

PORTS *and* HARBORS

DECEMBER 1960

Vol. 5 No. 4



THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

Introducing The Crests of Co-Member Ports

(Each Issue One Port)

THE PORT OF LOS ANGELES, U.S.A.



City of Los Angeles Seal, which also represents Port of Los Angeles, means

Lower Right: Stars and stripes indicate present status of this city in an American state.

Upper Left: Bear flag typifies California Republic—1846.

Lower Left: Eagle holding serpent—Arms of Mexico—Represents period of Mexican sovereignty—1822-1846.

Upper Right: Lion of Leon and Castle of Castile—are from arms of Spain—Los Angeles under Spanish rule 1542-1821.

Sprays of Olives and Oranges—Suggest location of Los Angeles as a city set in a garden.

Beaded circle surrounding shield represents rosary—suggesting part played by mission padres in founding Los Angeles.



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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THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

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Commissioners, City of Los Angeles, California, U.S.A.
..... President

Lt. Gen. Huang Jen-ling, Chairman, Board of
Directors, China Merchants Steam Navigation Co., Ltd.
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Venezuela	Dr. Jose Antonio Mayobre Minister of Finance	Dr. Jose Arnaldo Puigbo General Administrator National Port Service Ministry of Finance
Viet-Nam	Mr. Nguyen Van Chieu Director, Saigon Port	Mr. Nguyen Ngoc Du Director Port of Da-Nang

(Directors and Alternate Directors for Brazil, Burma and Ceylon are yet to be elected.)

From The Central Secretariat

By Gaku Matsumoto

Chief of the Central Secretariat
I. A. P. H.

The Central Secretariat takes pleasure in sending to our members the last issue for 1960 of "Ports and Harbors", together with its Christmas and New Year greetings.

* * *

The year 1960 was rather an eventful year for the Central Secretariat, as besides its routine works, there was held late last May in Honolulu, Hawaii, a meeting of the Executive Committee to discuss on important Association affairs, and last August the Honorary Membership Certificate presentation ceremony was conducted in Tokyo for Prince Takamatsu, Japan, and Admiral Manuel Zermeno Araico, Mexico.

* * *

During the year new additions were made to the Association membership, viz. 3 Regular Members and 1 Supporting Member. Further, since last September applications for one Regular Membership and One Supporting Membership have been accepted by the Central Secretariat, as reported elsewhere in these pages. Also, there has been inquiries as to the application for membership from Istanbul, Turkey. During September-October, our President, Mr. Lloyd A. Menveg, visited 10 European countries with the Los Angeles Trade Mission to Europe. Taking advantage of this extensive trip, he met many port and shipping people in such important port cities as Antwerp, Brussels, Hamburg, Bremen, Amsterdam, Rotterdam, Copenhagen, Oslo, Stockholm, Genoa, etc., whom he invited to participate in our Association.

* * *

On October 7 the second meeting of the Permanent Council for this year was held, which approved after deliberation the work programs drafted by the Central Secretariat. The agenda introduced

are given elsewhere in these pages. In the meeting the necessity to immediately determine the concrete work plans for the Standing Committees and the time and place of the third Triennial Conference of the Association scheduled for 1962, was stressed.

At the 32nd General Meeting of the Japan Port and Harbor Association held on October 14 in Shioyama Port, our President, Mr. Lloyd A. Menveg's congratulatory message was announced to the attendants numbering over 1,000.

* * *

At the request of four Mexican Member for supply of information concerning the handling of cotton in the leading ports of Japan, the Central Secretariat sent him a detailed investigation made on the matter.

* * *

In compliance with our request made in the last issue of "Ports and Harbors" and otherwise, we are happy to say that various pub-

lications and reports are reaching increasingly from many ports of the world, including the organ and the annual report of the Port of London Authority. We also look forward to the supply of various publications from other European ports.

* * *

At the request of our Israeli Member, the Central Secretariat conducted investigations of the port administration in Japan and sent him their report.

* * *

In connection with the 3rd Triennial Conference scheduled for 1962, the Central Secretariat mailed out December 1 Circular No. 7 to all Association members, inviting their suggestions and propositions as to (1) Subjects for Discussion, (2) Draft of Subjects for Proposed Resolutions and Bills, and (C) Reports, which will be included in the agenda. Early and positive responses will be highly appreciated by the Central Secretariat.

I.A.P.H. Membership

(As of December, 1960)

Regular Members

Country	
Brazil	1
Burma	1
Canada	2
Ceylon	1
China (Taiwan)	4
Israel	1
Japan	28
Liberia	1
Peru	1
Philippines	1
Sweden	1
Thailand	1
Venezuela	1
Vietnam	1
U.S.A.	8
Total.....	53

Supporting Members (Corporation)

Country	
Australia	3
China (Taiwan)	2
Japan	12
U.S.A.	2
Total.....	19

Supporting Members (Individual)

Country	
Belgium	1
Canada	10
China (Taiwan)	1
France	1
Japan	4
Mexico	4
U.S.A.	1
Total.....	22

New Membership Applications

Regular Member

Regular membership application from East Pakistan Inland Water Transport Authority, Dacca, East Pakistan, was accepted by the Central Secretariat on October 11, 1960.

Supporting Member

Application for Supporting Membership from Mr. Tsurukichi Tsuruoka, Researcher, Tokyo University, was accepted on October 11, 1960.

* * *

Changes on Board

Some changes have recently taken place in the members of the Board of Directors as follows:

Canada

Canadian Director, Mr. R. J. Rankin, Vice Chairman, National Harbours Board, having been appointed President of the St. Lawrence Seaway Authority, Canada, the Canadian Directorship is temporarily left vacant until his successor is recommended. Alternate Director, Mr. J. R. Mitchell, is acting as Canadian Director.

China

Pursuant to the replacement of Mr. Liu Keh-shu by Mr. Walter H. Fei, as Vice Minister, Ministry of Communications, Mr. Walter H. Fei has become Chinese Director.

Peru

Pursuant to Col. Howard W. Quinn's resignation from the post of Executive Director, Port of Callao Authority, Comm. Enrique B. Camino, Technical Director, of the same Authority, has assumed Peruvian Directorship.

Viet-Nam

Mr. Nguyen Ngoc Du, Director, Port of Dan Nang, has assumed Viet-Nam Alternate Directorship.

* * *

Visitor

Mr. Robert O. Edwards, Director of Trade Development, Port of Seattle, who was visiting Japan on a business tour, visited the Central Secretariat on October 17, 1960.

Permanent Council Meeting

The Permanent Council was called in meeting on October, 1960, in Tokyo, attended by its members, viz. Mr. Royal S. Wintemute, Mr. Hirisave Ramiah, Mr. H. D. Leonhardt and Mr. Gaku Matsumoto, Chief of the Central Secretariat and Council Chairman ex officio.

The meeting approved the following matters with due deliberation:

1. Introduction of Mr. H. D. Leonhardt.
2. Appointment of a Vacant Councillor.

The Council may make temporary appointment to fill vacancy until the Board shall act. (Sec. 15, By-Laws)

3. Report on Association's Affairs during the Period since the Last Meeting. (January 28, 1960)

(A) Meetings and Ceremony.

a) Executive Committee. (May 19-20, at Honolulu)

b) Ceremony of Presenting Membership Certificates.

(July 11, at Tokyo)

c) Board of Directors. (by correspondence—August 15)

(B) Status Quo re. Appointment and Working Programs of Standing Committees.

(C) PIC (Port Information Center) and IAPH International News Letter. (monthly)

(D) President's Trip to European Ports. (Mr. Lloyd A. Menveg)

(E) Election of National Directors.

(F) Other Matters.



Mr. Bernard J. Caughlin, General Manager, Port of Los Angeles.

Los Angeles Manager Elected AAPA President

Mr. Bernard J. Caughlin, General Manager, Port of Los Angeles, was elected in the 49th annual convention of the American Association of Port Authorities held in Montreal, Canada, last September, as its President for the ensuing year.

a) Publication of "Principal Ports in Japan—1960"

b) Collection of Reference Documents regarding "Reduction and Simplification of Shipping Documents"

c) Monthly Meeting, now under negotiation with Japan Shipowners' Association to interchange world port information.

d) Participation in Union of International Association, Brussels.

e) Assistance rendered to Port of Haifa Authority. (Israel contemplates to enact Port Authority Law)

(G) Necessity of Holding Next Meeting of Board of Directors. (by the end of this year)

to decide (1) Concrete Working Programs of Standing Committees (2) Place of 3rd Triennial Conference and its Agenda (if possible), etc.

4. Deliberation on Next Triennial Conference Agenda.

Port Development Resolved by Japan Port Association

The need for expanding various transportation facilities such as roads as well as ports and harbors is being ever more keenly felt in keeping with the recent rapid development witnessed in Japan's economy.

The Japanese Government is currently in the course of drafting plans for doubling the national income whilst rectifying the various regional differences, according to which, in order to double the present national production in 1970, viz. ten years hence, it is envisaged to raise the mining and industrial production to 2.4 times of the present figure.

In order to attain this goal it is deemed necessary to create water-front industrial areas exceeding over 80 million "tsubo" (one "tsubo" equals 36 square feet). Concomitant to the said industrial activities, the present interchange of cargo by the various ports and harbors is estimated to become increased 2.2-folds to over 900 million tons. To cope with this situation, the perfection of ports and harbors is being planned by laying special emphasis on the promotion of foreign trade as well as consolidation of the industrial basis.

In view of the afore-mentioned situation the following resolution was duly adopted on the occasion of the Japan Port and Harbor Association at its 32nd General Meeting held at Shiogama Port on October 14, 1960. The text of the Resolution reads as follows:

A historical survey of Japan's present day industrial and economic development despite her being confined within limited frontiers and lacking in domestic resources will clearly go to demonstrate the extremely significant role played by her ports and harbors. Furthermore, the grave importance of perfecting Japan's ports and harbors is becoming ever more increasingly felt as an indispensable factor for realizing the Government's plans for doubling the national income within the next decade.

For the purpose of fostering the modernization and rationalization of industries as well as contributing toward stabilizing the people's daily life there has hence arisen an increasing need for actively pushing ahead the task of perfecting foreign trade ports in order to also consolidate the nation's industrial basis as well as to further expanding the water-front transportation facilities.

On the other hand, with the object of coping with the demand for water-front industrial sites in parallel with the colossal rise in mining and manufacturing production as well as intensification of the industrial structure, wholesale efforts must also be exerted towards increasing the acreage of reclaimed land for industrial use.

Further, inasmuch as the prevention of natural disasters and rehabilitation thereof constitute indispensable factors from the standpoint of preservation of territorial integrity as well as stabilizing national life, it is of imperative necessity to energetically carry out the counter-measures in regard to special high tides in general as well as those in Ise Bay and seismic tidal waves caused by Chilean earthquakes, as well as subsiding of land in Niigata.

In order to accomplish the foregoing tasks as speedily and systematically as possible, we earnestly desire that the following measures will be adopted, viz. :-

1. Establishment of New Long-Term Port and Harbor Perfection Plan

(a) The Scale of Port and Harbor Improvement Works shall be set at a Minimal Limit of ¥650,000 million under the 10-Year Plan, calling for a Minimal Outlay of ¥300,000 million for the First Five Years.

(b) The Scale of Port and Harbor Water-front Natural Disaster Prevention Works shall be set at a Minimal Limit of ¥160,000 million under the 10-Year Plan, calling for a Minimal Outlay of ¥80,000 million for the First Five Years.

2. In addition to considering Special Legislative Measures in order to ensure the realization of the said Plan, an over-all Special Accounting System (apart from Natural Disaster Rehabilitation Funds) shall be adopted for the purpose of actively carrying out all necessary undertakings.

3. A Water-front Industrial Area Development Public Corporation shall be established for the purpose of accelerating the formation of water-front industrial



In the general meeting of the Japan Port and Harbor Association, President Gaku Matsumoto is shown reading the congratulatory message sent by our President, Mr. Lloyd A. Menveg.

areas, in addition to which the amount of local bonds shall be increased in accordance with the Law for Accelerating the Perfection of Ports and Harbors.

4. As regards undertakings relative to ports and harbors for fiscal 1961, the following funds shall be acquired as for the initial year's requirements under the new Long-Term Plan:-

Public Works Expenditure..56,200 million (State Expenditure.. ¥31,800 million)

Expenditure of Undertakings associated with Raising of Bonds.. ¥35,000 million (Bonds ¥25,000 million)

Public Corporation Expenditure.. ¥10,000 million

President Menveg Sends Message to JPHA

The Japan Port and Harbor Association, our member organization, held its 32nd General Meeting in Shiogama City, Miyagi Prefecture, on October 14, 1960. With about 1,000 attendants, this national meeting deliberated on important measures demanded for development and modernization of Japanese ports and har-

bors, unanimously passing the resolution which is quoted elsewhere in these pages.

On the occasion, the following congratulatory and goodwill message sent to the meeting by our Present, Mr. Lloyd A. Menveg, was read by President Gaku Matsumoto, of the Japan Port and Harbor Association:

"Gentlemen. I regret sincerely not having the opportunity to bring you the greetings from The International Association of Ports and Harbors in person, but at this time, I am traveling in Europe as its President on a Port of Los Angeles European Trade Mission. We are going to contact many ports in Europe to arouse their interest in The International Association of Ports and Harbors and solicit their participation.

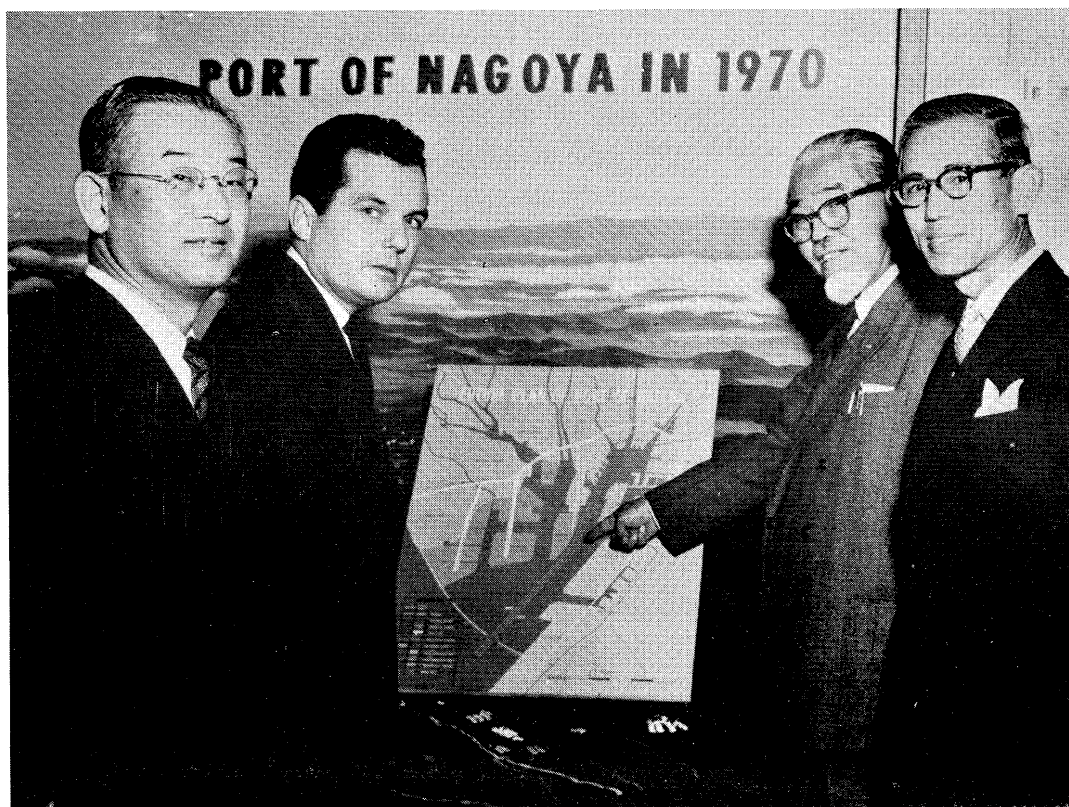
The work that you and I do in the shipping industry means more and more as the years go by towards the furtherance of world peace. It is my firm belief that, through shipping and the trading of ideas, the exchange of views, personally, and the exchange of products, we shall have world peace, and I want to congratulate you on the work that the Japan Port and Harbor Association has done over these many years. I hope I shall be with you in 1961."

Nagoya Port in L.A.

Japan Centennial Trade Exposition, the climax of the year-long celebration of the centenary of the signing of the Treaty of Amity and Commerce between Japan and the United States, was held recently in Los Angeles. (Nov. 16-22)

Lloyd A. Menveg, president of the Board of Harbor Commissioners, Port of Los Angeles, who would ordinarily be host, found himself in the position of being the guest when he toured the Japan Centennial Trade Exposition with his sister city counterpart, the Chairman of Nagoya Port Authority Assembly Dr. Kuniichi Kumazawa. They were accompanied by Kiyoshi Sugito, Vice Mayor of Nagoya, and the Consul General of Japan at Los Angeles, Yukio Hasumi.

One of the largest exhibits in the show was that of the city of Nagoya featuring a huge photo mural of Nagoya Castle, many back-lighted colored photographs portraying the educational system, fire protection, city planning, housing, transportation as well as the cultural and recreational activities of Nagoya. All this plus a diorama of the Port of Nagoya and the surrounding city as it is expected to look in 1970.



Vice Mayor Kiyoshi Sugito of Nagoya (left to right) and Lloyd A. Menveg, president of board of Los Angeles Harbor Commissioners and (far right) Yukio Hasumi, Consul General of Japan at Los Angeles look on as Kuniichi Kumazawa, Chairman of Nagoya Port Authority Assembly points out part of improvement program on "1970" map of Nagoya as the group toured last October the Japan Centennial Trade Exposition held in Los Angeles recently.



Mr. Charles I. Hughes, Foreign Trade Promotion Manager, Port of San Francisco.

San Francisco's New Foreign Trade Manager

Charles I. Hughes, 36, of Baltimore, Md., will fill the recently created position of Manager of Trade Promotion for the Port of San Francisco on December 1st.

He was selected by Port Director Rae F. Watts following a nationwide civil-service examination.

Hughes will direct a vigorous sales program with the aim of increasing port tonnage. He will oversee the domestic and foreign solicitation, rates, truck coordinating and foreign trade zone functions as part of the over-all sales promotion program.

The new appointee has been employed since 1947 by the Western Maryland Railway Company. His present position, which he has resigned to accept the San Francisco opening, is that of assistant to the railroad's Foreign Traffic Manager.

A World War II veteran of destroyer service, Hughes played professional baseball in the Detroit chain in 1946. Since joining the railroad the following year he has worked in Buffalo, Cleveland, St. Louis and Baltimore.

He attended the University of Buffalo and Western Reserve University in Cleveland, majoring in transportation.

Married, with four children, Hughes is a member of the Board of Directors of the Propeller Club of Baltimore and the Traffic Clubs of Baltimore and Washington. He is also active in boys' work.

Watts commented: "I feel that Mr. Hughes brings valuable and vital experience to the port in its reorganization and reconstruction program. I am confident that he will push an active, aggressive sales-promotion campaign."

Los Angeles Container Terminal in Full Swing

Push-button loading and unloading of both dry cargo and refrigerated items are now in full swing at the Port of Los Angeles' first container terminal which is preferentially assigned to Matson Navigation Company for its triangular service between this port, Honolulu and Alameda in San Francisco Bay.

Current shipments, according to a Matson official here, range from tiles and typewriters to water skis and sewing machines. "In other words, anything that will fit in a van or container."

And in the case of the Hawaiian Citizen, recently converted full-container ship, refrigerated goods are shipped. She carries up to 72 refrigerated containers on a regular basis, thus providing a store-door service for perishable goods.

The availability of refrigeration throughout the cargo-handling process suggests a much broader container service by Matson. The shipping line, for example, has long linked Australia and New Zealand with Los Angeles and the entire California area. Both countries are sizeable markets for West Coast importers of frozen meat, fish and dairy products.

Matson says it has no immediate plans to extend its container program to Australia and New Zealand but concedes that both countries will eventually be included in the company's program.

Refrigeration during transit time between storage plant and container dock is accomplished by means of portable propane motor generator sets. Dockside refrigeration is insured through the container's electrically-driven compressor and air-cooling condenser. The containers are simply connected to 220 volt outlets on the wharf. And when the refrigerated containers are lowered into the holds of the ship, they are plugged into the ship's electrical outlets and water-cooling condensers take over.

The benefits of this method of handling and transporting both dry and refrigerated cargo—a virtual door-to-door movement of goods from shipper to consignee with Matson's dockside cranes at

each port of call taking over the intermediate lift-on lift-off operations needs little elaboration. But it is worth noting that the shipping firm claim its system "can cut as much as three days off the intransit time of cargo from shipper to consignee."

The Hawaiian Citizen calls every 16 days at her special container terminal in the Port of Los Angeles. In addition, Matson's deck-carrying container ships, which have used Berth 136 and two large Navy cranes since 1958, continue to load and unload containerized cargo.

Matson's container fleet was further augmented recently by two C-4 type vessels—the SS Californian and SS Hawaiian. Both have been converted for use as bulk sugar and container carriers in the Hawaiian trade. Each has a capacity for 180 containers on deck and 10 more in its holds where about 15,000 tons of sugar are also carried.

In all, Matson's container fleet now has a collective container-carrying capacity of more than 1,100 units at one time.

Push button cargo-loading at the Port of Los Angeles is a reality. Matson Navigation Company's Hawaiian Citizen, recently converted for full containerization (in holds as well as on decks), is seen here receiving aluminum containers, each containing 20 tons of cargo and measuring $24 \times 8\frac{1}{2} \times 8$ feet, from giant crane. One man sitting before a control board located in tiny enclosure midway up right arm of crane, controls lifting containers from trucks and swinging them into the correct spot in hold or on deck—simply by manipulating buttons and levers. He handles unloading just as easily. Note trucks in this photo (center and right) waiting to move up under crane, while truck chassis (left near ship), now free of its container, is moving out of the way. The Hawaiian Citizen, first and currently only ship in Matson's fleet designed solely for transporting containers, will call at the Los Angeles Container Terminal every 16 days on her regular schedule between the Pacific West Coast and Hawaii.

St. Lawrence Seaway Traffic

— April-September, 1960 —

According to preliminary toll traffic statistics released today by the St. Lawrence Seaway entities, cargo tonnage for the period April through September 1960 is up 1.5% on the Montreal-Lake Ontario section and 11.7% on the Welland Canal section when compared to the same period during 1959.

Downbound tonnages for both sections reflect substantial increases, but these are partially offset by decreases in the cargoes moving upbound. On the Montreal-Lake Ontario section, 1,543,330 tons of downbound cargo during September of 1960 represents a 56.0% increase over the 989,105 tons recorded the same month a year ago. For the 1960 period of April through September, a 17.1% increase over the corresponding 1959 period is noted, 8,085,230 tons this year as compared to 6,907,267 tons last year. The September 1960 upbound traffic of 1,133,214 tons is a 45.5% decrease from 2,081,106 tons for September 1959, and the 7,024,242 tons reported for the April through September period this year is 12.0% less than the 7,977,861 tons during 1959.

The same pattern exists with the Welland Canal statistics. For the month of September, a 51.2% increase in downbound cargo, 2,758,099 tons in 1960 compared to 1,824,332 tons in 1959, and an upbound decrease of 28.9%, from 1,460,757 tons in 1959 to 1,038,791 tons in 1960 are recorded. In comparing the April through September periods of 1960 with 1959, downbound traffic increased 19.4%, from 12,879,195 tons to 15,380,517 tons, and upbound traffic decreased 2.7%, from 6,930,926 tons to 6,746,885 tons.

The decrease in upbound tonnage is attributable, spokesmen said, to a sharp decline in recent months in the movement of iron ore.

Three Lines Apply for Extension to East Canada

The three shipping companies of O.S.K., Kawasaki and Yamashita forming one of the three groups which operate the Japan-New York service applied to the East Canada Japan Freight Agreement in November for the extension of their service to East Canada from March next year when the St. Lawrence

Portland Leads Pacific Northwest Ports

Portland, Oregon, west coast dry cargo tonnage leader for the consecutive years, has been ranked leader among all Pacific Northwest ports in dollar volume of imports and exports, according to figures recently released by the Department of Commerce. The 1959 volume of principal import-export commodities placed Portland's dollar value of cargoes at \$228,000,000.

Charleston, S. C., and Baton Rouge, La., followed Portland, in that order. Seattle three notches below Portland, totaled \$193,000,000 in dollar volume. Tacoma's total value of imports and exports amounted to \$81 million.

Portland's national position was 14th. New York (\$8.9 billion), New Orleans (\$1.48 billion), and Houston (\$1.18 billion) led the list.

River opens to traffic. The agreement, however, rejected the application by the three companies because of the overtonnage on the East Canada run. N.Y.K. Line's similar application made to the agreement earlier was also refused.

ST. LAWRENCE SEAWAY PRELIMINARY TOLL TRAFFIC STATISTICS APRIL TO SEPTEMBER 1959 AND 1960

Period and Item	Montreal—Lake Ontario				Welland			
	Up		Down		Up		Down	
	1959	1960	1959	1960	1959	1960	1959	1960
September:								
No. of Transits *	533	448	551	452	501	443	485	440
Bulk Cargo—Tons	1,939,608	1,016,493	903,764	1,410,556	1,338,195	927,559	1,745,123	2,655,429
General Cargo—Tons	141,498	116,721	85,341	132,774	122,562	111,232	79,209	102,670
Total Cargo—Tons	2,081,106	1,133,214	989,105	1,543,330	1,460,757	1,038,791	1,824,332	2,758,099
Increase								
Percent Decrease or		—45.5		+56.0		—28.9		+51.2
1960/1959								
April to September:								
No. of Transits *	2,772	2,632	2,698	2,565	3,041	2,848	2,867	2,689
Bulk Cargo—Tons	7,024,657	6,248,974	6,462,148	7,359,546	6,072,576	6,039,882	12,439,923	14,834,209
General Cargo—Tons	953,204	775,268	445,119	725,684	858,350	707,003	439,272	546,308
Total Cargo—Tons	7,977,861	7,024,242	6,907,267	8,085,230	6,930,926	6,746,885	12,879,195	15,380,517
Increase								
Percent Decrease or		—12.0		+17.1		— 2.7		+19.4
1960/1959								

* Excludes Pleasure Craft.

NOTE: These statistics are based on Cargo Declaration Forms received to and including October 17, 1960, and do not necessarily agree with Lock Records of Vessel Passages.

Port of Los Angeles

How Big is Tomorrow?

How big is tomorrow?

That's the question facing the management of the world's ports as they enter the '60s, according to Bernard J. Caughlin, general manager of the Port of Los Angeles.

"The answer," he says, "of course will depend to a great extent on the youngsters. But the dimensions of tomorrow also will be determined by those of us who are at the controls today. We believe that during the fiscal year ending June 30, 1960, developments at the Port of Los Angeles significantly increased the scope of Southern California's future."

Prominent among these developments were the dedication of a new general cargo terminal, building of the Southland's first marine grain terminal, partial completion of a container dock and announcement that during the next five years the Port will spend \$36,690,000 on new facilities.

The year's all-time high in revenues and general cargo tonnage afforded a statistical framework on which to build the shape of things to come. Gross revenues of \$8,971,359 were almost a million dollars

above the preceding year's earnings and the general cargo total of 3,919,770 tons reflected an increase of 5.61 percent.

Total commerce over the municipal wharves increased 5.67 percent, to 24,620,397 tons; and ship arrivals totaled 4618, as compared to 4443 last year.

Foreign flag arrivals increased 11.35 percent, to a record total of 2472; while a slight decrease in U.S. arrivals gave a total of 2146. Again leading the list of 28 foreign nations on the list, Japan recorded 517 arrivals.

The so-called "flag of convenience" or "flag of necessity" ships made Liberia second, with 495 arrivals. Other leaders were Norway, 351; Great Britain, 212; Greece, 131; the Netherlands, 129; Sweden, 106; Italy, 94; Western Germany, 86; Panama, 79; and Denmark, 71.

Greece, with a more than 200 percent increase in the frequency of arrivals here, made the biggest gains. Sweden and Norway registered 29 and 17 percent increases, respectively. Most of the other leaders showed only slight increases or decreases.

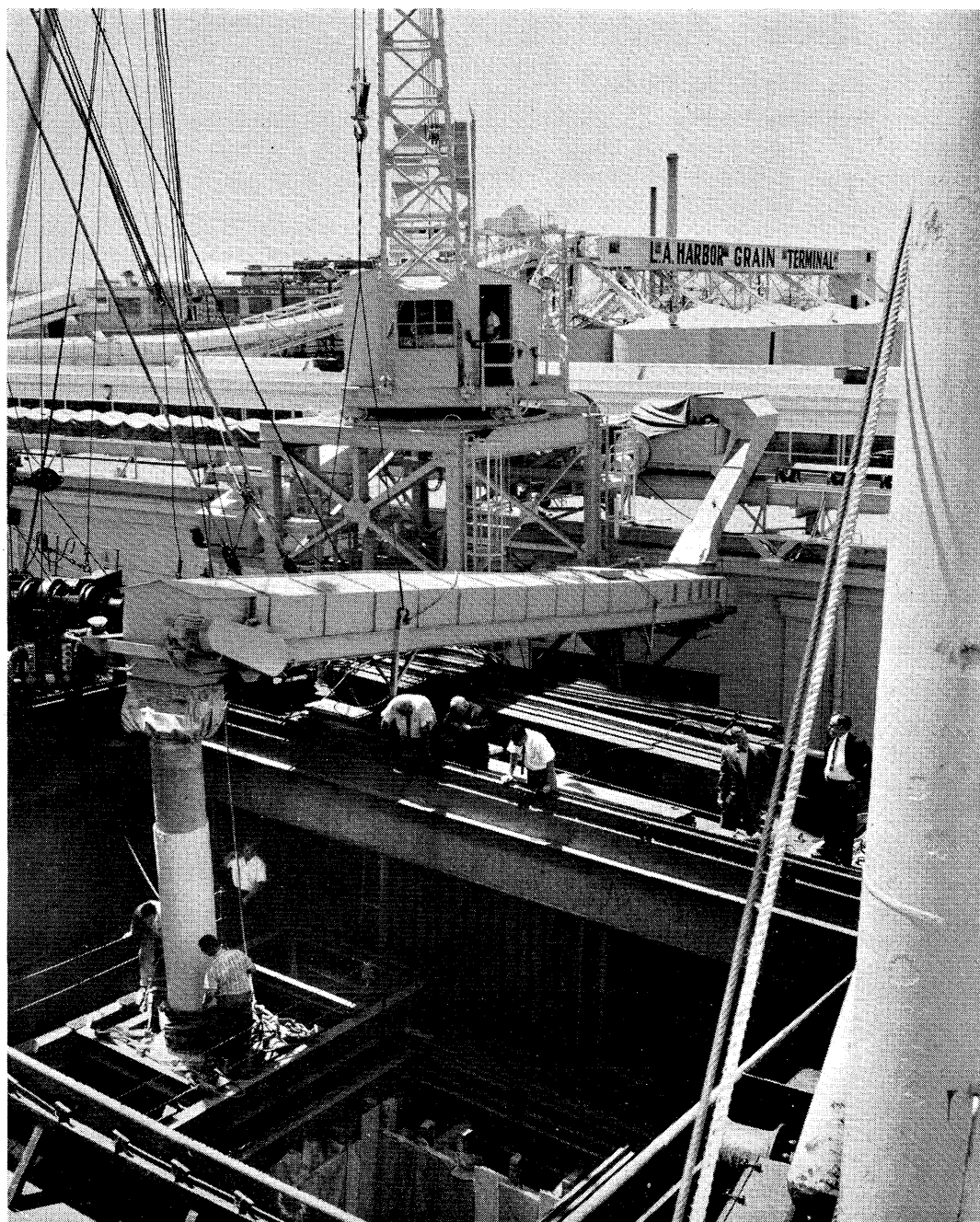
On the export tally sheet, two commodities made spectacular gains—cotton shipments nearly tripling and scrap metal more than doubling. Citrus fruit, infusorial earth and animal fats and greases also increased and old newspapers and magazines moved up to replace canned fish on the top-ten list. Decreased shipments of borax, industrial chemicals, machinery and parts and steel mill products were noted.

Contributing to a 1,402,366-ton rise in imports, were a 92 percent jump in steel mill products and an 82 percent increase in receipts of pipe and tubing. Also registering 1959-60 gains were molasses, bananas, copra, steel wire and manufactures, veneer and plywood and automobiles. Vegetable fibers and manufactures bumped window glass from the list and crude rubber receipts decreased.

Sizeable increases in the Port's income from services and rentals compensated several times over for a drop from a few other sources. The \$5,744,282 derived from dockage, wharfage, storage,



Passenger-cargo terminal now being built on Port of Los Angeles' main channel will be completed in 1962.



Southern California's first marine grain terminal went into operation at the Port of Los Angeles last August.

demurrage, pilotage and assignment charges amounted to \$819,013 more than revenues from this source the preceding year.

The \$2,112,902 from rentals represented an increase of \$230,011. Other sources of income included oil royalties, \$450,275 and warehouses, \$293,954. Re-investment of \$6,234,903 of the Port's earnings in construction of facilities and purchase of property and equipment was the largest single item on the expense side of the ledger.

A net income of \$3,903,800, after provision for depreciation, was over a million dollar better than last year's; and the equity of the

City of Los Angeles in its harbor increased from \$106,439,468 to \$109,690,202.

"Looming through this fog of figures is the skyline of tomorrow," Caughlin said and pointed out that on January 28, an early valentine, in the form of a new \$4,000,000 shipping terminal, was presented to the citizens and industries of Los Angeles by the Port.

Located at Berths 143-144 in West Basin, the new 20-acre development included a concrete wharf 1200 feet long, adequate for the berthing of two ships; a reinforced concrete cargo terminal, 1008 feet by 200 feet, clear-span; nine acres of backland area for

open storage; four rail spurs and a truck-loading platform of 20,000 square feet. A 500-foot extension to the wharf since has added a third berth to the facility.

This vast new terminal, which offers shedded space for 35,000 tons of cargo, has been assigned to the General Steamship Corporation, agents for eight steamship lines whose merchant fleets call regularly at the Port of Los Angeles.

A container dock was nearing completion at Berth 200A when it was partially destroyed by fire on March 17. Work proceeded on a 260-foot undamaged portion and since August the terminal has been

in operation on a restricted basis. Full operation is scheduled for next summer.

The installation includes a huge gantry crane which, operated by one man at a control panel in its cab, automatically lifts aluminum vans, containing 20 tons of cargo, from wharf to ship or vice versa.

The end of the fiscal year found the Los Angeles Harbor Grain Terminal nearing completion at Berth 174. Its high-speed equipment, geared to load 17,000 bushels or unload 10,200 bushels an hour, went into operation on August 8. An infinite variety of grains from all over the southwestern part of the United States, as far inland as Kansas, and copra meal and cake imports from the Philippines are expected to swell the terminal's tally to 100,000 tons during the first year of its operation.

Meanwhile, work has moved ahead on the passenger-cargo terminal on Main Channel. Construction of the wharf and foundation of the building was well along, with completion of the entire \$16,000,000 project scheduled for late 1962.

In February, the Los Angeles Board of Harbor Commissioners approved a comprehensive development plan, under which 15 new berths and five general cargo terminals will be added to the Port's facilities during the next five years. The large-scale program will cost an estimated \$36,690,000 and also will include modernization of 13 existing berths and rehabilitation of various other installations.

All this building for the future of a great and growing Southland will be done without the use of tax-derived funds. It is expected that \$28,000,000 for the purpose will come from the sale of revenue bonds, which will be repaid entirely from the Port's earnings, as will the balance of the costs of the five-year plan.

"Tomorrow's harbors will be larger and better ones than we have today," Caughlin predicts. "Ships of advanced design now only dreamed of will call at them with cargoes now unknown. They also will discharge on our wharves goods identical with those stowed in the holds of early sailing ships,

"Ports O'Call"

A new kind of waterfront improvement is underway at the Port of Los Angeles, it was announced November 21 by Lloyd A. Menveg, president of the Board of Harbor Commissioners.

Being built on a wharf over the waters of the municipal harbor's main channel is an exotic restaurant which, when opened for business next February, will offer diners a choice of five different decors in which to eat their steaks or sea food.

To be called 'Ports O'Call', it will include a nautical bar, Japanese tea room, Tahitian banquet room and Polynesian and Hong-kong Yacht Club rooms. There also will be an outdoor serving area on the wharf, bringing the total dining capacity to more than 700 persons.

"The floor show will be the most varied and colorful in Southern California," Menveg said. "The ships of 30 nations will pass within a few yards of the diners, not to mention the usual traffic of tugs, fishing boats and yachts."

In addition to ample parking space for automobiles, there will be landing facilities for patrons arriving by boat. A beached Chinese junk, pool and grove of palms will enhance the exterior.

The luxurious eatery is being built by the Longjohn Corp., whose president, David C. Tallichet, Jr., estimates his eventual investment at \$300,000. A 50-year lease on 2.8 acres of land north of Fishermen's Slip and 2½ acres of water area in the adjoining channel has been granted to the corporation by the Board of Harbor Commissioners.

The lease specifies that the developers also must start construction on a yacht anchorage and other concessions at the site within two years. These additional installations, expected to include a snack bar and souvenir shops, will be subject to approval by the Board.

Collaborating photogenically in the eternal cargoes made manifest by human need.

"Tomorrow will be as big as we build it."

the day's inspection of the project by Menveg was Kay Suzuki, 24.

The following harbor area firms are responsible for various phases of the venture: Killingsworth, Brady, Smith & Associates, architects; Simkins & Perrin, Inc., general contractor; and Robert Mavis, interior decorator. Edwin Gillfooy, formerly with the Statler Hilton, will be the restaurant's manager, Tallichet said.

FMB Vice-Chairman Visits Japan

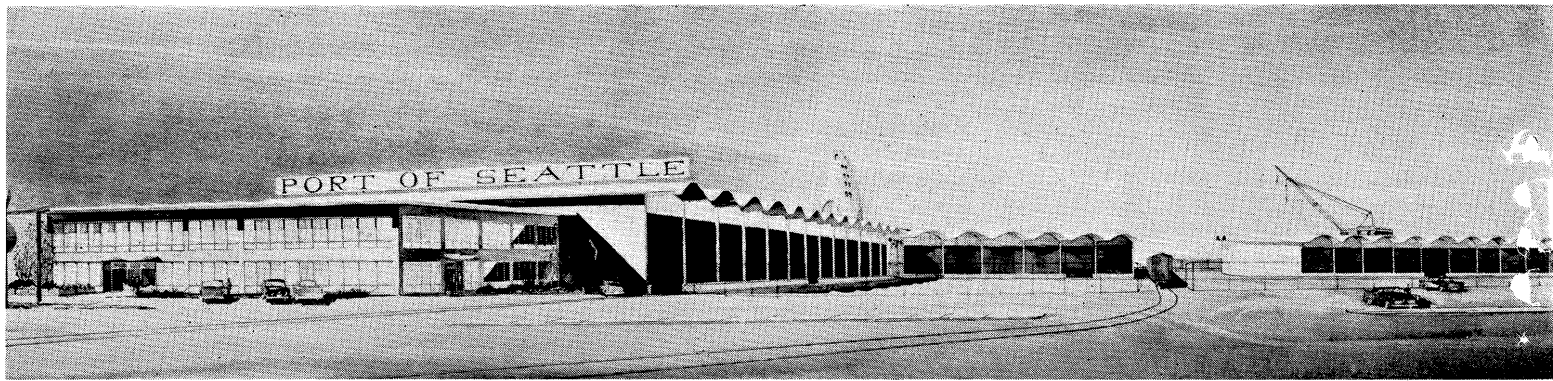
Mr. Stakem, vice-chairman of the Federal Maritime Board of the United States arrived in Tokyo on October 20 to talk with Japanese government officials and shipping men and to inspect shipyards. The Japan Shipowners Association gave a dinner in his honor at the Japan Shipping Club on the 24th. Speaking at the party, Mr. Asao, president of the association asked for the revision of the Merchant Shipping Act of 1916.

Pres. Cleveland's 100th Voyage Feted

In celebration of the 100th sailing of the President Cleveland (15,457 tons gross) of the American President Lines, Standard Vacuum Oil Company held a party on October 27 at the New Grand Hotel in Yokohama. The party was attended by many interested persons. The ship was purchased by the Lines from the American Government in 1947.

Hikawa Maru to be Used as Students' Hostel

Talks are progressing between Yokohama City and the N.Y.K. Line on the use of the Hikawa Maru, the Line's only passenger vessel (11,625 tons gross) which has survived the Second World War. According to the plan, a company tentatively called Hikawa Maru Tourist Company will be formed to operate the vessel, which is to be laid up in front of Yamashita Park to be used as a hostel for students on a educational trip. It will take about four months' time and some ¥40,000,000 to convert the vessel.



An artist's sketch of the south end of Seattle's piers 28-29-30, now being combined into one "super-terminal," as it will look when the project is completed in 1963. In the office at left will be steamship offices, passenger accommodations, U.S. Customs and the terminal superintendent's headquarters. The \$10,000,000 terminal will have nearly ten acres of paved, open storage area, three large transit sheds and an apron with double rail trackage and full-length crane trackage.



An aerial view of Seattle's East Waterway and part of busy Harbor Island (foreground). The large buildings and open area in the center of the picture, adjacent to the L-shaped wharf with three whirley cranes, are part of a World War II shipyard most recently used by Boeing for the assembly of military missiles. The Port of Seattle is now negotiating a purchase of the entire plant from Federal government. In the meantime, the Port has leased the pier and two of the cranes for use in a large scrap-metal export movement which commenced recently.

Recent Activities of Port of Seattle

One of the most ambitious port development programs seen on the Pacific Coast in recent years is now under way at Seattle's Elliott Bay waterfront. Begun nearly a year ago, with the demolition of aging pier 28, the entire project will take five years to complete and will cost an estimated \$25,000,000. Included among the major projects are: the demolition and rebuilding of piers 28, 29 and 30 into one large, modern terminal; a similar project to combine piers 44 and 46 into a new, four-berth terminal; doubling the loading capacity of the Port's grain export facilities; the purchase of a World War 2 shipyard on Harbor

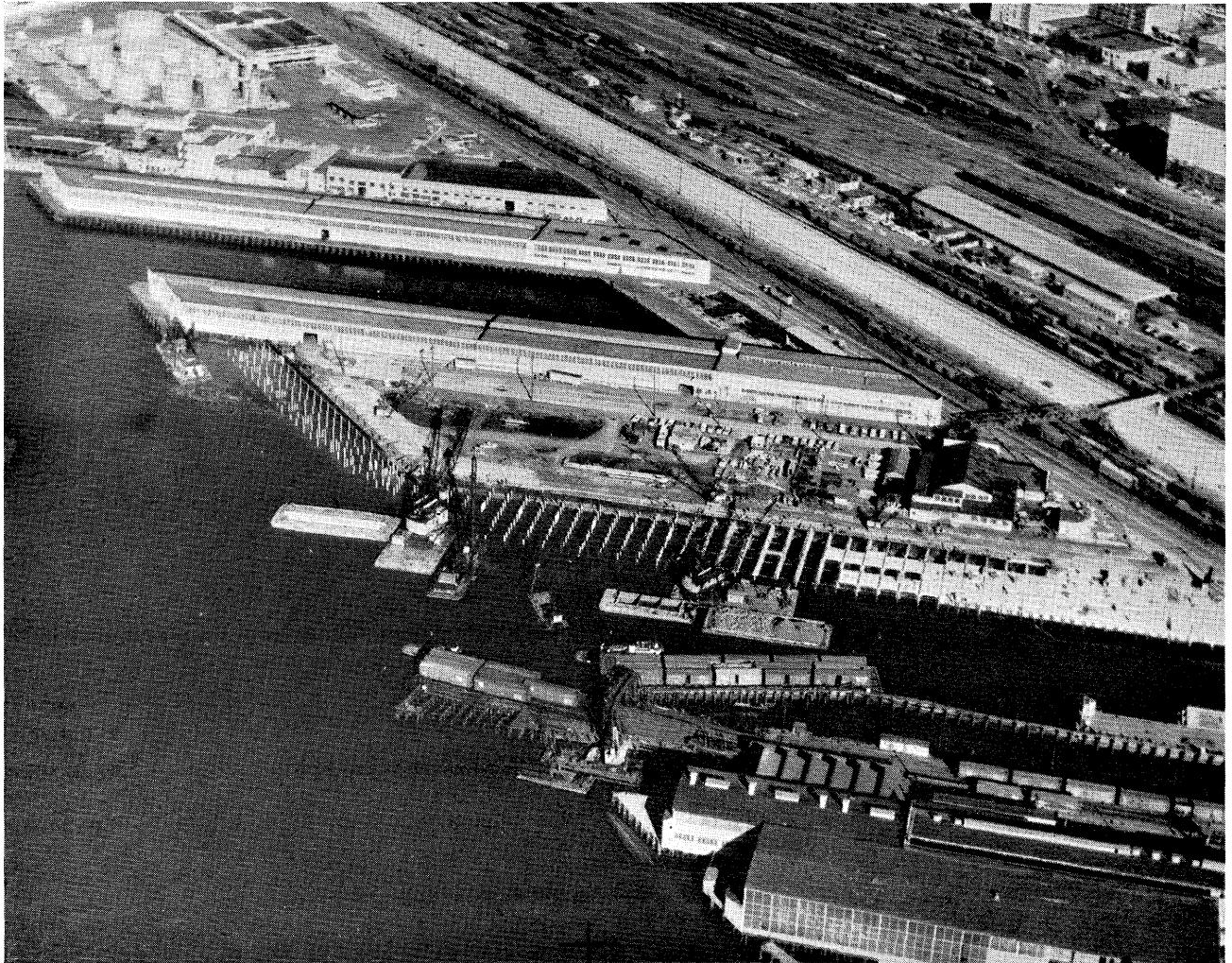
Island, for conversion into a three-ship cargo pier; completion of the Port's Shilshole Bay Marina, with a capacity of 1,600 pleasure craft, and the rebuilding of Ames Terminal, on West Waterway.

Simultaneously the Port of Seattle, which also owns and operates the Seattle-Tacoma International Airport, will spend more than \$10,000,000 on runway extensions and enlargements and improvements on the airport terminal building. Already one of the largest fields in the nation, the airport will have a 12,000-foot long main runway next year. "Sea-Tac", in terms of overseas movement of cargo and passengers, is the third

busiest in the United States, exceeded only by New York and Miami.

To help guide the Port in this tremendous program, Seattle voters last November increased the size of the elected Commission from three members to five and, at the same time, approved a \$10,000,000 bond issue to assure the program's completion. The balance of the cost of the combined seaport-airport project will come from the Port's normal sources of income (taxes, rentals and operating income).

Although the project is the largest ever undertaken by the Port of Seattle, the need for it is obvious when it is realized that 1959 import-export tonnage was the greatest in the Port's history and that 1960 is expected to be even larger.



As a pile-driver places hundreds of pre-stressed concrete pilings in place on the site of Seattle's former pier 28, pre-cast concrete slabs are placed on them (right, center) to form a wide apron. The two large transit sheds beyond the new piling are piers 29 and 30, soon to be torn down. The two-ship berth between piers 29 and 30 will be filled in and the entire area paved. New transit sheds will be built along the perimeter of the combined 12-acre terminal.

IAPH Publication Reviewed

A new edition of "Principal Ports in Japan" shows the developments that have taken place since the first edition of eight years ago. The volume, which is issued by the Japan Port and Harbour Association and the central secretariat of the International Association of Ports and Harbors, contains plans, photographs and details of 22 principal ports, an appendix (port and harbor law in Japan) and an account of the ports in general.

The introduction states that, owing to the mountainous land, transport of goods has depended upon marine traffic to a great degree. The majority of commercial and industrial centres have developed near the coasts with ports as their pivots, owing to the fact that most raw materials have to be imported and Japan depends to a large degree on the exports of finished goods. About half of Japan's population is concentrated in port communities. There are about 2000 ports and 2000 fishing ports. There are 73 major ports which are important in overseas trade.

With the construction of new piers and other improvements, opportunities have arisen for switching from barge loading and unloading to quayside working. Previously the Japanese depended mainly upon barges. Deepening of fairways and anchorages is proceeding as part of a port improvement programme scheduled to be completed in 1963. (*from Lloyd's List & Shipping Gazette, Nov. 18, 1960*)

Trade Figure for Yokohama and Kawasaki

The Yokohama Customs House recently announced the export and import figures of the two ports of Yokohama and Kawasaki during the month of September 1960. Exports through Yokohama Port increased 11 per cent over the previous month and imports 10 per cent while exports through Kawasaki showed an increase of 6 per cent over the previous month and imports a decrease of 3 per cent.

Cargo Handling Machinery Show

A cargo handling machinery show under the auspices of Yokohama Municipal Cargo Handling Mechanization Association and the Japan Port and Harbor Association was held for a week from October 24 to 30 at Tammachi Park, Kana-gawa-ku, Yokohama. New style power buckets, forklifts, mobile cranes and many other machines and models of port facilities exhibited by 46 cargo handling machine makers attracted many visitors.

* * *

15,000 H.P. Diesel Tanker Completed

The tanker Shinano Maru (33,579 tons d.w.) under construction at the Kawasaki Heavy Industries, Ltd. to the order of the Kawasaki Steamship Co. was recently completed and delivered to the owners. Built with the loan from Hanover Bank of the United States, the ship is installed with a Kawasaki-M.A.N.-12Z78-140C diesel engine developing 15,000 h.p., the fourth largest marine engine in Japan. Her fuel consumption per day is around 30 tons less than that of the Chizukawa Maru, turbine tanker of the same size of the company.

Principal particulars are: length o.a. 201.05 m.; breadth 26.03 m.; depth 14.00 m.; gross tonnage 20,540; propelling machinery 15,000 h.p.; service speed 16.05 knots; and classification NK.

* * *

Successful Applicants Decided

The Ministry of Transportation announced on December 2 the successful applicants for the construction of liners under the 16th Government-sponsored shipbuilding program. Details are:

High speed vessels

	Number of vessels	Builders
Mitsubishi Line	2	Mitsubishi Nagasaki and Yokohama shipyards
O.S.K. Line	2	Mitsubishi Heavy Industries, Recognized, Ltd.
Mitsui Line	1	Mitsui Tamano shipyard
Mitsubishi Line	1	Mitsubishi Hiroshima shipyard
Daido Line	1	Mitsubishi Nagasaki shipyard
Yamashita Line	1	Hitachi Sakurajima shipyard
Iino	1	Iino Heavy Industries, Ltd.

Medium speed vessels

Shin Nihon Line	1	Hitachi Innoshima shipyard
Kawasaki Line	1	Kawasaki Heavy Industries, Ltd.

Sumitomo New Port Opens

The privately-owned "Sumitomo New Port" which was under construction in the north port of Wakayama by the Sumitomo Metal Industry, Ltd., Osaka will begin operations on October 11 when cargo vessel Orient Maru (9,390 dwt.) of Daiichi Chuo Steamship Company arrives. The new industrial port, which has been born three years after its construction was commenced, is to be used exclusively for Wakayama steel mill of the company. The ship entered the port on the 13th from Dungun with 8,800 tons of iron ore.

* * *

Greater Tokyo Port Plan Decided

The Tokyo Metropolitan Office decided on October 26 on the 10-year expansion program for Tokyo Port. The program, which will completely change the appearance of the port, includes the expansion of port facilities, reclamation and other works so as to enable the port to handle the growing volume of cargoes. After referring to the Port and Harbor Council, the program will be implemented at an estimated cost of ¥105,000,000,000 from the next fiscal year.

* * *

Japanese Floating Fair Ship Tour

Fitted out as a floating fair ship by the Mitsubishi Heavy Industries, Reorganized, Ltd., Kobe, the N.Y.K. cargo motor ship Aki Maru (10,010 tons d.w.) left Tokyo Port on October 31 to carry out the following itinerary between October 31 and February 7 carrying the exhibits and samples of machines, chemical products and general merchandise: New Zealand, Australia, Port Swettenham, Singapore, Bangkok, Saigon, Manila, Hong Kong and Keelung.

Japan's Port and Harbor Cargo Handling Machinery

By Shoichiro Fuse

*Machinery Section, Port and Harbor
Bureau, Ministry of Transportation*

1. Importance of Rationalizing Cargo Handling

(1) Foreword

Whereas it is undeniable that ports and harbors have, since early times, always played an indispensable role in an insular nation such as Japan in regard to the daily life of its people, the importance thereof has become ever increasingly felt within the past couple of years concomitantly with the rapid rate of growth in Japan's economy.

In order to make active use of the said ports and harbors as well as fully display their functions, there obviously arises the need of, first of all, formulating adequate plans for increasing and rationalizing their cargo handling capacity.

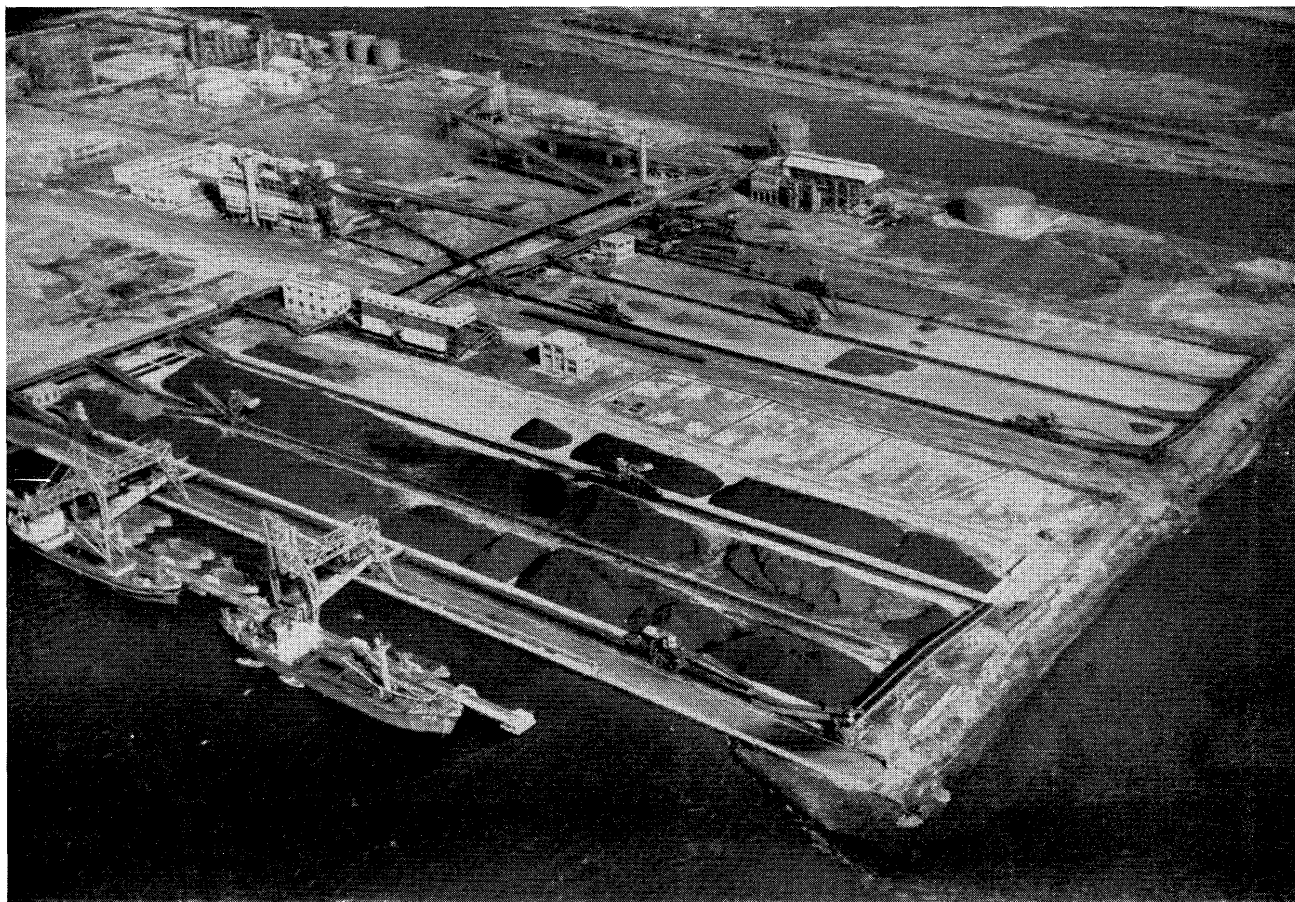
The purport of this article lies in analyzing the present status

and dealing with the various pending problems by focussing our special attention on cargo handling equipment which constitutes the nuclear role in regard to the problem of rationalization of cargo handling.

(2) Goal of Rationalization of Cargo Handling

Ports and harbors may well be said as constituting the nodes of marine and land transportation due to various stevedoring operations being conducted here in regard to the transshipment of cargo from land for marine transportation or vice versa. Needless to state, however, great the land or marine transportation capacities may be, lack of cargo handling facilities is certain to create a bottleneck by obstructing the smooth flow of cargo in general.

Inasmuch as cargo handling capacity thus represents, in general, the capacity of ports and harbors, it hence follows that the perfection of port and harbor facilities is a prerequisite to increasing cargo handling capacity. This implies enhancing of alongside ship loading and unloading as well as mechanization of pier cargo handling equipment. Not only would this serve to enhance the cargo handling capacity as well as reduce stevedoring costs, but would greatly contribute towards the rationalization of navigation by raising the turn-around ratio of vessels. The Government's recently drafted Long-term Economy Plan also envisages a colossal increase in the cargo handling volume at the various ports and harbors to cope with the likely remarkable economic expansion, in addition to which the trend toward building larger-sized vessels is believed to become further stimulat-



Stacker jib loaders at Toyosu Coal Pier, Port of Tokyo.

ed. It may thus be asserted that, under the said circumstances, the outcry for the need of rationalization of cargo handling has become increasingly great.

(3) Results of Rationalizing Cargo Handling

(A) Increase in Handling Capacity

The rationalization of cargo handling at the various ports and harbors will, first of all, bring about an increase in cargo handling capacity by registering a per/hr. increase in cargo handling volume of as high as even ten-fold or over.

As will be explained later, this will eventually result in lowering port charges.

(B) Lowering of Stevedoring Costs

Generally speaking, in the case of bulk shipments of petroleum and mineral ores, transportation costs occupy from 20 to 40 per cent of net cost, of which stevedoring costs at ports and harbors come to over one-half of the said transportation costs. It will thus be observed that port charges occupy from 10 to 20 per cent of commodity prices, so that it may safely be asserted that the rationalization of cargo handling possesses quite a significant effect upon commodity prices. As for example, by rationalizing cargo handling by means of alongshore facilities and

cargo handling machinery, a per-ton saving of approximately ¥500 could be brought in the export prices of cement and ammonium sulphate, thereby contributing in no small measure toward strengthening of competitive power in the international market.

(C) Raising of Turn-around Ratio of Vessels

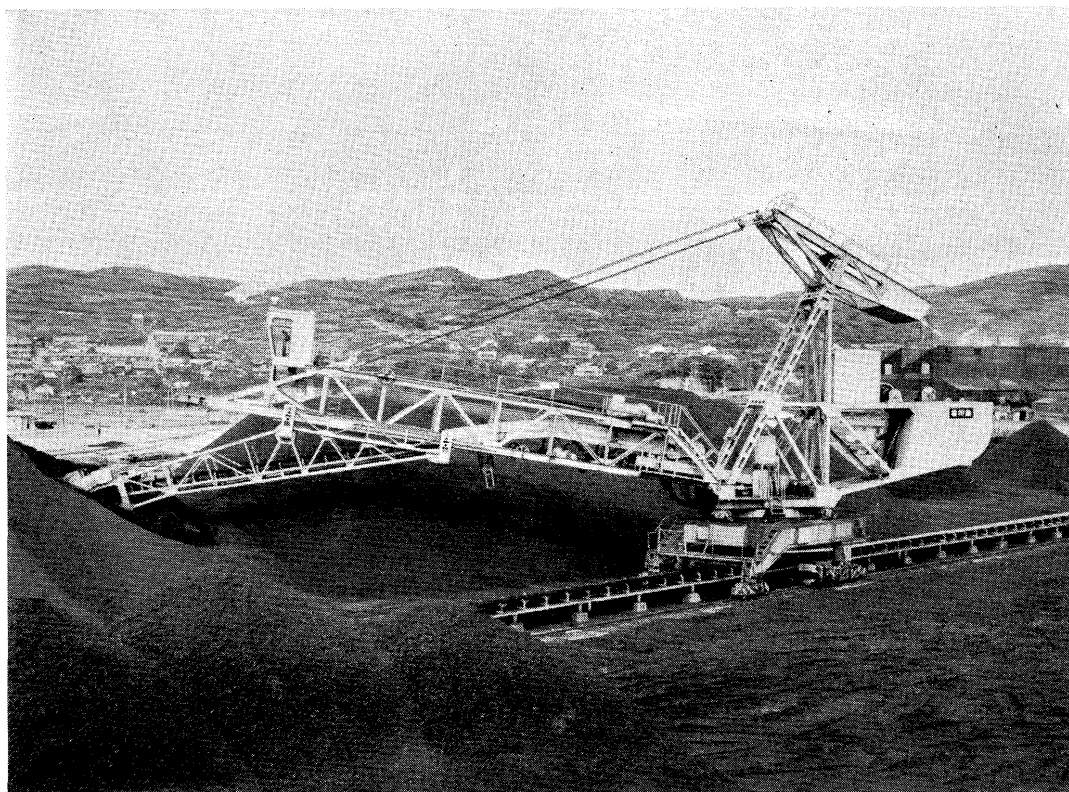
In view of the increasing worldwide post-war trend toward the construction of large-sized vessels of greater speed, thereby bringing about an increase in the ratio of length of stay at ports and harbors in comparison with the number of voyage days, as well as the steady annual increase of investments for vessels, there prevails a strong demand for quicker despatch of vessels. This may be interpreted as implying that, notwithstanding the increase in the transportation capacity of vessels, the entire marine transportation capacity is being held in check owing to the inadequacy of port and harbor facilities. Moreover, also from the standpoint of nautical economy, ordinary charges amount to roughly double of operating costs of vessels at sea. On, for instance, citing the case of coal transportation between Muroran, Hokkaido, and Tokyo, by means of a 6,000 DW/T vessel, whereas only two voyagers per month are

possible in the event of ordinary cargo handling methods, this could be raised to three monthly voyages by resorting to mechanized cargo handling; or, instead of requiring three vessels, the same task could be performed by only two vessels, thereby allowing of one surplus 6,000 DW/T vessel. This clearly demonstrates the colossal advantages of utilizing cargo handling machinery. As duly stated, the advantageous results obtainable from the rationalization of cargo handling are certain to become increasingly manifest in keeping with the increase in cargo as well as aggrandizement of vessels.

II. Present Status of Japan's Cargo Handling Machinery

(1) Summary

Let us now dwell briefly upon the cargo handling machinery that are presently playing a major role in the rationalization of cargo handling at Japan's ports and harbors by mainly focussing our attention on those for public utility and public welfare use. Generally speaking, mechanized cargo handling of bulk freight at Japa-



400 T/H coal loading crane, Port of Muroran, Hokkaido.

Jib loader on To-yosu Coal Pier, Port of Tokyo.



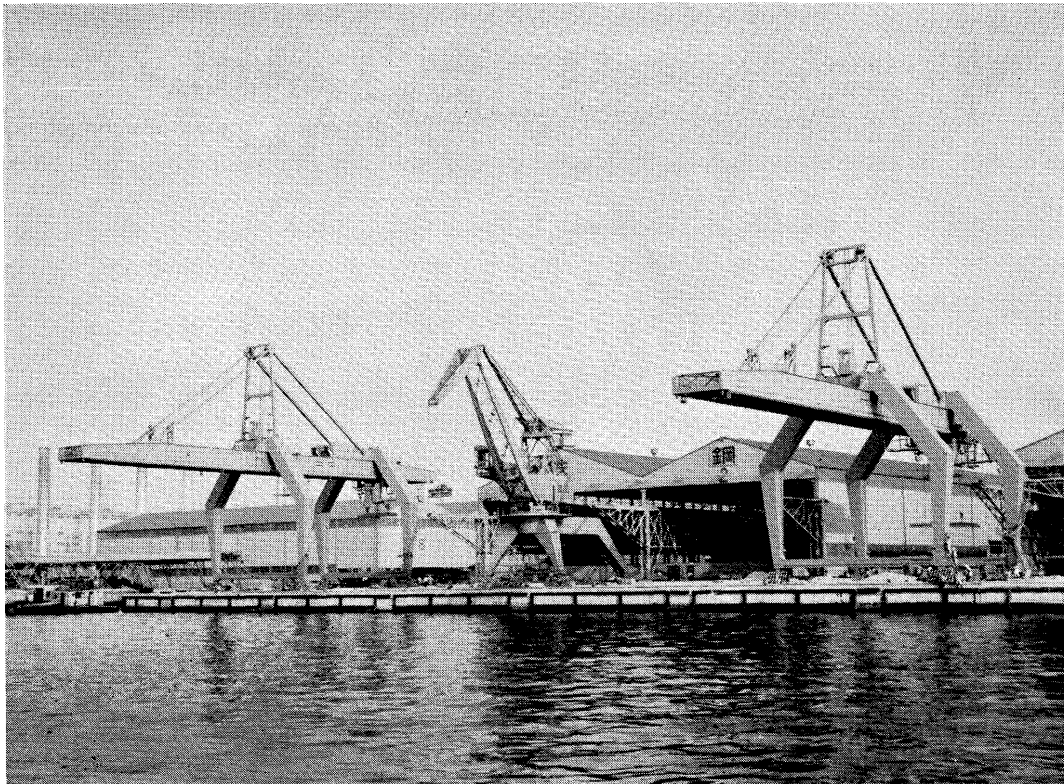
nese ports and harbors is relatively more advanced as compared with the handling of general cargo. This phenomenon is seemingly attributable to the problem of payability based on such factors as volume handled as well as extent of use. The following may serve to give a rough picture as regards loading of coal, unloading of coal and mineral ores, as well as handling of other bulk cargoes

and general cargo.

(2) Coal Loading Facilities

As regards Japan's coal loading facilities, Kyushu and Hokkaido districts—the nation's main coal mining centers—have since early times been equipped with railway terminal and junction facilities; in addition various ports such as Wakamatsu, Tobata, Otaru and Muroran have been equipped with highly efficient machinery such as

hoists, car dumpers and loaders, etc. It was in 1949, with the object of lowering the transportation cost of coal from the standpoint of fostering Japan's post-war industrial rehabilitation, that special coal piers and cargo handling equipment were perfected at with State funds, the most exemplary of which are the facilities at the ports of Karatsu and Ube.



Steel materials loading equipment on Steel Pier, Port of Tokyo.

The installing of cargo handling equipment at State expenditure became subsequently discontinued, but with the way having become opened for the accommodating of funds or rendering assistance therefor by the Government following the designation of port and harbor administrators by virtue of the enactment of the Ports and Harbors Law in 1950 as well as the perfection of cargo handling machinery through the enactment of the Ports and Harbors Perfection Acceleration Law, the cargo handling equipment at the ports of Ube in Yamaguchi Prefecture as well as Karatsu and Karita in Kyushu have been undergoing perfection since of late. Among some of the recent trends in regard to the said equipment are:

- (1) Belt conveyors are used as much as possible for the storage and ship loading of coal. Underground conveyors are also used.
- (2) From this standpoint, considerable development has been witnessed in regard to combined operation (the so-called SJ formula) of stackers, jib loaders and various types of conveyors.
- (3) Mobile cargo handling machinery such as shovel loaders, mobile cranes and caterpillar cranes are being used

in either auxiliary or main capacities.

(3) Coal and Mineral Ore Landing Equipment

Efficient equipment of this category for the exclusive private use of iron and steel works, steam power plants and gas companies have already been in use since early times, but they have become increasingly efficient of late. Among the private facilities for the handling of coal are such large-scale facilities as the Mitsui and Toyo coal piers in the Port of Tokyo, Yokohama as well as the Sakurajima Pier in the Port of Osaka. In addition to the foregoing, numerous coal landing facilities have come to be established within recent years at the hands of various port and harbor administrators, including those at the ports of Tokyo, Nagoya, Shimizu, Toyama and Onahama. Among some of the general trends observed in connection with the aforementioned landing facilities are:

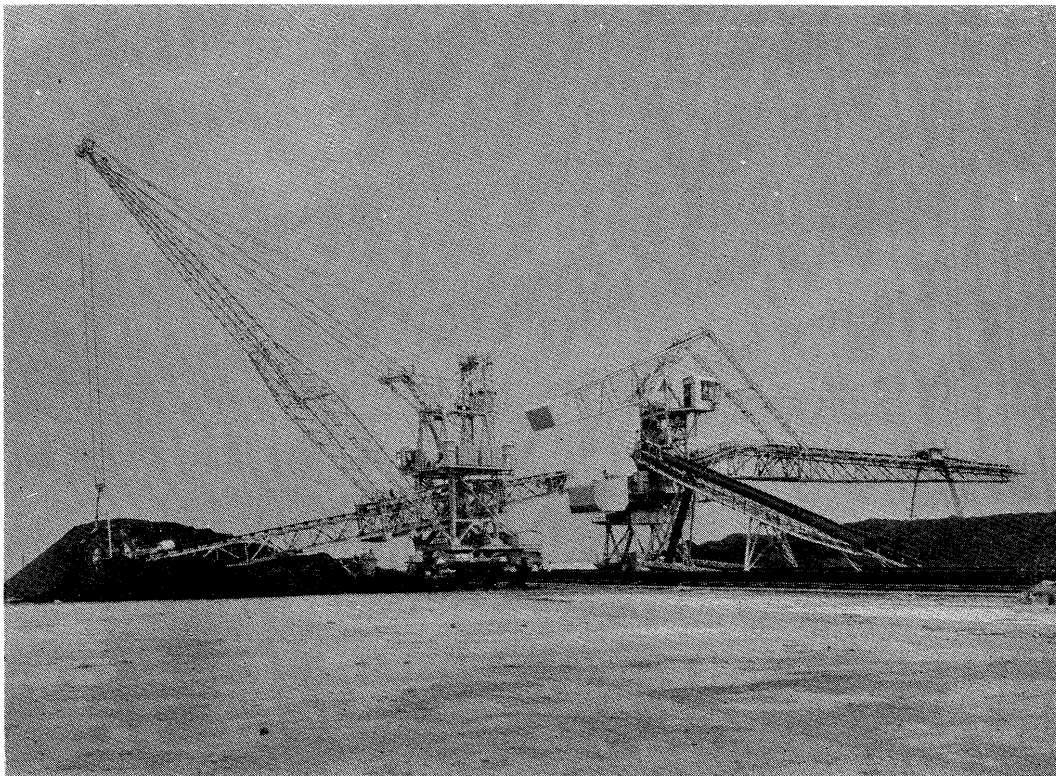
- (1) Concomitant to the trend toward aggrandizement of special use vessels, private-use machinery, especially as regards iron ore are becoming astoundingly larger and speedier.
- (2) The use of belt conveyors for coal and ore storage is becoming increasingly popu-

lar, and greater use is being seen with such mobile coal handling machinery as carry-all scrapers and bulldozers.

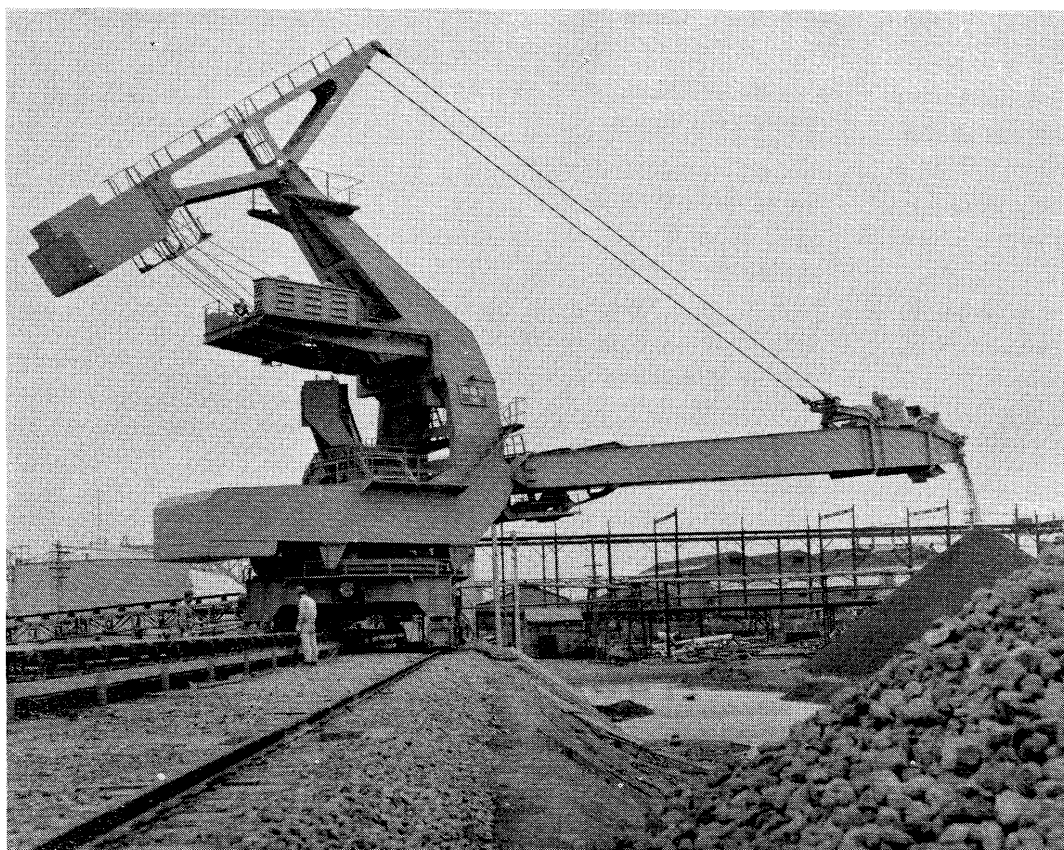
- (3) Machinery for acquiring a higher rate of inboard cargo handling are also being used.
- (4) Also as regards public utility facilities, special exclusive use piers have been erected, apart from which simple and handy facilities representing a combination of horizontal service cranes, conveyors and mobile cargo handling machinery are being planned. Interlinking with sheds has also been realized.

(4) Cargo Handling Facilities for Other Bulk Cargoes

- (1) To cope with the considerable increase in the post-war importation of wheat in bulk, special landing facilities with the use of pneumatic conveyors have been set up at the ports of Yokohama, Osaka, Kobe and Nagoya. Some are in the form of an over-all equipment with silos as their main body and equipped with facilities for volume computing and baling. The majority of them are synthetically controlled automation machinery. Further, S.K.T. conveyors (a form of chain conveyor) are also in use.



Coal stacker and wheel loader.



Ore reclaimer.

(2) Cement is also gradually moving towards bulk shipment by resorting to an ingenious method with the use of pneumatic conveyors. *Tsukimi* in Kyushu is the most representative port of shipment, and special facilities in regard to loading are afforded at principal ports through the establishment of service stations.

(3) Apart from the foregoing, as regards handling of relatively small-sized bulk shipments, mobile cranes, shovel loaders, small-sized portable conveyors and climber belts with fin are in use.

(5) Handling Facilities for General Cargo

Japan may be said as being extremely behind the times as regards handling of general cargo. Although the machinery hitherto in use comprised steel derrick jib cranes, with telfers and hoists being also used in warehouses, wheelbarrows and wooden derricks constituted the main items.

However, the considerable progress witnessed in post-war years has brought about the use of various cargo handling machinery for general cargo such as forklift trucks and mobile cranes.

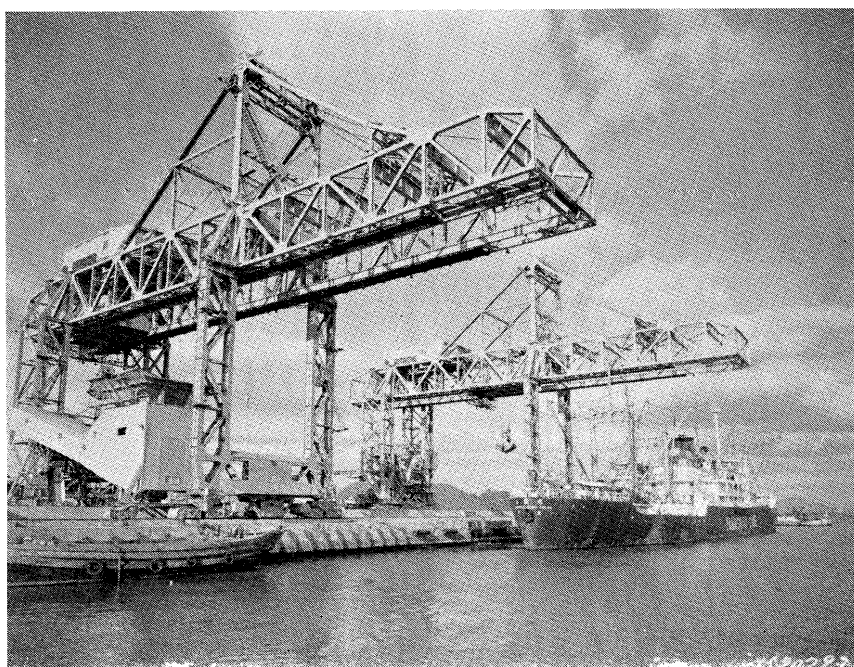
A. Mobile Cargo Handling Machinery

1) Forklift Trucks

Hand in hand with the use of pallets and roller conveyors, the use of same is becoming gradually widespread at ports and harbors for the assorting of cargo at aprons and sheds. Smaller-sized ones are occasionally for inboard cargo handling.

2) Mobile Cranes

Differing from the stationary or gantry cranes hitherto in use, not only can increased efficiency be acquired due to there being no limit to scope of operations, but there arises no danger of monopolization of quays, hence making same ideally suited for preserving the public utility nature of piers.



100 T/H ore unloader.

B. Pier Crane

Although in general use throughout Europe, same are seldom seen in North America. As for Japan, same were not in much evidence in the past, but have somewhat come into use of late when erecting multi-storied custom sheds and warehouses on quays as in the case of various ports such as Kobe, Shimonoseki, Nagasaki and Tokyo. Further, according to the Ports and Harbors Special Account for fiscal 1959, special piers for the exclusive use of exports are to be built at such major ports as Yokohama and Kobe, for the construction whereof special consideration is being given towards designing same in such a manner that the two-storied customs shed on the pier and the pier cranes,

trailors and trucks will jointly operate so as to allow of the smooth movement of cargo at time of export or import.

C. Cargo Handling Machinery in relation to Special Cargo

- 1) As regards general cargo, whenever loading or unloading a large volume of cargo of similar packing, it will suffice to devise suitable facilities for the said purpose. As for instance, satisfactory results are being achieved through the use of conveyors and zigzag chutes for the loading or unloading of bagged cement.
- 2) Special type cranes and special exclusive use sheds are needed for handling large

quantities of such weighty and lengthy items as steel materials. (Port of Tokyo's Steel Materials Pier)

- 3) In the case of units of weighty items being exceptionally large, there prevails the practice of having piers equipped with large-sized cranes built by specially designated companies. Further, the maintenance of floating cranes by port and harbor administrators is also considered possible.

D. Progress in Cargo Handling and Transportation Systems

- 1) As regards transportation and cargo assorting, endeavors are being pushed to raise their efficiency by means of containers and palletization respectively.
- 2) The remodelling of vessels is also being given due consideration so as to make their structure facilitate the loading and unloading of cargo.
- 3) Consideration is also being given to the problem of utilizing special type vessels such as those of the roll-on roll-off type so as to enable the loading of trailers just as they are onto vessels.

III. Trend toward Mechanization of Cargo Handling in Japan

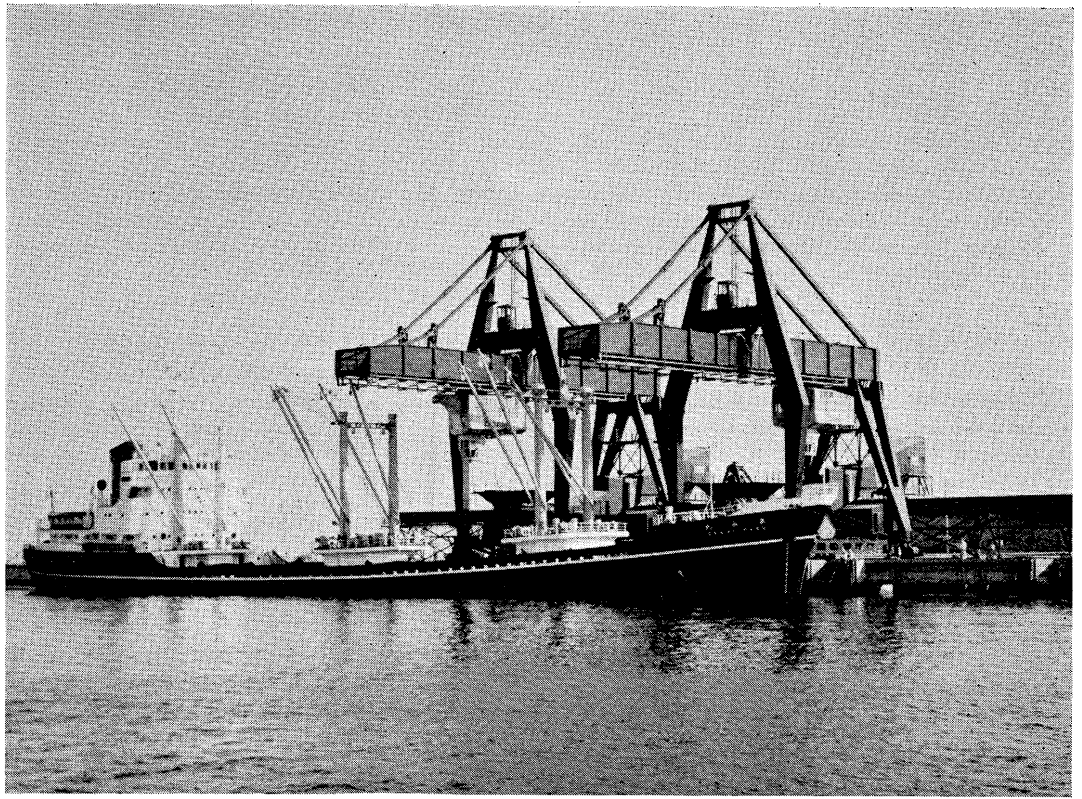
(1) Promotion of Cargo Handling Mechanization

As duly stated, the mechanization of cargo handling equipment gives rise to a wholesale reduction of port charges, thereby influencing a nation's economy in no small measure by lowering transporting costs and commodity prices concomitant to the development of national prosperity and growth of modern industries ever since the Meiji Restoration, rapid development has been witnessed in Ja-



250-ton derrick, Port of Hitachi, Ibaraki Pref.

400 T/H coal un-
loader, Port of
Yokosuka.



4-ton mobile crane.



pan's various ports and harbors as well as their cargo handling machinery, but due to the ever-increasing need of enhancing their capacity as well as renovating the various necessary facilities, renewed efforts are being actively pushed towards their perfection.

Although considerable efforts have of late been exerted so far as large-sized pier cranes and

loaders for loading aboard or unloading from vessels are concerned, there remains as yet ample scope for perfection in regard to other forms of cargo handling operations as well as the mechanization of minor transport operations, especially in regard to small-sized mobile cargo handling equipment and conveyors. The existence of such a phenomenon is

presumably due to the cargo handling and transportation business being as yet still dependent on the traditional custom of having relied solely on man-power, as well as due to the stevedoring business having for long been merely looked upon as being in the nature of an insignificant sub-contractor business wholly independent of consignors and consignees.

From the viewpoint of rationalizing cargo handling, however, it should be borne in mind that we are gradually advancing towards the age where this state of affairs can no longer be allowed to remain as it is. This phenomenon which is restricted not only to Japan but is applicable also to various foreign countries in varying degrees, may well be said as constituting one of the bottlenecks to the circulating economy of the countries concerned. True though it be that a fair degree of reform has come to be effected in Japan of late through mechanized operations, radical measures ought perhaps be adopted by advancing one step forward.

That the installing of the aforementioned cargo handling machinery has made such considerable headway is attributable to the profound degree of the sense of cognizance of the need for mechanized cargo handling as well as powerful will on the part of the various users comprising the regional public bodies acting as port and harbor administrators, as well as private industrial companies and shipping agents. We must not also overlook the fact that various leading machinery makers of Japan have, in response to the orders received from the said users, keenly competed in their techniques in steadily turning out top-grade products. As a matter of fact, the said machinery have been fully brought up to the international level with the result that overseas enquiries for same are steadily pouring in of late, especially from Southeast Asia, the Central and Middle East as well as South America.

(2) Japan Cargo Handling Mechanization Association

While, on the one hand, the mechanization of cargo handling at ports and harbors is steadily bearing fruit through the joint efforts of users and makers, the Government, through the Machinery Section of the Transportation Ministry's Ports and Harbors Bureau, has also been rendering financial aid as well as making arrangements for same.

Nevertheless, as a result of the

loud outcry among the various concerned parties calling for the need of creating a central propelling organ for the purpose of fostering closer liaison and cooperation as well as intensifying the mechanization movement, the Japan Cargo Handling Mechanization Association (abbreviated as JCHMA) came to be established in 1956. Without any exaggeration, this organization may safely be claimed as being comprised of Japan's foremost experts in the said line. Aside from its membership consisting of all cargo handling machinery makers (Approx. 50 including 5 leading crane and loader makers and 5 forklift makers) and roughly 250 users, there are approximately 80 individual members. Its principal officers are Mr. Toru Akiyama, former Administrative Vice Minister of Transportation and President of Japan Airport Building Co., Mr. Shizuo Kuroda, former Chief of the Port and Harbor Bureau, Ministry of Transportation, and Deputy Chief of the Central Secretariat, IAPH, and Mr. Ichiro Kuniyuki, Managing Director, Toyo Electric Co., who are acting as President and Vice Presidents, respectively. The duties of the said Association extend over an extensive range of activities such as promoting of mechanization of cargo handling, planning and designing, research work and public relations, in addition to which it also acts in the capacity of the Japanese National Committee of the International Cargo Handling Co-ordination Association, thereby consolidating its position with an international background.

All in all, it is a source of extreme felicitation for all parties concerned that the said Association is making steady progress ever since its inauguration four years ago.

Three Big Shipbuilders Awarded Soviet Contracts

Hitachi Shipbuilding and Engineering Company, Harima Shipbuilding and Engineering Company and Mitsubishi Shipbuilding and Engineering Company formally entered into contracts with the Soviet Union in November for the construction of seven vessels. Details are as follows:

Hitachi

Three 12,000-dwt. cargo vessels: propelling machinery—Hitachi B & W 12,000 h.p. diesel engine; delivery dates—December, 1961 (first vessel), March 1962 (second vessel) and July 1962 (third vessel); and price per vessel—\$3,900,000.

Harima

Two 36,000-dwt. tankers: propelling machinery—Harima 9-RD-90—18,000 h.p. diesel engine and price per deadweight ton—\$170.

Mitsubishi

Two 35,000-dwt. tankers: propelling machinery—Uraga-Tamashima-Sulzer-9-RD-90—18,000 h.p. diesel engine and price per deadweight ton—\$170.

With 30 per cent down payment, the balance of the price for the vessels is to be paid in five yearly instalments. With regard to 45 craft including dredgers, floating cranes and barges, negotiations are going on in Moscow between the Soviet authorities and the representatives of the four Japanese shipbuilding firms of Hitachi, Hakodate, Ishikawajima and Uraga.

* * *

Indian Vessel Launched

The second cargo vessel (10,450 tons d.w.) for Scindia Steam Navigation Company of India, which was under construction at Kobe shipyard of Mitsubishi Heavy Industries, Reorganized, was launched on October 13 after Hindustani fashion. Built at a cost of ¥1,000,000,000 in accordance with the yen loan agreement with India like the first vessel, she is scheduled for completion in February next year. Her principal particulars are: length o.a.—153 meters; width—20 meters; depth—8.805 meters; gross tonnage—6,400 tons; propelling machinery—Mitsubishi Kobe Sulzer Diesel—8,000 h.p.; service speed—16.65 knots; and classification—LR.

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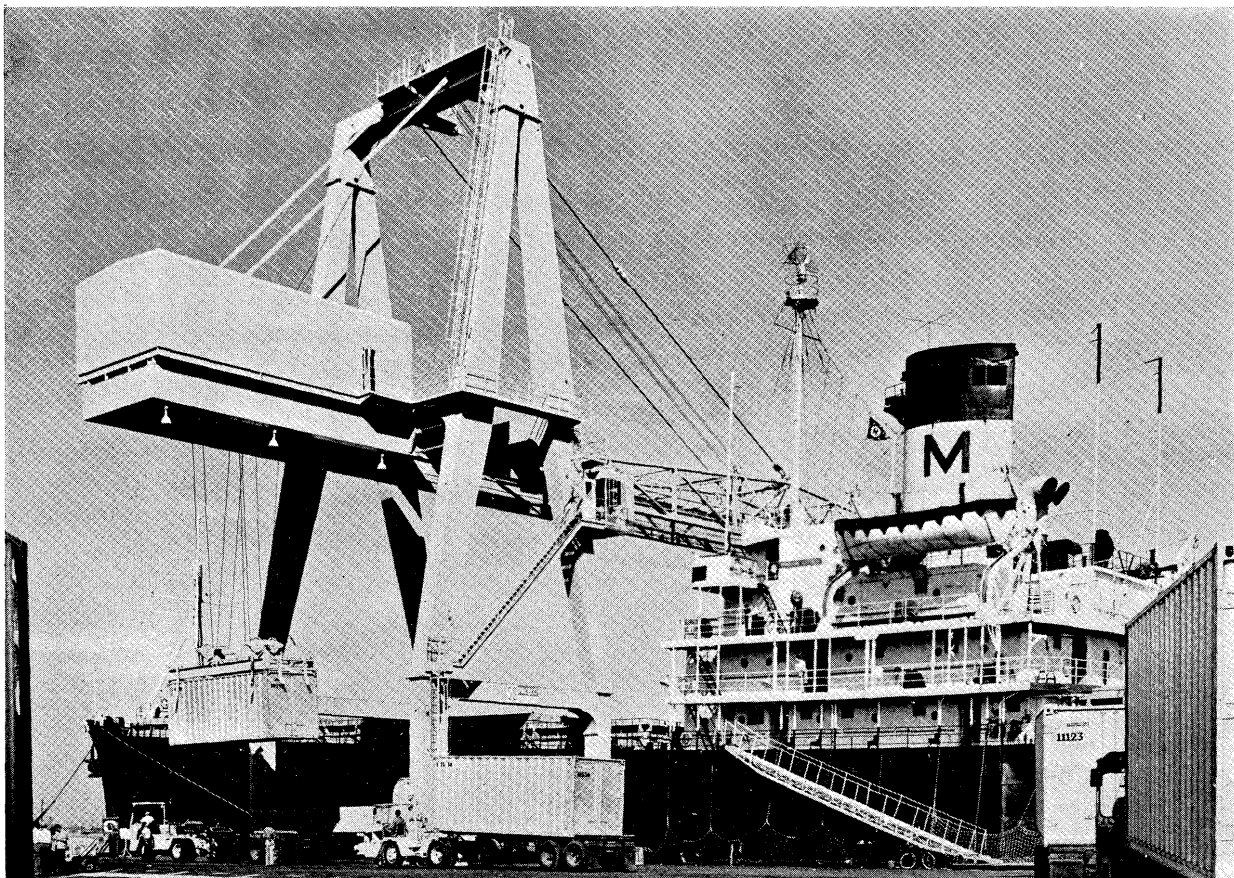
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Automatic cargo-loading at Port of Los Angeles is accomplished by means of this huge crane. One man, manipulating buttons and levers, operates it to lift aluminum vans containing 20 tons of cargo from wharf to ship.

An artist's addition to this photograph shows where high span traffic bridge is to be built across main channel of the Port of Los Angeles. Its height will afford ample passage room to the largest vessels.

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