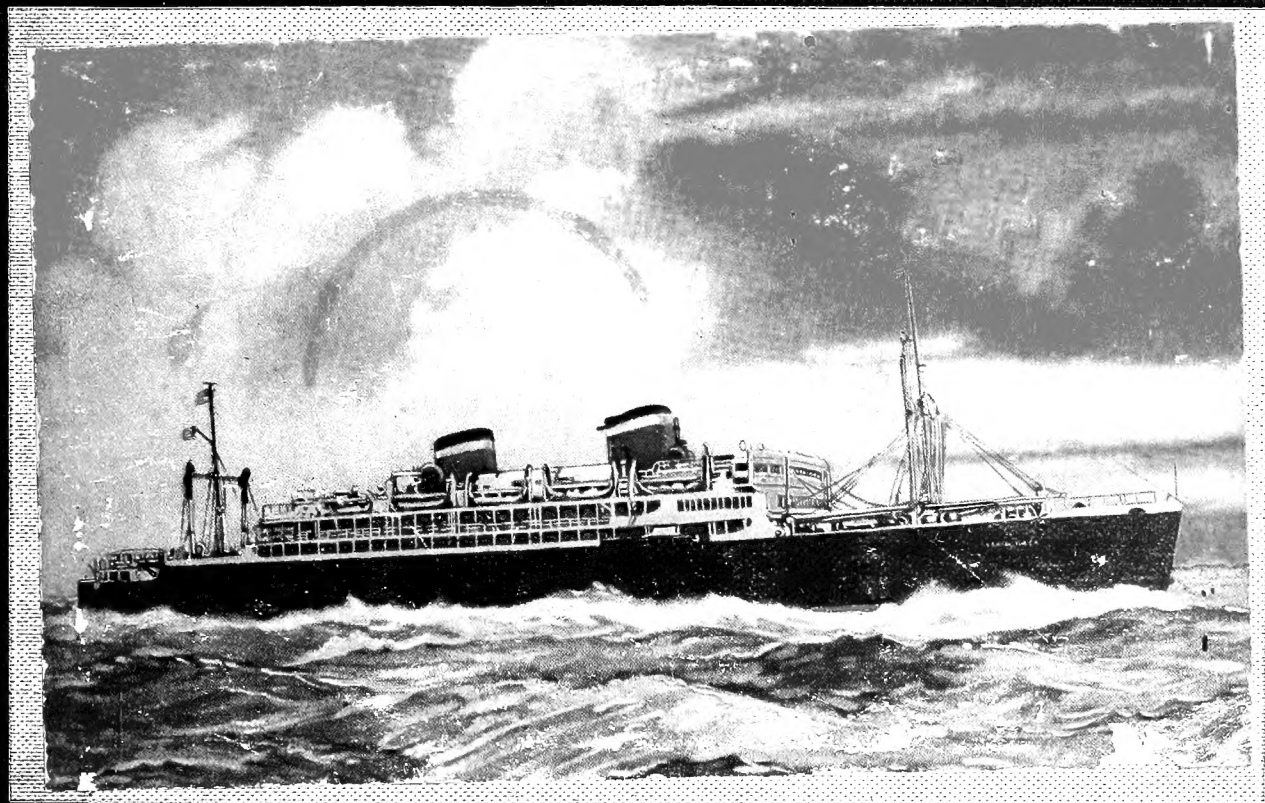


Ships of the U.S.
MERCHANT MARINE



By
S. KIP FARRINGTON, JR.

Illustrations by
JACK COGGINS

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AN INTRODUCTION BY ADMIRAL CHESTER W. NIMITZ



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ESSENTIAL U.S. FOREIGN TRADE ROUTES
SERVED BY AMERICAN STEAMSHIP LINES

By S. KIP FARRINGTON, JR.

ATLANTIC GAME FISHING

PACIFIC GAME FISHING

BILL, THE BROADBILL SWORDFISH

A BOOK OF FISHES

GIANTS OF THE RAILS

RAILROADS AT WAR

THE DUCKS CAME BACK

INTERESTING BIRDS OF OUR COUNTRY

RAILROADING FROM THE HEAD END

RAILROADING FROM THE REAR END

SHIPS OF THE U.S. MERCHANT MARINE



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Ships of the U.S. MERCHANT MARINE

By
S. KIP FARRINGTON, JR.

WITH AN INTRODUCTION BY ADMIRAL CHESTER W. NIMITZ, U. S. N.

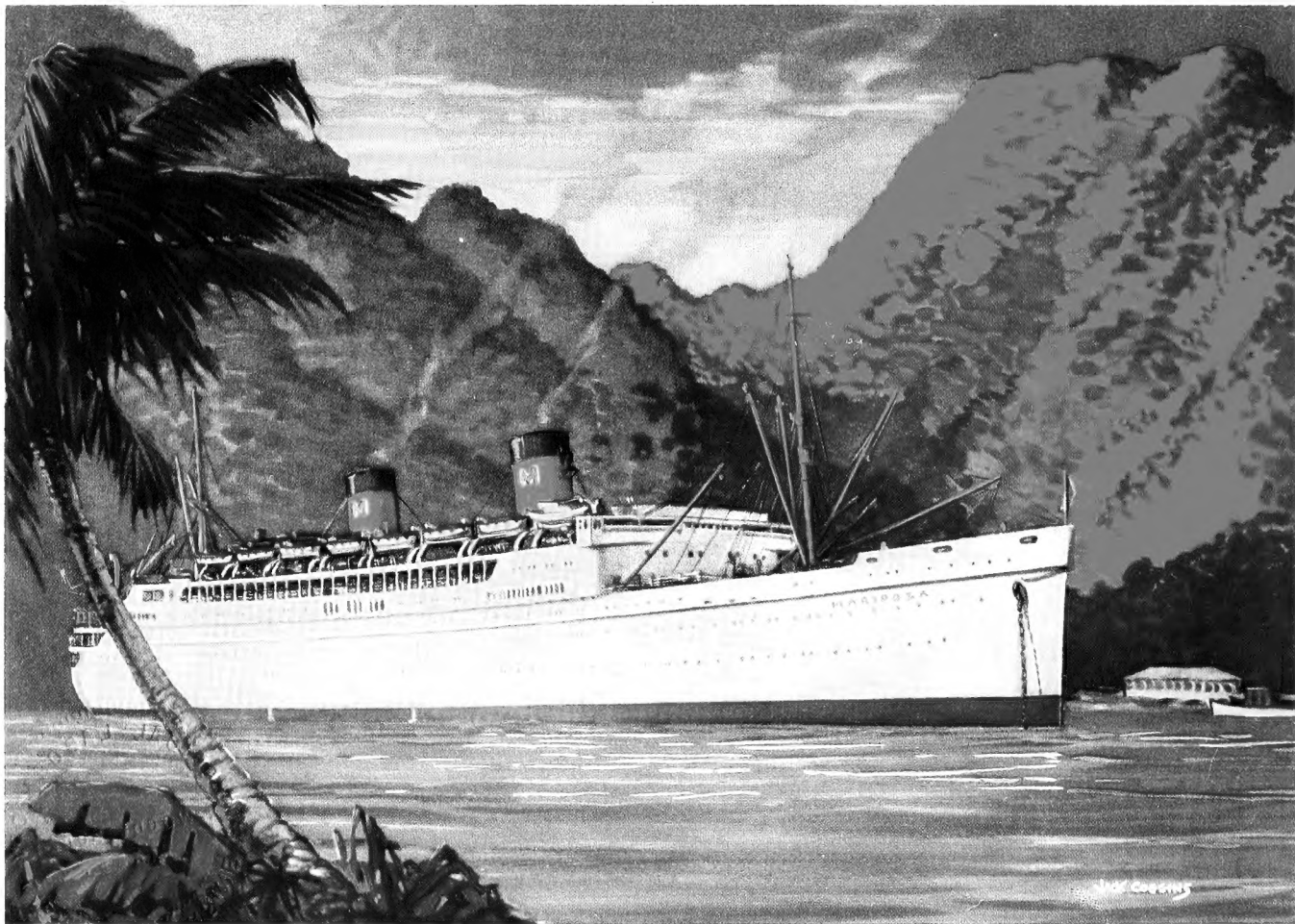


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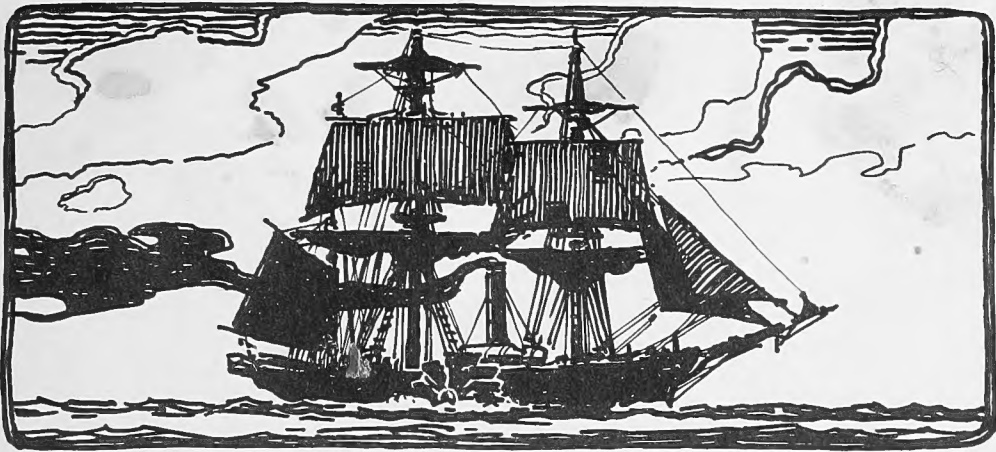
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New York 1947

MBL



The Matson Line's S.S. "Mariposa" at anchor during a call at Pago Pago, Samoa.



INTRODUCTION

BY CHESTER W. NIMITZ

Fleet Admiral, U.S. Navy, Chief of Naval Operations

FROM the start of our offensive movement in the Pacific in the summer of 1942 to the surrender of Japan three years later, the never ending plea of our armed forces was for the "beans," "bullets" and "avgas," so essential for the success of their missions. The thin trickle of those supplies which could be furnished in answer to the first anguished appeals of our embattled Marines on Guadalcanal grew in volume and adequacy as the war progressed, in direct proportion to the increasing size and capability of our Merchant Marine.

Not one of us who fought in the late war can forget—nor should any citizen be allowed to forget—that the national resource which enabled us to carry the war to the enemy and fight in his territory and not our own was our Merchant Marine. The fighting fleets and Marines of our Navy, the ground forces of our Army, and the aircraft of both would have been helpless to pound the enemy into defeat overseas, had it not been for the steady stream of personnel, equipment and supplies of every character brought into the rear of the combat areas, and often directly into those areas, by the ships of our own Merchant Marine and those of our allies.

Twice in our history have we prevented a possible invasion of our shores by the ability and capability of our armed forces to wage offensive and containing actions against the enemy overseas. While we cannot discount the changes which

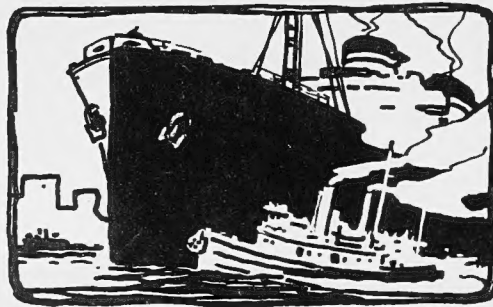
every new war brings, or fail to appreciate the tremendous influence which air transport may have on the future, we must not lose sight of the fact that for overseas military movement we are now, and will be for the foreseeable future, largely dependent upon our shipping resources.

It is well to remember that a professional Army and Navy are merely nuclei of the armed forces needed to wage war. The all encompassing deadliness of another conflict and the suddenness with which it might be initiated make it imperative that no vital national asset such as shipping be allowed to atrophy during times of peace. To do so is merely to invite a repetition of the impotent situation with respect to shipping in which we found ourselves between the two world wars.

Since ships cannot pass by our front doors or come under the same public observation as the trains, trucks and motor cars, which daily impress themselves upon our consciousness, there is a natural tendency to forget the vital relationship which the Merchant Marine bears to our individual and collective welfare, in peace as well as war. It is my sincere wish that Mr. Farrington's informative and interesting story of the ships of our Merchant Marine will serve to focus the attention of all Americans on a subject which it is perilous to neglect and a matter of pride to remember.

Washington, D.C.

June 25, 1947



FOREWORD

NO NATION has remained a leader among free peoples which did not maintain a strong position on the seas.

“For Trade, Travel, Defense—The American Merchant Marine.”

There is no more important motto for every American citizen to know and to practice. The use of American flag ships by all Americans for trade and travel will guarantee an American Merchant Marine immediately available for national defense in any emergency.

We all have a stake in the Merchant Marine. Our merchant ships are vital for defense, indispensable to peacetime commerce. The United States cannot get along without a Merchant Marine. It helps provide employment for millions of Americans and at the same time it is an important part of our national defense. Without the profits from export and import trade, thousands of businesses would not exist.

We welcome a certain amount of foreign shipping. It promotes peaceful commerce between nations. But, let's not depend upon foreign ships. If we do, and those nations withdraw their ships—as they have done twice in a generation—our goods will pile up—waiting for ships that might never return. And our seamen will again be turned away from the sea for lack of jobs.

The American Merchant Marine carried 270,000,000 tons of cargo and billions of gallons of gasoline and oil—4,000 tons every hour, day and night, during the war years. America's merchant ships carried 10,000,000 men to war and home again. Our Merchant Marine turned overnight from a wartime operation to a life-saving organization on a world-wide scale. We brought corn from our farms to the hungry peoples of the world. The Merchant Marine rushed farm animals from our Western ranges to restock the ruined farms of Europe and many another land. We hauled coal from our mines and oil from our refineries to keep millions from freezing to death.

Ships! We have some good ships in our Merchant Marine. But we need more new passenger ships. Men to sail the ships? They are the highest paid and have the best living conditions of any seamen in the world.

We must face the future squarely.

Our ships need American cargoes and passengers to keep them in operation.

We should have learned by now that our American Merchant Marine, which served us so valiantly in war and is so vital in peace, is worth fighting for.

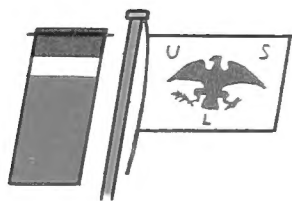
Let's keep it sailing and across every sea!

The nation that invented the steamship must now use it!

I am hopeful that Americans of all ages, particularly those living inland, will get a better idea of their Merchant Marine from Jack Coggins' pictures. He is one of the best marine illustrators I know, and his part in the preparation of this book has been much the harder one.

S. KIP FARRINGTON, JR.

East Hampton, New York
July 31, 1947



UNITED STATES LINES

S.S. "America," this country's largest ship, outward bound, meets a Moran tug in New York City's Upper Bay.

SHIPS OF THE U.S. MERCHANT MARINE

IT IS pleasant to know that Americans can now travel to Europe on some of the finest, fastest and most luxurious ships afloat, ships that are sailing under their own flag. And when we are contemplating a cruise in southern waters, all of us should keep the thought in mind that there, too, American ships are giving perfect service.

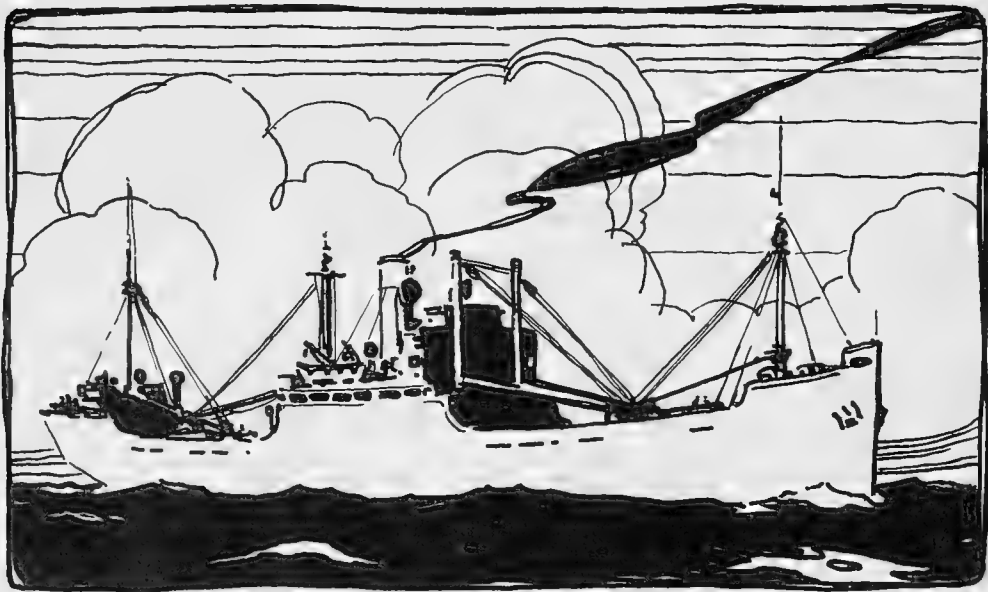
Many people in this country are under the impression that the American Merchant Marine transported few troops during the war, and that the majority of our armed forces sailed on British-flag ships. Nothing could be farther from the truth, as you will realize as you peruse this book, particularly the section on our splendid *America*, which was called the U.S.S. *West Point* during her wartime career.

The *West Point* was the largest vessel in the Naval Transportation Service, and carried more American troops than any other transport except those gigantic twins, the *Queen Mary* and the *Queen Elizabeth*. During the war years the *West Point* set a record for sustained operations, strict adherence to high-pressure schedules, and minimum harbor time—a record unsurpassed by any other ship.

In a little more than four years of service, this largest and fastest of American transports sailed with more than 450,000 soldiers, sailors and marines of all Allied nations, carrying them more than 400,000 nautical miles (450,000 statute miles) to strategic areas for deployment against the enemy. The service of this single American ship takes a high place among the accomplishments which contributed to the successful conclusion of the global war.

The 26,454-ton *West Point*, originally the *America*, was built for the United States Lines in 1940 by the Newport News Shipbuilding and Drydock Company. She was designed and constructed with an eye to the future. Her navigation bridge, her lounges and her passenger and officer quarters epitomized the luxury possible in a modern passenger liner.

Her commercial life was of short duration, for on June 15, 1941, the Navy commissioned her the U.S.S. *West Point*. Early in November, 1941, she was sent to Halifax, Nova Scotia, where she embarked a load of British and Canadian troops destined for the China-Burma-India theater of operations. Setting out on November 10 with 5,538 troops—her capacity at that time—she stopped at Trinidad, British West Indies; and was two days out of Capetown, South Africa, when the news of Pearl Harbor was broadcast to the world. From Capetown she traveled to Bombay, where she was held for three weeks before being ordered to Singapore. There the troops were disembarked; and the following day the Japanese attacked Singapore from the air. The U.S.S. *Wakefield*, which was tied up just astern of the *West Point*, was hit by a bomb. The *West Point's* open decks were scattered with shrapnel, but the damage was superficial. Waiting only for civilians desperate to leave Singapore before the city's imminent fall, she got under way for Batavia, Java, on January 30, 1942, with approximately 2,000 passengers of various nationalities, whose one common bond was an eagerness to get out of the war area. Five days after leaving Singapore a baby was born on board.



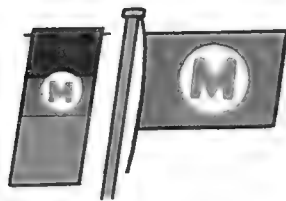
The *West Point* continued her travels, visiting Colombo, Bombay, Aden and Suez, and also Freemantle, Adelaide and Melbourne, Australia, before returning to San Francisco, which she reached on May 19, 1942, after an absence of six and a half months. There followed a second trip to Australia, and a return passage through the Panama Canal to New York, thence to Nova Scotia, England and Scotland, and again to New York. Three and a half years of this sort of service followed.

So fast was the *West Point* that from September 3, 1942, until the end of the war she always traveled alone, being escorted only in pilot waters. During this period she burned over 60,000,000 gallons of fuel oil. Her fuel capacity of 1,370,000 gallons enabled her to make twenty-four-hour turn-arounds from abroad. Her huge fuel tanks enabled her to travel at top speed to Europe and back with enough fuel reserve for another 2,000 miles. Millions of gallons of precious fuel oil were thus spared for use in the European theater of operations.

On November 14, 1946, this great liner, once more called the *America*, sailed on her first peacetime voyage to Europe, having been barred by the neutrality laws in force at the time of her commissioning in 1940. The *America* is 723 feet in length, has a reserve speed of 23 knots and can carry 1,050 passengers and a crew of 678. In every department she embodies the last word in the development of marine architecture and engineering; in interior plan and in the quality of her appointments, she is an example of contemporary American design at its best.

The *America* was built and equipped to be the safest ship ever constructed, and none has a higher rating. More than 90 per cent of the vessel is built of non-inflammable material, and she is the first ever designed with magnetically controlled fire doors. Controls on the bridge can shut off any section of the ship in an instant.

There is no finer ship than the *America* afloat. Her service and cuisine are of the highest order. She is operated by the United States Lines, whose officials and personnel know their business.



MOORE-MC CORMACK
LINES

S.S. "Brazil," one of Moore-McCormack's three
"Good Neighbor" ships, passing famous Sugar
Loaf Mountain, Rio de Janeiro, Brazil.

SHIPS OF THE U.S. MERCHANT MARINE

MOOORE-McCORMACK LINES entered upon its postwar operations with a fleet of thirty-three cargo and passenger liners, newly constructed or redesigned, and equipped with facilities to answer the most exacting demands of shippers and travelers.

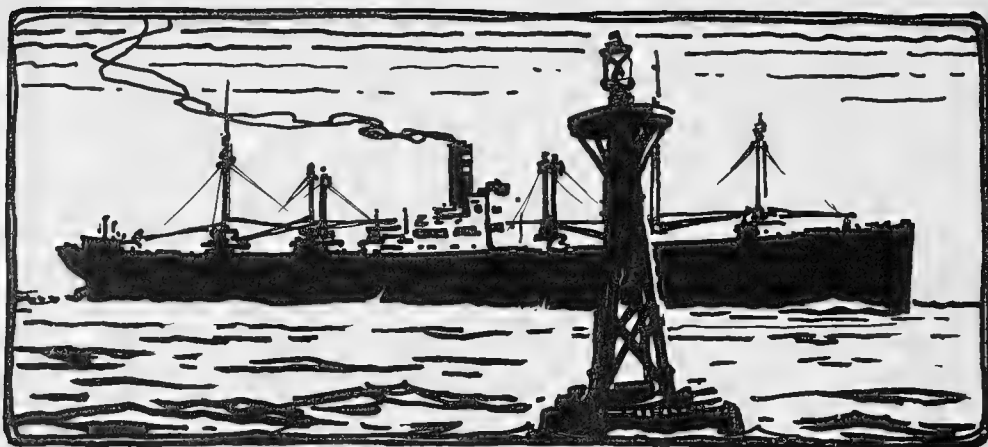
On three vital trade routes, linking a dozen countries, these ships are now in operation. They include a group of seven new cargo liners combining special features with the basic C-3 design, the three great luxury liners of the "Good Neighbor" fleet, and twenty-three (all built since 1940) modern C-2, C-3 and Victory-type cargo liners.

Their itineraries include some of the world's most important trade routes. They are now moving food, raw materials and manufactured goods in two separate services between the Atlantic and Pacific ports of the United States and Canada and the east coast of South America, and in a third service between the Atlantic Coast ports of the United States and the Scandinavian and Baltic countries of Europe. A vital role, indeed, in the upbuilding of a sound world economy.

The first operation ever undertaken by this firm, soon after its establishment in 1913, involved the dispatch of the S.S. *Montara* to Brazil. During the first World War, the S.S. *Saga*, a passenger vessel, was operated by Moore-McCormack Lines between the United States and Brazil and Argentina, providing the only neutral-flag service available on that route during a period of three years.

From the days of that pioneering venture, they have been identified with South American trade, and in 1938, when the United States Maritime Commission established the "Good Neighbor" fleet, they were honored with the assignment as its operator.

When this service was projected in 1938 with the *Brazil*, the *Uruguay* and the *Argentina*, it was the opinion of some observers that the venture would be unsuccessful. In the first place, it was said, the demand for accommodations to South America was not sufficiently great to warrant the use of such large ships and, in the second place, the thirty-eight-day round



trip would be too long for the average tourist. It was pointed out that in 1937 passengers carried by the two steamship lines which operated alternate weekly sailings from the United States Atlantic Coast to South America's east coast totaled only 7,500.

The skeptics were routed, however, when, at the end of 1939, the first full year of the "Good Neighbor" ships' operation, it was announced that they had carried 15,050 passengers, or double the 1937 volume. In 1940, the total increased to 18,000; and in 1941, despite the threat of war, it rose to 20,000, nearly three times the 1937 total.

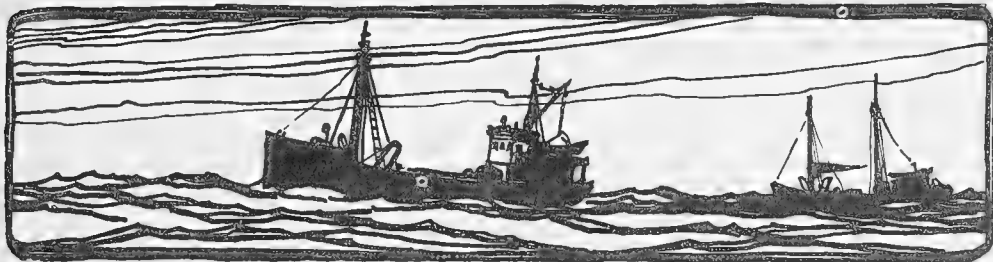
Not only were more North Americans visiting South America, but increasingly large numbers of South Americans were coming north. Formerly, Latin Americans traveled to Europe, partly because the European ships sailing to South America were far superior to the ships linking North and South America. When the luxurious "Good Neighbor" ships entered the service, the people of South America were immediately impressed by their size and comfort and began flocking to our shores as passengers. Exchange of students was encouraged, as well as exchange of ideas, and "Good Neighbor" relations began to be firmly established.

It is only natural that thousands of travelers are being attracted by the itinerary of these ships, for the sights on the voyage down South America's east coast are some of the most beautiful and most spectacular in the world.

Heading "South to the Sun," the Moore-McCormack ships will stop first at Bahia, and then go on to incomparable Rio de Janeiro, the glittering capital of Brazil. Next comes Santos, the leading coffee port of the world, where the endless stream of bulging coffee bags is loaded onto ships for consumption all over the United States. A stop is also made at Santos on the northbound trip so that passengers may travel inland to Sao Paulo, the "Chicago of South America," third largest city in South America.

Montevideo, Uruguay, is the next city visited on the southbound trip. The "City of Roses," as Montevideo is called, is one of the most beautiful in Latin America. Last on the voyage south is Buenos Aires, capital of Argentina, and the most cosmopolitan city in South America. Often referred to as the "Paris of South America," Buenos Aires is Latin America's largest city, and is famed for its wealth, commerce and brilliant social life. Northbound, the ships will follow a similar route, but will omit Bahia, and stop at Trinidad.

During the war, from Pearl Harbor to V-J Day, Moore-McCormack Lines operated more than 150 ships (of which eleven were lost), transported 754,239 troops, and carried 34,410,111 tons of war cargo. The three "Good Neighbor" ships alone carried more than 450,000 troops, and saw action in the Pacific, the Atlantic and the Mediterranean, where they took part in the invasion of North Africa. They made their last peacetime trips to South America late in 1941 and were then turned over to the government and speedily converted to accommodate as many as 8,000 troops each.





Jack Cossins

"Heavy Weather." National Bulk Carriers'
"Phoenix," of the world's largest tanker class,
battles a North Atlantic gale.

SHIPS OF THE U.S. MERCHANT MARINE

THE tanker illustrated, the S.S. *Phoenix*, is one of the largest in the world. Along with its three sister ships, the S.S. *Nashbulk*, S.S. *Amtank* and the S.S. *Hampton Roads*, it makes up a quartet of the largest tankers afloat. Each of these giant vessels displaces 24,000 tons, and can carry 225,000 barrels of oil at a speed of 17 knots. The *Amtank* is given credit in most quarters as having carried the all-time record load of oil ever carried.

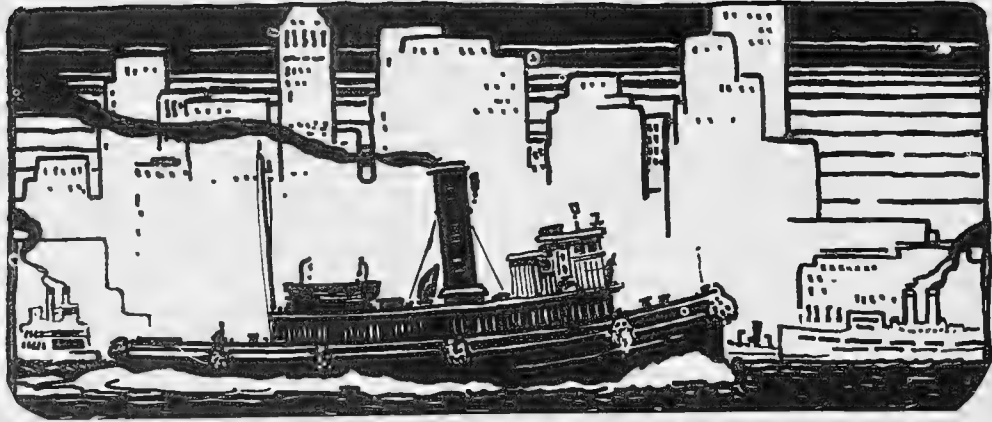
These tankers, the nucleus of the largest independent American petroleum transport fleet, belong to the National Bulk Carriers, Inc. of New York. The fleet consists of twenty fast modern ships which carry oil from the oil ports in Texas, Venezuela and the Persian Gulf to all parts of the world.

This fleet did splendid service during the last war. It not only carried precious oil and petroleum products to our troops in Europe and the Pacific, but also carried as deck cargo great quantities of fighting equipment, such as planes, P T boats, landing craft, tanks and trucks.

Three of the tankers of the National Bulk Carriers, Inc. were lost through enemy action. Most of the vessels of this line have been built by a small but highly efficient shipyard in Norfolk, Virginia, known as the Welding Shipyards, Inc., where supertankers even bigger than the S.S. *Phoenix* are now under construction. These vessels will probably displace around 30,000 tons, and will be capable of speeds up to 18 knots.

The American-flag tanker fleet operated by all the great oil companies performed heroic contributions to the naval war. A special fleet of fifty tankers capable of providing mobile storage for 4,000,000 barrels of fuel and gasoline in the Pacific areas was one of the key parts of Admiral Chester W. Nimitz's famed "secret weapon." This "secret weapon" was the fueling and supplying of naval ships while at sea. By this means the Navy was able to remain constantly in action against the Japs.

The mobile storage plan began operation about two years before V-J Day, and the number of tankers in this service steadily grew as the prog-



ress of the war moved closer to Japan and there was increased demand for fuel by our bombers and naval units. As there were limited petroleum storage facilities in the Pacific, some fifty American tankers were assigned to serve as floating fuel depots. Old and slow tankers were allocated to this job, while faster tankers were free to engage in the task of transporting the oil across the Pacific from the West Coast and other production centers. The fast tankers, in many cases, would transfer their cargo to the storage tankers and thus make quicker turn-arounds by eliminating the time formerly spent in waiting to make contact with naval vessels.

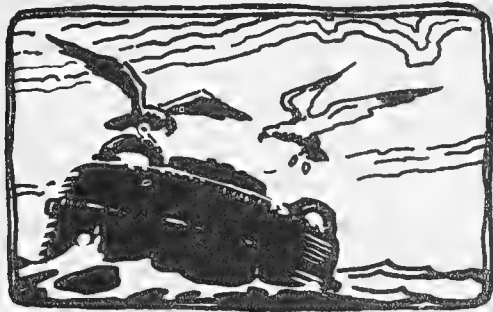
The storage tankers were fitted out with extra discharge connections so that they could fuel five or six ships at one time. About half of the tankers so employed were vessels that were technically obsolete, but were quite satisfactory for this purpose. The remainder of the fleet consisted of seventeen Liberty ships converted as tankers, and eight former Axis tankers seized in American ports.

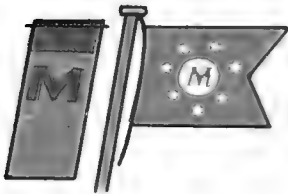
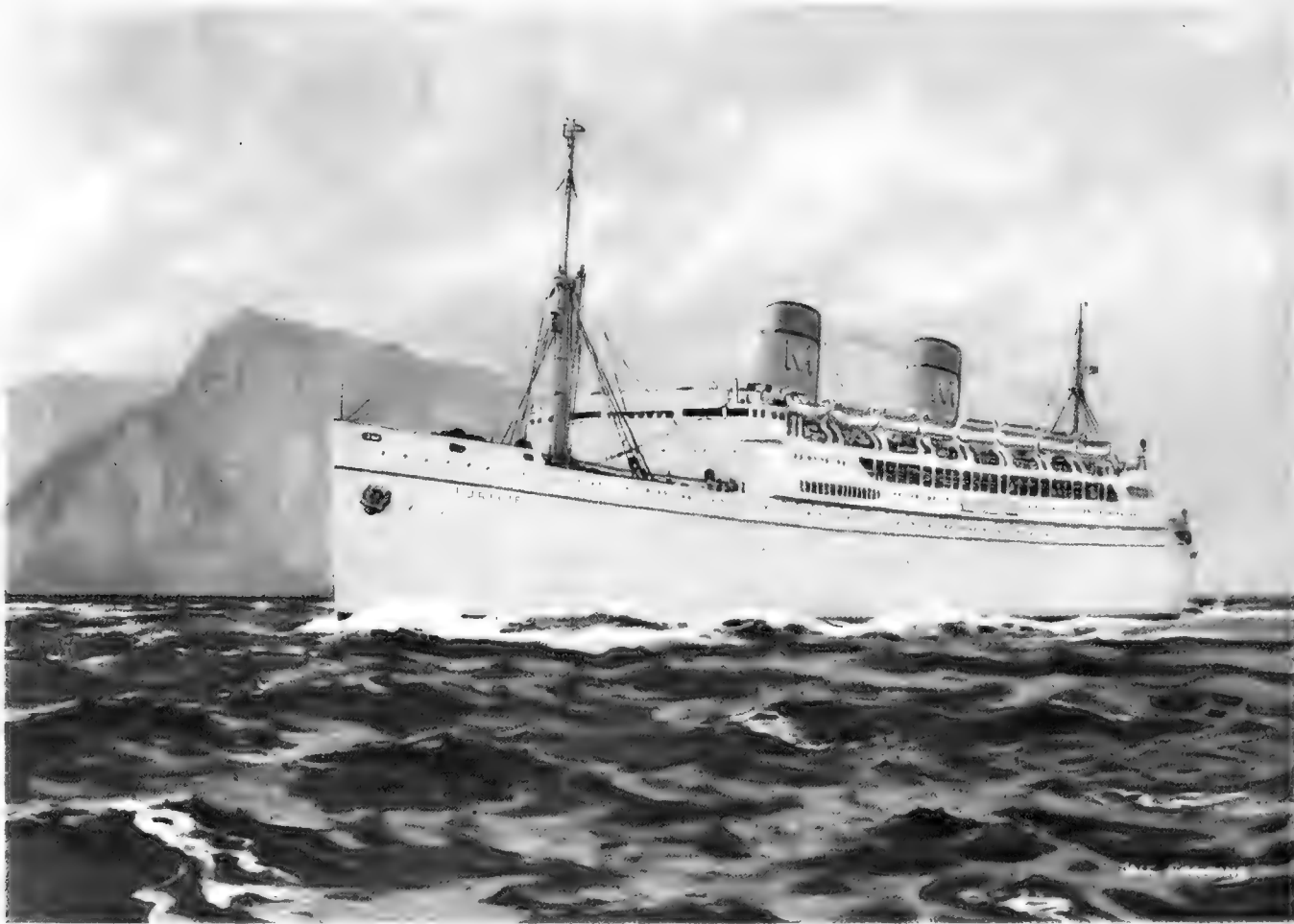
Admiral Nimitz has stated: "I particularly desire to acknowledge the services of the commercial tankers engaged in transporting fuels to the Fleet. Our requirements were numbered in millions of barrels to be transported thousands of miles to the scene of the Fleet operations. The volume involved demanded the utmost in operations management to assure a rate of delivery in keeping with our needs. Our success in keeping the Fleet properly fueled was dependent upon the deliveries by these commercial ships. Not once did they fail."

The most commonly seen tanker in use by the various oil companies today is the Class T-2, a ship with beautiful lines that offers great comfort to its crew and provides every known up-to-date facility, not only for safety but for loading and discharging its valuable cargo. There are more than 525 T-2's in service. They have an overall length of 523 feet 6 inches, and a beam of 68 feet. When loaded, they draw 29 feet 11 $\frac{3}{8}$ inches of water, and they have a cruising radius of 12,600 miles. They are propelled by single-screw engines, have a dead weight of 16,460 tons and a capacity of 138,000 barrels.

Another tanker, the T-3, of which about sixty have been built, is similar to the T-2, except that its length and capacity are slightly less.

Many persons do not realize that tankers are equipped with large heating coils to maintain a constant temperature. Asphalt shipped up from the Caribbean must be carried at a temperature of between 200 and 275 degrees to prevent it from solidifying. Tar and creosote are other cargoes that must be kept at high temperature during the voyage. Molasses is also shipped by tanker, and to facilitate its discharge it is heated a day or two before the vessel reaches port.





THE MATSON LINE

"Off Diamond Head." S.S. "Lurline," of the Matson Line, arriving at Honolulu from San Francisco.

SHIPS OF THE U.S. MERCHANT MARINE

ON THE morning of December 7, 1941, the *Lurline* was homeward bound from Honolulu on her regular run. News of the Japanese attack was handed to the Captain by the wireless operator at 10:15 ship's time.

The *Lurline* was immediately diverted from her course, her speed increased to full ahead, and her crew instructed to secure her for watertightness below, and for the necessary blackout. Naval and military officers aboard gathered together and formed a staff to enforce wartime safety measures. At 17:00 the passengers were called to the ship's lounge, and the Captain briefly explained the nature of the emergency and requested the cooperation of all in maintaining the blackout.

The tense race for safety will be remembered always by those aboard—the great white ship shining in the bright moonlight, racing for home at her full 22 knots, while her passengers in life jackets scanned the horizon, hoping for a protective blanket of fog or a heavy rainstorm.

At 02:00 on the morning of December 10, the *Lurline* slipped under the Golden Gate Bridge, just as the air-raid sirens plunged the city into darkness for the second time that night.

Immediately an unavoidable devastation of her luxurious fittings was begun. The great liner was to be transformed quickly into a troop transport. The sumptuous furnishings of staterooms and public rooms were all removed; exquisite mother-of-pearl inlays and beautiful wood paneling were boarded over, though murals and other large decorations were necessarily left exposed to the ravages of crowded wartime use. Tiers of bunks were installed, and the efficient plain equipment of fighting craft; the gleaming hull was covered with coats of admiralty gray.

Today the *Lurline* and her sister ships, the *Monterey* and the *Mariposa*, are completely renovated for peacetime use. In rebuilding the trio, 500 miles of wiring were removed and replaced by fifty carloads of new electric cable; 310,000 square feet of rubber tile and 90,000 lineal feet of tile trimming were laid as an interior covering for the steel decks, at an ap-

proximate cost of \$100,000 per ship. Other materials were ordered in enormous quantities: 4,500 metal doors, 35,000 gallons of paint, 150,000 feet of copper tubing, 3,500 tons of hard-to-get steel, 984 telephones. Fire-proof aluminum-faced marinite to the amount of 1,500,000 square feet was necessary for interior partitions, a completely new arrangement of rooms being laid out. Thirty-five carloads of cork slabs went into refrigerating insulation.

The three ships are practically identical in every respect. The reconstruction of each was the equivalent of building a large modern hotel, not counting the many complicated engineering factors involved in marine design.

One of the most important structural changes has been the conversion of the B-deck promenade into additional passenger cabins. Ample deck space is available, as in the prewar ships, on A-deck. The *lanai* or veranda suites, for which Matson ships have long been famed, were shifted from the forward section of A-deck to a position amidships on the deck below. First-class staterooms are unusually large, and numerous improvements have also been made in cabin-class staterooms. The *lanai* suites have fixed beds in the sleeping quarters, and separate living rooms. Most first-class staterooms have two convertible beds which disappear into recesses during the day. With this arrangement, the room by day loses all semblance of a bedroom and is transformed into a living room. Every first-class room has a private bath, with bath and wash-basin arrangements completely separated from toilet facilities.

Additional comfort for the passenger is provided by complete air-conditioning of the ships. Individual preference is met by temperature controls in each stateroom and suite.

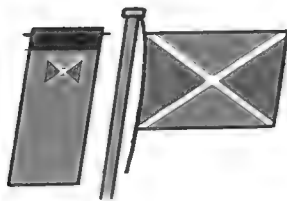
New furniture throughout makes extensive use of foam rubber. New rugs, fabrics and lighting fixtures follow a modern decor, with the generous use of color contributing to the total effect of well-tailored luxury. Public rooms are beautifully finished in the Polynesian motif, and all are equipped with built-in speakers for radio and recorded music, the reception of which is aided by acoustically treated ceilings.

Each of the three ships accommodates 726 passengers, 488 first class and 238 cabin. This compares with the prewar totals of 701 on the *Lurline*, 728 on the *Monterey* and 715 on the *Mariposa*. A crew of 437 is carried—more than one crew member for every two passengers.

Other improvements of the rebuilt vessels include new features of fire-proof construction and the installation of giant evaporators, capable of distilling from the sea all the fresh water necessary for shipboard use. Among the advantages expected from this change will be greater stability and a smoother riding ship, since the large fresh-water storage tanks deep within the hull will be constantly “pressed up” instead of gradually emptying as the voyage progresses.

Below decks, the engine-room plants of the three liners have undergone a thorough overhaul. Thousands of new blades have been hand-fitted to eighteen turbines which, in all, power the three ships.





THE AMERICAN
SOUTH AFRICAN LINE

American South African Line's "African Crescent" getting under way beneath the shadow of Capetown's Table Mountain.

SHIPS OF THE U.S. MERCHANT MARINE

THE AMERICAN SOUTH AFRICAN LINE, INC., oldest American-flag operator to South and East Africa, was formally established in 1925. But because the history of a business is always the history of the men who lay its foundation and carry it on, the story of this pioneer line actually begins nearly a century ago, when Captain John G. Farrell came to this country from Ireland and settled in Fairhaven, Connecticut. A shipmaster of the old country, Captain Farrell soon acquired the brig *Monte Cristo*, which, in 1863, became the first vessel under the American flag owned by the Farrell family.

The first sailing under the red, white and blue house flag of the new owners was the departure of the *West Isleta* in January, 1926. The American South African Line scheduled monthly sailings from New York and other Atlantic ports to the coast of South and East Africa. The principal ports of call were Capetown, Port Elizabeth, East London, Durban, Lourenco Marques and Beira. Later the frequency of service was increased and the route extended to Dar-es-Salaam, Zanzibar, Tanga and Mombasa.

The American South African Line contracted with the United States Post Office Department that same year to carry mail to and from South African ports.

In 1942, the line was appointed agent of the United States War Shipping Administration, acting in the capacity of general agent, time charter agent and berth agent. Between June, 1942, and Victory Fleet Day, September 27, 1944, when the line received the War Shipping Administration flag in "recognition of meritorious service to the United States of America in time of war," more than 350 outward voyages to all parts of the world were recorded by the company's general offices in New York. Cargoes totaled approximately three and a half million tons.

The three dark blue stars on the American South African Line's WSA pennant indicate that the company operated more than half a hundred

ships which carried fighting equipment and supplies to our forces on all the world's battle fronts and brought in strategic materials necessary to manufacture the weapons of victory. Ports of call included those of South, East and West Africa, Russia, India, the British Isles, and many others in the Southwest Pacific, the Mediterranean, the Persian Gulf and the Red Sea.

When it became apparent that World War II was nearing its end, the American South African Line started its postwar construction program. The first step was a careful study of the requirements of trade on this route. It was decided that the ships most suitable would be those of the C-3 type, with modifications. These included structural changes for heavy cargo handling facilities, cargo deep tanks, cargo refrigeration, additional fuel-oil capacity and passenger accommodations. On September 7, 1944, the line made application to the Maritime Commission for six C-3 vessels with specified changes and revisions.

The keel of the first of the new fleet was laid at the U. S. Steel's Federal Shipyard, Kearney, New Jersey, on August 21, 1945. This ship, the *African Star*, is the second of the company bearing that name.

On her maiden outbound voyage to South and East Africa, the *African Star* established a new speed record for cargo ships. Sixteen days and eleven hours after she sailed from New York, she arrived in Capetown. Since then, the other five vessels have been delivered to the company and are now in service.

Typical of all the six new C-3 ships, the *African Star* has an overall length of 492 feet, molded beam of 69.5 feet, registers over 12,000 dead-weight tons, and is designed for a speed of 17 knots. Bale measurement of space available for cargo is approximately 620,000 cubic feet, not including measurement of refrigerator boxes. Radar is standard equipment on vessels of the company's fleet, and ship-to-shore telephones are now being installed. The *African Star* was the first commercial cargo vessel equipped with radar.

A feature of the American South African Line service is the use of a dehumidifying (air-drying) system in the cargo spaces. The equipment

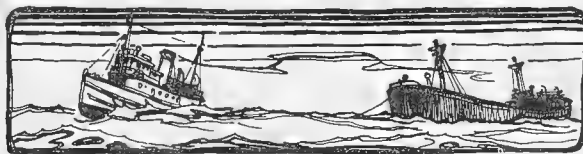
guards against moisture spoilage of cargo, and consists of a dehumidifying unit adjacent to the engine room, with a piping system to the cargo holds.

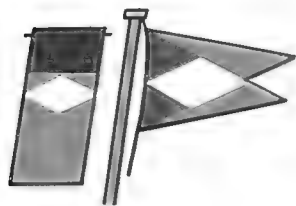
Passenger and crew accommodations are comfortable, spacious and conveniently located amidships. Twelve passengers may travel in the four twin-bed staterooms and two single-bed staterooms equipped with sofas. Passenger quarters are ventilated by wind-scoop-type air-ports. In addition to the passenger and officers dining room on the cabin deck, there is a lounge with separate pantry on the boat deck.

The company has also purchased two additional passenger-cargo vessels of the C-3 type—the *J. W. McAndrew* and the *George F. Elliot* (formerly the *Delargentino* and the *Delbrazil*). When reconversion is completed, each will have de luxe accommodations for seventy-two passengers, and will carry 5,000 tons of cargo. These ships, built in 1941, are 7,997 gross tons, 465 feet long and have a speed of about 17½ knots. It is anticipated they will be in operation early in 1948, and will make a sailing every five weeks.

The service to South and East Africa is operated on a basis of weekly sailings from the port of New York. Prior to departure from New York, the ships make regular calls to discharge and load cargo at other Atlantic ports, including Boston, Philadelphia, Baltimore, Norfolk, Charleston and Savannah. The six new C-3 vessels of the company and its two additional C-3 type vessels are operated on this route. Additional ships are chartered from time to time to maintain the weekly sailing frequency.

There is no more fascinating story of trade development for any area of the world than is revealed by studying the statistics of trade between this country and South and East Africa since 1921. In 1921, our exports to that area amounted to just over 169,000 weight tons of cargo. In 1946, exports exceeded 863,000 weight tons, a slight decrease from the wartime peak, in 1941, of 1,058,000 tons.





UNITED FRUIT CO.

The "Veragua," United Fruit Line, lying at anchor in the harbor of Tela, Honduras.

SHIPS OF THE U.S. MERCHANT MARINE

SINCE the turn of the century, the snowy vessels of the United Fruit Company's Great White Fleet have been plying the Caribbean. For nearly fifty years, travelers, teachers, ambassadors and men and women of international good will have trod their decks. Countless tons of machinery and manufactured goods have been transported to our southern neighbors; and the capacious holds of this great armada have carried millions of bunches of bananas to the markets of the world.

The ports served by the Great White Fleet include Havana and Santiago, Cuba; Kingston, Jamaica; Cristobal and Balboa, Panama; Barranquilla and Cartagena, Colombia; Puerto Limon, Costa Rica; Tela and Puerto Cortez, Honduras; Puerto Barrios, Guatemala; and Belize, British Honduras. Soon the new port of La Libertador, Dominican Republic, will be added to the list. In addition to the Caribbean trade, United Fruit vessels also serve various Pacific ports of Panama, Costa Rica and Guatemala.

The Great White Fleet comprises a variety of sturdy ships. Six of these—the *Antigua*, *Chiriqui*, *Quirigua*, *Jamaica*, *Talamanca* and *Veragua*—carry passengers, and can accommodate ninety-nine in first class cabins. All staterooms face the sea; there are spacious decks and salons, and each of the ships has a permanent outdoor swimming pool. The six sister ships offer weekly cruises to the Caribbean from the ports of New York and New Orleans.

As of December 7, 1941, the ships of the Great White Fleet went into wartime gray. They rendered gallant service on the battle fronts of the seven seas. Twenty-one were lost through enemy action.

Now a new segment of the Great White Fleet has been built. Eighteen fine, modern, fully refrigerated ships have joined the famous fleet. Nine are single-screw vessels capable of 16 knots; they are 385 feet 11½ inches in length, and are of 9,338 tons displacement. Although they are primarily refrigerated cargo vessels, each is equipped to handle twelve passengers in commodious outside staterooms. The names of these nine are



the *Yaque*, *Hibueras*, *Morazan*, *Quisqueya*, *Santo Cerro*, *Sixaola*, *Tivives*, *Ulua* and *Cibao*.

The other nine new vessels are twin-screw ships capable of 18 knots, are 455 feet 5 inches in length, and are of 12,890 tons displacement. These also carry twelve passengers each. The ships' names are the *Comayagua*, *Esparta*, *Fra Berlanga*, *Junior*, *Limon*, *Parismina*, *San Jose*, *Heredia* and *Metapan*.

The company also operates four cargo vessels—the *Fiador Knot*, *Lever's Bend*, *Pan Crescent* and *Pan York*.

Supplementing this basic fleet, the United Fruit Company operates, under charter, twenty-two other vessels which are variously C1M-AV1 freighters, reefers and Liberty ships.

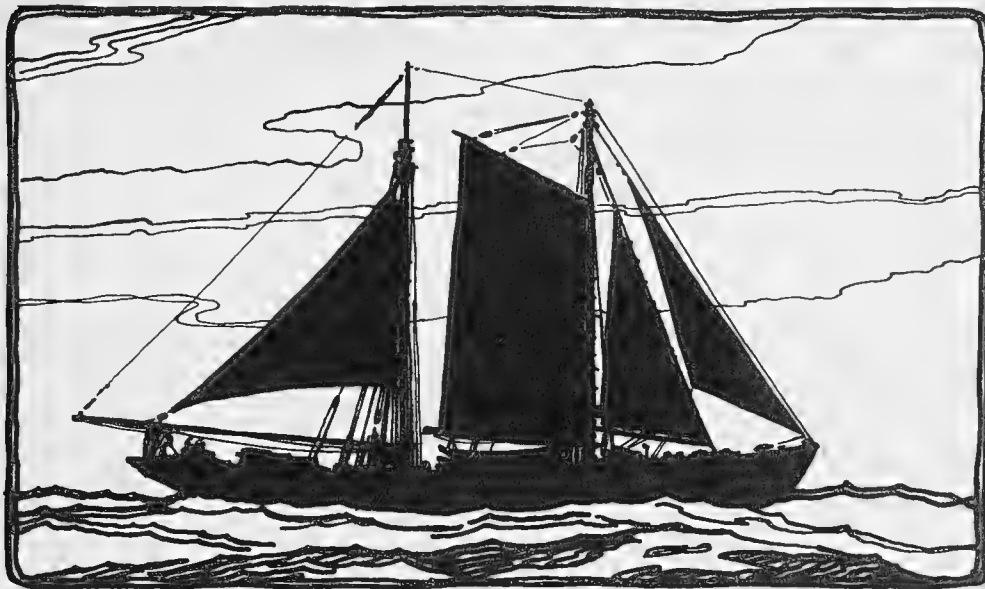
The six Veragua-type ships are 450 feet in length, with a beam of 60 feet. They are equipped with the latest type of turbo-electric propulsion, which is noted for its smooth operation and absence of vibration. The turbo-electric engines will develop 10,500 horsepower and drive the ships at an average speed of 18 knots.

The United Fruit Company is following its usual policy in naming its new liners after some city, mountain range or province in one of the

Central or South American republics. The *Veragua*, for instance, is named for a mountain range in the Republic of Panama. Fortunes in gold have been taken from the Veragua mountains.

Probably the American public never realized how much bananas meant to them until World War II, when the United Fruit Company's ships had to be diverted to other more important uses than carrying this fruit to our stores and breakfast tables. Much of this great green cargo now enters the United States through the great port of Baltimore; and bananas are not the only commodity carried north by this famous steamship company. The Veragua-type ships, northbound, also carry coffee, abaca, lumber and logs (hardwood), chicle, cinchona bark (medicinal extracts), honey and cardamom seed (essential oils). Shipments southbound include wheat flour, rice, cereals, canned goods, cotton and other textiles, drugs and medicines, refrigerators, bottles, onions, poultry and livestock feed, salt, machinery, hardware, fencing wire and plumbing supplies.

Such, then, is the Great White Fleet of today. Proudly it sails from various domestic ports to the friendly waters of Middle America. These ships are seagoing ambassadors of good will, destined to play a role of ever increasing importance in the vital pageant of trade between the Americas.





ALASKA
TRANSPORTATION CO.

"In Alaskan Waters." The "Palisana, of the
Alaska Transportation Company, leaving Sitka.

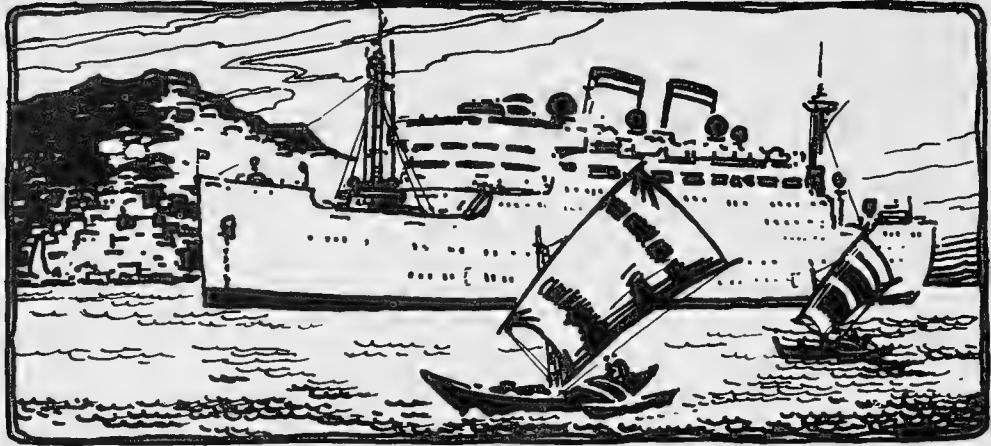
SHIPS OF THE U.S. MERCHANT MARINE

THE Alaska Transportation Company's operation is primarily a freighter service, with facilities for handling all types of cargo which customarily moves in the Alaska trade. Weekly sailings are maintained from Seattle to the principal ports of southeastern Alaska, where connections are made with the interior of Alaska and the Yukon Territory. A vital link in the route between southeastern Alaska and the interior is, unfortunately, not open to traffic at the present time, having been closed by slides in British Columbia. Negotiations are now under way between our State Department and the Dominion of Canada seeking re-opening and maintenance of the Haines cut-off road to the Alaskan Highway. When that occurs, it is expected that a substantial volume of traffic to interior points will move via this ocean-to-highway route.

Principal ports of call on the southeastern Alaska route are Ketchikan, Wrangell, Petersburg, Juneau, Haines, Skagway, Sitka and Pelican. Service from southeastern Alaska ports is also furnished to Prince Rupert, B.C., for connection with the Canadian National Railway System. There are frequent Alaska Transport arrivals at Prince Rupert, principally for the handling of fresh and frozen fish products on their way to market in eastern United States.

Other services are operated mainly to serve the needs of military establishments in southwestern Alaska and on the Aleutian Islands. One route is from Seattle to Whittier, making connection with the Alaska Railroad. The Aleutian Islands sailings go direct from Seattle. The principal ports of call on the latter route are Dutch Harbor, Adak and Attu.

The major industries of Alaska, and hence the principal sources of traffic, are fishing and mining. The fishing industry is customarily divided into salmon canning, the handling of fresh and frozen fish, and the fish reduction phases of the industry. There are at present something over a hundred operating canneries in the Territory, approximately half of which are located in the area served principally by this line, that is, the southeastern or Panhandle district. The normal output of canned



salmon in Alaska is about five and three-quarter million cases, of which about two and one-half million are from southeastern Alaska. Supplies for the canning industry move north during the spring months, while the entire canned output is shipped south late summer. The business from the fishing and canning industry emphasizes the seasonal nature of Alaskan trade.

The fresh and frozen fish industry, which includes the packing of mild-cured salmon, demands highly specialized transportation and zero refrigeration facilities. The movement of frozen fish, annually, amounts to approximately 40,000 tons, of which 95 per cent originates in southeastern Alaska. About 25 per cent passes through the port of Prince Rupert, and the remainder through Seattle.

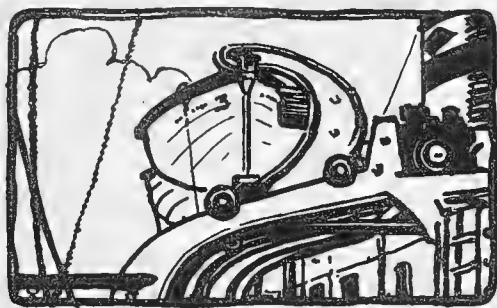
From a transportation standpoint, mining is a relatively unimportant industry, but from a dollar aspect it is perhaps equally important with the fishing and canning industry. A substantial movement of ore from mines in and adjacent to southeastern Alaska takes place during the summer season, to a smelter at Tacoma, Washington. The annual tonnage over this line is approximately 10,000 tons.

The Tongass National Forest is estimated to be capable of producing not less than a million tons of paper pulp annually. It is expected that in the near future the paper-manufacturing industry will become established in the Territory. In addition to obvious possibilities from the establish-

ment of a pulp and paper industry, the forests of southeastern Alaska offer unlimited resources of lumber—Sitka spruce, hemlock and yellow cedar. The movement of lumber from this area is increasing steadily, and now constitutes a considerable portion of the southbound haul. Worthy of note is the fact that practically all of the spruce airplane requirements of the Allied air forces during the war came from the Sitka spruce stands in the Tongass National Forest.

Although the Alaska Transportation Company does not at present operate a passenger service, their plans contemplate the acquisition of passenger equipment, which should help to develop one of Alaska's greatest potentialities. The recreational features of the country, when made available by adequate steamship service, will furnish a large volume of passenger traffic. Although Alaska is an American territory, and therefore considered a protected domestic trading area, there is heavy passenger competition from Canadian lines which operate between Vancouver and southeastern Alaska and now carry some 75,000 persons to Alaska annually. Almost all these passengers are tourists from the United States, who would probably prefer to sail under the American flag if proper service were available.

There is a real need here for passenger vessels, which under present-day construction costs require some form of government subsidy. But still another problem confronts water transportation to Alaska—that of labor-management relations, which must be stabilized before ultimate dependability can be assured to the Alaskan seaways, and so to the development of the vast resources of the Territory.





GRACE LINE

Grace Line's "Santa Cecilia" off the Chilean coast, south of Tocopilla, headed for Valparaiso.

SHIPS OF THE U.S. MERCHANT MARINE

SCARCELY a year had passed after V-J Day when the Grace Line re-established full-scale passenger and cargo service over its traditional route between U. S. Atlantic ports and those of the Canal Zone and west coast of South America. Weekly sailings are now maintained by six modern combination ships, supplemented by a fortnightly express freighter service. The new ships, a modified version of the Maritime Commission's famous C-2 design, carry 52 passengers and over 8,000 deadweight tons of cargo. The frequency of sailings permits the traveler greater latitude in planning an itinerary than was available in prewar days, when larger ships maintained a fortnightly service. It is equally advantageous to export shippers in arranging the most expeditious movement of their freight. The postwar period finds familiar Grace names again in commercial service—the *Santa Barbara*, *Santa Maria*, *Santa Luisa*, *Santa Isabel*, *Santa Margarita* and *Santa Cecilia*.

The west coast "Santa" passenger fleet is a modern one in every respect. All six, built at Wilmington, North Carolina, were launched and placed in service during 1946. From a passenger's viewpoint, a voyage on these ships represents a unique experience in ocean travel, for the accommodations for passengers are a distinct departure from those once normally provided on ships of this general class. The staterooms are all outside, with private bath or shower, air-conditioned, equipped with windows (instead of portholes) and intra-ship communication facilities. The stateroom beds convert to sofas for daytime use, thus offering, in the most up-to-date manner, a room easily adaptable to the passengers' every requirement.

Public space is not limited; there is, in fact, proportionately more space per passenger than on many larger ships, and every facility for pleasure and comfort is readily accessible. In every sense the ships offer a present-day "design for living." A wide promenade deck, partially enclosed, extends around all but the forward part of the superstructure. Above the promenade deck is a wide fan-shaped deck for relaxation or for sun bath-

ing, while below is a large sports deck, which includes a tile swimming pool. Among the other attractive features are a veranda cafe with curved, movable glass doors, and an attractive salon with broad full-view windows extending the width of the ship. This room, divided by partitions when desired, contains the bar, dining room and lounge. The pantry, directly next to this room, is connected mechanically with the galley, permitting rapid and efficient service. A feature of these ships which has attracted much attention is the permanent motion-picture booth built just aft of the stack. Movies are shown on a large screen set between the king posts at Nos. 4 and 5 hatches, and are easily visible from numerous vantage points.

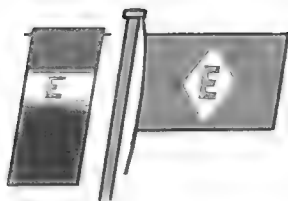
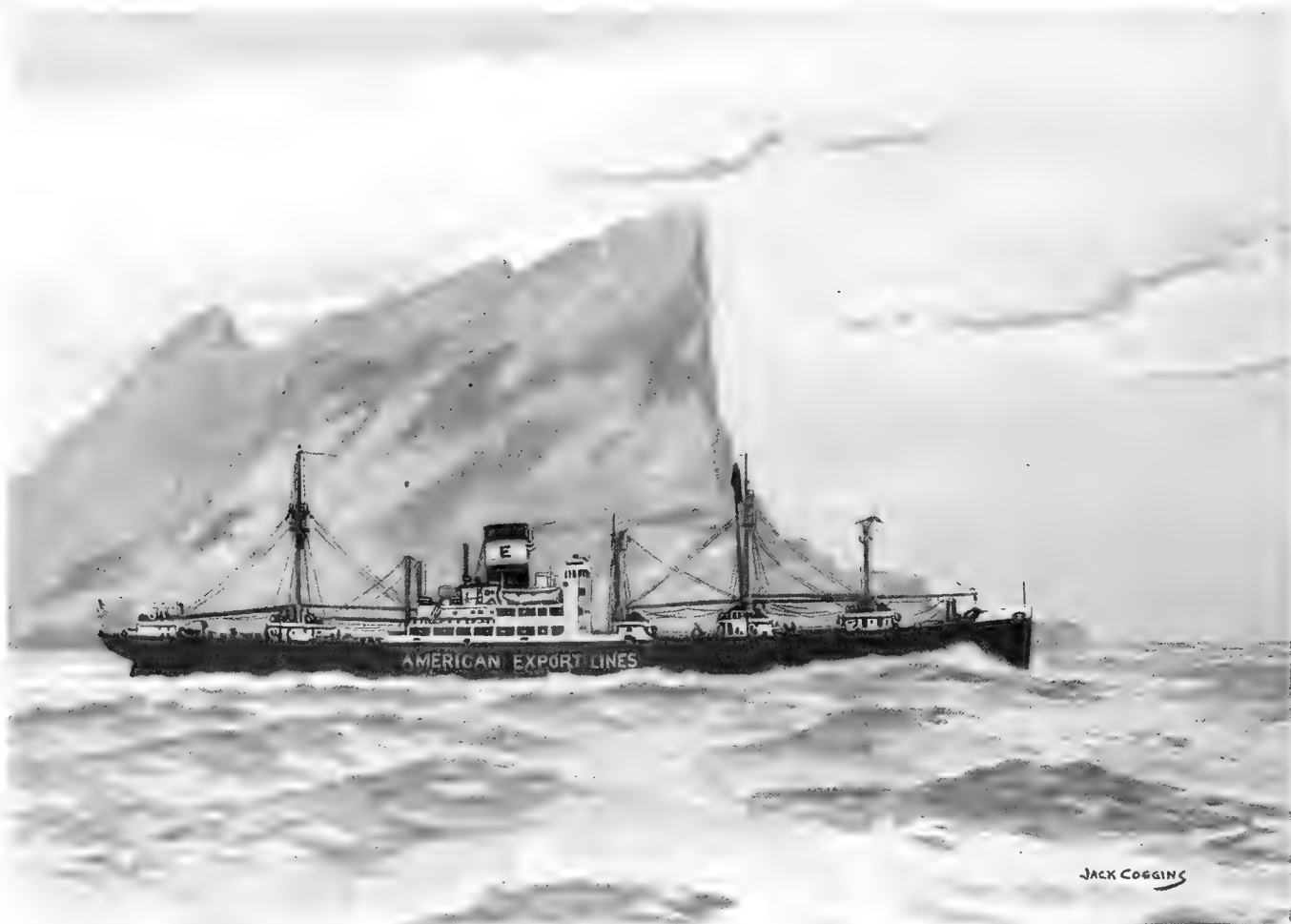
These all-round, versatile ships are known as the Maritime Commission C-2-S1-AJ4 type. They are single-screw geared turbine vessels capable of a 16-knot cruising speed. They have five hatches and two side ports, and a bale cargo capacity of 494,556 cubic feet, including 91,795 cubic feet of refrigerated space. There are deep tanks for 2,149 barrels of liquid cargo, all equipped with heating coils for the carrying of molasses. The latest devices are installed to insure efficient cargo handling. All holds are equipped with the most modern blower systems, and also have lights installed to provide, together with the usual portable cargo lights, the best illumination for efficient loading and discharge. Each hatch has two sets of working gear forward and aft of the openings. There are four booms at each hatch, except at No. 3, which has five. Four of the ships carry one 30-ton, heavy lift boom; and two have 50-ton booms. The arrangement of the working gear permits the employment of a minimum of ten gangs per ship. A great decrease in the time required to rig and secure ship when entering and leaving port has been achieved by the use of numerous hydraulic winches. The latest in safety equipment has been installed—not only the usual safety features, but also new-type lifeboats and an improved version of emergency steering gear.

The regular service by the six new “Santas” has done much to facilitate the tremendous flow of trade and travel which is a notable aspect of the postwar period. Calling at all the major ports from the Canal Zone to Chile, the modern “Santa” fleet is carrying a wide variety of products

from our industrialized nation. From steel, autos, tractors, farm implements and construction material to radios, refrigerators and condensed milk, the cargoes cover every phase of the luxuries and essentials of everyday life. Northbound flow the raw materials to provide credit for the purchase of our manufactured goods. From Chile come fruit, wine, grains, skins and copper; from Peru, copper and wool; from Bolivia, tin; from Ecuador, Panama hats, balsa wood, ivory nuts and cocoa; from Colombia, coffee and platinum—to name only the major items. This regular service, which during the war provided the strategic materials so urgently needed, helps to maintain and develop the trade between the Americas in time of peace.

Thus the service of the great C-2 freight ships is important in international relationships, both in their trade facilities and their luxurious passenger accommodations.





AMERICAN EXPORT
LINES

S.S. "Extavia," American Export Lines, heads eastward into the Mediterranean past the Rock of Gibraltar.

SHIPS OF THE U.S. MERCHANT MARINE

AMERICAN EXPORT LINES, one of the principal American-flag steamship companies, operates essential trade routes between our North Atlantic ports and the Mediterranean, North Africa, the Black Sea, the Red Sea, India, Ceylon and Burma. Application has been made to the Maritime Commission to extend these routes to Singapore and the Dutch East Indies.

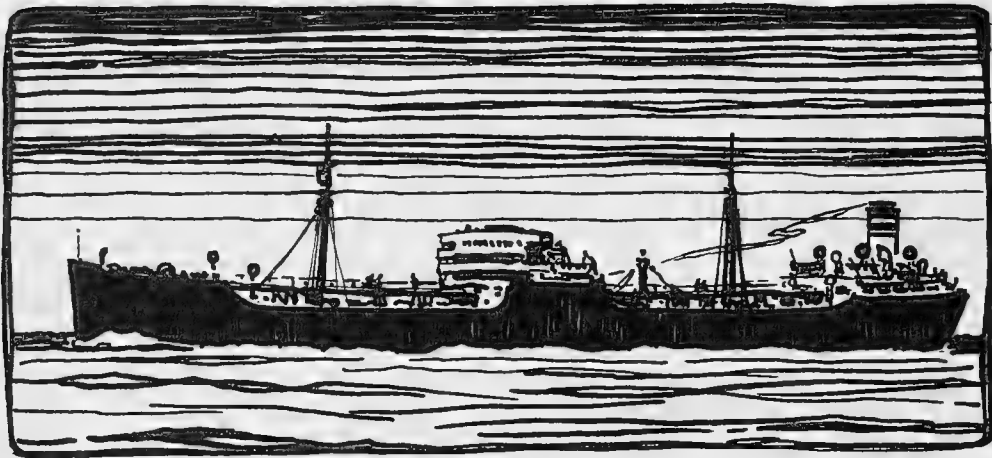
The S.S. *Extavia* is one of fourteen sister ships known as the "Exporter" type. Vessels of this special design are 473 feet in length, 66 feet molded breadth, and draw 27 feet 9 9/16 inches of water when fully loaded. They are registered at 9,900 deadweight tons. Their sea speed is 16½ knots, with ample reserve to maintain schedules under adverse weather conditions. Their steaming range is 15,000 nautical miles.

Distinguishing characteristics of the "Exporters" include their seven cargo holds with wide hatches, four of the holds being located forward of the midships deck house and three aft. They have a distinctive layout of 21 booms, each with lifting capacity up to 35 tons and served by electric winches. This permits rapid and efficient loading and unloading of cargo. There are four deep tanks totaling 850 tons capacity, equipped with powerful pumps for handling fluid and semi-fluid cargo.

The holds and 'tween decks have total bale capacity of 535,750 cubic feet. Three holds are provided with apparatus for ventilating and controlling dehumidification of semi-perishable cargo. Five of the new "Exporters" have refrigerated space for 30,000 cubic feet of perishable cargo. "Exporters" carry a crew of 46 men, including the master, except those equipped with "reefer" space, which carry 49 men.

Power plants for these express freighters are steam turbines which develop 8,000 horsepower. Their high-pressure, superheat water-tube boilers, oil-fired, operate under 500 pounds pressure at 750° F.

Vessels of these special types exemplify the advances made by the American shipping industry under the Merchant Marine Act of 1936. In Export's case, these fast, efficient vessels replaced smaller, slower ves-



sels, primarily of the "Hog Island" type which dated from World War I.

During World War II, all but two of the company's new vessels (commissioned in 1946) were extensively employed as troop transports or as express carriers of vital war materials. Because of their high speed, they frequently steamed alone through the danger zones.

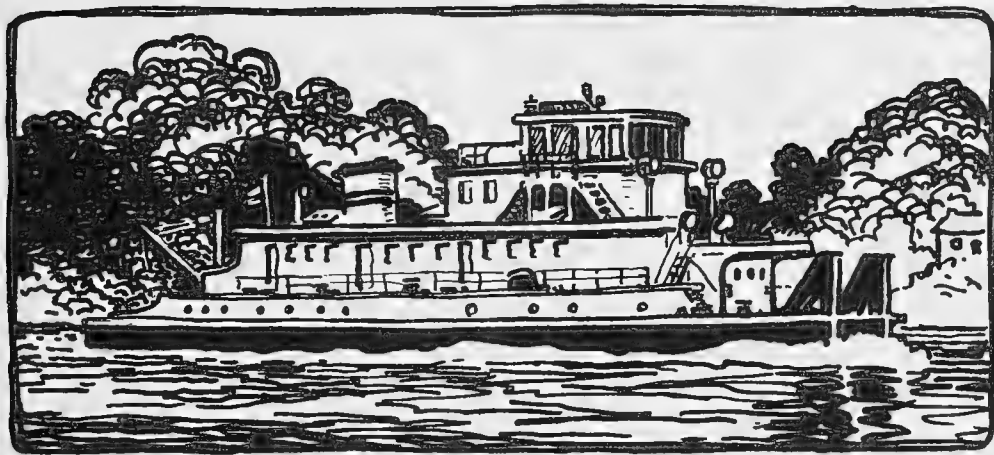
Export vessels and Export men became known throughout the world during the war years. They were in the Murmansk, North Africa, Sicily, Italy and Normandy actions, and also in the thick of the Pacific war. Several "Exporters" ferried troops across the English Channel, one "Exporter" alone having carried more than 500,000 men. One steamed from Japan to New York with 2,000 homebound troops, a voyage of more than 10,300 miles in a record 27 days.

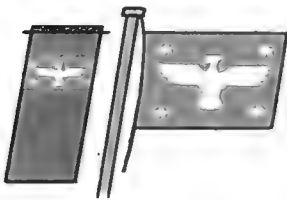
Among company vessels lost during the war were the famous "Four Acts," popular for a decade in the New York-Mediterranean passenger service. The former *Excalibur* and *Exeter* were torpedoed at the start of the North African campaign; the *Excambion* went down at Guadalcanal.

In the unsung but essential task of keeping an endless chain of cargo moving to the battle fronts, American Export Lines has a record to be proud of—handling in one manner or another 4,833 wartime voyages.

Typical cargo carried by this outstanding steamship line excites the

imagination. Even a general list will indicate how our Merchant Marine contributes to American living standards: rugs from the Near East and North Africa; etched silver and brass vases, smoking stands and pictures from the same areas; olive oil, olives and olive roots used in soap manufacture; tomato pressings that ultimately flavor our spaghetti sauce; wines, brandies and liqueurs from many countries (the company maintains special facilities aboard ship and at its terminals for handling such commodities); pumice for toothpaste and industrial uses, marble, silk and rayon, pottery, *objets d'art*, native handicraft of countless descriptions, figs, dates, hides, bristles for paint brushes (very scarce during war years), tea, tobacco, dyestuffs, botanicals and drugs of countless varieties, chrome and other ores, snails from Casablanca, Black Sea caviar, sardines, diamonds, rubies and other precious stones, jewelry, vegetable oils, sausage casings, furs, including sable and leopard, animals, spices, talc, red oxide, rubber, almonds, cashew, hazel and pistachio nuts, jute and hemp products, precious metals, cork by the deckload, and countless other items, including mail.





AMERICAN PRESIDENT
LINE

American President Lines' "President Polk"
clears the Golden Gate.

SHIPS OF THE U.S. MERCHANT MARINE

BECAUSE of its always popular round-the-world service, the house flag of American President Lines had become a familiar sight in many foreign ports prior to the outbreak of war. Now two virtually new passenger liners, the graceful and commodious *President Monroe* and *President Polk*, built in 1941, are carrying full passenger loads and much valuable cargo to the far corners of the globe.

These luxury ships depart from New York and Boston and call at the following ports: Havana, Cristobal, Balboa, Los Angeles, San Francisco, Honolulu, Shanghai, Hong Kong, Manila, Singapore, Penang, Colombo, Bombay, Suez, Port Said, Alexandria, Naples, Genoa and Marseilles, thence back to New York. Japanese ports will be added when they are opened to travel.

The *President Polk* and *President Monroe*, with five sister ships, were operated in round-the-world service before the war. All seven ships were requisitioned by the government for war service. Only the two already named have been returned. These have undergone a complete reconversion for commercial use. They now carry 98 passengers in the utmost comfort and style, and are as distinctive and colorful as the route they sail, maintaining the only regularly scheduled round-the-world passenger service under any flag.

The *President Polk* and *President Monroe* are 492 feet overall, of 70-foot beam, and have a cruising speed of 17 knots; their displacement is 16,716 tons, and their gross weight 9,260 tons. Until such time as replacements can be made for the five ships still in government service, the company is operating a number of C-4 type passenger-cargo ships. At present the following C-4's are being operated on an interim basis in the essential round-the-world service: the *Scott E. Land*, *Willis Vickery*, *Marine Flier*, *Marine Leopard*, *Marine Snapper*, *Mount Davis*, *Mount Mansfield*, *Mount Rogers* and *Louis McHenry Howe*.

On the basis of wide study and experience in round-the-world ship-



ping, the American President Lines' management has decided that a somewhat larger type of vessel than the original C-3-P type (the *Monroe* and *Polk*) is now indicated to meet the expanded postwar demands of this trade route. Five new ships are to be built by the Maritime Commission and purchased outright by the American President Lines. These, with the *Monroe* and *Polk*, would restore the original seven-ship schedule round the world.

Designated by the Maritime Commission's Technical Division as Design Ps-SI-DN1, and as the "V-2000" type by the designer, George Sharp, noted naval architect, the new vessels will have practically double the passenger accommodations of the *Polk* and *Monroe*, 189 passengers as compared with 98. In addition, they will provide 532,000 cubic feet of cargo space, compared with 476,500 cubic feet of cargo space in the C-3-P type vessels.

Outstanding in seagoing comfort and efficiency, the V-2000's will be 536 feet overall in length, have a beam of 73 feet, and will cruise at a speed of 19 knots.

The new ships, in combination with those now on hand, will provide a sailing of a large luxury liner from the Pacific Coast every week. Transpacific sailings will be on a fortnightly schedule, with round-the-world departures on alternate weeks.

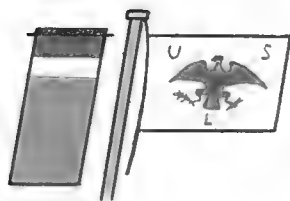
Passengers making the transpacific voyages will have 47 days on ship-board during the round-trip, including time spent in ports along the route. Travelers on the round-the-world ships will spend approximately three months on board, every day one of relaxation and enjoyment at sea, or of sight-seeing adventure at the fascinating ports of call.

In rounding out the picture of the American President Lines' operations, the subject of cargo and cargo ships forms an important part. As American President liners leave nothing undone for the pleasure and convenience of passengers so, too, do their freighters provide every modern means of protecting and preserving cargoes in transit.

In addition to express-package cargo handled by the large passenger liners and the abundant "reefer" space they provide, the company's freighter fleet is equipped to carry the most perishable commodities in specially designed refrigerator compartments, where, whatever the outside temperature, cargoes such as easily spoilable agricultural products are kept in temperatures best suited to their preservation. Ample deep-tank space is provided for bulk liquid cargoes. Special lockers and "specie" tanks assure safe stowage for valuable or particularly fragile freight.

The *President Polk* began her maiden voyage on December 7, 1941, but it was halted by the Japanese attack on Pearl Harbor. On August 21, 1946, she sailed again from San Francisco, after four years of war duty.





UNITED STATES LINES

A school of porpoises escorts the "Washington," of the United States Lines, on an eastward voyage.

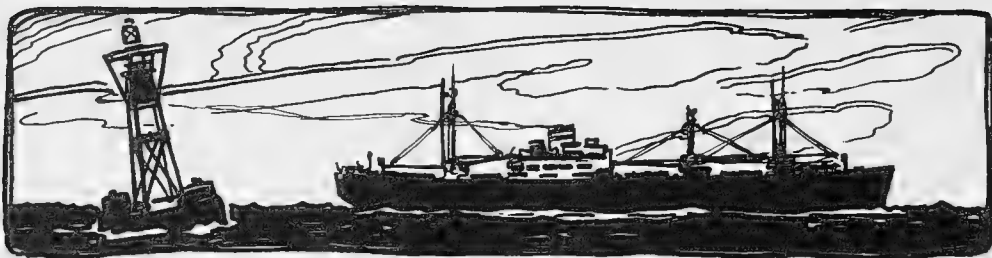
SHIPS OF THE U.S. MERCHANT MARINE

THE *Washington* and her sister ship, the *Manhattan*, were the largest and fastest American luxury liners in service between 1933 and the outbreak of the war, and enjoyed enormous popularity with travelers of all nations. They ran regularly in the North Atlantic service on the regular United States Lines' route between New York, the English and French channel ports and Hamburg. Competing easily in service and cuisine with the largest foreign ships, they were particularly noted for the excellence of the food served, just as the *America* is today. In fact, many gourmets consider it better than on any foreign ships. Other American-flag lines have also received this compliment, particularly since the war.

American travelers and others from various parts of the world are delighted that the majestic *Washington* is now back in service on her old run, completely refitted and renovated as a tourist ship. Today she is easily the premier ship of the world for this class of service. It has been a fine gesture on the part of an American-flag steamship line to give the tourist of moderate means a chance to go abroad.

The *Washington* was always a great favorite with women passengers before the war, and everything possible has been done in reconverting her to continue her attractive qualities. She is completely air-conditioned. She has a wire-enclosed play deck equipped with sandbox, slide and other amusements for children, where they can play in the open air in perfect safety. It adjoins the indoor playroom, and can be entered only from this room. A stewardess is in charge during the day. It is easy to understand why the ship is a favorite with so many mothers. The *Washington* also has a fine gymnasium, and a sundeck which includes a full-size tennis court, one of the few on ocean liners. The tennis court is located between the two red, white and blue stacks, and has a deck area of about 4,000 square feet. In addition to this court for regular hard-court tennis, with ball and racquets, there are also courts for the usual deck tennis, played with rubber rings.

The *Washington*, during her prewar service, made approximately one



hundred transatlantic round-trip voyages. She carried 120,000 passengers during that period and 600,000 tons of cargo. In the first five and a half months that the *America* was back in service she made nine round-trip voyages to Europe, and on all of them was filled to capacity, carrying about 2,000 passengers on each trip, or a total of about 18,000.

The story of the *Washington* was a happy and carefree one during the days of peace, when she sailed as the pride of America's expanding Merchant Marine. Tired businessmen, tourists and starry-eyed honeymooners enjoyed the comforts and luxury of the ship. Many a moonlight romance flourished as the liner plied across the sea. The *Washington* was a great ship and a wonderful traveling hostelry during those days, when the menace of war was only a topic of idle conversation.

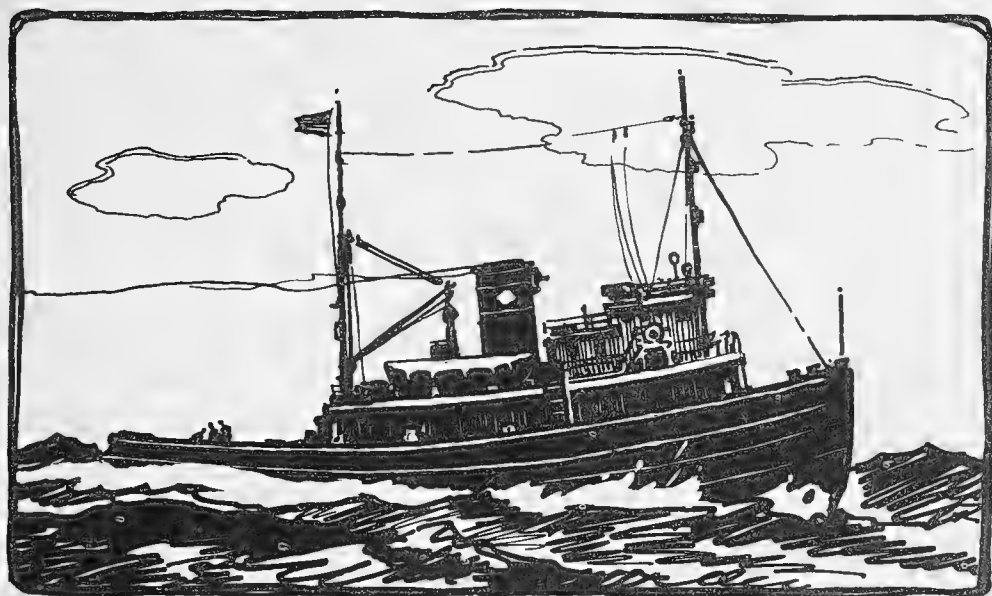
As world conflict became more and more apparent, however, the ship that was later to join the Navy as the *Mount Vernon* found her task a very different one. Americans in all parts of the world were anxiously seeking passage home. Loaded beyond capacity, and sobered by the outbreak of the war, she brought her people safely to the States. While hostilities were raging in Europe, the ship, still brilliantly white, was protected from attack by the United States flag.

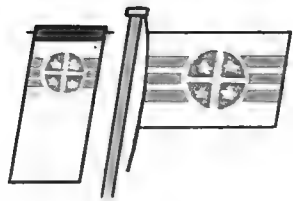
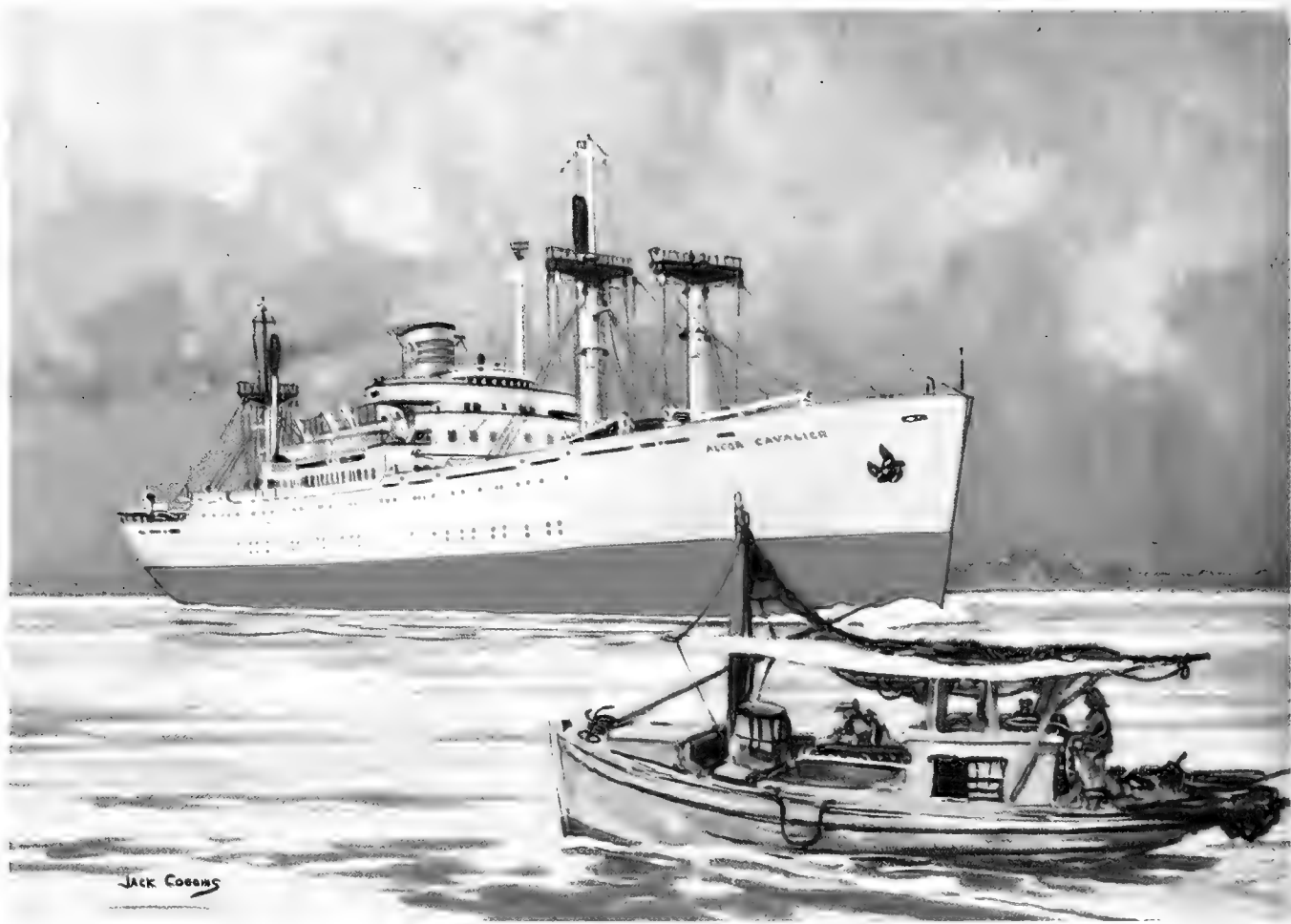
By June, 1941, the ship had exchanged her glistening white for a coat of gray. Light openings were sealed to insure her safety. Guns were mounted on her decks. The cabins were stripped. Bare steel lined her spaces. The days of serenity were past; the *Washington* had gone to war. Today we are thankful that she has safely returned to peacetime tasks.

The *Washington* is 705 feet in length, has a beam of 86 feet and draws 30 feet 9 inches of water. Her gross tonnage is 24,289. Twin propulsion

turbines permit a top speed of $21\frac{1}{2}$ knots, and her cruising radius is 14,000 miles. The *Washington* was built in 1932 by the New York Shipbuilding Company, Camden, New Jersey.

The United States Lines also operate one of the finest fleets of cargo vessels, headed by forty ships of the crack C-2 type. These ships are easily recognized by the names they bear: *American Banker*, *American Farmer*, *American Importer*, *American Leader*, *American Merchant*, *American Shipper* and *American Traveler*, to mention only a few. Others are called the *Pioneer Cove*, the *Pioneer Star*, and so on. As they sail across the Atlantic to and from United Kingdom ports and the Continent, they carry diverse cargoes—everything from citrus fruits, tobacco and automobiles to whiskey, furs and bed feathers.





ALCOA LINE

"Trial Run." New "Alcoa Cavalier," en route to New Orleans, meets a shrimper in the Mississippi.

SHIPS OF THE U.S. MERCHANT MARINE

THREE new sister ships, the *Alcoa Cavalier*, *Alcoa Clipper* and *Alcoa Corsair*, are leaders in the type of passenger-cargo ship which promises to be a major postwar trend in the maritime field.

These Alcoa ships represent a new type in that, while smaller than present vessels of the superliner class, they have all of the amenities and comfort of the famous liners and in some respects excel them. In essence, they are the postwar development of shipping men who have taken into account the increasing competition of plane transportation and realize the futility of trying to compete with airplanes on a speed basis only. The great Victory ship's hull has been utilized with fine results comparable to the service these excellent ships gave during the war.

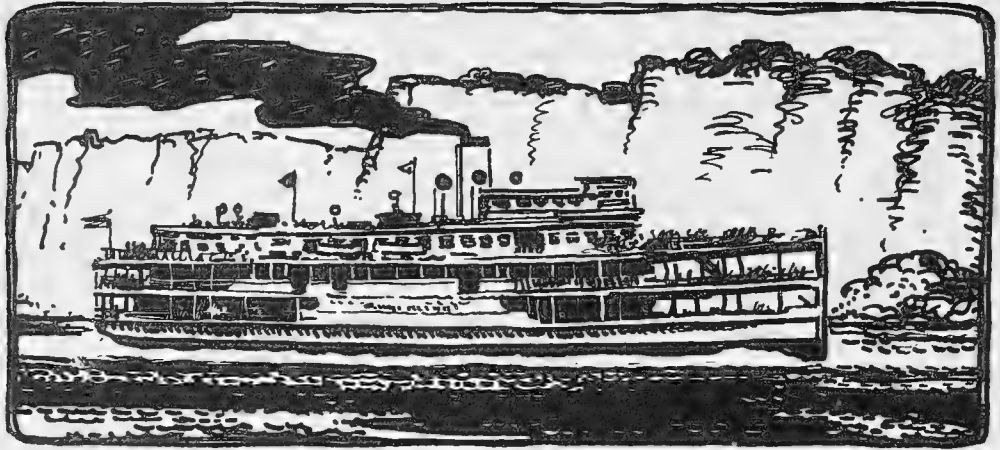
Each one of the new sister ships has berths for ninety-five passengers. Passenger-carrying capacity was held at that figure in order to provide comfortable and spacious accommodations. All staterooms are large outside rooms, each with private bath.

Despite the space required for passenger accommodations and quarters for additional crew members, these ships will have large freight capacity. Each ship can carry 8,500 tons of cargo, with a cubic capacity of 419,090 feet—a sacrifice of less than 25 per cent of the carrying capacity of a freight ship of their size.

One consideration apparent in the construction of the new ships is the adaptation of their freight capacity to bulk commodities. In addition, equipment for the handling of 14,850 cubic feet of refrigerated cargo has been installed.

The Alcoa ships, each with a displacement of 15,199 tons, have an overall length of 455 feet, a beam of 62 feet and a draft of 28 feet 6 inches. Their normal sea speed is approximately 17 knots, with power supplied by geared turbines and water-tube boilers.

These new passenger-cargo vessels have been carefully constructed to achieve the maximum in safety. Hulls have been subdivided into seven compartments to insure the greatest possible stability under emergency



conditions. Non-combustible or fire-resistant materials are used throughout the ships.

Air conditioning plays a big part in making them comfortable, regardless of the weather. All passenger staterooms and public rooms are air-conditioned, with the single exception of the main hall, which is open at two sides to sea breezes. Crew quarters, too, are air-conditioned.

An interesting feature of the new ships is the extensive use of aluminum, which permits a great saving in weight and also gives freedom from corrosion by sea water. The stack and the two upper decks of the superstructure are of aluminum. This material is also used in lifeboats, hatch covers, awning stanchions, accommodation ladders, air ports and covers, deck and ladder treads and windows. Directional signs for passenger use and many interior decorative features are also of aluminum.

Today the company controls the operations of over a million displacement tons of shipping, owned or under bare-boat charter. This tonnage includes various ships—C-1's, C-2's, Liberty types, Victory types and Hog Islanders.

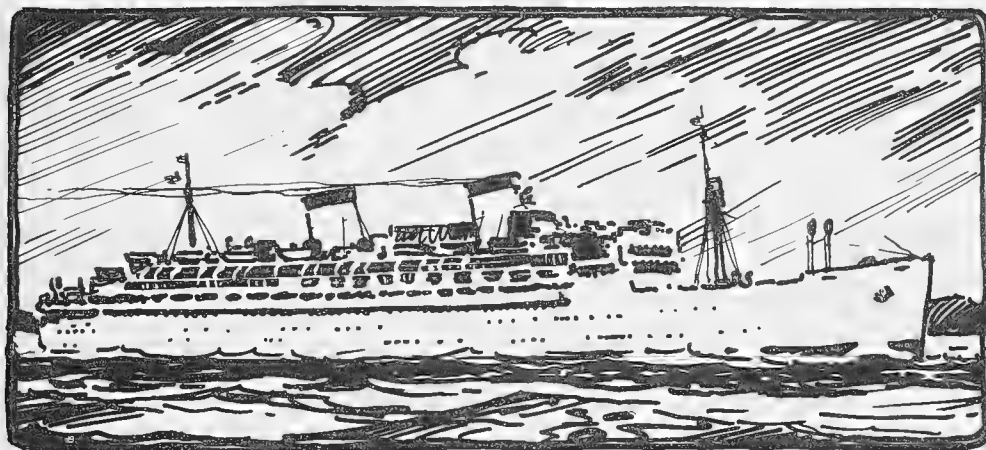
Most of the fleet's expansion and growth since 1936 has been carried out with one purpose in view—a reduction in the cost of transporting bauxite, the ore from which aluminum is derived. This is achieved through improved facilities and efficient operating methods.

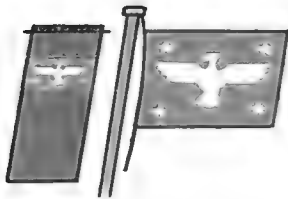
In the early '20's, the Aluminum Company of America had developed

bauxite production in South America to a point where it became desirable to provide transportation flexible enough to meet refining schedules of aluminum plants in the United States. The immediate result was "The Aluminum Line," six ships with a combined deadweight of 20,700 tons. The ships were put to carrying bauxite, and the beginnings of the Alcoa Steamship Company had taken form.

World War II brought with it a tremendous demand for aluminum—for arms, construction materials, and, above all, airplanes. The need for aluminum, of course, meant a greatly expanded bauxite service. Transportation of the important ore from the rich deposits in South America was turned over to the Alcoa Steamship Company. Faced with one of the war's great transportation jobs, the company almost overnight grew to many times its prewar size. Not only did it bring the needed bauxite to the aluminum plants of the United States, but it was also assigned the job of supplying the Aluminum Company of Canada.

While the delivery of bauxite has been the Alcoa Steamship Company's chief preoccupation, it has by no means been its only role. The general freight trade, originally conceived as a fill-in to supplement the bauxite service, is daily becoming more important.





AMERICAN PRESIDENT
LINE

The new "President Cleveland" at anchor in Hongkong roadstead on her maiden voyage to the Orient.

SHIPS OF THE U.S. MERCHANT MARINE

AS THE shipping industry, like the railroads—midst labor disputes, shortage bottlenecks and other delaying actions—slowly emerges from a war to peacetime operation, there has been much speculation on the part of the traveling public as to just what type passenger vessels will be available in America's new postwar Merchant Marine.

Insofar as American President Lines is concerned, its two main trade routes—transpacific and round-the-world—will be serviced by a fleet of fine new luxury liners and combination passenger-cargo ships which, from the standpoint of passenger comfort and modern cargo facilities, will be second to no ships in the world.

Traditionally, American President Lines has been the connecting steamship service between the United States and the countries of the Far East. For seventy-six years this company, with its predecessors, has been America's "link with the Orient."

Traditionally, also, the spread-eagle house flag and stack insignia of American President Lines have been the links between America and more than a score of ports in fourteen countries on the 24,000-mile round-the-world route served by the company.

Disrupted by the war, these two services, transpacific and round-the-world (which have been listed as essential trade routes by the United States Maritime Commission), are now restored. Once again travelers and shippers throughout the world will find that American President Lines are serving them with ships of advanced design, embodying the latest in comfort, efficiency and safety.

In APL's transpacific service, four great liners serve this route, with the ports of Los Angeles, San Francisco, Honolulu, Shanghai, Hong Kong and Manila. Japanese ports, when opened to travel, will also be included. Two of the ships for this route were built at the Bethlehem Shipyards on San Francisco Bay—the *President Cleveland* and *President Wilson*. Built by the Maritime Commission for APL's transpacific trade, they are the

largest commercial vessels ever constructed on the Pacific Coast. The *President Cleveland* was the first of these two new luxury lines to enter service. It was launched in June, 1946, and made its maiden voyage in August, 1947.

Combining the latest design in passenger accommodations with the most modern machinery and equipment obtainable, these two 22,900-ton luxury liners each carry 552 passengers in first, tourist and third class, and a crew of 338, in addition to 5,000 tons of general, refrigerator and bulk liquid cargoes. The ships are 610 feet in length and have a beam of 75 feet. Their 20,000 horsepower turbo-electric motors will propel them at a maximum speed of 21 knots.

They are typically American, and while "there may be bigger ships afloat, there are none finer or more modern. The new President liners represent the epitome of present-day knowledge in the shipbuilding crafts. They combine engineering skill and efficiency with all the luxuries of ocean-going transportation."

The *President Cleveland* and *President Wilson* boast two swimming pools—one each for cabin and tourist passengers—and libraries, motion-picture facilities, massage rooms, barber and beauty shops, and a gymnasium. All cabins and public rooms are air-conditioned. There are even steam-heated kennels for dogs and other pets.

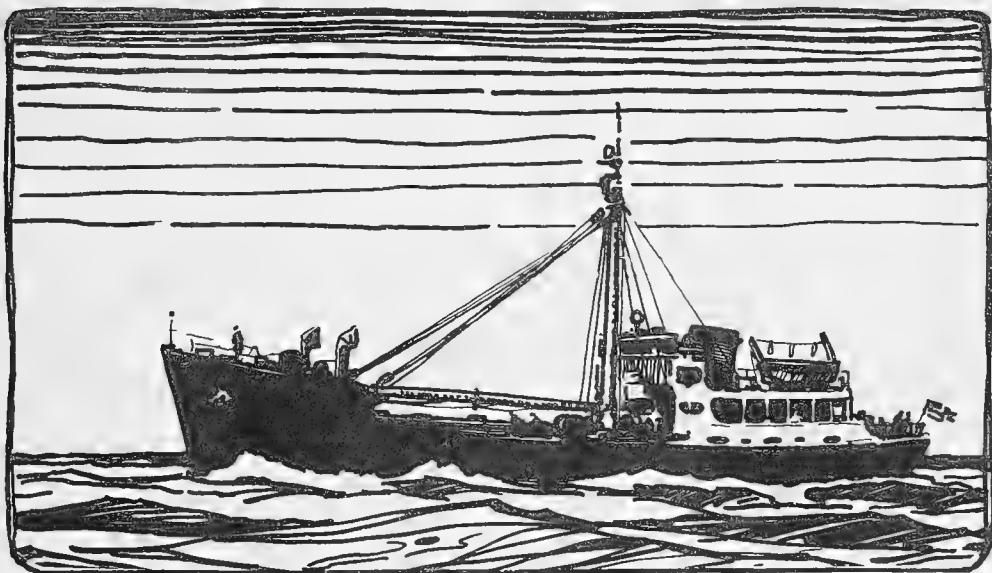
The keels of both vessels were originally laid down as Navy P-2 type troop transports; but with the war's end, the Maritime Commission ordered them constructed according to the American President Lines' requirements for the latter's fast-growing transpacific passenger and express-cargo trade.

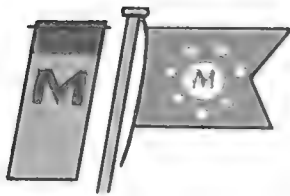
To meet emergency passenger demand during the period between V-J Day and the delivery of these new liners, the company put into operation on an interim basis the *General M. C. Meigs* and the *General W. H. Gordon*. These former Navy troop transports were given limited conversion to accommodate 1,500 commercial passengers each. Additional interim passenger service to the Orient is being provided by the S.S. *Marine Lynx*

and the S.S. *Marine Adder*, both C-4 troop transports converted to accommodate 1,000 passengers.

As soon as the *President Cleveland* went into service, a complete reconversion was begun on one of the "General" ships, which will take an estimated eight to ten months, and will qualify it to serve as part of the American President Lines' permanent transpacific passenger fleet. Later, when the *President Wilson* entered service, similar total reconversion was also begun on the other "General" ship. Thus, by spring of 1948, American President Lines will have a well-balanced fleet of four large, de luxe passenger liners engaged exclusively in providing fast transpacific service, offering accommodations for more than 2,200 passengers.

Other vessels in service to the Orient include six C-3 type freighters, 16-knot cargo ships which, in addition to the most modern cargo carrying facilities, have comfortable stateroom accommodations for a maximum of twelve passengers. These ships are the *President Grant*, *President Jefferson*, *President Madison*, *President McKinley*, *President Pierce* and *President Taft*. In addition, numerous cargo ships chartered from the government are being operated by the American President Lines in their transpacific service.





THE MATSON LINE

S.S. "Monterey" in the harbor of Sydney, New South Wales, Australia.

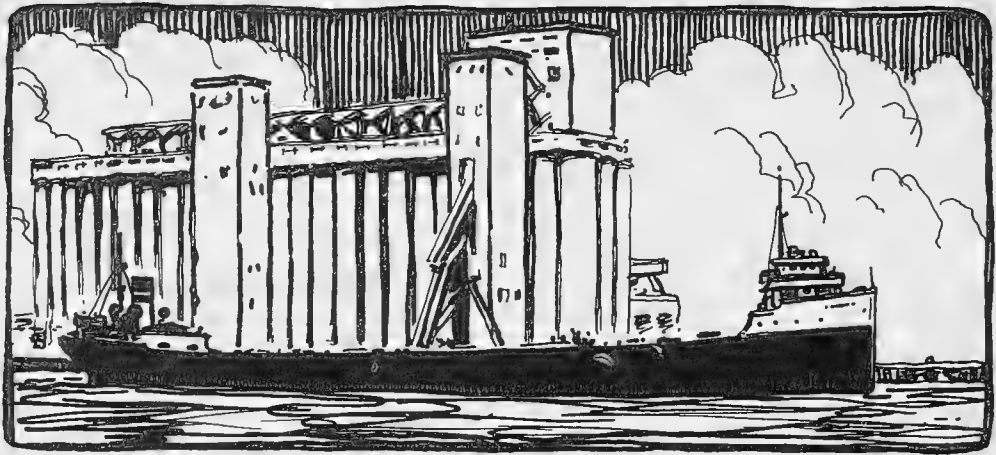
SHIPS OF THE U.S. MERCHANT MARINE

THE MATSON LINE offers superlative service and cuisine for the Pacific traveler aboard its three magnificent ships, the *Lurline*, *Mari-rosa* and *Monterey*; and it provides similar accommodations ashore at the Royal Hawaiian Hotel, which it owns in Honolulu. A million dollars has been spent in redecorating the hotel after its use as a rehabilitation center for Navy personnel during the war.

The Hawaiian Islands offer many features interesting to the tourist, and excellent salt-water fishing and shooting for sportsmen. Samoa and Fiji also deserve a visit. Then there is New Zealand, which boasts some of the world's finest salt-water fishing—not to mention her trout streams, which equal those of Chile. Australia, too, has wonderful salt-water fishing and interesting game for the hunter. The hospitality that one receives from our friends "down under" is renowned.

The Matson Line never overlooks a trick for the comfort of its passengers or for service to its shippers. Its officials and personnel, like those of the other companies mentioned in this book, are models of efficiency and experienced seamanship. Their postwar transportation will be maintained by approximately thirty ships. On the three luxury liners the company will offer weekly sailings, in each direction, between California and Hawaii. They also will provide sailings every five weeks between San Francisco and Australia, or ten or eleven round-trip voyages yearly. Each of the three ships will follow this route on a rotational basis after several runs between the two California ports and Hawaii.

Sixteen new C-3 freighters, four C-2 freighters, three Liberty ships, and four freighters retained from prewar service will be included in the fleet. Serving Hawaii exclusively are the sixteen new C-3 freighters, which constitute the largest division of the postwar Matson fleet. The C-3's were converted for the handling of the specialized cargoes peculiar to the Hawaiian trade. On ships of this type assigned to routes between the West Coast and Hawaii, particular attention is paid to refrigerated cargo, for which 60,000 cubic feet are available on each vessel. The most ad-



vanced type of equipment for this service has been installed, and provides a sustained temperature of ten degrees below zero. Deep tanks on each of these vessels accommodate 2,700 short tons of molasses, loaded and discharged by special pumps capable of handling 250 tons per hour. Extensive alterations in hold arrangement, including permanent sheathing, were made to accommodate bulk sugar consignments. Topping lift winches have been added at all hatches.

The C-3 service from the Pacific Northwest to Hawaii is augmented by three Liberty ships, which make frequent sailings from that area with lumber, sulphates, and other cargoes.

In transit time, these postwar freighter services offer a 30 per cent increase in speed over the prewar freighter fleet. The C-3's make the run between California ports and Hawaii in five and a half days, and between Pacific Northwest ports and Hawaii in six days, as compared with the seven- to eleven-day crossings required before the war.

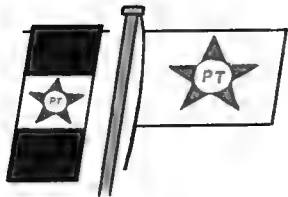
The four C-2's are augmenting the express and refrigerated cargo service which the 21-knot *Lurline*, *Mariposa* and *Monterey* already provide.

On November 6, 1943, the *Monterey* with 6,747 troops aboard en route from New York to Gibraltar and Naples successfully accomplished the greatest rescue operation in the annals of the sea. Twenty-five Junker planes suddenly attacked her convoy. Two merchant ships and one de-

stroyer were hit by torpedoes and rocket bombs. One pilot came in so low on the port beam of the *Monterey* that, to avoid crashing into her side, he had to rise so suddenly that he carried away the antenna between her masts, and then crashed into the sea. The escort commander requested the *Monterey* to undertake rescue operations for one of the stricken ships, the Grace Line's lovely *Santa Elena*. The starboard lifeboats of the *Monterey* were lowered away, and survivors were picked up directly from the *Santa Elena*, from the water, and from temporary refuge aboard a destroyer which was also standing by. The lifeboats of the *Santa Elena* also brought many survivors to the *Monterey*, and scrambling nets, lines and ladders were lowered to the waiting lifeboats. The injured were brought aboard by tackle and litters at the "E" deck sideports. A total of 1,675 were taken aboard: 1,644 Canadians from the *Santa Elena* and 31 survivors that had been picked up by the destroyer from the other stricken vessel, a Dutch ship. Four men were lost.

Captain Elis R. Johanson, who joined Matson in 1920 as a ship master and who has had command of the *Monterey* since 1934 and is still her "old man," received a commendation from the Commander of Destroyer Squadron 16 and was later awarded the Merchant Marine Distinguished Service Medal for this marvelous rescue operation, which lives up to the high traditions of the Matson Line and of the American Merchant Marine.





POPE & TALBOT, INC.

Pope & Talbot's "P&T Seafarer," with deckload of lumber, passes San Francisco lightship.

SHIPS OF THE U.S. MERCHANT MARINE

POPE & TALBOT, INC., always on the alert for service to commerce and industry in developing new markets—just as young Pope & Talbot reasoned out the needs of California in 1849—have, in their present-day operations, helped open the way for important trade from the West Coast to the islands of the Caribbean Sea and to the Atlantic coasts of North and South America.

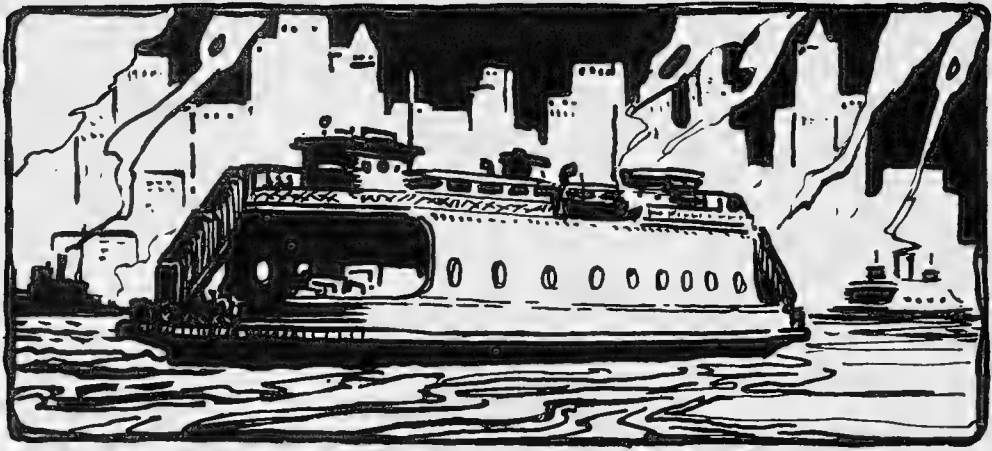
Puerto Rico, in the heart of the Caribbean, is the focal point of Pope & Talbot steamship operations in that area. Regularly, their modern cargo ships leave the West Coast ports of Seattle, Portland, San Francisco and Los Angeles and steam through the Panama Canal to San Juan, capital and largest city of Puerto Rico. Here the ships discharge California-grown rice, canned foods and manufactured products, and Washington and Oregon lumber and agricultural products.

Because of its location, Puerto Rico is the center of trading with other countries and islands of the Caribbean—Trinidad, Dominican Republic, Jamaica, Haiti, Barbados and Cuba, and with all the nations of South America. From the rich plantations of Puerto Rico come pineapples, cotton, sugar, fiber for rope making, and many other valuable crops. The skill which has long made it noted for fine needlework (both men and women are skilled at this) is making expert factory workers out of the young men and women of Puerto Rico.

Pope & Talbot ships also go on beyond Puerto Rico to serve new fields of opportunity for American trade in South America. Their great modern cargo ships have direct service with the important and fast-growing cities on the east coast of South America.

Typical of the Pope & Talbot fleet is the S.S. *P&T Seafarer*. Technically known as C-3 ships, the vessels of this type were built during the war to provide fast freight-carrying service to supply the needs of our fighting men in all parts of the world.

No department store could hold a greater variety of goods than are dropped through the big open hatches by expert cargo handlers operating



electric winches capable of handling thirty-ton loads. The men in charge of loading the ship also have a difficult job. They must know which part of the cargo is going to be unloaded first, which part next, and so on. They must know where to place heavy machinery; lighter bales and boxes; round barrels and long lumber—all so the ship will remain on an even keel without having to shift cargo en route. Included in a single cargo may be such different items as electric light globes, steel bars, sacks of rice or grain, women's clothes, concrete mixers, boxes of apples and paper plates, and a hundred other things.

The *P&T Seafarer* is a big ship. The steel hull of the ship is 492 feet long—more than once and a half as long as an average city block. She has a beam of 69 feet. From the uppermost deck to the bottom of the hull the distance is greater than the height of a three-story building.

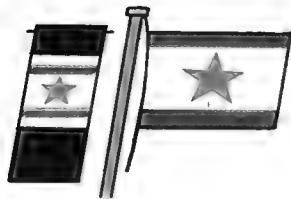
Many Americans earn their livelihood in sailing these modern cargo ships between the United States and the Caribbean and South American ports. About half of the crew is engaged in engine-room or mechanical work. There are a chief engineer, a refrigeration engineer and several electricians, in addition to marine engineers, water tenders, oilers and wipers, the engine crew numbering, usually, twenty-three men. Deck officers and deck crew number about the same. They include the captain and his mates, a boatswain (or bos'n as he is usually called), a radio operator,

carpenter and a number of seamen. A dozen other workers are required to see that everyone is well fed—cooks and messboys, stewards and bakers. There is also always a purser on board who looks after the bookkeeping and cargo records.

- No great ship can start on its ocean voyage without the help of many people who never set foot upon her deck. The shore personnel of an organization such as Pope & Talbot, Inc., employs hundreds of men and women who perform a great variety of services. There are men who must see to it that the ship has oil for fuel; that there is food for the crew; that all safety appliances are in good working order; that the machinery is in perfect condition—for, once at sea, the ship cannot turn back to pick up forgotten supplies, or stop to make major repairs. It requires dozens of clerks to prepare great piles of documents and papers, for careful records must be kept of every item of cargo. There are men at the terminals who receive great truckloads of goods for transfer to the ship's hold, and longshoremen to do the actual moving and stowing of these mountain-high piles of boxes, bales and barrels. And back of all these workers are company executives who direct the business and apply life-long experience in steamship operation to make everything work smoothly.

Ships of the American Merchant Marine are the best equipped in the world, and the men who sail them are the best paid. Great cargo ships like the S.S. *P&T Seafarer* are less impressive in looks than are the vessels devoted principally to carrying passengers, but they are vitally important to the nation. In peacetime they help keep American workers busy at home making goods or growing crops which other countries need. In time of war, they carry the arms, ammunition and machinery and foods for fighting men who have crossed to foreign shores to preserve our liberty and safety at home.

As it sails under the great Golden Gate Bridge which spans San Francisco Bay, the S.S. *P&T Seafarer* is carrying on the tradition of American venture in the same way that the original Pope & Talbot brig *Oriental* did a hundred years ago.



ATLANTIC GULF
AND WEST INDIES

One of AGWI's new ships entering beautiful
Havana harbor, past historic Morro Castle.

SHIPS OF THE U.S. MERCHANT MARINE

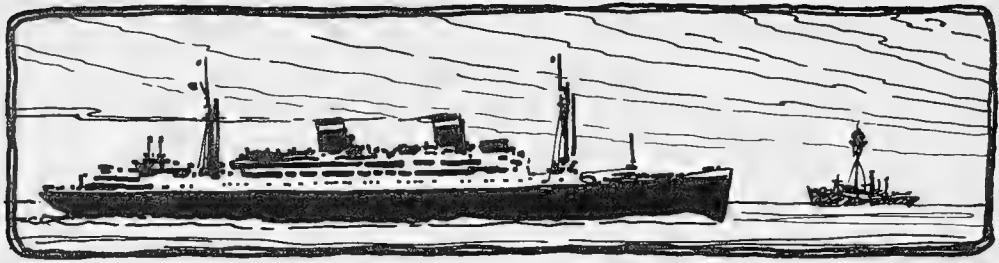
THE oldest American shipping concern, the Cuba Mail Line, owes its origin to a far-seeing Yankee shipowner, James Otis Ward, of Roxbury, Massachusetts.

Ward began his maritime career in the middle of the past century, when American ships sailed to far-off ports in the Orient or Africa, to return with their holds fairly bursting with silk and tea from China; pepper and spices from Sumatra; cotton goods from Bombay; ivory and copra from Madagascar; gum-copal from Zanzibar; hemp from the Philippines; rubber, hides and wool from South America; canvas and iron from Scandinavia and Russia; figs, almonds and raisins from the Mediterranean; coffee from Arabia; salt from Spain; wine from Portugal and the Madeiras; and whale oil from the Arctic and Antarctic.

American ships which brought these materials vied with one another in reaching distant ports and in bringing back rare cargoes, which they often sold at fabulous profits. Equipped only with a compass, a sextant, a quadrant, a copy of Bowditch's *Practical Navigator* and, possibly, one of the new chronometers, these brave little ships—square rigged schooners and brigantines, some scarcely a hundred feet long—showed our flag in every foreign port and opened up hundreds of new markets all over the world.

Watching this trend toward world-wide commerce, shrewd James Otis Ward bought a small fleet of ships, and in 1840 engaged in near-by trade with the West Indies. His staunch little sloops and schooners set out from Massachusetts and Connecticut ports laden with grain, bricks, pine lumber, ice, salt, dried codfish and hardware, and sometimes even horses, pigs and cattle.

Ward's alert Yankee mind soon realized that, of all the West Indian islands, the greatest promise of lasting profit lay in Cuba. From that island, then under the flag of Spain, Ward brought back sugar, rum, molasses, coconuts and other non-perishable produce.



In 1898, the *City of Washington*, a Cuba Mail steamer, was in Havana harbor when the battleship *Maine* blew up. Flying fragments from the ill-fated vessel riddled the steamer's awnings, deck houses and some of her boats. Scarcely had the echoes of the explosion died away, when the *City of Washington's* remaining boats were lowered, and they played a heroic part in rescuing survivors from the shattered battleship. The Cuba Mail vessel was at once transformed into a hospital ship, and saved the lives of hundreds of American seamen.

During the Spanish-American War which followed, three of the Cuba Mail's steamers were used as transports; two others were converted into auxiliary cruisers. It was the Cuba Mail liner *Yucatan* that carried Teddy Roosevelt's famous Rough Riders to Cuba and their immortal charge at San Juan Hill.

By the end of the war, officials of the Cuba Mail Line realized that Havana, transformed into a clean, healthy city, was destined to become a popular winter resort and a mecca for tourists. Their belief was amply justified, for by 1907 increasing numbers of our tourists had begun to "discover" Havana. To handle the tremendous expansion in business, the company was re-formed, reorganized, and reincorporated under the laws of the State of Maine.

At this period, the Cuba Mail Lines owned nineteen ships, all under the American flag, with a total tonnage of 84,411.

The motto of the company since 1846, when it built the *James Edward* in an American shipyard, has always been: "American ships for American sailors." Every ship owned by the line, with the exception of less than a dozen vessels, was built in an American yard.

With the increase in shipments of sugar, fruit and vegetables from Cuba at the close of World War I, the docking facilities of Havana proved inadequate. The Cuba Mail Line, taking the initiative, began the construction of modern concrete terminal docks, which were completed in 1925, at a cost of more than five million dollars. These docks are the finest and the most modern in the West Indies, and are so designed that five ships can be berthed at once. They are equipped with every modern device for the rapid loading or discharge of cargo, and have large storage space, warehouse facilities, and refrigerating rooms for perishable freight. They are as convenient and efficient as any in the United States.

In World War II the company had 65 ships in war service, of which 18 were lost. On the honor roll of the AGWI Lines—of which Cuba Mail is the principal subsidiary—are the names of 287 men who died for their country.

In order to resume their regular services to Cuba and Mexico, the Atlantic Gulf and West Indies Steamship Lines are now converting three Maritime Commission ships into passenger-cargo liners. These new liners will be 459 feet long, with a beam of 63 feet, and have a speed of 16 to 17 knots.

The new ships will be the last word in luxurious appointments, and will have accommodations for 140 first-class passengers, on three decks. At the end of the passenger decks, 28 cabins will be placed in an "athwartship veranda," an arrangement which provides a fascinating, wheelhouse view of the ship's course. These will be double cabins, each with two comfortable floor beds and a concealed Pullman-type berth. Every room will be equipped with a private bath, reading lights and an intercommunicating telephone. Air conditioning will be used throughout the living quarters for both passengers and crew. Ultramodern styling and design, with a built-in swimming pool and a palm court, will be typical of each liner.



EASTERN
STEAMSHIP LINES

Eastern Steamship Company's "Acadia" passes
a dragger in the channel near Yarmouth, Nova
Scotia.

SHIPS OF THE U.S. MERCHANT MARINE

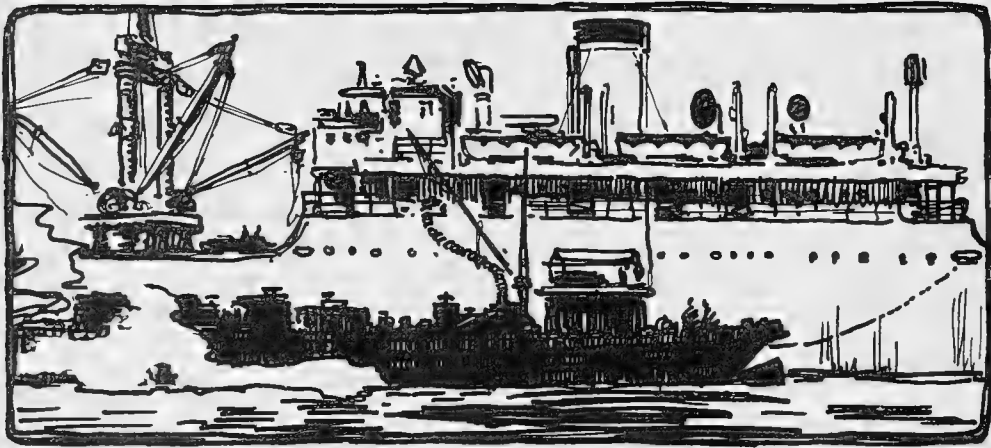
EASTERN STEAMSHIP LINES, INC. is the direct successor of several of the oldest steamship companies in northeastern United States, lines which operated between the ports from Hampton Roads, Virginia, to Saint John, New Brunswick, and Yarmouth and Halifax, Nova Scotia. Eastern also operated, for many years prior to the second World War, vacation cruises and seasonal services to Bermuda, Nassau, the West Indies and South America.

The Boston and Yarmouth steamship service, acquired by Eastern in 1912, had its beginnings over a route long maintained by sailing vessels, the first steamship operation having been provided by the Yarmouth Steam Navigation Company. After acquisition by Eastern, the Boston-Yarmouth Steamship Co., Ltd., a wholly-owned subsidiary of Eastern, operated the service for about fifteen years with ships of British registry. These vessels were then replaced with new American-flag vessels, and the Boston-Yarmouth Line has since been operated as a division of Eastern Steamship Lines.

Rounding out this network of regular steamship services, the company in 1928 inaugurated a summer service between New York and Nova Scotia.

During the dull years of American shipbuilding, beginning after the first World War and continuing to a great extent until the passage of the Merchant Marine Act in 1936, the company built eight new, fast passenger ships and three cargo ships. When the war broke out in 1939, the company was operating a fleet of fifteen vessels—eight passenger-cargo ships and seven cargo vessels. During the preceding fifteen years the line handled up to 480,000 passengers and 1,360,000 tons of cargo per annum.

The United States government started using vessels belonging to the company for national defense work early in 1941, and by the end of that year all the company's regular services had been suspended and the vessels engaged in war activities. Title to five ships, formerly in Eastern's fleet, was requisitioned by the government; four of these ships were lost



in war service. Four others still owned by the company were also lost. Three ships were returned to the company after war service, but they were in poor condition and were disposed of. As a result of the war, therefore, the Eastern fleet has been reduced from fifteen operating units to three passenger vessels, the steamers *Evangeline*, *Yarmouth* and *Acadia*.

The *Evangeline* and *Yarmouth* have been completely restored, fitted out with new furnishings and numerous alterations, and are now in service. One ship sails between Boston and Yarmouth, Nova Scotia, and one between New York, Bermuda and Nassau, B.W.I.

The *Acadia* returned from war service in 1947. She has a length overall of 402 feet, gross tonnage of 6,185, and a speed of 18 knots.

Several of the company's vessels had distinguished war records while still in the company's ownership. Five of the passenger vessels operated in the Atlantic, Mediterranean and English Channel theaters of war, carrying military and civilian personnel, supplies and equipment, and transporting men wounded in battle. They received many high commendations for their accomplishments in going in close to the African and European beachheads and by their speed and maneuverability saving many wounded, who but for the availability of such ships would have perished.

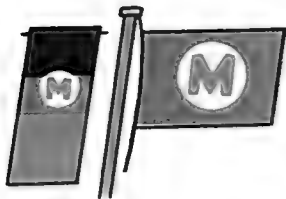
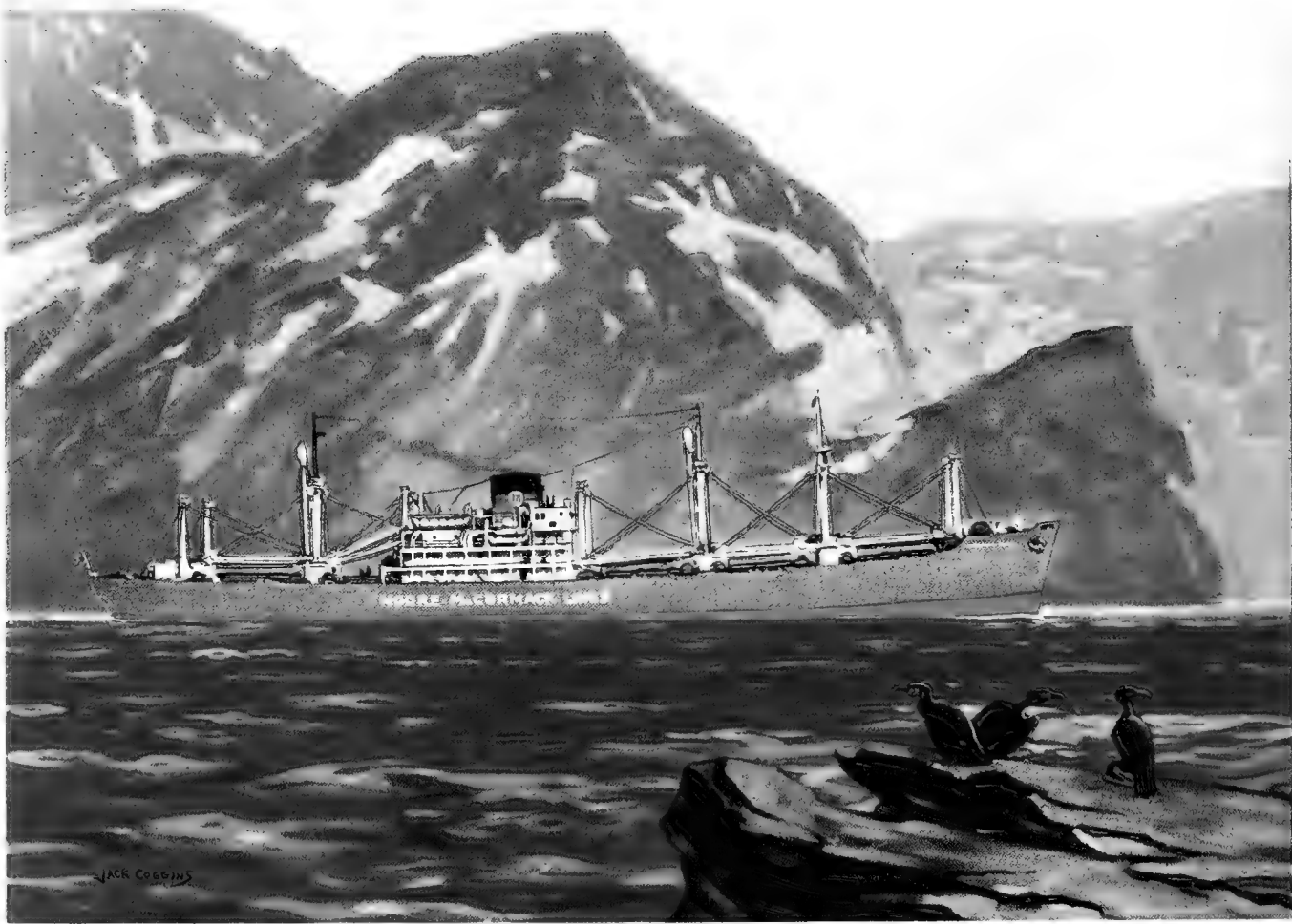
The *Evangeline*, *Yarmouth* and *Acadia*, after outstanding service in

the Atlantic theaters of war, were sent into the Pacific, where they were called upon for similar duty and where they visited the beaches of every major island military operation. The *Acadia*, which had been converted to a straight hospital ship, is said to have been the first of its kind to enter Tokyo Bay to remove and hospitalize Americans who had been prisoners of war. She continued in this service, and in repatriation of other American personnel from the western Pacific areas. She had a fine record, and is the only ship portrayed in this book that served as a hospital ship.

During the war, Eastern operated a large fleet of Liberty and Victory ships as agent of the government, and the line still has a few vessels remaining on this basis. Several Liberty ships have been chartered since the war, and are principally occupied in carrying food and fuel supplies to Europe. Thus the company's organization has been maintained and fully occupied in lending its best support to the war effort and to postwar re-establishment of peacetime enterprise.

The company, like many other American shipping companies, is faced with serious problems in replacement of its fleet. Ships built during the war are not suitable for conversion and re-use in Eastern's coastwise service. Costs of construction of new ships for operation in unsubsidized American-flag services have gone to such heights that the fixed charges on the necessary investment would probably be unbearable under foreseeable shipping conditions. Direct costs of vessel operations, particularly wages of crews and maintenance and repair costs, are now at such high levels that there has been practically no restoration of domestic services in private steamship operations, and under present cost levels and conditions of competition with land transportation there cannot be a restoration of domestic services on any such extensive basis as existed prior to the war.

Notwithstanding these unfavorable conditions, Eastern has maintained its organization and conserved all funds received from settlements for vessels lost or requisitioned by the government. It is in a strong position to take advantage of any favorable development, either in its former fields of operation or elsewhere.



MOORE-McCORMACK
LINES

S.S. "Mormacgulf" cruises along the snow-cov-
slopes of a Norwegian fjord.

SHIPS OF THE U.S. MERCHANT MARINE

THROUGHOUT the busy war years, when they were operating more than 150 ships for the government, Moore-McCormack Lines gave constant thought to the development of the finer, faster ships that would be required to meet the needs of peace. Big, swift and efficient, the seven new cargo liners which have now joined their fleet are the result of that planning.

The S.S. *Mormacgulf*, first of these ships, was launched November 23, 1945, at the yard of the Ingalls Shipbuilding Corporation at Pascagoula, Mississippi, and entered service to South America's east coast in June, 1946. Three sister ships, the S.S. *Mormacisle*, S.S. *Mormacdown* and S.S. *Mormacland*, followed her into that service in succeeding months. Then in November, 1946, the S.S. *Mormacmail*, fifth of the group to be completed, sailed from New York for Scandinavian and Baltic ports, and the S.S. *Mormacpenn* and the S.S. *Mormacsaga*, followed her on this route. Early in 1947 all seven of these splendid new vessels were in active service.

These distinguished vessels are 492 feet long, with a deadweight capacity for cargo and bunkers of 11,000 tons and luxurious accommodations for twelve passengers. They provide facilities unsurpassed by any similar ship afloat, and their achievements testify to that fact.

Their speed is making maritime history. On her maiden voyage, the S.S. *Mormacgulf* maintained an average speed of 18.85 knots on the 3,400-mile run from Santos, Brazil, to Trinidad—this by a ship whose speed had been advertised as 17½ knots! On the strength of this performance, the ship's master expressed confidence in her ability to make 21 knots. The S.S. *Mormacmail*, first of the group to enter the American Scantic Line service to Scandinavia, made the crossing to Gothenburg, Sweden, in less than 8½ days. The equipment of these vessels enables them to achieve, with speed and precision, just about anything desired of a ship in the Atlantic service.



The features listed assure every category of shipper the utmost satisfaction in the handling of his particular commodity: powerful booms and winches, side-port facilities, refrigerated space, strong rooms, deep tanks, "Cargocaire" protection against humidity—all are provided. Here, at last, are the truly "postwar" ships America has been waiting for.

When these ships were projected, Moore-McCormack, in a review of their long experience, listed the inadequacies of the scores of ships they had owned, operated and chartered throughout the years. Then they proceeded with their design, and eliminated from it everything they knew to be inefficient or outmoded. Into it went all that would mean better, faster, more efficient ships. Now, in a dozen ways, the results of their planning are evident.

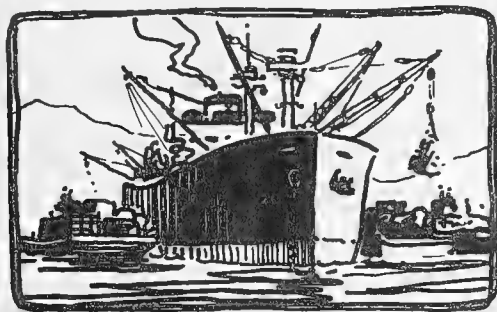
The rigging of these ships is an example. The booms are arranged so that four can serve a single hatch at one time. Each of these can lift as much as ten tons. The winchmen who control their operation have stations from which they can observe all movements of the cargo as it progresses from the pier up and into the hatch. The result is speed of loading and maximum efficiency in the placing of cargoes where they belong.

The unusually large hatches are another characteristic. Bulky cargoes, such as machinery, various steel products, motor cars and the like, which are an important element in the southbound trade, can be handled with no trouble through these hatches, which measure 720, 900 and 960 square feet.

The deep tanks are laid out to accommodate 3,500 tons of oil per ship. In the South American trade particularly, petroleum and vegetable oils are an important cargo, and an increasing need for tank space has developed with the increased demand of American industry for the oils of our southern neighbors.

The refrigerated space per ship is 69,728 cubic feet—this to facilitate the movement of much larger cargoes of fresh fruits and medicines than heretofore, both northbound and southbound. “Cargocaire” equipment, designed to eliminate damage to cargo by sweating of the ship’s hull, gives greater assurance of its arrival at destination in first-class condition. “Cargocaire” is an important new development.

The value of these features to shippers is obvious. With larger hatches and improved rigging, the ships can load and discharge with the maximum of speed, and shipments move to market with dispatch. Because of the sea speed shown by these ships and their efficiency in port, the operators have reduced the turn-around of the ships and furnish a more efficient, more satisfactory service. With more commodious tanks and larger refrigerated space, opportunities for special cargoes are improved at a time when they mean most to industry.





GRACE LINE

"Open Sea." The green, white and black stacks of the "Santa Rosa" stand out against a Caribbean sunset.

SHIPS OF THE U.S. MERCHANT MARINE

MONDAY, January 27, 1947, was a milepost in the postwar activities of the U.S. Merchant Marine. On that day the *Santa Rosa* arrived in New York in civilian garb for the first time since Pearl Harbor. She was the first American-flag cruise liner to resume service from New York and her return marked the first step in the inauguration of Grace Line's express passenger-cargo service to Caribbean ports. Three months later her sister ship, the *Santa Paula*, made her postwar bow to New York Harbor. On May 7 these two famous ships began weekly sailings for both pleasure and essential travel to Venezuela, the Dutch West Indies and Colombia. With the return of the *Santa Paula*, the Grace Line could proudly say that it was the first American-flag passenger liner to go back into full-scale service.

The *Santa Paula* and *Santa Rosa* spent ten months in the yards of the Newport News Shipbuilding and Dry Dock Company, Newport News, Virginia, undergoing extensive renovation after more than four years in the service of their country. At a cost of over \$2,500,000 each, these ships were completely modernized and refurbished. While every effort was made to restore the characteristics which gave them their distinctive charm, great emphasis was also laid on safety features. In all staterooms and public spaces the doors, bulkheads and ceilings formerly of wood, were replaced by marinite faced with aluminum, walnut and marine veneer. Marinite, an asbestos-like material is one of the new fire-prevention materials developed during the war years. Steel fire-screen doors are strategically located throughout the ships. They are retained, flush with the bulkhead by magnetic control, and the release can be operated either manually at door or by a master switch on the bridge.

The task of reconversion was extremely difficult in this period of shortages and production delays. So fine was the equipment of prewar days that its duplication presented an almost insuperable task. This applied not only to luxury items, lighting fixtures, curtains, mirrors, chinaware and

furniture of many types, but also to equipment necessary for ship operation. Engine room, bridge, holds and storerooms offered special problems. Replacement items came from all sections of the country: from Indiana, Maryland, Minnesota and Massachusetts, to name only a few. The assembly of the materials alone was a constant battle with time.

The measure of the achievement is found in the ships today as they welcome the traveler on business or pleasure. Whether they are old friends or new, there will be much to delight them. A two-deck-high dining room has a roll-back dome for open-air dining; a delightful lounge has French windows opening on a sheltered palm court. There is a large tiled outdoor swimming pool with spacious beach and sport deck adjoining, and a gaily decorated club room. The tastefully furnished staterooms are all outside, and have private baths. These are only a few of the features for the pleasure and convenience of the traveling public.

Both the *Santa Paula* and the *Santa Rosa* had distinguished war records. More fortunate than their sisters, the *Santa Lucia* (rechristened the U.S.S. *Leedstown* and assigned to naval duty), which went down in the invasion at Casablanca, and the *Santa Elena*, which was sunk by enemy action off Philippeville, Algeria, in 1943, neither the *Santa Rosa* nor the *Santa Paula* was damaged during the war.

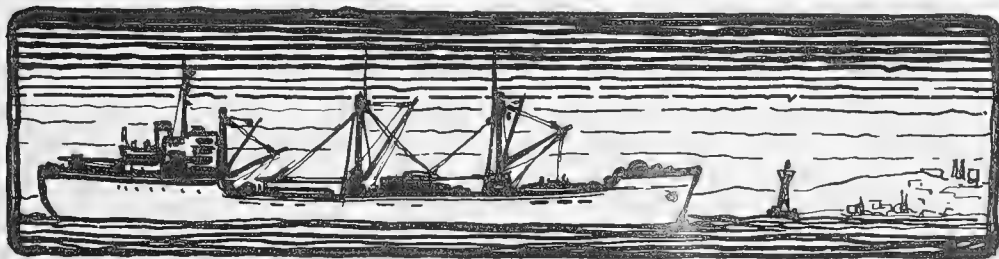
The *Santa Paula* assumed her war role a week before Pearl Harbor on a highly secret voyage to West Africa with 500 aviation technicians en route to establish air-ferry bases. Under top secret orders, and maintaining a two-way radio silence, she sailed as a neutral and arrived in Bathurst, Gambia—U.S. flags painted on her side—December 9, unaware of the declaration of war. Three weeks later, while the ship was lying at Takoradi, Gold Coast, the Berlin radio beamed a broadcast to Africa announcing her location and giving a detailed account of the number of people aboard and the nature of her voyage. A veteran of the North African campaign, the *Santa Paula* had her narrowest escape in November, 1943, while in the Mediterranean en route to Sicily. A few hours before the *Santa Elena* was struck by a torpedo, she and the *Santa Paula* had exchanged convoy positions, the latter being only 400 yards astern of the

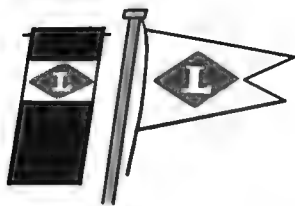
Santa Elena at the time she was hit. On her last six voyages for the government the *Santa Paula* carried war brides and children of twenty European nationalities between Southampton and New York. Her wartime record includes safe transportation of 103,472 troops, 3,692 civilians and 1,918 war brides and children over 336,000 miles. The *Santa Rosa's* record is almost identical, but she was fortunate in not undergoing any narrow escape during her more than four years of service.

The *Santa Rosa* and *Santa Paula* are streamlined ships, 508 feet long, 72 feet wide, of 17,000 tons displacement, with twin-screw geared turbine engines producing a speed of 20 knots.

With the re-entry of the *Santa Rosa* and *Santa Paula* into service, express passenger-cargo sailings are now available to Venezuela, the Dutch West Indies and Colombian ports, supplemented by a frequent cargo service to various other ports.

The demand for American goods in these countries parallels the pent-up demand in the U.S. In addition to luxury items, Venezuela particularly depends on us for many staples, such as flour, potatoes, canned milk, and fruits and vegetables carried under refrigeration. A great deal of construction is also being undertaken there in connection with port, railroad and communication facilities, as well as extensive oil drilling. The flow of passengers bound on business and diplomatic missions in both directions has been heavy enough to warrant reserving 50 per cent of passenger space for their use. Thus the Grace Line, as soon as possible, reinstated on a larger scale one of its traditional routes between the Americas for the benefit of shipper and traveler alike.





LYKES BROS.
STEAMSHIP CO., INC.

The "James Lykes," outward bound and heavily loaded, clears the jetty at Aransas Pass, Texas.

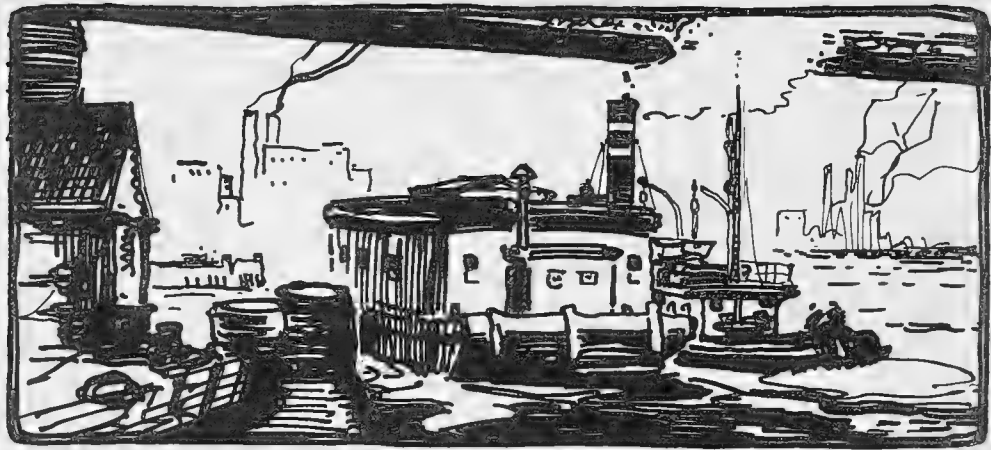
SHIPS OF THE U.S. MERCHANT MARINE

TODAY, with a company-owned fleet of fifty fast, modern, C-type cargo vessels and scores of others (required to maintain emergency service on its trade routes) under charter from the United States Maritime Commission, Lykes Bros. Steamship Co., Inc., maintains its position, won after World War I, as owner and operator of the largest fleet of American-flag freighters engaged in foreign trade.

With a large staff of sea and shore personnel long skilled in ocean shipping, located both here and in key centers overseas, Lykes Lines are splicing together again the war-torn pattern of service to American exporters and importers which was a guiding ideal in the growth of the Lykes organization for almost half a century.

Counting its war casualties in ships, Lykes Bros. Steamship Co., Inc., listed as lost through enemy action twenty-one of its own vessels and seven ships operated by them for the War Shipping Administration. In personnel, the organization lost many volunteers in both the merchant and armed services, among them Dick Mayo Lykes, an ensign in the Navy, who was killed at Okinawa. Lykes seamen and vessels were at the front in all theaters of war, sharing in glory and danger like the other thousands of men and women afloat and ashore who enabled the American Merchant Marine to perform its miracle of overseas transport. The men and ships lost are enshrined in the memory of all the nation.

Taking 1945 as a typical period of the services of Lykes ships and personnel during World War II, records show that the company operated 138 government-controlled vessels. During the same period the Lykes organization, as berth agents, serviced 852 other vessels and, in cooperation with other general agents and the War Shipping Administration, loaded or discharged 1,500 ships engaged in essential war commerce. More than eight million tons of vital cargoes were loaded for overseas shipment. In recognition of wartime service, the War Shipping Admin-



istration, on September 27, 1944, awarded to Lykes Bros. Steamship Co., Inc., its highest honor—the four-star citation and pennant.

Typical export cargoes carried by Lykes vessels from Gulf ports include phosphate rock, fresh and canned citrus products, cotton, sulphur, carbon black, rice, grain, flour, pine and hardwood lumber, refined petroleum products, packing house products, automobiles, tractors and agricultural machinery—cargoes which represent the output of the farms, factories, forests and mines of mid-America and the South. Lykes vessels return from world trade centers with raw materials needed in our factories, as well as general cargoes of goods produced abroad. As an example of the fitness of vessels for trade assignments, ships in the Orient Line service are equipped with deep tanks especially designed for carrying edible oils, such as coconut and palm oils used in the manufacture of many American foods and other products.

Components of the new Lykes fleet include ten C-1 type vessels, thirty-three C-2 type and seven C-3 type—all equipped with the newest in cargo-handling gear, cargo protection devices and advanced navigating and engineering equipment. The C-1 type vessels average 415 feet in length, have a beam of 60 feet and a cruising speed of 14½ knots. Displacement of this class is over 12,000 tons, deadweight tonnage is 9,000 and the bale cubic cargo capacity is 455,000.

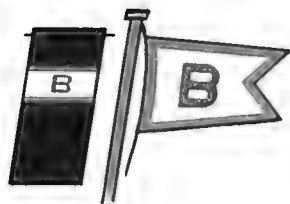
The Lykes C-2 vessels, largest group of the C-class in the company-owned fleet, are 460 feet long, have a beam of 63 feet and a cruising speed of 15½ knots. Displacement is 14,900 tons; deadweight 10,560 tons and bale cubic capacity 542,000.

Queens of the Lykes fleet are the seven C-3 type vessels, averaging 490 feet in length, with a beam of 69½ feet, displacement of 18,330 tons, 12,587 tons deadweight and bale cubic capacity of 691,000. Sustained cruising speed of this class is 16½ knots.

As the vessels are now fitted, handsomely appointed quarters are provided for twelve passengers; and while the Lykes Lines emphasize speedy dispatch of overseas cargo to and from Gulf ports, the incidental passenger service has won wide acclaim among commercial travelers. Crews' quarters are exceptionally roomy and well equipped. The most modern improved design and equipment is provided for the deck, engineering and culinary departments.

Emergency traffic today keeps Lykes ships and offices humming; but for the time when shipping returns to a more normal level, Lykes Lines have already rebuilt facilities which will serve the nation through fast, regularly scheduled sailings out of Gulf ports to the markets of the world. In equipment and personnel, the company is prepared to carry on the traditions and progressive ideals of the seven brothers who created it and raised their name to the prominence it now holds in the maritime world.





A. H. BULL
STEAMSHIP CO.

Bull Line's S.S. "Angelina" with a cargo of sugar
aboard, passes under the Brooklyn Bridge.

SHIPS OF THE U.S. MERCHANT MARINE

THE firm of Miller, Bull and Knowlton, established in 1886, became in 1902 the firm of A. H. Bull & Co., shipping agents and operators. It was incorporated in 1924 and continues a general agency business. The ship-owning company, the A. H. Bull Steamship Co., was incorporated in 1902.

The first vessel of the Bull Line fleet was purchased in 1897. At the time of the declaration of the first World War, the fleet consisted of fifteen vessels, all under the American flag, and all but two constructed in American yards. During both world wars the fleet was employed in war service.

Following the signing of the Armistice after World War I, the Bull Line fleet returned to its principal trade, that with Puerto Rico. In addition, A. H. Bull & Co. undertook the United States Shipping Board's service from North Atlantic ports to the Eastern Mediterranean, Constantinople and the Black Sea, and later added to this operation a service from North Atlantic ports to West Africa, taking in, as well, the Azores and the Canary Islands. In October, 1924, the company ceased its Mediterranean operations and started service to the ports of South and East Africa. In 1928 it withdrew from its remaining transatlantic operations.

Meanwhile, the vessels of the A. H. Bull Steamship Co. continued their regular service to Puerto Rico and Santo Domingo. By 1927 the fleet consisted of twenty-five vessels.

Following the cessation of transatlantic operations in 1928, domestic services were expanded to include cargoes for East Coast and Gulf trade, areas which the Bull Line had served by tramp steamers for many years.

In 1934 and 1935, the Newport News Shipbuilding and Dry Dock Company constructed for the Bull Line the first dry-cargo vessels built in the United States after the termination of the World War I. These vessels, the S.S. *Angelina* and the S.S. *Manuela*, were the forerunners of the Maritime Commission C-type vessels later built under the Merchant Marine Act of 1936. They corresponded closely to the newer C-1 ships.

In July, 1940, the company contracted to purchase the S.S. *Marina* from the Maritime Commission. She was completed and delivered in January, 1942, and was of the same general type as the *Angelina* and the *Manuela*.

At the outbreak of World War II, the fleet consisted of thirty-two vessels, which were shortly diverted from their regular trades to government war use. Of these ships, seventeen were lost to enemy action in the course of the war, and three were requisitioned for title by the government, the fleet thus being reduced to twelve ships. The *Angelina* and the *Manuela* were both lost in the early days of the war; later the *Marina* was mined off the coast of France. Since the war, the A. H. Bull Steamship Co. has purchased from the Maritime Commission five C-2 vessels, three bulk-cargo carriers, and five Liberty-type vessels.

During the war A. H. Bull & Co., the operating branch, acted as agent for the War Shipping Administration, and maintained not only its Puerto Rico and Santo Domingo services, but also the operation throughout the world of vessels which carried vital supplies and matériel to the Pacific and Atlantic battle areas. At one time this company was operating more than ninety vessels for the War Shipping Administration.

Since the withdrawal of the government operating program at the war's end, the problems of reconversion have been paramount. Liner services are being restored and improved with modern vessels and equipment, and a large volume of bulk business, domestic and foreign, accommodated.

Many of the personnel of the companies, particularly those with long experience in shipping matters, joined the armed services—principally the Navy and Coast Guard—and served at home and overseas during the war. They have now returned; and, with its prewar organization substantially intact and its war losses substantially replaced with new and modern tonnage, the company looks forward with confidence to its important postwar position in the American Merchant Marine.

It has always given the author the greatest pleasure to go into the offices of an American steamship line such as A. H. Bull & Co. and see there the portraits of the former owners—sons and grandsons, often, of the original founders—who have directed their companies down through the years.

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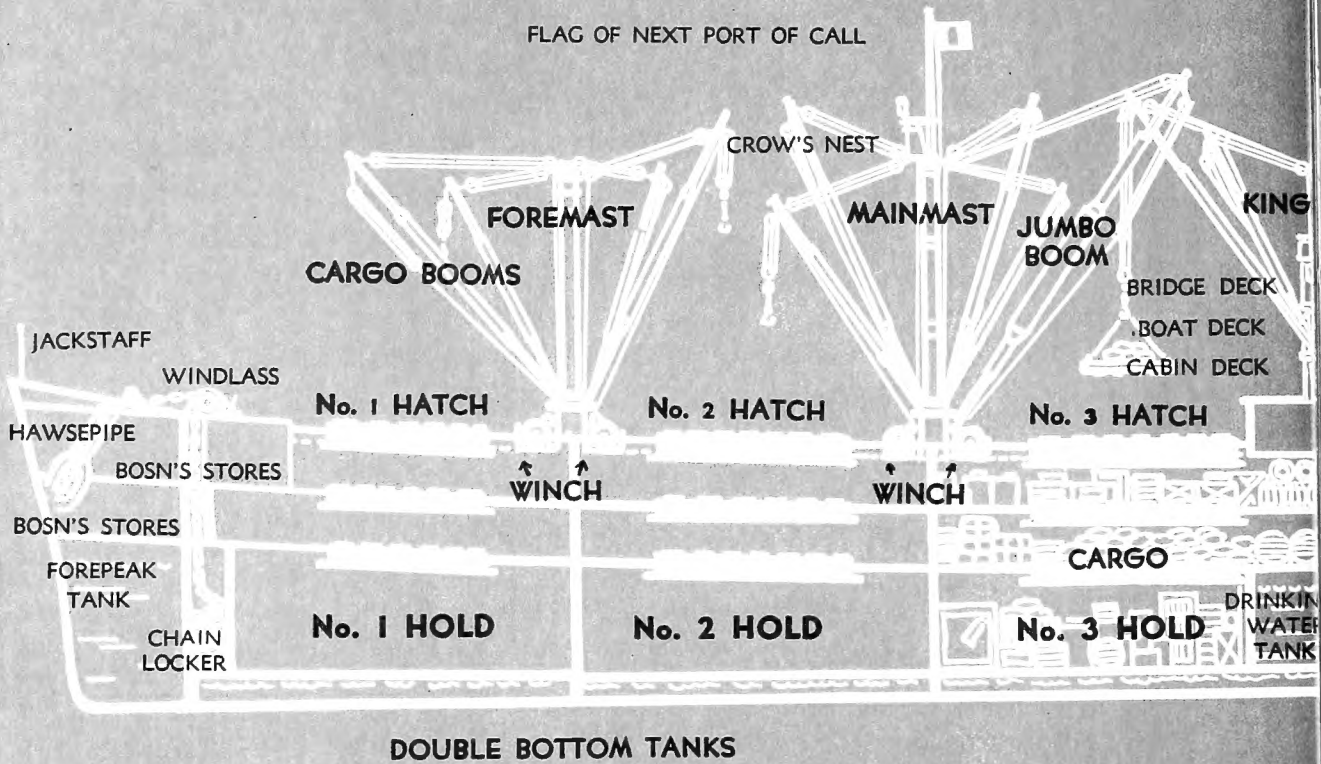
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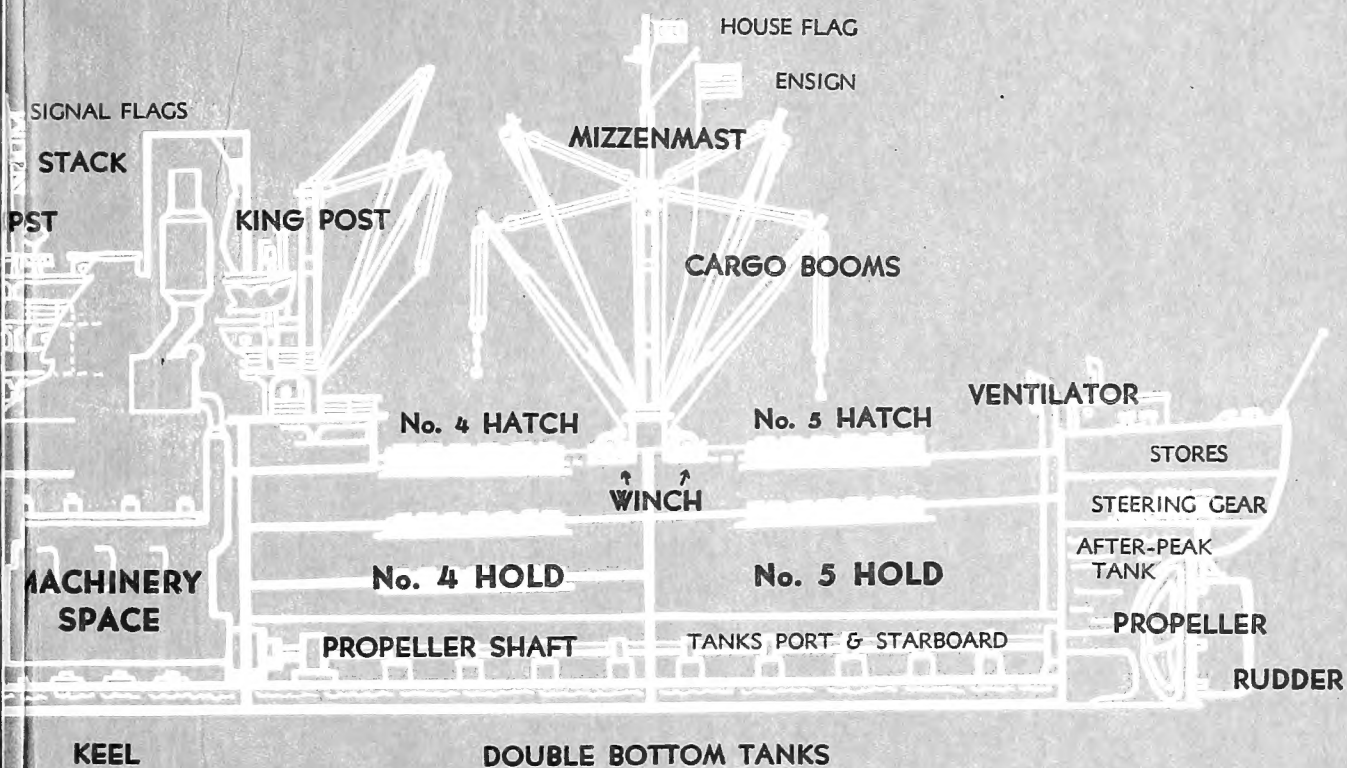
I am particularly indebted to my many friends in the shipping industry for their help in preparing this book and I am only sorry it is not possible to include all the American Flag Lines. My thanks are also due Simmons Boardman & Company, publishers of the Marine Engineering and Shipping Review.

For her work on the manuscript, my sincere appreciation goes to Olive B. Flannery, without whose help the book would never have been written.

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