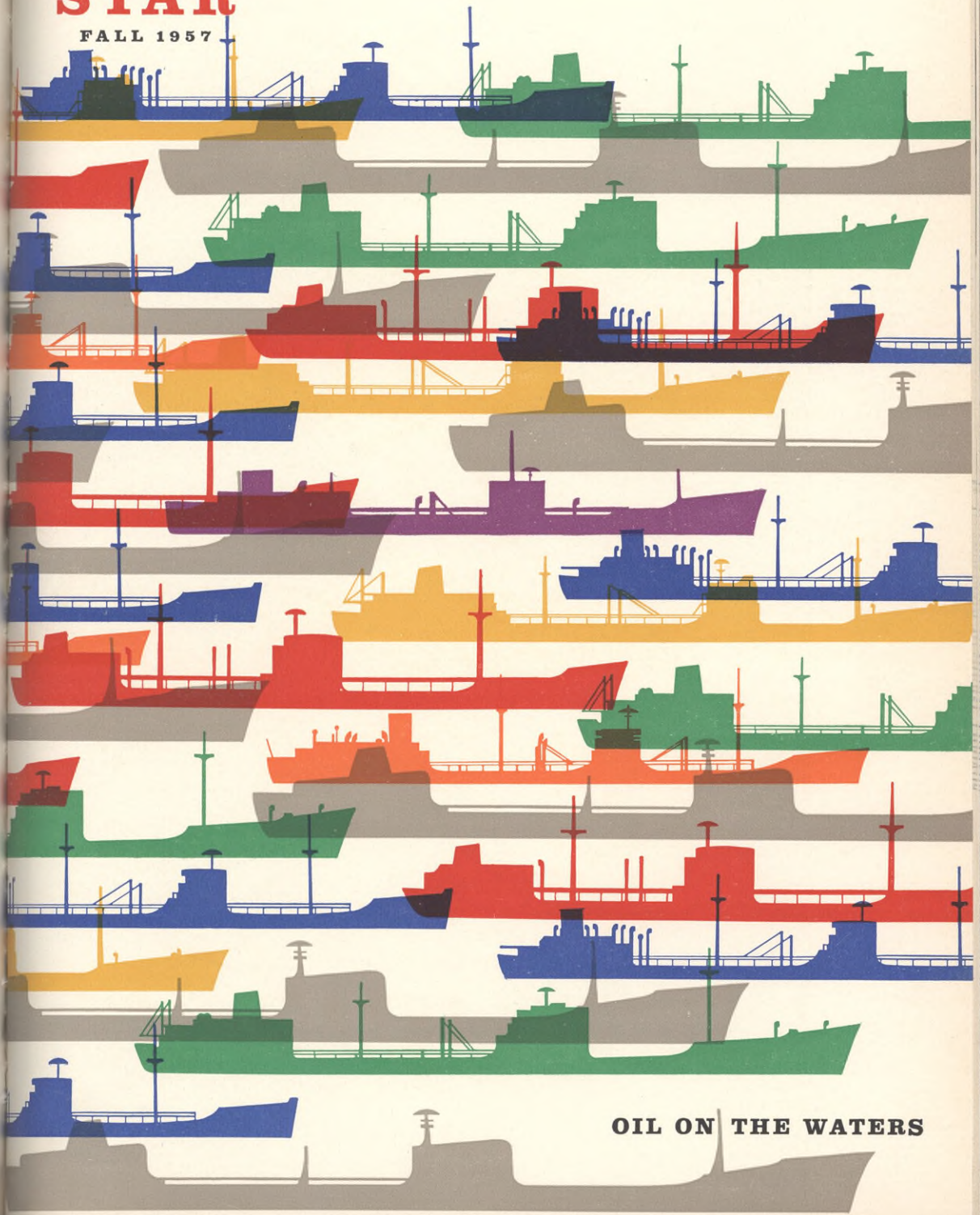
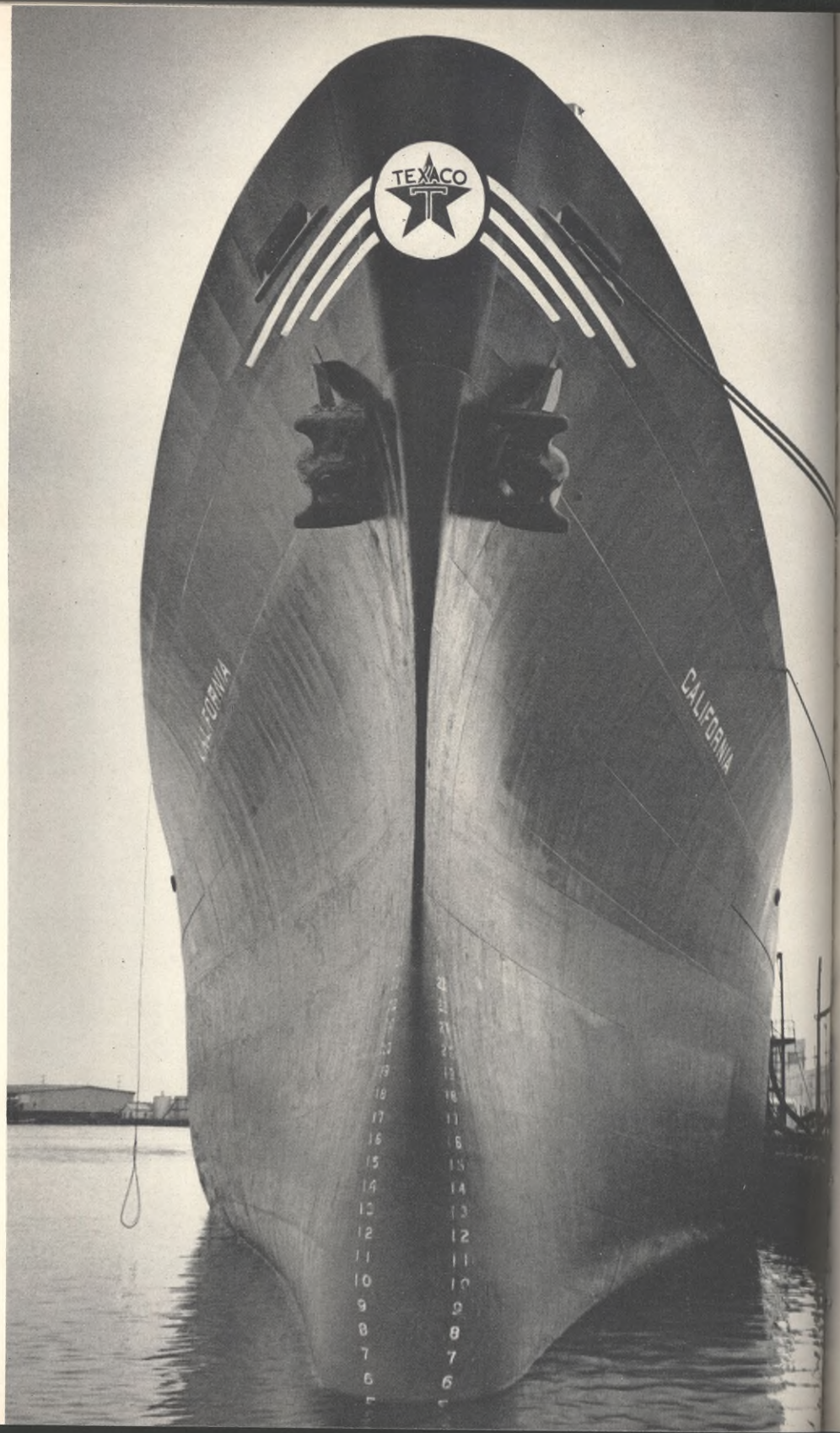
THE TEXACO STAR

FALL 1957



OIL ON THE WATERS


TEXACO
CALIFORNIA
CALIFORNIA

TEXACO'S FLEET

More than 40 vessels comprise Texaco's owned fleet of ocean-going tankers. These, plus vessels under construction or contracted for, are shown on the covers of this issue. (One of the fleet, the *SS California*, is pictured at left – her graceful bow towering beside her berth at Port Arthur Terminal, Texas, where she is loading refined products for the trip to Providence, Rhode Island, portrayed on Pages 10 to 15.) To identify the units of the fleet, see below:

TEXAS CLASS

Length: 625 feet. Deadweight tonnage: 28,000. Transport Middle Eastern, Far Eastern, and Venezuelan crude to the United States. / *SS Arizona, SS Kentucky, SS Missouri, SS Ohio, SS Pennsylvania, SS Texas, SS Vermont.*

NEW YORK CLASS

Length: 565 feet. Deadweight tonnage: 19,000. Carry products from Port Arthur to East Coast terminals. / *SS California, SS Connecticut, SS Florida, SS New York, SS North Dakota.*

T2 TYPE

Length: 524 feet. Deadweight tonnage: 16,500. Transport crude and products, generally in Western Hemisphere. / *SS Alabama, SS Illinois, SS Louisiana, SS Maryland, SS Minnesota, SS Mississippi, SS Nevada, SS New Jersey, SS North Carolina, SS South Carolina, SS Virgina, SS Washington, SS Wisconsin, SS Wyoming.*

COLORADO CLASS

Length: 514 feet. Deadweight tonnage: 14,000. Carry products from Port Arthur to East Coast terminals. / *SS Colorado, SS Delaware, SS Georgia, SS Indiana, SS Montana.*

NORWEGIAN FLEET

Length: varied. Deadweight tonnage: 14,000 to 24,000. Move products and crude between foreign ports, mostly in the South Atlantic. / *MV America, MV Brazil, MV Britannia, MV Europe, MV Gallia, MV North America, MV Nueva Andalucia, MV Nueva Granada, MV Skandinavia, MV South America.*

BRITISH FLEET

Length: 486 and 517 feet. Deadweight tonnage: 12,000 and 14,000. Transport products to the United Kingdom from Trinidad. / *SS Regent Hawk, MV Regent Royal.*

UNDER CONSTRUCTION OR CONTRACTED FOR

Length: varied. Deadweight tonnage: 19,000 to 46,000. Will carry Middle Eastern, Far Eastern, and Venezuelan crude to the United States, as well as products and crude between foreign ports. / *SS Brighton, SS New Mexico, SS Trinidad,* Hull No. 126, Hull No. 129, Hull No. 436, Hull No. 448, Hull No. 524, Hull No. 1493, Hull No. 1494, Hull No. 1614, Hull No. 4566.

Among the remaining tankers are the *MV Arkansas*, which carries Venezuelan crude to the U. S.; the *SS Michigan*, serving the Great Lakes area; the *SS Raban* and *MV Cristobal*, which operate in the Caribbean area. Texaco's Marine Department also operates a fleet of tugs, power boats, barges.

THE TEXACO STAR

CONTENTS OF VOLUME XLIV • NUMBER 3 • FALL 1957

THE TEXACO STAR
A publication of
THE TEXAS COMPANY
135 East 42nd Street, New York 17, N.Y.

THE COVER: How to depict the units of Texaco's fleet in a way that would be accurate as well as attractive posed a problem that has been neatly solved by the designers of this publication. To transmute inspiration to finished art, the distinguishing characteristics of each class of Texaco tanker had to be expressed in silhouette. The desired effect was achieved by printing the covers with eight colors, using transparent inks.

THE STAR is published by the Industrial and Public Relations Department for Stockholders and Employes: **Thomas D. Durrance,** Director of Public Relations • **Ellis Prudden,** Editor; **Gordon Bowman,** Staff Writer; Irwin Glusker and Dick Hendler, Co-designers • Printed in the U.S.A.,

PICTURE CREDITS: Inside front cover, J. Alex Langley; Page 4, David Stone; Page 16, Richard Erdoes; Pages 18-21, Simpson Kalisher, Emma Landau; Pages 22-23, Ed Nano.

SENIOR VICE PRESIDENTS

C. B. BARRETT

The Company's Chief Executive Officer at Houston has a background of managerial experience in the Domestic Sales Department. A native of Georgia, Claud Barrett received an LL.B. degree at the University of Georgia in 1918. He joined Texaco in 1927 as a Salesman in Atlanta. By 1938, he had become Manager of the Southern Territory of Domestic Sales, at Houston. In 1953, he was elected Vice President in charge of the department, with headquarters in New York. He returned to Houston as Vice President in 1955, and was elected a Director of The Texas Company in 1956.

Mr. Barrett is prominent in civic work in Houston. He was married in 1920 to Mary Lovell McElmurray of Waynesboro, Georgia. They have a daughter.

E. R. FILLEY

Now in charge of Texaco's world-wide producing interests and activities, Everett Filley – a Nebraskan – has been concerned with the search for petroleum for more than 42 years. He was employed by Texaco following his graduation from Baker University, Kansas, in 1915, and worked in the Oklahoma-Kansas Division of Domestic Producing until 1938, when he was made Assistant Manager of the department at Houston. In 1949, he was promoted to General Manager and in 1953 was elected Vice President, with headquarters in New York.

Mr. Filley was married in 1917 to Velma Hopping of Tulsa. They have a son and three daughters. Much of Mr. Filley's time away from business is devoted to activities of church and educational institutions.

T. A. MANGELSDORF

A former member of the faculty of Massachusetts Institute of Technology, where he received a B.S. degree in Chemical Engineering in 1926 and an M.S. in Fuel Engineering in 1929, Theodore Mangelsdorf went to work for Texaco in 1933 as a Chemical Engineer in the Refining Department. He has served as Assistant Chief Chemist at Port Arthur Works, Superintendent at Lockport Works, General Superintendent at Port Arthur, and Manager of the Refining Department's Operations Division. In 1954, he was appointed General Manager, Refining Department, and early this year was elected a Vice President.

Mr. Mangelsdorf was born in Atchison, Kansas. He was married in 1927 to Beatrice N. Hooley of Cambridge, Massachusetts. The Mangelsdorfs have two sons.

J. T. WOOD, JR.

The Chief Executive Officer at Los Angeles came to Texaco as a District Geologist at Bakersfield, California, in 1929. James Wood served as Assistant Chief Geologist and Chief of the Lands and Leases Division, and advanced to Manager of the Pacific Coast Division of Domestic Producing by 1938. He was transferred to New York in 1949 as Assistant to the President, and in 1950 was elected Vice President in charge of Foreign Operations (Western Hemisphere and West Africa). He returned to Los Angeles as Vice President last year.

From Montana, Mr. Wood is a 1918 graduate of Stanford University (Geology and Mining Department); worked for other oil companies before joining Texaco. He was married in 1921 to Josephine Welch of San Francisco. They have a son.

Elected by the Board

Four Senior Vice Presidents and three Vice Presidents were elected by Texaco's Board of Directors on June 28, 1957—effective July 1. The new Senior Vice Presidents are: Claud B. Barrett, formerly Vice President at Houston, now Senior Vice President and Chief Executive Officer there; Everett R. Filley, formerly Vice President in charge of the Domestic Producing Department, now Senior Vice President in charge of world-wide producing interests and activities; Theodore A. Mangelsdorf, formerly Vice President, now Senior Vice President in charge of world-wide refining interests and activities; James T. Wood, Jr., formerly Vice President at Los Angeles, now Senior Vice President and Chief Executive Officer there. The new Vice Presidents are: J. B. Christian, formerly Chairman and Managing Director of The Trinidad Oil Company Limited, now Vice President in charge of Trinidad operations (headquarters: New York); L. C. Kemp, Jr., formerly General Manager, Petrochemical Department, now Vice President in charge of that department and responsible for Texaco's interests in the field of petrochemicals; J. Howard Rambin, Jr., formerly Assistant to Vice President, Domestic Producing Department, now Vice President in charge of that department.

VICE PRESIDENTS

J. B. CHRISTIAN

An analytical chemist by training, John Christian is a Scotsman who joined The Trinidad Oil Company (then known as Trinidad Leaseholds Limited) in 1928 as a cracking plant Shift Operator at the Pointe-a-Pierre, Trinidad, refinery. He was appointed Assistant Refinery Superintendent in 1934, Refinery Superintendent in 1940, Manager in 1946, Assistant General Manager of the company in 1949, and General Manager of Trinidad operations in 1952. After the acquisition of Trinoil by Texaco in 1956, he was appointed Chairman and Managing Director.

Mr. Christian obtained an Associateship in 1927 at Heriot-Watt College, Edinburgh, Scotland, and is a Fellow of the Royal Institute of Chemistry. Married in 1934, Mr. Christian and his wife have two sons.

L. C. KEMP, JR.

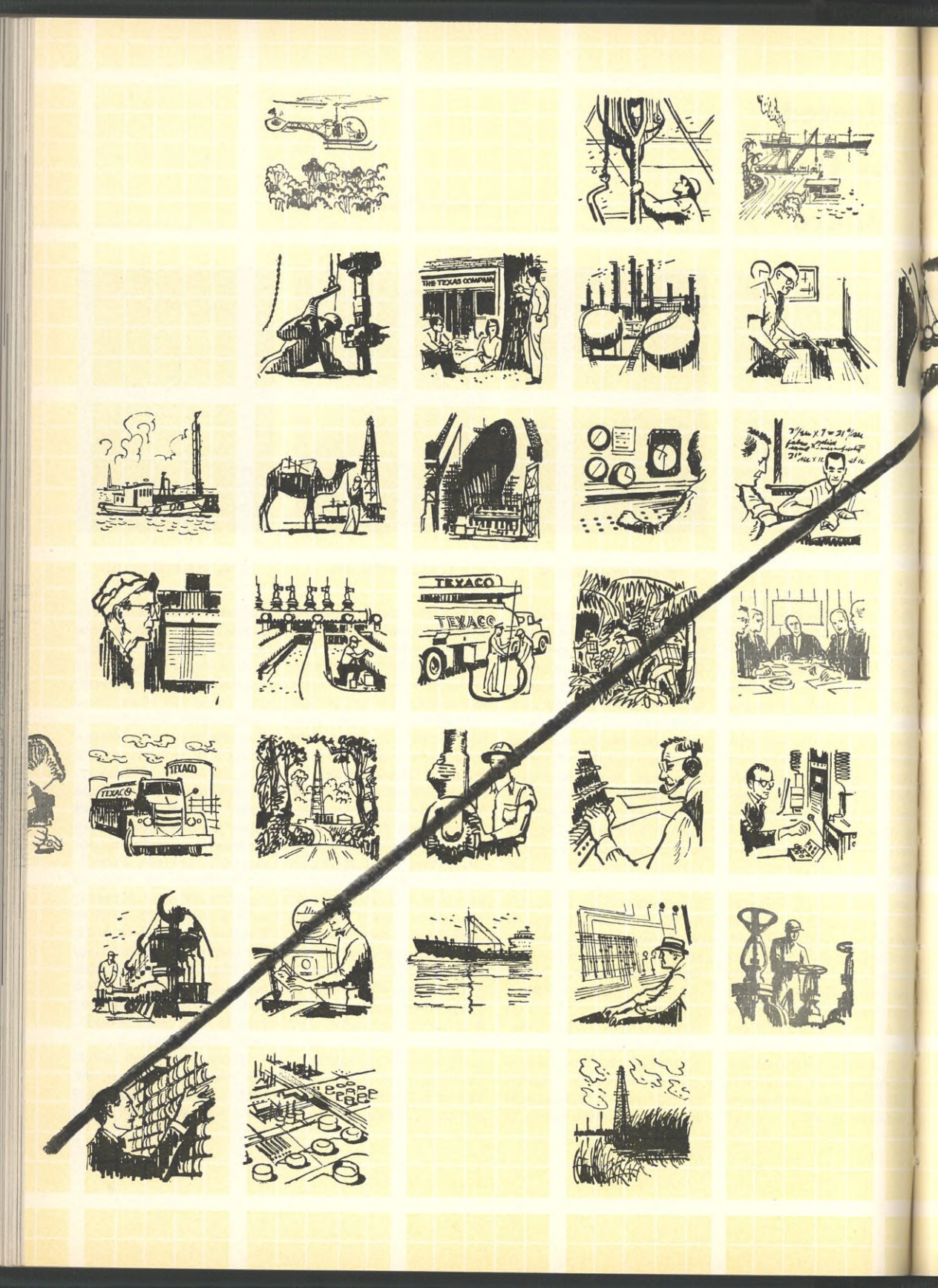
Research has been L. C. Kemp's specialty. A Texan, he was employed as a Research Chemical Engineer at the Port Arthur Research Laboratory following his graduation in 1929 from Rice Institute, where he received a B.S. degree in Chemical Engineering. He became research head at Port Arthur, Assistant Superintendent (Research) at Beacon Laboratories, and in 1941 Director of Research and Assistant Manager, Technical and Research Division, in New York. In 1953, he was named Assistant to Vice President (Refining); in 1954, Assistant to Senior Vice President; in 1955, General Manager of a new Petrochemical Department.

Mr. Kemp was married in 1936 to Alice Richter of Houston. The Kemps have a son and a daughter.

J. H. RAMBIN, JR.

The new Vice President in charge of Domestic Producing has always worked in this department. Howard Rambin, who was born and raised in Louisiana, started with Texaco as a Roustabout in the Louisiana Division in 1935. He had a B.S. degree in Petroleum Engineering from Louisiana State University (1934) and experience gained from working in oil fields. He advanced to Division Petroleum Engineer by 1938, to Assistant Division Manager at New Orleans in 1945, to Division Manager in 1951. He became Assistant General Manager of the Department at Houston in 1954, and was transferred last year to New York as Assistant to Vice President.

He was married in 1936 to Mary Virginia Griffin of Gilbert, Louisiana. They have a son and a daughter.


THE TEXAS COMPANY
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INTEGRATION: THE TECHNIQUE OF TEXACO'S DYNAMIC GROWTH

At the International Trade Fair in Milan, Italy, last year visitors from all over Europe viewed, with wide-eyed fascination, an exhibit which would have hardly been worth a glance to most Americans.

The crowd-getter was a typical American supermarket, reproduced full-scale and stocked with the bounty of merchandise an American housewife chooses from on shopping trips. For European women, who still must make their rounds from the butcher to the baker and then to the greengrocer in order to find everything on their shopping lists, a single store packed with virtually every sort of household item was a delight.

The supermarket exhibit in Italy represented one aspect of an over-all business technique which has been developed by American industry with huge success, and with great benefits to the consumer. This is the technique of *integrated operations.*

Broadly speaking, integration is a form of industrial combination which commonly assumes two forms – horizontal and vertical. While these forms are quite distinct, in actual practice they are often combined. Horizontal integration refers to the single ownership, control, or management of productive or distributive facilities at the same level or stage of production or distribution. Vertical integration, on the other hand, refers to the single ownership, control, or management of productive and/or distributive facilities at several successive stages in the production and/or marketing process. Each type of integration may assume a variety of forms, be found in a wide divergence of situations.

In America's petroleum industry, some companies, like Texaco, have integrated vertically, taking on the responsibilities of engaging in the various phases of the business: exploring for petroleum hydrocarbons; tapping the reserves they're fortunate enough to find and transporting them to refineries; turning those reserves into hundreds of petroleum products; distributing the finished products.

Texaco and other oil companies have adopted the integration concept as a matter of good business sense aimed at superior service to the public. They have met the constantly growing demand for petroleum—a demand for quality and variety as well as quantity and assured supply – by steadily building organizations broad enough and deep enough to take on the entire job of getting petroleum to the people who need it. It is difficult to imagine how the public demand for a constant supply of top-quality products at reasonable prices could be met by any other method.

The first oil companies in this country were formed by men who had found underground reserves and sold the crude oil they produced to someone else for the job of converting it into products and marketing those products. Or they were organized by men who bought crude from producers and assumed the responsibility for refining and selling. Working with these two groups were railroaders, teamsters, bargemen, and pipeliners who transported petroleum.

At the start there was almost no corporate linking of production, refining, transportation, and marketing of oil and its products.

A few of the early managements, however, recognized that only by developing broader organizations could they provide the public with the increasing amounts of petroleum products and services it demanded. They knew that by integrating their operations, they should be able to plan and carry out long-range programs on a more orderly and efficient basis. They realized that integration would help give their companies flexibility that would permit them to meet changing conditions of competition and fluctuating economic situations.

As early as 1902, at The Texas Company's first stockholder meeting, the infant corporation announced: "The general policy of this Company, from its inception, has been to lay well and permanently the foundations . . . for a pipe line, storage, and manufacturing

Texaco's interweave of operations makes it possible to supply consumers with what they need when they need it

business . . . as well as to buy and sell and transport oil."

Compared with the vast complex of operations which is The Texas Company today, such a description of integration seems primitive. As a matter of fact, the word was not used in that first report: only recently has it become part of an increasingly sophisticated business vocabulary. But the basic idea was there and Texaco's history shows that managerial decisions have, over the years, consistently aimed at integration.

In the period from about 1911 to 1920, for example, the growing use of the auto revolutionized America's way of getting about—and created such a demand for gasoline that a whole new system of distribution facilities was needed. Texaco began laying the groundwork for a nationwide distribution network which today includes more than 2,100 distributing plants and some 38,000 service stations.

As a result, a motorist can stop at a Texaco station in any of the 48 states confident that the Sky Chief gasoline he buys in Iowa will give the same top performance that he had from the tankful he bought the day before in Nebraska. The operations manager of a transcontinental trucking line knows his equipment will receive the same expert service and high-quality products the country over, at Texaco stations.

This uniformity of quality and continuity of supply is made possible by the integrated operations of the Company. Today Texaco's net domestic production is about 60 per cent of its domestic refinery runs; its pipe lines and other transportation facilities connect to Texaco's domestic refineries; and its own sales organization supervises the distribution of its products.

From the management standpoint, integration offers the opportunity to plan investments in the different phases of the business on a coordinated basis. Investments in producing, refining, transportation (on water as well as land—see *Petroleum at Sea*, Page 8), and marketing facilities are most productive when they are correlated as to time, place, and size. By assuming the responsibility for these basic functions—a responsibility that carries with it huge capital commitments—the corporation can expect to benefit from close-knit activities that allow long-range planning and the best possible use of its facilities.

Then, too, better management decisions through analysis and forecasting become a by-product of integration. A more effective job of getting products to market can be achieved. More fruitful research and development programs can be conducted, when laboratories are able to draw on information coming to them from all phases of the business. Research of the scope Texaco carries on—directed at maintaining and improving its competitive position by improving techniques for finding and producing oil and gas and developing reserves, and by providing more and better products and processes—can be achieved through integration.

It is patently impossible to outline, in one article, all the organizational principles and methods involved in the operations of a corporation with Texaco's worldwide scope; but a look at just its *domestic* structure gives one an idea how integration works in the Company's most important operating areas where a major portion of its assets is invested.

The administrative machinery of the Company's domestic operations is geared, as it always has been, to the demands of the consumer. To furnish him with the supplies of petroleum products he demands, there is a remarkable interweave of Company departments and divisions, set up and administered to make sure he receives what he needs when he needs it.

The domestic organization is made up of four main functions: producing, refining, transportation, and marketing. Each has its own well-defined responsibilities, charted to coordinate with those of the other three. And each is, of course, supported by a network of service and supply groups.

Although the four principal functions are of equal importance and each depends heavily on the skills of the others, the chain reaction which takes place constantly to provide Texaco customers' oil requirements actually is touched off by the consumer.

To maintain this chain reaction effectively, the Company makes periodic estimates of product requirements. These requirements then are translated into crude oil demand, by refineries, on the basis of the yield and logistic factors involved. Crude availabilities and transportation are tailored to the demands, and are adjusted frequently to actual sales.

Working behind the four main divisions are Supply and Distribution, which is responsible for coordinating market demand with product supply; Crude Oil Purchases and Sales, with the assignment of buying, selling, and allocating crude supply to the various refineries; Research and Technical, whose assignment is developing new techniques for finding and producing oil and gas, creating new products and processes and improving existing ones; Purchasing, which buys the materials and equipment Texaco uses from about 15,000 suppliers all over the nation; and many more.

Out of this teamwork between thousands of skilled men and women employes come impressive benefits. For example, climate-controlled gasoline—which is the result of Texaco's ability to have the right blend of product in the right markets to meet seasonal changes in localized marketing areas.

Last year domestic demand for petroleum reached 8.8 million barrels a day and is expected to average about 9.1 million barrels a day this year. That this tremendous amount will be available is due, largely, to

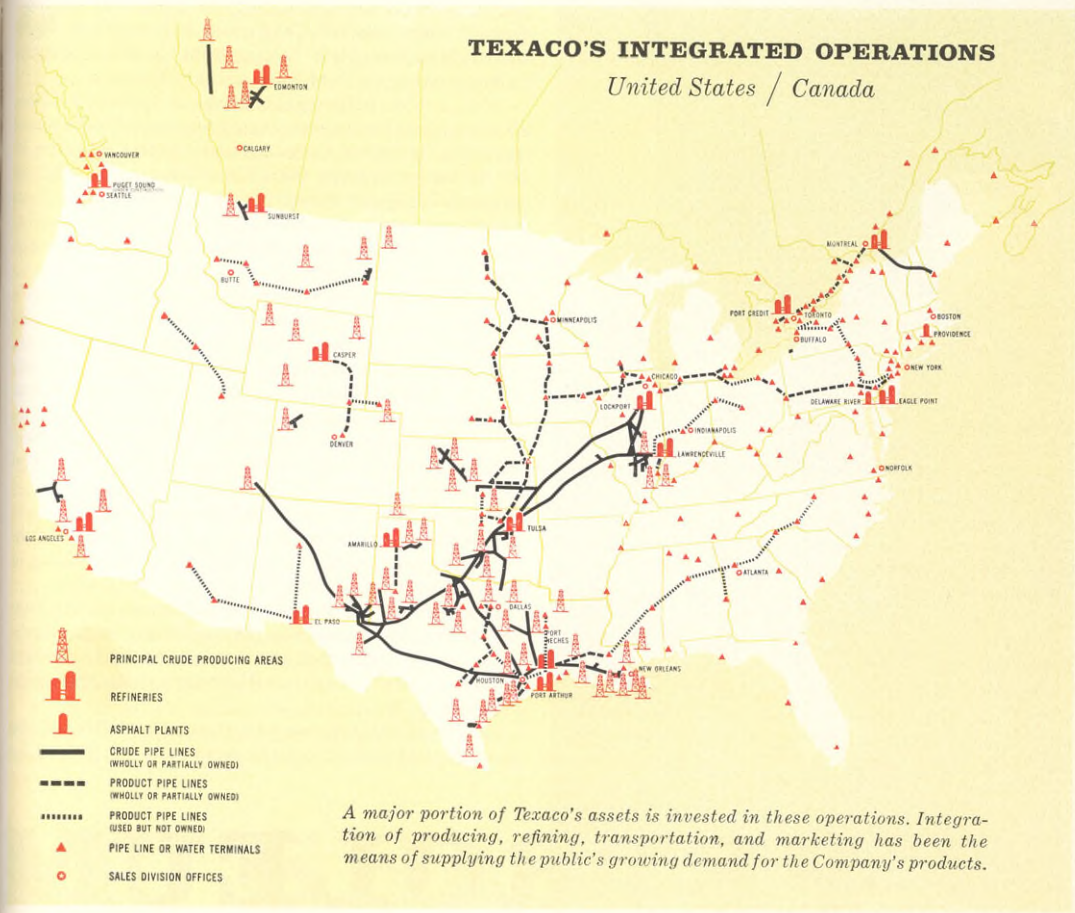
the efforts of integrated, principal oil companies such as Texaco, which have the responsibility of meeting the constantly growing needs of the oil-consuming public.

In developing into an organization whose people, products, and facilities now are found in every State and whose ownership is shared by more than 130,000 stockholders across the nation, Texaco has perforce taken on an institutional character. Its continuing success benefits the entire American economy. The huge sums of money it disburses for taxes, payrolls, dividends—and to pay for supplies, services, properties, plants, equipment—flow into our economic bloodstream.

A paradox of integration is that, while it gives management a large degree of self-reliance in operation, it also increases management's dependence on outside suppliers and on other, smaller oil companies that furnish needed crude petroleum and distribution services, and on dealers. How Texaco conducts its business affairs, then, bears on individuals and businesses all through the economy.

Integration has brought bigness, too; and this has created a natural target for politically inspired attack. Legislation to divorce principal oil companies from pipe line ownership, proposals to cut the link between refining and marketing have been introduced. The arguments for these proposals are that integration curbs competition. The facts do not support such reasoning.

If there were not constant pressure in the oil industry to provide better products, if profits were easily won, if prices could be set by the industry without regard to public responsibilities—there would be no incentive for integration. Why make heavy investments in pipe lines as a means of lowering costs, if you can charge what you wish for your products? Why spend millions of dollars, developing new refining techniques and better fuels—if you have a captive market ready to accept whatever you offer? The answer, of course, is that there is no captive market. The consumer is boss, ultimately; and free to pick and choose his service station just as he selects his supermarket. Integration has given him the best selection of petroleum products at the fairest prices in the world. •



A major portion of Texaco's assets is invested in these operations. Integration of producing, refining, transportation, and marketing has been the means of supplying the public's growing demand for the Company's products.

Tankers provide huge capacity, flexibility, and economy in transporting crude oil and refined products

In one way, at least, oil and water *do* mix. More than one-third of all water-borne cargoes in the world trade of the United States is made up of petroleum and petroleum products; more than a third of the American Merchant Marine's total tonnage is oil tankers.

Since 1950 the number of tankers used to deliver the free world's petroleum has increased at an average rate of about 10 per cent each year to outstrip even the phenomenal upturn in oil demand during the same period (average demand rise was about 7.5 per cent a year). Representing a substantial portion of this fast-growing fleet is Texaco's group of ocean-going tankers. One of these—the *SS California,* a *New York* Class vessel—is shown at left, "riding light" as she approaches her loading berth at Port Arthur, Texas.

With a total deadweight tonnage of 1,265,000, Texaco transported by tanker during the year 1956 refined products equivalent to enough automotive gasoline to fill the tanks of more than 270 million autos with 15 gallons of fuel, and enough crude oil to load more than 380,000 railroad tank cars of 8,000 gallons capacity. The Texaco "house flag" is a familiar sight from Sumatra to Canada, from Trinidad to Norway.

Tankers have played a major role in the Company's operations from the very earliest days: the first Texaco carrier was a wooden vessel used to barge crude oil, put in service the same year the Company was formed. As a means of moving oil, tankers offer three important attributes: huge capacity, flexibility, and economy. A T2 type tanker can transport as much as 4,872,000 gallons of fuel oil in one trip, enough to heat 2,000 typical three-bedroom homes a year.

When necessary, a ship can be diverted during a voyage to meet a sudden shift in supply or demand. Tankers can be used to deliver crude or finished products at less cost than by other methods of transportation.

In addition to automobile fuel and crude oil, the Texaco fleet carries numerous petroleum products. High-speed vessels in coastwise service can handle 15 or more different grades at one time (their crews call these ships "drugstores").

Last year the free world's shipyards delivered the equivalent of 212 T2 type tankers (the T2 is used by

PETROLEUM

the industry as a common denominator of tanker statistics; it is rated at 16,500 deadweight tons carried at 14.5 knots).

These deliveries brought the total usage of tankers, in terms of T2 equivalents, to a record 2,224 for an increase of 1,007 since 1950; and it is estimated that right now more than 32 million tons of tanker construction are on order.

Along with the vast increase of tankers in service during the last decade there has been a steady growth in tanker sizes and capacities. Just 10 years ago, a "supertanker" was in the 25,000 to 30,000 deadweight ton range. But some tankers now in service dwarf these 10-year-old "supers," and future planning has made it difficult to find superlatives grand enough to describe the mammoths being constructed today. One giant vessel now on the drawing boards will have a deadweight tonnage of 106,500; and in the near future Texaco will have under charter an 85,500 deadweight ton ship—a vessel whose capacity will be *more than 40 times* that of the first tanker Texaco owned.

One indication of the sharp increase in tanker size lies in a comparison between the average capacity of tankers in service at the first of this year (17,454 tons) and the average for ships now on order and which will soon be in service (29,758).

Already, transportation specialists in the petroleum industry have begun asking just how big a tanker can get and still be practical. Before a vessel like the 85,500 tonner is chartered, careful studies are made to insure that she can be used in a prescribed trade economically and that depth of water is available to enter the ports of loading and discharge.

Persian Gulf loading ports are, generally, deep enough to take the new giants in their stride; and new European and United Kingdom refining centers have been or are being built to handle them. But most ports in North and South America were built long before the day of the supertanker. It is becoming increasingly important for major oil port authorities throughout the world to make plans to deepen their facilities to take these large vessels.

Texaco's fleet of tankers, both owned and under long-term charter, now numbers 77 (Texaco affiliates, in their operations, are currently employing 126 more). Also under construction or contracted for the Texaco fleet are 12 new tankers ranging from 19,000 to 46,000 deadweight tons. When these have been placed in service, Texaco will have a fleet totaling approximately 1,880,000 deadweight tons.

The Company's Marine Department is responsible for the designing, building, maintenance, operation, and scheduling of all ships flying the Texaco red star with the green "T," and for the negotiating of long- and short-term charters. Within the Department are three divisions whose functions are neatly spliced to assure smooth sailing: Construction and Repairs, Operations, and Chartering and Traffic.

Construction and Repairs sees that every tanker in the fleet meets the needs of the trades she'll be sailing in. For example, ships making the run with products from Port Arthur to East Coast terminals are considerably different in size and structure from the vessels that lift crude at the eastern end of the Mediterranean. A T2 can carry up to seven products; ships in the *New York* Class handle more than 15; *Colorado* Class tankers as many as 16 different products. Supertankers of the *Texas* Class, used to carry crude oil from abroad, have fewer but larger compartments than the multigrade coastwise ships.

Working out with all departments through the Company the right ship design for a particular trade, and then keeping vessels seaworthy, is the job of Construction and Repairs.

Operations has a job which is almost unique in modern business management. It must exercise close supervision of a historically independent group: the officers and men of the Texaco fleet. On the water, a ship's master is the absolute authority in any given situation. Operations, therefore, must make sure the men it picks to captain the Company's tankers are competent, and able to handle themselves, their crews, and their ships in both routine and emergency situations.

The Marine Operations Manager depends upon the masters to carry out orders thousands of miles from headquarters, and to draw on their experience at sea in dealing with unforeseen occurrences.

Chartering and Traffic's huge responsibility can be logged in a few words: in addition to the chartering programs it has to make sure Texaco tankers get to the right places at the right times to lift cargoes for the right ports in a specific number of days.

This responsibility can become a very critical juggling act at times. Texaco's Eagle Point Works, for instance, is dependent on tanker deliveries of crude; and if for some reason the normal flow from one port should slow down or cease, crude oil would have to be brought in from another point. To shuffle routings of ships in the fleet so that manufacturing at Eagle Point is not interrupted calls for fast, expert handling by Chartering and Traffic.

On the following pages, the voyage of the *California* is followed in words and pictures from Port Arthur to Providence, Rhode Island. The *California's* haul represents, on a small scale, the world-wide job of Texaco's fleet in the delivery of petroleum and petroleum products over the sea lanes.

CONTINUED ▶

AT SEA

Photographs by J. Alex Langley

TANKER TRIP: *Under Way*

A tankerman's family life is shaped by the steady shuttle of the fleet's ships. This couple probably will not see each other again for 10 or 11 days, when the California *returns to Port Arthur.*

On a wing of the *California's* bridge as she eases out of Port Arthur and down the ship channel to the open sea, the Captain and his harbor pilot keep sharp eyes on the channel. The moan and whine of the wind in the foremast rigging, the steady pulsating coming up from the engine room to the deck beneath them, are sounds that mean "under way." On this swing through the Gulf of Mexico and then up the East Coast to Providence, Rhode Island, the *California* is loaded with some 6 million gallons of gasoline and lube oils. The trip will take five days, and one or more deck officers will be watching the sea every minute of the voyage. It has taken 14 hours to load cargo and make the ship ready; when she has been chaperoned 17 miles down the channel to open water, in the Gulf, the pilot will be dropped and the officers and crew will be on their own.

More than 152,000 barrels of gasoline and lubricants are pushed through cargo hoses into the California's *tanks for the run to Providence. With a load like this, the ship's main deck rides only a few feet out of the water. At far right, samples are being taken from tanks by a gauger to make sure there is no contamination of cargo. Tanks are also "thiefed" to determine presence of water.*

From the stern of the tug Havoline, *a nimble seaman tosses a heaving line to the loaded* California. *This is a light line, used to haul the heavier towing hawser aboard. With its cargo, crew, and machinery and equipment checked the* California *is ready to up-anchor and shove off. At near left, wash from the* Havoline's *screw beats at the tanker's hull as the 565-foot ship swings into the channel.*

Calling wheel orders to the California's *quartermaster, the harbor pilot adds his intimate knowledge of the channel to the Captain's broad knowledge of the sea. The Captain is still master, but rarely will he question the pilot's orders as the ship is being directed to open water. At right, his skill no longer needed, the pilot is helped over the side and makes his way down the ladder to a tug. The* California *has been led to the deep and shifting seas for which she was meant, and she's outward bound for Providence, five days away.*

CONTINUED ▶

The Atlantic is capricious in her sudden shifts from squall to glassy stillness, and bears constant watching.

The "old man" and his second mate, though they've made the run scores of times, prudently check their course at the chart table as a matter of safe seamanship.

TANKER TRIP: *Offshore*

At her moorings in port, the *California* is not much more than a mammoth steel container lying inert, waiting to be emptied or filled. But at sea she comes alive and responsive—rolling with the constant heave of the sea, sliding through the long troughs between swells, a sleek and powerful piece of machinery. The salt breath of air which gives her life stirs her officers and crew to a different tempo, too. In deep water, making their way up the coast, all hands—keen enough in their assignments at dockside—are somehow honed by the whip of the sea into an even sharper edge of competence and watchfulness. Some of the work is the routine which has been the lot of seamen always: the endless scraping and painting of the plates to push back the corroding tongues of rust that salt water leaves on steel; the four-hour deck watches filled, often, with nothing to watch but the leaden shifting of water and sky. But routine is constantly being punctuated by exigency: a change in course, an engine repair, heavy weather, a fleck on the horizon that brings the Captain to the bridge and the off-duty radio operator to his "shack." During the five-day run from Port Arthur to Providence, each man rehearses for emergency by scrupulously carrying out routine—some of which is pictured here.

Below decks in the engine room, engineering officers keep close tabs on the machinery that gives the tanker her power.

In a language few of his shipmates reads—Morse code—the radio operator keeps the California *in touch with the ships around her, as well as with land.*

Burying her bow in a big one that washes over the forward cargo hatch, the California *makes time in the Gulf to catch a favorable tide.*

Hot coffee after a wet, cold watch: a traditional part of the rhythm of seagoing. In the California's *crew mess, these seamen relax with coffee and ship's gossip between duty tours.*

CONTINUED ▶

Nearing port, a mate watches the unloading preparations on deck from the bridge.

Wet steel calls for careful footwork as deck machinery is readied for discharging cargo.

TANKER TRIP: *Coming In*

The glow of lights off New York City tells the seaman watching the night he's only hours from Providence. In the morning, every man aboard the *California* except those in the steward's department will turn to, preparing the ship for discharging. Mooring lines will be hauled out on deck. Dry cargo handling gear will be rigged, deck machinery checked and warmed up. A quick turnaround, with as little time in port as possible, is the goal of every tanker Captain.... The barometer has fallen and the sea has turned sullen. Chill, fitful rain raps at the decks. Discharging is going to be wet, cold work. But before it's finished, some of the men—those with families in Providence—will have a few hours at home before shipping out for the return to Texas. Then, riding high with nothing in her tanks but sea water ballast, the *California* will head back down the coast for another load, another delivery by sea. •

Cargo lines aboard and hooked into the manifold, the California *is ready to be emptied of the cargo she has carried through 1,958 miles of water.*

Dad's home! Not to stay—just overnight, probably, while his ship is being discharged. Long enough for a romp with his son and a home-cooked meal before putting out to sea again.

Double Taxation of Dividends:

THE UNIQUE INEQUITY

Double taxation is eating away at dividend income, penalizing millions of American shareholders. Further relief is essential

EDITOR'S NOTE: Double taxation on corporate earnings is a unique inequity suffered by the 10 million Americans who own stock in corporations. Relief beyond what is presently provided in Federal statutes is proposed by the New York Stock Exchange. The Exchange urges that the Government reduce taxation of income derived from dividends by raising from $50 to $100 the amount of dividend income an individual may exclude from personal income tax, and that it increase the credit for income from domestic dividends from 4 to 10 per cent. Because further relief from double taxation of dividends is of direct concern to Texaco shareholders, the New York Stock Exchange's recommendation is presented on these pages.

No other form of personal income—wages, salaries, fees, commissions, or interest payments—is subject to the unjust and inequitable double tax which eats away dividend income.

For 20 years this double tax has penalized millions of American shareowners. Corporations in which they own shares are required to pay taxes on the entire corporate earnings. Then that part of the remaining earnings paid out in dividends is taxed a second time—through the personal income tax paid by each shareowner who receives the dividend.

This tax treatment is unjust to millions of Americans. The earnings of the owners of 3.5 million grocery stores, laundries, shoe stores, gasoline service stations —in fact all kinds of business and professional establishments which are not incorporated—are taxed only once: to the owners, at their personal tax rates. Yet if any one of these businesses decides to incorporate, say to raise capital for expansion, the same earnings will be subject to a double income tax—first to the corporation, and then to the shareowners on their dividend receipts.

Thus double taxation of dividends discriminates against more than 500,000 American corporations and the 10 million Americans who, through these corporations, own a share of American business.

Double taxation discourages the expansion of corporations through new ownership capital and encourages the raising of corporate funds by going into debt. A corporation pays no tax on the income which it pays to its bondholders as interest but does pay a corporate income tax on the income it distributes to its shareowners

as dividends. This double tax on dividends means that most corporations must earn more than twice as much to put a dollar in the pocket of a shareowner than to net one dollar to a bondholder.

Double taxation of dividends has not always been part of our tax structure. Until 1936, dividends were excluded from income subject to the normal tax for individuals. But in 1936 the country experimented with an undistributed profits tax.

Examination of the tax hearings for the period makes it clear that the original purpose was to provide equality of taxation of all corporate income whether distributed to shareowners, or retained by the corporation. The theory advanced by its original proponents did not include double taxation. However, as finally passed, the bill not only made both distributed and undistributed earnings taxable at the corporate level, but taxed distributed earnings again in the hands of individual shareowners.

The experimental undistributed profits tax was repealed in 1939, but full double taxation of dividends, which it had fostered, continued. For 18 long years, the discrimination grew. Federal taxes swallowed an increasing share of corporate profits, and a larger and larger portion of the part of profits distributed as dividends to shareowners.

In mid-1954, Congress took two modest but important steps towards re-establishing the equitable concept of taxing dividend income once, and once only.

A brand new tax provision allowed every shareowner to exclude from gross income the first $50 of dividends he receives each year.

Another provision allowed a credit of 4 per cent of taxable dividends against the income tax otherwise payable. This is the same as taxing dividends (after the first $50) at 4 percentage points lower than they would otherwise be taxed.

Modest as these steps were, they were nonetheless important as a recognition of the unfairness of double taxation of dividends.

If only a few shareowners—of great personal wealth—owned American industry, there would be little incentive for correcting the serious inequity of double taxation. But about two-thirds of the millions of shareowners of public corporations earn less than $7,500 a year. And the smaller their incomes, the greater their proportionate relief from double taxation resulting from the $50 exemption and the 4 per cent credit enacted in 1954.

It was anticipated that the partial relief from double taxation would contribute numerous direct and indirect benefits to the economy. Actual events since the Summer of 1954 have borne out these expectations.

Encouraged by the fairer tax policy, as well as improved business conditions, cash dividends paid shareowners in 1955 were actually $1.9 billion higher than in 1953. Taxes paid by individuals on these higher dividend payments completely offset any possible revenue loss from the enactment of this relief.

Early in 1952, only one family in 10—about 6.5 million adults—owned stock in public corporations. By mid-1954, this figure is estimated to have increased to about 7.3 million—a growth of 800,000 shareowners in 30 months. But in the 18 months after the modest relief from double taxation was enacted in mid-1954, the number of shareowners increased 1.3 million. It is clear that the 1954 dividend tax provisions provided an important stimulus to broader shareownership, an essential ingredient of our future economic growth.

The 1956 Census of Shareowners, conducted by the New York Stock Exchange, discloses that at the end of 1955 there were an estimated 8.6 million shareowners of public corporations. The census reveals an additional 1.4 million shareowners of privately held corporations, making a grand total of over 10 million.

Although the 1954 dividend tax changes were encouraging, strong tax incentives for corporations to raise money through debt issues rather than new ownership capital still remain. Further relief from double taxation can help to reduce this incentive for debt financing.

The modest relief voted in 1954 has already helped to stimulate more stock financing. Net new stock issues by American corporations rose from $2.3 billion in 1954 to $2.7 billion in 1955, and reached an all-time high of an estimated $3.5 billion in 1956.

In the next 10 years, American corporations must create three new jobs every working minute. To do this they will need an estimated $360 billion to finance plant and equipment expansion, of which $60 billion should be provided by new outside ownership capital in order to finance this expansion on a sound basis. This means new stock financing needs to be stepped up to three times its present rate. To provide this ownership capital, it would be desirable to have at least 5 million new shareowners.

Progress toward these goals has been substantial since double taxation was partially relieved in 1954. The facts offer persuasive evidence that more can and should be done.

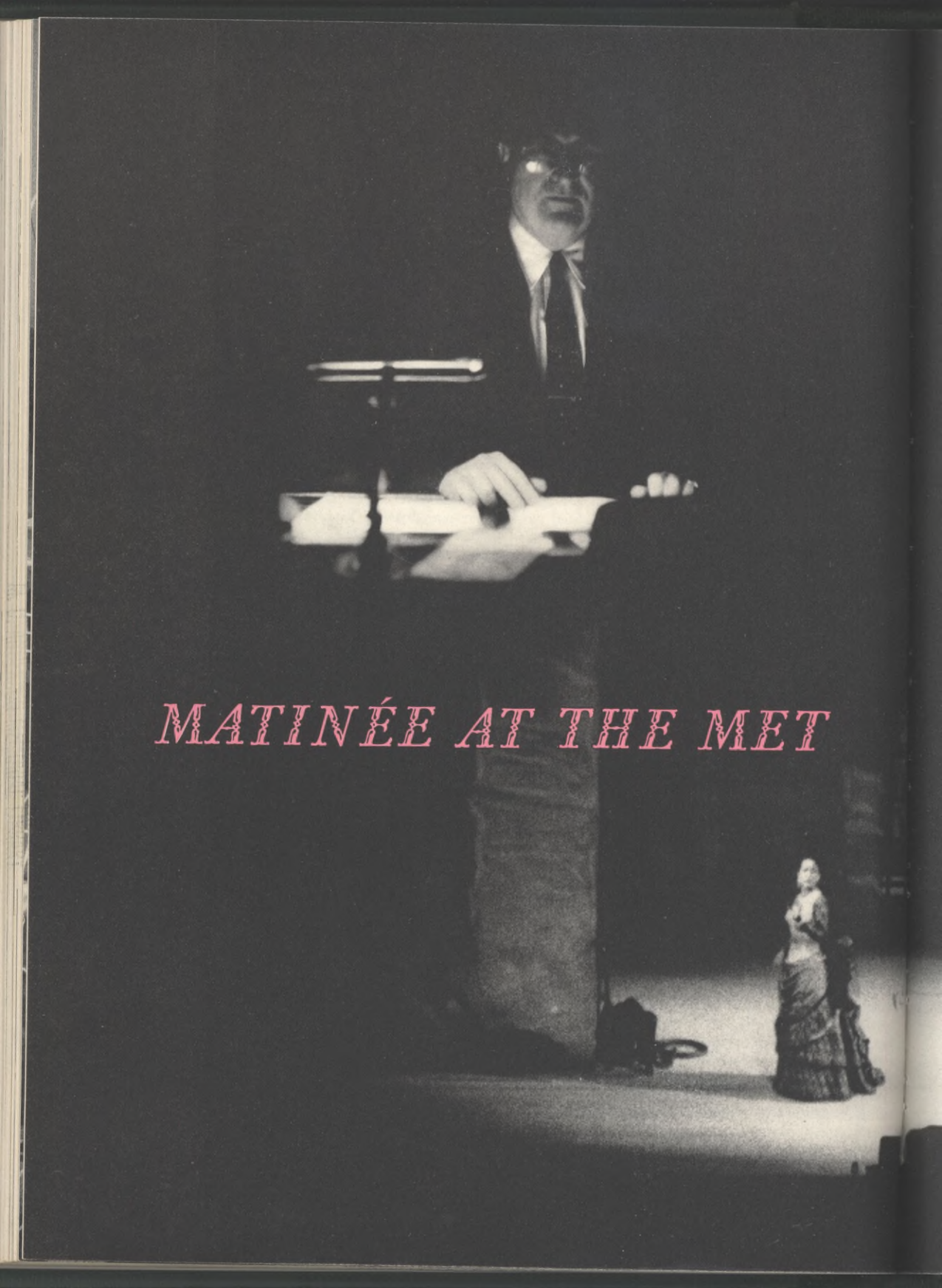
The partial relief from double taxation of dividends granted three years ago by the 83rd Congress has helped to strengthen our economy.

1. It has made a start towards removing a tax injustice for millions of Americans.
2. It has been accompanied by a *revenue gain.*
3. It has helped *broaden shareownership.*
4. By providing incentive to ownership capital it *helps supply the plants, tools, and jobs* needed to keep our economy strong and expanding.

Congress can extend the relief from double taxation of dividends. To help stimulate broader shareownership in America and provide American business with billions in ownership capital it must have for sound economic growth:

1. The dividend tax exclusion should be *increased* from $50 to $100; and

2. The credit for dividends received should be raised from the present 4 per cent to 10 per cent. •


MATINÉE AT THE MET

Backstage, working her way through starched clouds of white net tutus, a wardrobe mistress zips and primps 30 ballerinas into Act I, Scene I brilliance . . . along a corridor cluttered with Act II spears, supernumeraries pat wigs into place and take hurried last sips of coffee from cardboard containers . . . and out in the front of the house, veteran Metropolitan Opera broadcaster Milton Cross quietly tells 10 million radio listeners another Texaco-sponsored Saturday Met matinée is about to begin. Announcer Cross *(shown at left in his radio booth in the Met's Grand Tier)* this Fall will begin his commentary as his part in Texaco's 18th consecutive year of successful opera broadcasts. Of the programs, *Time* recently applauded: "To its everlasting credit . . . Sponsor Texaco has been as tasteful as it has been generous." Bravos regularly come from other quarters —this Spring, from *The Saturday Review,* which presented the Company with a special award for "distinguished advertising in the public interest." Picturing the exciting whirl behind a typical Metropolitan production are the photos on these and the following two pages. They hint at the hustle in the opera house which will be translated again this season into a series of smoothly polished broadcasts for the millions of Texaco's appreciative listeners.

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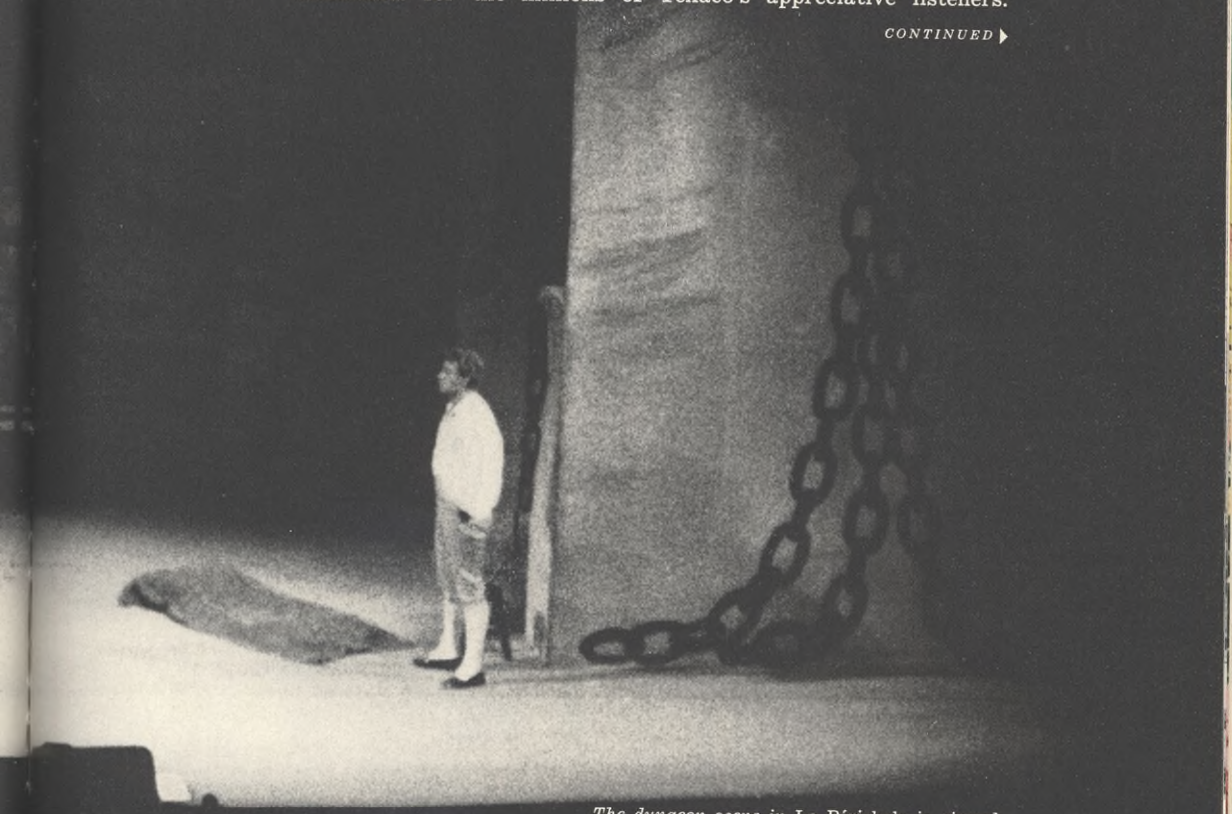
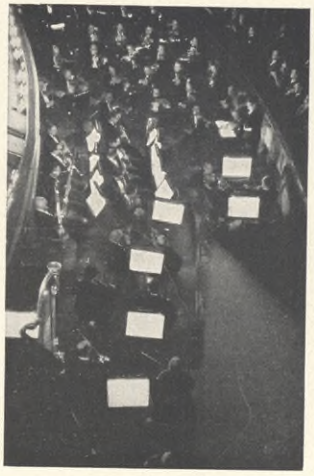


The dungeon scene in La Périchole *is viewed here from a vantage point in the Met's Grand Tier, a few feet from the broadcasting booth.*

While stagehand calmly and contemplatively sips soft drink, ballerina awaits entrance cue.

Offstage, straw-hatted La Périchole *chorus gathers in the wings for production number that includes a live donkey.*

The Metropolitan Opera orchestra is considered one of the world's finest for operatic music, averages about 90 to 100 instruments.



"Striking" a set betwe scenes, stagehands scur with properties. At rig girls of the chorus light gars carried in next sce

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ÉAT THE MET

Delightfully costumed and directed, Offenbach's witty *La Périchole* was one of the Met's most successful productions last season. With musical comedy star Cyril Ritchard in a leading role, *Périchole* provided a lilting, bouncy change of pace from the Met's heavier standard fare. The photos give a view from the wings of a *Périchole* performance. For the 1957-58 season, Met management has scheduled new productions of several operas not done for a year or more—as well as the regulars which bring acclaim year after year.

Taking curtain calls, Périchole *stars Cyril Ritchard, Patrice Munsel, and Theodor Uppman are resplendent in newly designed costumes.*

nstant movement in scenes like this requires ne microphones for broadcast balance.

With curtains down and audience filing out, prop man begins tidying stage for tomorrow's opera.

Building Brawn for Highway Construction

Churning huge piles of earth before it as it rumbles along, the world's largest grader prepares a tract of land for other road-building machinery to follow.

Cutting wide, smooth swaths across the nation, a mechanical army of road-building equipment is determinedly working its way through the most ambitious highway program in history: 41,000 miles of interstate superhighway construction.

Shoving, chewing, gouging through farmland, city, and suburbia, the armada aims to crisscross America with a network of new roads which will link 42 state capitals and 90 per cent of all cities with more than 50,000 population. The job takes brawn—and one of Texaco's long-time customers is a leading supplier of the road graders and rollers which are part of the muscle behind the $100 billion manicure.

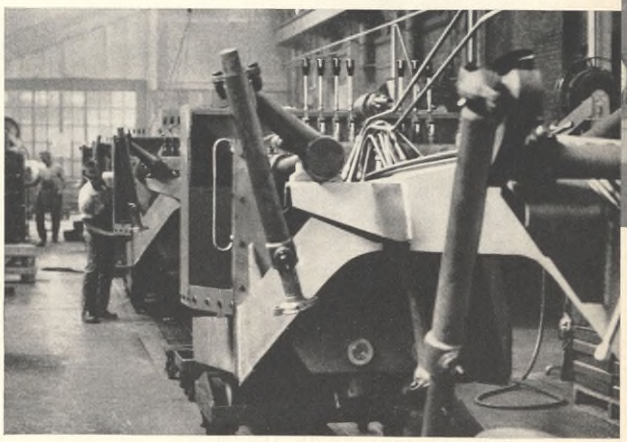
In Galion, Ohio, The Galion Iron Works & Mfg. Co. turns out about 200 graders and the same number of rollers each month to meet the demand for equipment to carry out the enormous assignment President Eisenhower's highway construction program has called for. Galion's graders are built to pull and push the earth in the early stages of highway construction; its rollers follow later to compact base and finished surface materials (much of which will contain petroleum asphalt on the new interstate network). Before they leave the Galion plant, each one of the machines is serviced with Texaco lubricants and its hydraulic components filled with Texaco hydraulic fluids (Hydra Oil, Crater 5X Fluid, and Texamatic Fluid are the three Texaco products Galion uses—and specifies for its equipment).

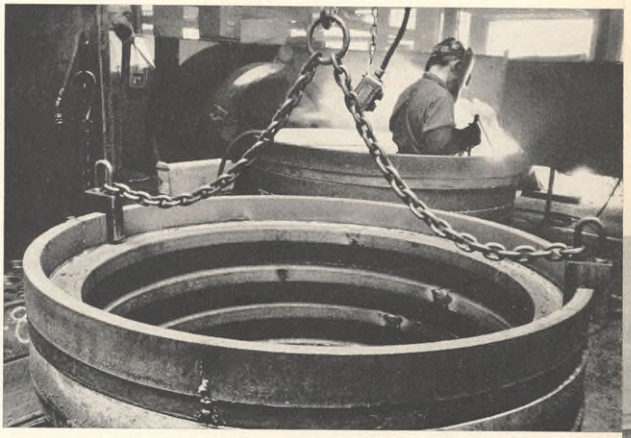
The Galion Iron Works & Mfg. Co., which is celebrating its 50th anniversary this year, has been an important part of the road-building industry from the start. Its earliest products were horse-drawn scrapers and drags; sprinkling wagons; stone and chip spreaders. Today it operates plants at Galion and Bucyrus, Ohio, and a third in Great Britain to supply road builders with graders that boast 190 horsepower, rollers that give roads a 20-ton massage. Galion management is proudest of a grader it claims is the world's largest. This behemoth features power-shift transmission and hydraulic controls; its 14-foot blade can be moved in any direction, smoothing the way for other mechanical monsters to follow in building a new roadway.

A trip through the manufacturer's Galion plant gives the visitor an idea of just how much strength it takes to make earth move: the steel plate used on large graders runs as thick as three inches. Specially designed pantograph flame cutters are used to pierce the heavy plate, cutting as many as six identical shapes from a sheet of stock in one operation. Other components are cast—and the brilliant streams of molten steel being poured into moulds remind the visitor that he's looking at the production of machinery made to pack a wallop.

If the Federal highway program is completed according to plan, motorists in the future will be able to drive from New York to Los Angeles over superhighways without stopping for a single traffic light or slowing for a single intersection. Galion and other equipment manufacturers like it—many of them long-time Texaco customers—are supplying the mechanical strength and skills that turn plans into pavement. •

On the assembly line at the Galion plant, partly finished graders look like giant, armored insects—their hydraulic cylinders protruding at crazy angles from their bodies.





Heavy sections of cast steel are arc-welded together to produce massive road rollers that pound unruly earth into smooth stretches that become superhighways. Steel stock used in roller production runs as thick as three inches.

★ BRIEF AND POINTED ★

John H. Dea appointed Assistant to President

Formerly Assistant Manager of the Sales Division of Texaco's Foreign Operations Department (Western Hemisphere and West Africa), John H. Dea has been named Assistant to the President.

Mr. Dea, who was graduated from the University of Notre Dame in 1930 with a B.S. degree in Chemical Engineering, joined the Company in 1937 as an Industrial Salesman in the Minneapolis Sales Division. Beginning in 1942, he served four years in the U.S. Army Air Force, attaining the rank of Lieutenant Colonel and receiving citations from the Air Force, from the British Government, and from the Joint Chiefs of Staff. Upon his return to Texaco, he served as Supervising Engineer at Milwaukee, Chief Lubrication Engineer in Denver, and Assistant Division Manager (Industrial Sales) at Minneapolis. In November, 1955, he was named Assistant to the Vice President, Foreign Operations Department (Western Hemisphere and West Africa).

New restrictions *on imports of crude oil were called for by President Eisenhower in July. The President requested the nation's oil companies to limit total imports to 1,031,000 barrels a day during the year ending June 30, 1958. Texaco President James W. Foley wired Washington that the Company would comply with the request, and that it will not import, east of the Rockies, an amount of crude oil which would result in a daily average of more than 54,500 barrels. It is Company policy to comply with the letter as well as the spirit of Government regulations; however, the following editorial comment on President Eisenhower's move, by* The New York Times, *is pertinent: "... Serious doubt must be expressed about the wisdom of this decision.... The ... action is an obvious attempt at Government interference with the free play of the market forces of supply and demand. It contradicts the often-expressed policy of seeking the freest possible international exchange of goods and services. We know from past experience how much resentment has been aroused abroad by other similar protectionist measures aimed at artificially aiding one or another group of American producers."*

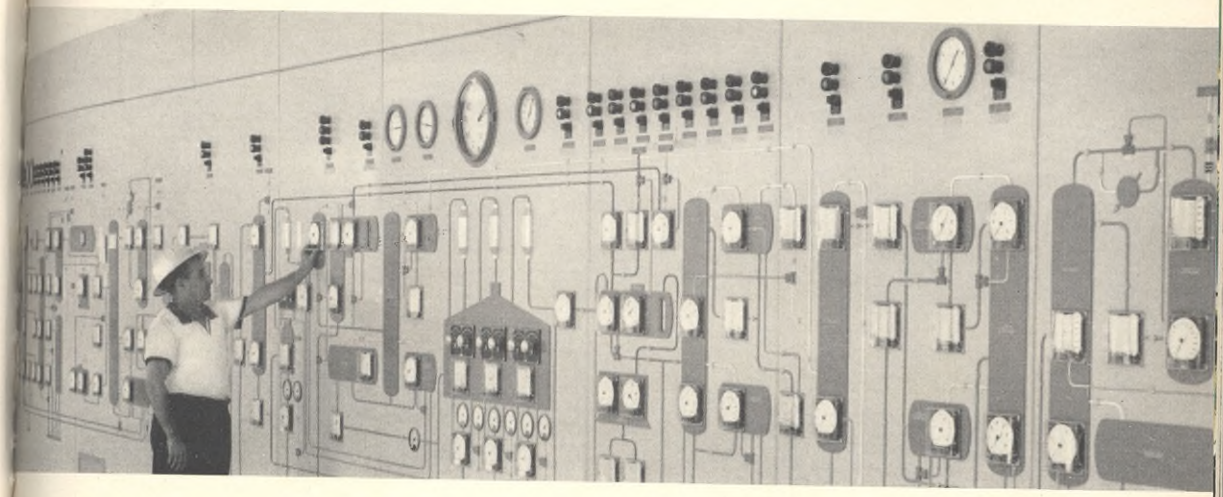
The scope of Texaco in research, product development, and marketing operations is significantly revealed in "prestige statements" to be found in various current Texaco advertisements. For instance:

- Texaco quality and service are available at more than 480 world ports.
- During the last 22 years more scheduled revenue airline miles in the United States have been flown with Texaco Aircraft Engine Oil than with all other brands combined.
- For more than 25 years more copper ore in the United States has been mined with Texaco-lubricated equipment than with any other.
- For over 20 years more stationary Diesel horsepower in the United States has been lubricated with Texaco than with any other brand.
- More buses in the United States are lubricated with Texaco than with any other brand.
- More bus chassis in the United States are lubricated with Texaco Marfak than with any other brand.
- More wheel bearings of buses in the United States are lubricated with Texaco Marfak Heavy Duty than with any other brand.
- More than 700 million pounds of Texaco Marfak have been sold.
- More transmissions and differentials of buses in the United States are lubricated with Texaco gear lubricants than with any other brand.

There are more than 2,100 Texaco distributing plants in the 48 states. They are as near as the telephone to industrial and commercial users of petroleum products.

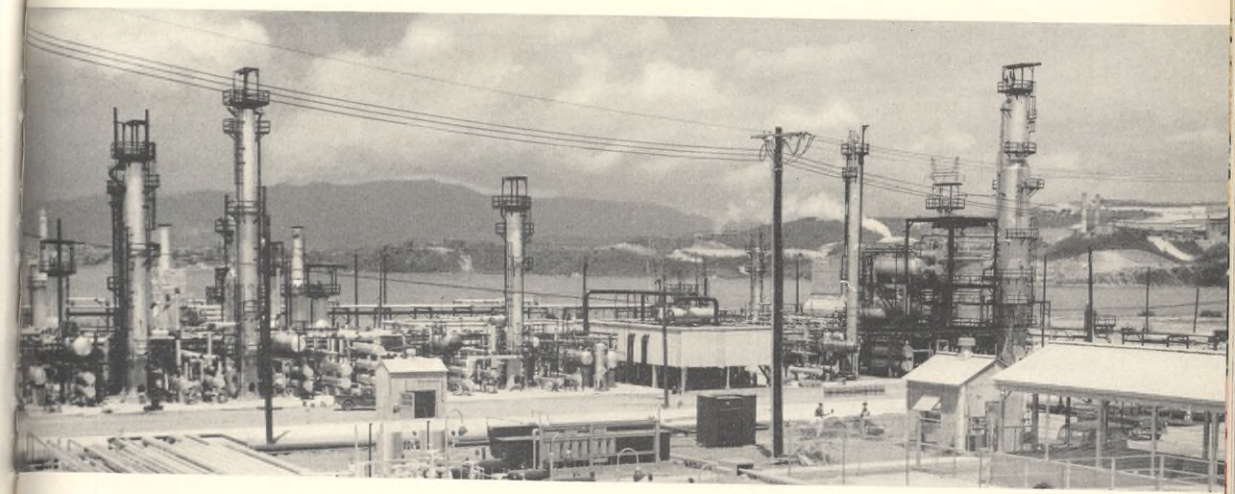
A gasoline plant to process gas from the Aneth field *(see* The Find at Four Corners, *Summer, 1957, issue)* will be constructed by The Texas Company in southeastern Utah. The new plant will recover and market natural gasoline, butane, and propane.

Texaco Command Appearance, *first color-TV spectacular of the Fall season, was broadcast on September 19 over NBC—a network reaching an estimated 95 per cent of all TV homes in the nation. The hour-long salute to Ed Wynn—with a cast including Alfred Drake, Keenan Wynn, Beatrice Lillie, Steve Allen, and other stars—was another method of reaching the country's motorists, in a Company advertising schedule which includes Metropolitan Opera radio broadcasts* (see *Matinée at the Met,* Page 18); *radio and TV spot announcements; heavy newspaper and magazine insertions; and a billboard program that reminds drivers of Texaco products and services along highways from one coast to the other. Scheduled for November 23 is another* Texaco Command Appearance.



"ON STREAM" IN CUBA

Expanding operations in Latin America made possible by Texaco's improved crude oil situation in this region are signified by the new Texaco refinery that went "on stream" at Santiago de Cuba this Summer. With a rated crude capacity of 20,000 barrels a day, the Cuban refinery is producing gasolines, kerosine, Diesel oil, fuel oil, and liquefied petroleum gas with which to serve Texaco's growing marketing operations in Cuba (about 60,000 barrels of petroleum products a day are consumed there) and other Caribbean areas. For nearly 40 years, Texaco has been marketing fuel oil and lubricants in Cuba; a few years ago the Company began an extensive service station program in Cuba in anticipation of the completion of the new refinery. Above is a portion of the graphic panel board in the control room for the plant processing units; below, part of the plant with the harbor in background. The installation here at Santiago de Cuba is estimated to have cost in excess of $15 million.



TEXACO'S FLEET – *see key on Page 1*