of 25 million tons to a maximum of 50 million tons in ten years. On this basis the tolls will be charged as follows:

SUMMARY

Thus the aspirations of many generations of traders, explorers, businessmen and politicians are at last about to be realized. It has been calculated that about 80 per cent of the merchant shipping of the world could use the improved facilities of the St. Lawrence Seaway; when all the inter-connecting

SCHEDULE

		I		Tolls Lake Ontario to or from Lake Erie (Welland Canal)	Complete Transit Total
1.		transit of the Seaway, a con ite toll, comprising—	\$ n-	\$	\$
2	(1)	a charge per gross registered ton, according to national re- gistry of the vessel, applicab whether the vessel is wholl or partially laden, or is in ballast	e- le ly in	.02	.06
	(2)	a charge per ton of cargo, a certified on ships' manifest of other dccument, as follows: 	or 40	.02 .05	.42 .95
	(3)	a charge per passenger	3.50	4.00	7.50
	(4)	minimum charges, subject the provisions of sub-iten (1), (2) and (3) above: — pleasure craft — other vessels	ns 14.00	16.00	30.00
		- other vessels	28.00	32.00	60.00

2. For partial transit of the Seaway:-

- (1) Between Mcntreal and Lake Ontaric, in either direction, 15 per cent per lock of the applicable toll;
- Between Lake Ontario and Lake Erie, in either direction, (Welland (2)Canal), 50 per cent of the applicable toll; no toll to be assessed unless at least one lock is transited, or with respect to Lock 1 of the Third Canal at Port Dalhousie, Ontario.
- (3)Minimum charges: - pleasure craft, \$2.00 per vessel per lock transited; - other vessels, \$4.00 per vessel per each lock transited.

channels have been completed, the industrialized heartland that has been developed along the fringes of the Great Lakes will be accessible to most of the merchantmen that trade upon the high seas.

Quite aside from the material advantages which the Seaway will bring, it would be a mistake to overlook the establishment of the co-operative working arrangements that have been developed in the course of the construction of these mighty works between Canada and her neighbour, the United States. Nothing could be more fitting than that these joint facilities should be opened ceremonially by her Majesty the Queen and by President Eisenhower in June of 1959.

(reprint of Reference Paper #40 -Information Division, Department of External Affairs, Ottawa)

lino to Add Boston to Calling Ports

Lino Line announced that its liners on the New York run would call at Boston regularly from Of nine Japanese November. operators of the service, Iino is second to N.Y.K. Line to add that place to the regular ports of call. The Takeshima Maru (11,880 tons d.w.) will be the first ship to visit the port.

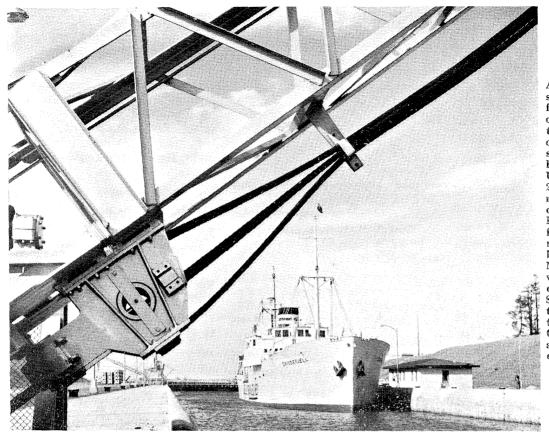
* Tckyo Marine Exchange Set up

xk.

The Tokyo Shipping Brokers' Association announced on October 20 that it had set up the Tokyo Marine Exchange in order to rationalize the Japanese shipping market.

The Exchange would be operated with the help of shippers and operators, the Association said. It is Japan's first marine exchange and the third of its kind in the world, the others being in London and New York.

It holds two sessions daily, one in the morning and one in the afternoon, and it is divided into six sessions-iron ore, coal, lumber, salt, grain and others. Sessions are to be held by members of the Exchange designated by operators. Its first session was held on the 20th at its new office in Tokyo.

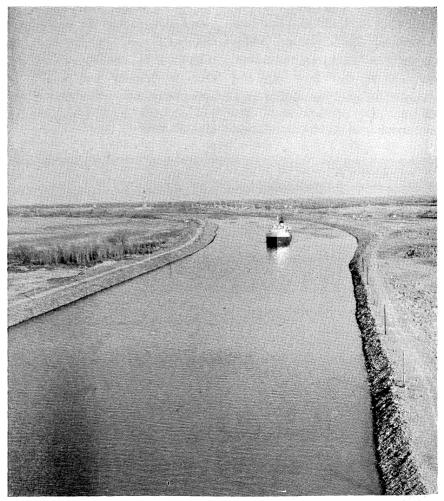


An ocean going vessel moored in the 80 foot wide chamber of the Iroquois Lock, the most westerly of the seven new seaway locks. Lift here is about 6 feet. Upstream is about 250 miles of uninterrupted navigation, in channel and through Lake Ontario, before the vessel reaches the next barrier namely the Niagara escarpment which is surmounted by the Welland Ship Canal. From the Atlantic ocean to the head of the Great Lakes there is a difference in level of some 602 feet.

Formosa to Operate US Service

Two nationalist shipping lines will inaugurate a regular service between Formosa and the United States on December 12. They are the State-owned China Merchant Steam Navigation Co. and the private China Union Lines. The first liner Hai Ming of the former company is to sail from Keelung on December 12 for New York. She will call at Kaohshing, San Francisco, Los Angeles and Panama on her way to the U.S. East Coast and return to Formosa via Baltimore, Philadelphia, Norfork, New Orleans, Panama, Japan and Korea. She is expected to make a round trip in four months.

The Hai Yu follows on December 18 on her inaugural voyage to the U.S. West Coast. She will depart from Keelung for Kaohshing and cross the Pacific via the Philippines. Her ports of call include Los Angeles, San Francisco, Seattle, Vancouver and Japan. The Formosa-U.S. West Coast service will take three months.



This is a portion of the 20 mile long canal which extends from the entrance in the Montreal harbour to the foot of Lake St. Louis. Minimum width throughout is 200 feet and depth throughout is 27 feet.

Huge Container Terminal for Los Angeles Harbor

Push button cargo-loading will become a reality at Los Angeles Harbor next April, when a \$1,-850,000 container terminal is dedicated at Berth 200-A, it was recently announced by Bernard J. Caughlin, the municipal port's general manager.

When completed, the facility will enable one man to lift container vans, holding 20 tons of cargo, from wharf to ship by manipulating buttons and levers.

The aluminum containers, measuring $24 \times 8\frac{1}{2} \times 8$ feet, will be packed at the shipper's plant or warehouse and hauled to the terminal on specially designed trailers. A yard tractor will take over there and pull the trailer into position beneath a gantry crane.

The crane operator, from the control panel, will guide a lifting beam until it hooks onto the four corners of the container, which then will be lifted from the trailer, conveyed out the crane boom and lowered into position aboard ship. At the port of destination, the containers will be lifted off onto other trailers and driven to the consignee.

The cargo is handled only twice —the loading and unloading of the containers—as compared to the seven or eight handlings required by conventional shipping methods.

L.A. Port Statistics

Foreign dry cargo trade at Los Angeles Harbor was up 10 per cent during the fiscal year ended June 30, 1959, it was announced by Kermit R. Sadler, traffic manager of the world's largest manmade harbor.

"Dry cargo trade between Port of Los Angeles and world markets rose nearly 200,000 tons to 2,134,-434 tons during the 1959 fiscal year. Incoming cargo was up 19 per cent to 1,287,117 tons, while commodities shipped remained approximately the same at 847,317 tons."

Total foreign commerce at Los Angeles Harbor, including bulk petroleum and fuel oil, was 7,761.-684 tons, compared to 8,179,062 tons in 1958. Sadler pointed out that the decrease was wholely in bulk petroleum which was down 772,258 tons from last year's 4,-304,321 tons. All traffic at the harbor—including coastal, Hawaii, etc.—amounted to 23,298,602 tons, up nearly $1\frac{1}{2}$ million tons over the preceding year.

The top-tonnage exports were iron and steel scrap, borax and borate, citrus fruits, cotton and cotton linters, fats and greases, industrial chemicals, infusorial earth, fruit juices, canned fish and industrial machinery and parts.

Leading imports were copra, bananas, molasses, rubber, steel wire, pipe, veneer and plywood, automobiles and trucks, green coffee, fertilizers, newsprint, hardwood lumber and window and plate glass.

The ships of 27 nations called at the municipal port during the year. These arrivals were almost evenly divided between U. S. and foreign flag vessels—2223 of the former and 2220 of the latter.

For the fifth consecutive year, Japan led all foreign flags here, with 524 arrivals, an increase of 59 over the previous year. Most of the other nations registering more than 100 arrivals held steady: Liberia, 373; Norway, 300; Great Britain, 207; West Germany, 144. and the Netherlands, 123.

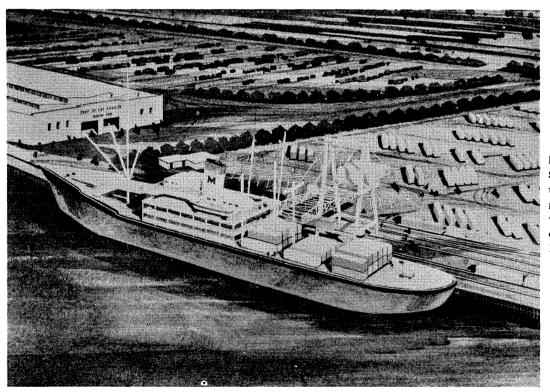


Photo shows the \$1,850,000 container terminal in Los Angeles Harbor which will look like when completed in April, 1960.

A Voyage to Japan

Colonel Dunlap C. Clark, A.U.S. (Re'd) Former Commissioner, Port of Oakland, Calif.

As inter-continental travellers, my wife and I prefer ship travel. As ship travellers, we prefer freighters. As freighter travellers, we considered our recent voyage to Japan on TSUNESHI-MA MARU (Iino Lines) the most enjoyable we have experienced.

At the dock in California we were greeted by three smiling cabin boys in fresh white jackets and dark trousers. Descending the freshly-silvered ladder, they took our luggage to a commodious stateroom where Mr. Murase, the Purser, welcomed us aboard in excellent English.

Intentionally arriving early, we explored the ship to orient ourselves. "Immaculate" was our reaction! All was shipshare from the gleaming stack with its Iino Lines insigne to the hatches decks freshly painted, brass polished, and the cables on winches and elsewhere entirely free of grease.

Unlike on freighters of other nations, in our experience, the officers were always in full dress and the crew's T-shirts and dark shorts were clean.

The stateroom had two beds, more than long and wide enough for my six-feet-four-inches, a table, couch, extra chair, ample closet space, and a well-appointed bath room. It had a bell which *worked*. Each morning upon arising we rang for coffee, served with a smile an hour or so before breakfast.

Passenger activities were concentrated on this same deck. Forward was the spacious dining room with three tables, each hosted by a Senior Officer. The Junior Officers, through Japanese protocol, had their own mess hall on a lower deck. Two lounges in Japanese decor flanked the main dining room, offering an excellent radio and record player, an extensive library of English and Japanese books and an assortment of games.

In a passageway between the cabins—all outside—was an extra bathroom featuring a tub fortified

by live steam where we became acquainted with the "Japanese bath."

The ship, some 12,000 tons and a length of about 475 feet, made its scheduled 18 knots almost daily, with no creaking, groaning, or slamming of doors despite heavy weather on the 40-degree North Latitude crossing. It was fully air conditioned.

Breakfasts and dinners were "Western style," with luncheons of choice Japanese menus. These last were most enjoyed, affording advance opportunity to know such food and to learn the proper use of chopsticks. The International Dateline and Sayonara Dinners, however, were Japanese, and were the highlights. What Sukiyaki was prepared personally by Captain Onari, at whose table we were privileged to sit! And the buffet and decorations were works of artistry.

Meals were served at comfortable hours, unrestricted by such schedules as demanded by the Unions on American freighters. Tea was brought each afternoon to the cabins with Japanese pastry. Service for laundry, pressing and refreshments was available at a touch of the bell. The cabin boys, who also waited on table, seemed to outdo one another in their desire to please. At the end of the voyage such tips as were felt justified by each passenger were given gladly through the Purser, who distributed them equitably-another pleasant variation from other ships. And upon departure, each traveller received a set of cake plates as a gift from Iino Lines, in appreciation of his patronage!

On this crossing, there were six Japanese and six Caucasian passengers, who mingled most congenially. During the day, deck golf and quoits were played, and in the evenings, bridge, scrabble, chess, and dominoes. We Americans found particular interest in watching the Captain and Chief Engineer play GO, the ancient

Japanese game which exceeds chess in its intricacy and demand for concentration. The Purser's personal collection of classical records provided a background of favorite Western operas. There scarcely seemed time to sleep!

While other countries require no doctor aboard ships with twelve or less passengers, Japanese regulations specify one on any ship over 5,000 tons, regardless of whether passengers are carried, we were told. The young physician aboard the TSUNESHIMA had completed his medical education at the University of Virginia and Wayne University in Detroit.

Many friends have inquired where we learned of this most delightful voyage. With pleasure we have referred them to that estimable publication, *Ford's Official Freighter Travel Guidebook*, from whose complete listings it was selected, as well as our trip the previous year around South America.

In conclusion, we felt that our two weeks aboard the TSUNE-SHIMA provided a rare opportunity to learn in advance of Japan through its citizens, and to appreciate its customs and practices. When we went ashore we were "in the mood."

Daido Line Forms Company in U.S.

Daido Line formed a local corporation, to be called United Ocean Co., Inc., in New York on October 1. Vice-president of the Line, Mr. M. Doi has been appointed president of the new company and chief representative in New York, Mr. K. Kobavashi, vicepresident. The new company, wholly financed by the Line, has been established with A.L. Burbank Co., the latter's sole agent in New York as its nucleus with a view to streamlining the operation of the services between Japan and New York, the U.S. Pacific Coast and the Mediterranean, and Japan and South America. The company is the second of its kind to be formed in the United States to the Kawasaki Steamship Company.

German Ship visits Long Beach on Maiden Voyage

Newest vessel of the Hamburg-American Line, the M/S "VOGT-LAND", arrived October 10th at Pier B, Port of Long Beach, California, on her Maiden Voyage, carrying a full load of manufactured products from Europe. Announcement of the ship's arrival was made by Balfour, Guthrie & Co., Limited, Pacific Coast General Agents for the Hamburg-American Line/North German Lloyd Joint Service.

Balfour, Guthrie recently moved their Southern California operations to the new Argonaut Terminal on Pier B at the Port of Long Beach.

The sleek new vessel that was built by Deutsche Werft, of Hamburg, Germany, has an overall length of 499 feet. Its service speed is $17\frac{1}{2}$ knots. The deadweight of 10,946 tons contains 48,000 cubic feet of refrigerated space and deep tanks. The latest cargo handling gear, including the famed Mac-Gregor hatch cover and heavy lift booms, are incorporated in its construction.

Master of the "VOGTLAND", Capt. G. Pietsch, said a discharge at Long Beach of 1325 tons was made with autos predominating.

On October 13, a glamorous reception and buffet supper was served on the "VOGTLAND" honoring members of the steamship world and the Long Beach Harbor Commission. President of the Harbor Commission, H. E. Ridings, Jr., and Miss Port of Long Beach, Cheryl Abbott, presented a special ship's bell to Capt. Pietsch commemorating the ship's first visit to the Port of Long Beach.

Pier Completed at Kobe

A ceremony was held on October 20 at a shed on Pier No. 8 in Kobe Port to mark the completion of the pier, the construction of which was started in the spring of 1954 at a cost of \$1,184,000,000.



German vessel's captain is shown welcomed in the Port of Long Beach.

The pier, 400 meters long, 51.8 meters wide and 10 meters deep, can accommodate two 10,000-ton class cargo vessels at the same time and handles general cargo only. The two-storied modern ferro-concrete shed (15,480 square meters), on the pier was built by the city of Kobe at a cost of \$280,-000,000.

* * *

World Largest Dredger Launched

National Bulk Carriers Kure Shipyard held a launching ceremony on October 3 for the dredger Juliana (16,000 tons gross) ordered by Sea Dredge Co. The ship with a displacement of 30,-000 tons will be the largest dredger in the world. After completion in November, it is scheduled to engage in the development of rivers near Maracaibo in Venezuela, S.A. The shipyard intends to construct the second of the same size.

Iron and Steel Wharf Completed

Attended by Minister of Transportation Narahashi, Governor of Tokyo Metropolis Azuma, ex-Governor Yasui and other distinguished persons, a ceremony was held on October 1 by the Tokyo Iron and Steel Wharf Company to mark the completion of Toyosu iron and steel wharf. The wharf, construction of which was commenced in April 1958, cost about ¥3,300,000,000 and is the first of its kind in Japan. The wharf is 280 meters long and provided with a 20-ton and two 10-ton cranes, eight warehouses covering 19,954 square meters and other facilities,

Leaves from Mexico Conference

The following two papers, reproduced for the interest of our members, were distributed among the attendants by Gremio Unido de Alijadores, S.C. de R.L., Tampico and Union de Estibadores y Jornaleros del Pacifico, respectively, at the Second Triennial Conference of Mexico City.

Gremio Unido de Alijadores, S.C. de R.L,

Foundation

This Union was founded in 1911 as a partnership, having been successful in a revolutionary movement by the partners participated in this struggle. The Union was reorganized in 1922 and became the cooperative partnership with limited liability, thanks to the efforts made by Mr. Isauro Alfaro. In the same year under the regime of General Alvaro Obreyón, the privilege of handling cargo on both banks of River Pánuco was transferred to the Union from Casa A. M. Rowling who had formally been granted this privilege by the National Railway of Mexico. Since then, the Union has been the unique organization to take care of all cargo moving thru Port of Tampico, both foreign and domestic trades.

The Union has kept on its striving for the better welfare of the harbor workers by acquiring the equipments necessary to be able to handle all cargoes efficiently and safely at Port of Tampico, as required by the nation. It owns cranes. tractors, belt-conveyors (for mineral cargo) and all other equipments to improve its efficient and speedy services. $\mathbf{B}\mathbf{y}$ the mutual agreement with the Min-Communications, theistry of Union charges the duly authorized rates against its cargo handling services and is exclusively responsible for the loss and damage of cargoes sustained during its handling. But minerals and metals are handled at the different tariff of the National Railway of Mexico.

At Port of Tampa, there has been no single movement of labor strike which badly detains the vessels by virtue of the fact that the Union is entirely responsible for its legal movements and authorities under the laws of our country.

Social Reform

As being one of the pioneers of the National Cooperative Movement, the Union carries the responsibility to reduce any economic burden on each partner. Thus the Union takes into consideration all social obligations stipulated by the law, such as an annual dividends, medical cares for partners and their families, pensions for accidents, natural diseases and retirements and other aid to raise the living standard of each partner.

To take care of health of all persons including families, the Harbor Workers built in 1958 at Chairel Ave. and Paseo de Tampico a modern sanatorium which has magnificient furnitures, surgical operation room as well as the laboratory and pharmacy. This health center is the substitute for the old one which was once on the left bank of River Pánuco and destroyed by the cyclone in 1955. The old site is now the park called "Alijadores."

In 1930, the Harbor Workers of Tampico secured the site formerly occupied by the old "Country Club" located at Hidalgo Ave. and Chirel Ave., to build the houses for each partner. This housing project was suspended after erecting 12 houses, but will be continued in near future because of the heavy losses sustained by the Partnership as the consequence of cyclones which have attacked and destroyed Port of Tampico periodically since 1933.

From 1922, the Union launched the campaign against the illiteracy by building in Madero City the School No. 1, which was later called the Isouro Alfaro School in honor of the founder of the Partnership, who exerted himself to let each partner receive the primary education. "Alijadores No. 2" School was also built later on. These educationa l institutions, teachers and pedagodical materials are maintained and supplied by At present, these the Union. schools are open in the morning to the children of our partners and at night to the workers themselves who want to learn.

In the same way, the Union has its own Musical Band which always play at all social events to be held by the Union at Tampico in its Social building or in its own theatre which are used at times as the ceremony hall. They are to be proud of by Tampico and the nation. There is a food shop to serve for the partners on the ground floor of the building.

As to the sports, the Union owns a playground with the name same as that of the Union for the various games and recreations enjoyed by the partners and their families. The Union also had its own professional "Alejadores" Baseball Team until 1946, which was then obliged to be disbanded owing to the other welfare problems to be attended by the Union.

Managing Government Steamers

In 1928, the National Navigation Lines, a steamship company owned by the Mexican Government, being suffered from a heavy loss by the National Coasting Trade Movement, was taken over by the Union under the contract agreed upon by the Mexican President and the management of the coasters "Mexico", "Jalisco", "Coahuila" and "Tamaulipas" was entrusted to the Union. As the first experiment in the history of Mexico, the Union established the regular coasting service with its fixed scheduled to call at all the ports on Mexican Gulf where the members of our Cooperative act as the agents.

Soon after the Union proved the successful management of these coasters, it bought out of its own pocket the steamers "Superior" and "XX" from the Orizaba Beer Co. and renamed them "Isauro Alfaro" and "Progreso" respectively.

Since our Partnership was recognized by the nation to be quite capable of maintaining the coastal transportation to and from all ports on Mexican Gulf, and, moreover, in order to take care of the technical skilled laborers in this field, the Partnership set up the Cooperative de Transportes Maritimos y Vis Fluviales which inaugurated the coasting service in 1937 and is still running it. The Union, as the result of this new activity, secured from Tampico Navigation Co. and put in service the Works and Shipyards which were equipped with the best machineries for various repairing, including the navy job and is now being improved daily for the benefit of Tampico.

Public Services

At the request of our Government, our Union expanded its services to other field by sending out the selected members to receive the professional trainings that are necessary for the development of the Partnership. It is with our great pleasure to demonstrate such a pattern in which the organized workers have found themselves to be able to take place for the Capital with the great profits. This comes from the fact that our Government has entrusted us with such works and tasks for the public and social benefits as follows :--

At Port of Veracruz

Drinkwater supply at Veracruz and Boca del Rio. Installation and construction of sewerage disposing plat. Draining and drying swamps at Boticaria. Construction of the aqueduct of Cristobal Colon. Concrete pavement of the yard of Custom House and Maritime Zone of Veracruz. Paved highway to the slaughter house of Veracruz.

- Gonzalez Pagés Avenue. Construction of warehouses
- on the Fiscal Wharf No. 2. At Port of Tampico
- Drinkwater supply at Tampico.
- Sewerage system at Tampico and Ciudad Madero. Installation of water purify-

ing plant.

Construction of Metals and Minerals Wharf.

Construction of Citricos Wharf.

Construction of Mercados Wharf.

Repairing of Pilots Wharf. Construction of buoys and signals.

Repairing of lighthouse.

Reconstruction of breakwater. Being founded by Mexican workers and technicians, the Union has always been strict in performing the contracts given by the Government since the regime of General don Alvaro Obregon. Though it has been usual for the Union to give the first consideration to the needs of individual member worker and the secondary consideration to the whole organization of the Cooperative Partnership which has different branches. we are proud of being non-political. without restricting particular freedom of each partner who is fulfilling his civil duties in accordance with his own principle We would like to and belief. reiterate that our Partnership has neither connection with any Headquarter nor extra doctrines, but it only has the conviction of honoring our slogan adopted at its foundation. "Courtesy and Morality in Labor" for the sake of our partner, home's and children, especially for the progress of our country. We repeat to say that, by working with honor and devotion, we have firmly demonstrated the example for any other organized laborers who can also follow after what this Union has done for the benefit of Tampico.

We shall be blamed to be unjust and ungrateful if we fail to remember affectionately General don Cesar López de Lara, the prominent and honest revolutionalist, who kindly gave the Union the moral and economical supports to fight out the National Cooperative Movement, while he was the Constitutional Governor of Tamaulipas State.

We take this opportunity to express thanks to Mr. President of the Republic, the Minister of Maritime Affairs, the Minister of Hydraulic Resources, the Minister of Industry and Commerce and the Managing Director of National Railway of Mexico, for their confidences given to us in keeping our cooperation with the Government, under whose protection our Union has performed its enterprises originally planned by Mr. Isauro Alfaro in 1911 and 1922.

Sobre la Dotacion de Equipo Mecanizato a los Trabajadores Portuarios y la Exencion de los Derechos Aduanales por Estos Implementos

Para lograr el incremento marítimo de los puertos, no son suficientes los muelles, bodegas y demás instalaciones portuarias, es necesario que los grupos que convergen a estas actividades, encuentren los medios propicios que ayuden a su des envolvimiento y al fomento de la propia economía de los puertos, entonces, y para no ir muy lejos, citaré el caso de los Estibadores.

Los Estibadores, que son factor importante en la vida de los puertos y que a través de muchos anos han venido desempeñando sus funciones bajo condiciones inhumanas, sufren tremendo desgaste físico al desempeñar sus labores bajo sistemas primitivos de trabajo, en consecuencia, es de suma urgencia y de justicia, se les libere de la carga pesada proporcionándoles las herramientas más prácticas para que puedan realizar, sin mayores esfuerzos, las faenas que se les encomiendan.

Es cierto que en la mayoría de los puertos mexicanos se han venido constituyendo Patronatos para la compra y conservación del equipo mecanizado pero que por su reciente creación no ha sido posible dotar de inmediato a los Estibadores de los implementos modernos de trabajo; por las anteriores consideraciones me permito proponer a la Honorable Segunda Conferencia-Trienal de la Asociación Internacional de Puertos y Abrigos lo siguiente:

PRIMERO.-Con el objeto de liberar a los Estibadores y demás trabajadores maniorbristas del desgaste físico que sufren en sus pesadas jornadas de trabajo, para acelerar las maniobras con beneficio directo para los Comerciantes en General, para fomentar el tráfico marítimo con nuevos atractivos para las Empresas Navieras y proporcionar al mismo Gobierno Federal mayores ingresos por concepto de los impuestos que aplican a las exportaciones e importaciones y por las cuotas que pagan los barcos al entrar a la bahía, se requiere que sin pédida de tiempo se modernicen los sistemas de trabajos de los estibadores proporcionándoles el equipo mecanizado con el que realicen pronta y eficazmente las maniobras, y

SEGUNDO.—Para lograr el objetivo anterior es absolutamente indispensable que el Gobierno Federal conceda la exención de los Derechos Aduanales, ya sea directamente a las Uniones de Estibadores o a los Patronatos por todo el equipo mecanizado que se utiliza en estos trabajos y tengan que importarse.

ANNOUNCEMENT

By the Collaboration of the Japan Port and Harbor Association and the International Association of Ports and Harbors,

"PRINCIPAL PORTS IN JAPAN"-1960

will be shortly published as a revised edition of the much appreciated publication on Japan's leading ports, which was first introduced in 1952. Since then, however, there have taken place considerable changes and remarkable improvements in those Japanese ports in facilities, operation, and what not. The revised edition, which has been compiled by the Japan Port and Harbor Association for inclusion of all of the up-to-the minute information and latest data, will, we believe, well meet the requirements of port, shipping and foreign trade people in the world. As a revised edition of "**PRINCIPAL PORTS OF JAPAN**"-1952, the forthcoming publication will also come out in the same form, $11\frac{1}{4}$ "× $7\frac{1}{2}$ ", with about 200 pages and many maps and diagrams.

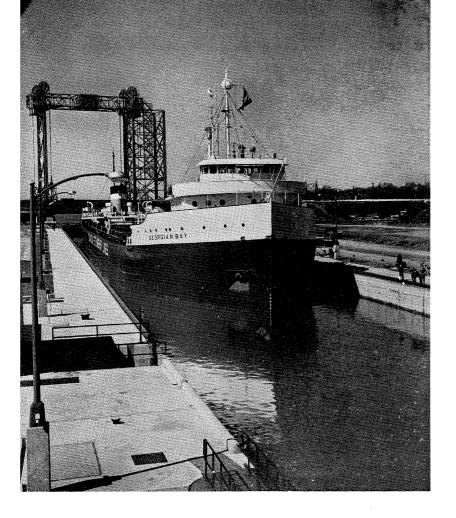
The price will be US \$3.00 per copy, including sea mail postage.

The expected time of publication is March, 1960

Purchase order will be conveniently accepted by

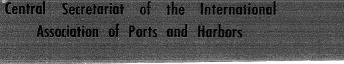
Central Secretariat of the International Association of Ports and Harbors

Rm. 715-A, N.Y.K. Bldg. 20, Marunouchi 21, Chiyoda-ku, Tokyo, Japan



Pictured here is a great lakes bulk carrier, a specially designed inland vessel, the largest of which are capable of 25,000 tons, capacity. They can carry as much as 800,000 bushels of wheat which would be approximately the yield of a 40,000 acre farm. The ship is seen in the St. Lambert Lock, near Montreal.

St. Lawrence Seaway Authority The Canadian laker, Scott Misener, is one of the largest ships sailing the St. Lawrence Seaway. The ship is 685 feet long and has a 72-foot beam. She can carry some 870,000 bushels of grain or 23,000 tons of ore. Proceeding downstream, she has left the Thousand Islands section of the Seaway and is approaching Iroquois Lock in the International Rapids Section.



Rm. 715-A, N.Y.K. Bldg., 20, Marunouchi 2, Chiyoda-ku, Tokyo, Japan