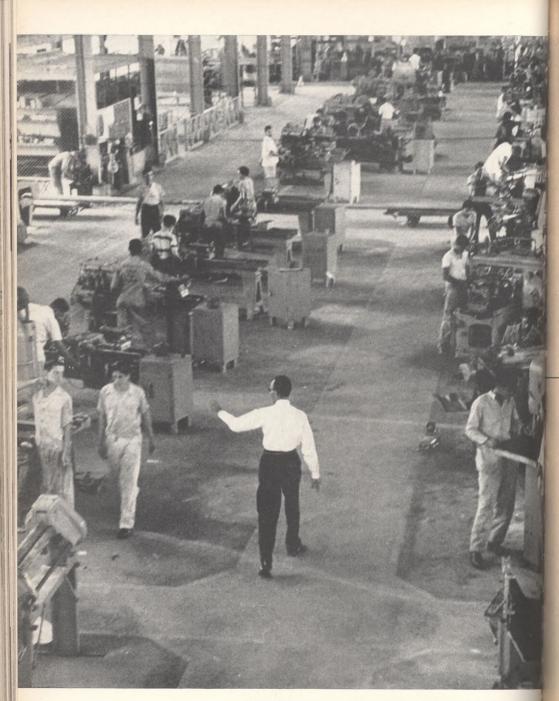
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Texaco Star

IN THIS ISSUE:

Puerto Rico U.S.A.



Skilled workers for Puerto Rico's expanding machine shop industries are trained in this section of the internationally known Miguel Such Industrial School, the largest vocational training institution in the world. Texaco lubrication guides and charts are used in the classes, and some are mimeographed as text books

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THE COVER: Though "Operation Bootstrap" is fast bringing new (bs, machines, and prosperity to Puerto Rico, sugar production still the island's largest source of revenue. Texaco plays a yominent role in this industry since it is one of the principal suplers of petroleum products (Diesel fuel, machinery lubricarb, needed in the many steps that process sugar cane.

#### A publication of

#### THE TEXAS COMPANY 135 East 42nd Street, New York 17, N.Y.

1.5 Leach, Chairman of the Board of Directors Japatus C. Long, President R. Baker, Executive Vice President C. B. Barrett, G. R. Bryant, E. R. Filley, J. W. Foley, H. Halpera, A. N. Lilley, L. H. Lindeman, A. M. Ottignon, James H. Pipkin, R. L. Saunders, Torrey H. Webb, ed J. T. Wood, Jr., Vice Presidents tear John Dorwin, Vice President and General Counsel K. Elicker, Secretary Webt Fisher, Treasurer E. & Breeding, Comptroller

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SAN JUAN

PUERTO RICO

# ISLAND OF PROGRESS

GUAYANILLA

O<sup>IL</sup> is one of the most energetic forces behind the modernization reported in *Puerto Rico U.S.A.*, which begins on Page 11.

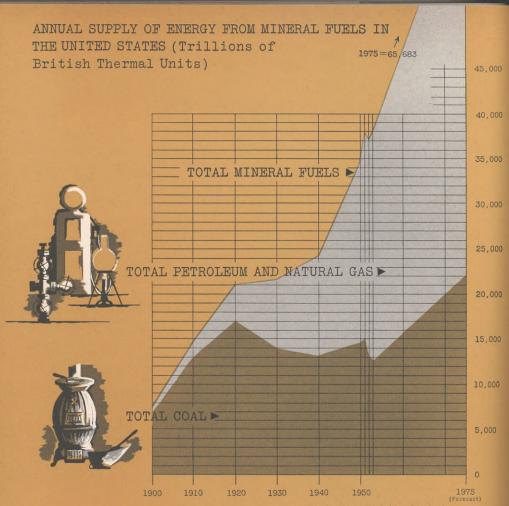
Petroleum, however, provides more than the means to keep Puerto Rico's industrial machinery humming, its "Operation Bootstrap" accelerating. Via companies such as The Texas Company (Puerto Rico) Inc., the experience of the oil industry in aiding progress throughout the continental United States is available to an outlying part of the nation that is building a new way of life based on industrial development and expansion.

The Texas Company (Puerto Rico) Inc. is a wholly owned subsidiary of The Texas Company. Established on this Caribbean island in 1919, it is an important supplier of Puerto Rico's petroleum needs, operating two ocean terminals—one at Catano on the northern coast and the other at Guayanilla on the southern shore. Both are supplied by Texaco's refinery at Port Arthur, Texas.

In Puerto Rico, Texaco (pronounced Tex-ah-co by the Puerto Ricans) is at work in factories, on the road, and in the air. Sugar mills and other industrial plants are large consumers of Texaco lubricants, and the increased use of commercial trucking presents an expanding market for gasoline and motor oils. Private cars on the small (35 by 100 miles) island are taken care of by nearly 90 Texaco service stations. Airplanes consume an average of 600,000 gallons of Texaco Aviation Gasoline a month at Puerto Rican airports. Many of the island's roadways are surfaced with Texaco Asphalt.

More than 240 employes, the great majority of whom are Puerto Ricans, conduct Texaco's operations on this island which, since July 25, 1952, has been a free Commonwealth associated with the United States.

Wherever Texaco is serving Puerto Rico's progress, the experience The Texas Company has gained in other places on similar projects is now helping Puerto Rican enterprises succeed.



Source: U. S. Bureau of Mines and President's Materials Policy Commission.

## The best is yet to come

The Texas Company takes a long look at the U.S. economy and finds many signs pointing to a future full of promise



EDITOR'S NOTE: This is a year of readjustment for American business. It marks a shift from a wardominated economy, highlighted by enormous miliary expenditures, to a peacetime economy.

Despite the very real problems involved in this transition period, The Texas Company's Economics Department is convinced that no major depression is in sight. It views the current readjustment—which may continue for several months—as but the prelude to a period of further growth and prosperity.

The economic facts of life indicate a future for American business that is packed with progress. It is a future that will benefit every citizen.

Certainly, the investor in oil stocks has good, sound reason to feel confident about the years ahead.

Texaco's Economics Department backs up its optimism with the following reasons.

#### The Investor's Outlook ...

There has been a rising demand for the securities of petroleum companies. By the end of 1952, petroleum shares accounted for six of the top nine stocks – ranked by dollar value – that were favored by over 150 investment companies. With a market value of \$19.4 billion, stocks of petroleum and natural gas companies composed 16.5 per cent of the value of shares listed on the New York Stock Exchange at the beginning of this year.

There has also been a great increase in the number of stockholders of most oil companies. Shareholders of The Texas Company, for instance, numbered 87,875 in 1939 compared with 121,447 at the end of 1953, or a boost of 38 per cent.

Along with the rise in the number of stockholders of various oil companies, there has been a rapid rise in the value of oil securities. Common stocks of petroleum companies listed on the New York Stock Exchange soared about 275 per cent in value between 1939 and today. Stocks of manufacturing companies generally have increased about 135 per cent in value during the same period.

The mounting popularity of oil securities is due to several factors.

First of all, the petroleum industry is still growing. Its markets are constantly expanding. Because it is an efficient industry, it annually invests large sums in new equipment designed to improve operating techniques and products.

Secondly, the petroleum industry has been liberal in its dividend policies. Using The Texas Company as an illustration, over a 50-year period an average of 50 per cent of net earnings has been paid out in dividends-a sum which now exceeds \$1 billion.

Expansion and improvements in efficiency and quality require the reinvestment of a substantial portion of the earnings in the business. There are two paths an oil company (or any company, for that matter) can follow: it can fail to reinvest a portion of its earnings in the business—and fall behind its competitors, stagnate, and (possibly) end up in bankruptcy. Or it can plow back earnings to develop new oil fields and better transportation, manufacturing, and marketing facilities which produce new and finer products. The Texas Company has followed the latter policy.

This year, capital expenditures of The Texas Company will be in excess of \$275,000,000 and will be the largest in the history of the Company (average for the five years, including 1954: in excess of \$210,000,000). Texaco's continued growth depends on such expenditures. They give clear evidence of Texaco's faith in the future.

During 1954, the demand for petroleum products will continue to rise, but not as fast as it did in most of the years since the close of World War II. This year, consumer demand for petroleum products will probably average about four to five per cent greater than last year, compared with an average postwar increase of nearly seven per cent. Motorists and others will probably require about four per cent more gasoline—the industry's major product—than in 1953.

The American petroleum industry-the nation's fourth largest, exceeded only by agriculture, railroads, and the public utilities-will be greatly influenced by the economic climate of the future.

#### Plenty of Energy ...

In 1900, petroleum and natural gas produced nearly eight per cent of the nation's energy. In 1953, petroleum and natural gas supplied approximately 64 per cent of the U. S. energy demand. These two fuels have accounted for most of the nation's increase in energy output since the turn of the century.

Demands for energy-and for petroleum and natural gas to supply the energy-will continue to grow. Consumption of petroleum by automobiles, trucks, buses, ships, tractors, homes, public utilities, and all types of industries will increase as the nation moves forward.

If the use of petroleum energy continues to increase for the next decade at even half the rate it has shown thus far in this century, we can expect that by 1964 there would be required in the United States about 11,000,000 barrels a day of petroleum as compared with 7,600,000 barrels a day in 1953, or an increase of some 45 per cent.

#### **Rising Living Standards...**

During the next decade, the nation's population will continue its vigorous growth, spurred by a high birth rate and longer life expectancy. The increase in population will be accompanied by a rise in the nation's standard of living. Additional families will engender strong demands for housing, oil burners, and automobiles.

The motor vehicle industry will pursue its policy of dynamic growth. Despite today's traffic congestion, the use of cars will become more and more widespread.

With 45,000,000 passenger cars and 9,700,000 trucks and buses on the road today, it is reasonable to predict there will be 54,000,000 cars and 12,000,000 trucks and buses 10 years from now.

As the nation's wheels multiply, so do the gallons of gasoline that are consumed. In another decade, the domestic demand for gasoline is expected to be at least 42 per cent greater than today. Much of the expected rise in gasoline consumption will come from a continuing exodus of families from cities to suburban communities where an automobile is a necessity.

#### Stability of Petroleum ....

An outstanding characteristic of the petroleum industry has been its resistance to business setbacks. Only three times in the past has gasoline demand been less than in the preceding year; in 1932 (at the depth of the big depression) and in 1942 and 1943 (as a result of wartime rationing). Home heating fuel oil consumption is quite insensitive to business changes. When business softens, there is a tendency to shift from rail to truck transport.

While the business cycle will ebb and flow in the future, a depression of the magnitude that occurred in the early 1930's is unlikely in the foreseeable future.

Both major political parties have made it clear that they accept an important responsibility in maintaining a high level of employment and business activity. However, over the years the tendency will be for higher prices—not a steady increase but ups and downs, with more increases than decreases. This kind of situation will add much attraction to the holding of equity securities over a number of years.

#### **Revolution (Technological)...**

The Twentieth Century's rapid technological progress has been due, in large part, to petroleum. One contributing factor is the growing importance which research is now given in American industry. In The Texas Company alone, about 1,700 employes are in our research organization. All of American industry spends over \$2.5 billion annually for research. Today, research is considered a vital necessity by every vigorous, advancing business firm.

Petroleum is indispensable, and in rising demand, as technology progresses. Mechanization of farming has already substantially increased the consumption of petroleum products. Jet power is another of the many scientific developments that offer vast markets for petroleum. Changing technology has made possible the rapid development of petrochemistry into a major industry. Approximately 26 per cent of all chemicals which are manufactured today originate in the hydrocarbons of crude oil and natural gas. By 1964, it is expected that 51 per cent of a much greater volume of chemicals will be made from petroleum sources.

#### Expansion Unlimited . . .

Based on productive potentials, there will be no shortage of petroleum over the next decade. Reserves of crude oil have been increased steadily for many years. In the United States alone, there are many millions of acres of land where oil could be discovered. The acreage which contains present U. S. oil reserves represents only about two per cent of this potential area. In addition, the possibilities of the tidelands are yet to be completely defined.

Along with manufacturing products of ever better quality at fair prices, the petroleum industry pays top wages—among the highest of all industries—to its employes. Dividend payments are substantial. In addition, the petroleum industry makes large tax payments to the Federal, state, and local governmentspayments which benefit the public in many ways.

The petroleum industry contributes heavily to the long-term growth of the American economy. And, in turn, the industry itself has benefited from the expansion in over-all industrial activity and the unparalleled rise in the nation's standard of living.

The petroleum industry and the petroleum investor have been fortunate. Undoubtedly, the "best is yet to come" for both. **END** 

These men, erecting a portable drilling rig, are among thousands who are searching for new oil reserves to mether rising demand for petroleum.

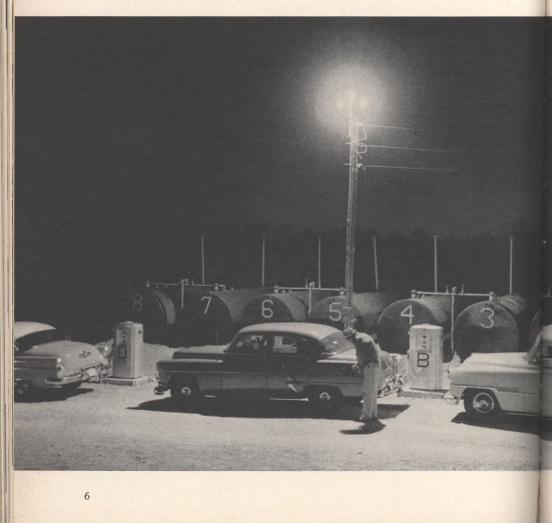




Texaco fleet speeds along Texas highway in tough, grueling test of Top Octane Sky Chief.

Debut:

A NEW Texaco research has creat



# WIND OF GASOLINE

aterevolutionary premium fuel

H OW GOOD CAN A GASOLINE GET? The answer: as good as the research laboratories of The Texas Company can design it.

Every year, Texaco invests millions of dollars in the research and development of new and improved products. This investment is again paying off in the sale of a remarkable new Texaco Gasoline, introduced to the public in April through the most extensive advertising and promotion programs in the Company's history. Available in all 48 states, this new gasoline is now flowing from the pumps of Texaco dealers into the automobiles of the nation. Many years of research and several millions of dollars went into the creation of this superior gasoline.

Two things make it superior-an organic petrochemical element named "Petrox" and a new top octane base stock.

The total result is new Top Octane Sky Chief Super-Charged with Petrox—the culmination of more than 20 years of intensive research. It is a revolutionary new kind of motor fuel. It actually prolongs the life of any car by sharply reducing engine wear.

Petrox, the new compound, is a blend of pure petroleum-derived ingredients. Therefore, it is wholly organic. This means that it is entirely suited to gasoline and is non-injurious.

The scientists at Texaco's research laboratories knew that only a specially designed substance like Petrox could improve the performance of Sky Chief. Into this substance they built the traits that enable new Top Octane Sky Chief Super-Charged with Petrox to give your automobile—whether it is new or old—these outstanding benefits: 1) longer engine life; 2) maximum power; 3) reduction in octane "appetite" (demand); 4) more miles per gallon.

The result of these new benefits will mean a far better gasoline for the American motorist and greater sales for your company.

Petrox adds thousands of miles to your engine. For example,

During a midnight high-speed run, test cars "fill up" at fuel pumps which are masked to maintain strict control of all secret performance data.

More Engine Power! Sustained Engine Power! DEAK PERFORMANCE BREAK-IN PERIOD (2000-6000 MILES) New Sky Chief power gives more period over a longer period of time.

A graph, sketched by a test engineer, shows how new Top Octane Sky Chief produces more power in a car and keeps an engine younger than any of the other fuels tested during road runs in Texas and New York.

extensive road tests throughout the country have proven that new Top Octane Sky Chief gives 60 per cent more mileage to the life of piston rings.

T HE advantages to you in using new Sky Chief are no sky-soaring claims unsupported by facts but the proof of months of Texaco test-driving on every kind of road and in every type of weather. Along highways in Texas and New York State, many hundreds of thousands of miles of testing demonstrated the superiority of new Top Octane Sky Chief over competitive gasolines.

In Texas, test cars achieved as much as a 45 per cent reduction in piston-ring wear after a total run of 25,000 miles. Laboratory tests revealed a greater decrease in top ring wear. These savings were established by weighing rings down to the last milligram before and after the road tests.

J. T. Bugbee, an Engineering Technologist for The Texas Company, points out that this saving in metal will mean a "tremendous economy for the motorist in cutting down on overhauls." He adds that "life-giving" Petrox will "enable your piston rings to go thousands of extra miles." This extra life will give your engine greater power, economy, and will increase your driving satisfaction.

During the road tests near San Antonio, a fleet of 26 new cars was driven for nearly three months. For 800 miles a day, cars streaked at more than 65 miles an hour through the open plains of Texas.

These high-speed tests pointed up a big decrease in deposits on exhaust valve seats and wear of valve seats. It is deposits and wear which prevent exhaust valves from fully closing, thus allowing hot combustion gases to leak out of the cylinder. These gases waste power and do much damage to the valves.

When this occurs, the exhaust valves fail, your engine loses power, and you put out more money for gasoline. In the grueling tests at San Antonio, Petrox cut down failures of exhaust valves by as much as 65 per cent. This reduction is most significant, because it takes only one valve failure to throw an entire cylinder out of commission. This will drastically slash the power and efficiency of your car.

Rusting of cylinder walls and the gasoline tank has always been a tough problem to overcome. Petrox puts an end to this by giving nearly 100-per-cent rust protection to your car's engine.

During combustion, a great deal of water is produced in your engine. This water combines with the oxygen to corrode the exposed metal of cylinder walls. These walls are always vulnerable to rust, because the moving piston rings constantly scrape the walls clean. When oxygen and water attack this bare metal, the result is a pitting and flaking of cylinder walls.

In Petrox, there is an important anti-rust and lubricity agent which coats all metal surfaces with a fine, protective film. Though this film is microscopically thin, it is tough enough to keep water and oxygen away from the bare cylinder metal. Both engine and laboratory corrosion tests have solidly established the anti-rust protection that Petrox will give any engine.

It is this same protective characteristic of Petrox which reduces carburetor icing—a minor problem in a few of the older cars. While icing is not too common, it occurs occasionally in cold, wet weather. The result is engine stalling—often on a slippery hill.

Both the high-speed tests in Texas and the startand-stop marathon along the hilly terrain near Poughkeepsie, New York, successfully demonstrated how new Top Octane Sky Chief reduces engine deposits. For 16 hours a day in and around Poughkeepsie, a fleet of 12 cars ticked off 7,000 miles apiece as they simulated "city traffic" last Winter. Because the cars were not allowed to go more than 35 miles an hour, Texaco technicians were able to Petrox, amazing new discovery, gives longer life to any car

judge the effect of new Top Octane Sky Chief Super-Charged with Petrox on engine wear, octane rating, and accumulation of deposits.

This "city" driving is the kind that most of us must do every day. Nowadays, two-thirds of all motor trips are less than eight miles long.

In all of the tests, Petrox slashed deposits in the cylinder intake ports by as much as 75 per cent, as compared to other gasolines. Keeping intake passages clean is necessary for full power and economy. Top Octane Sky Chief came through with optimum performance in this vital part of the engine.

AFTER running on new Top Octane Sky Chief, spark plugs were approximately 35 per cent cleaner than those run on a widely advertised competitive gasoline. An independent testing laboratory, using a recognized test method, found that new Sky Chief was over 300 per cent more effective in prolonging spark plug life.

Top Octane Sky Chief has a "purging" effect on deposits that prevents any engine—old or new—from building up its octane requirement, or appetite, as rapidly as with competitive gasolines.

Your engine's appetite for higher octane fuel increases as engine deposits increase. Deposits tend to build up with ordinary gasolines as mileage piles up. Unless an engine is given a gasoline of adequate octane number, it will knock. The cars which ran on new Top Octane Sky Chief in the recent tests clearly showed a far lower build-up in deposits than cars run on competitive gasolines. Texaco engineers point out that the new gasoline "not only builds up a car's octane requirement more slowly but keeps it at a lower level during the engine's lifetime."

Even if your car's engine is already heavily carbonized, new Top Octane Sky Chief will help to reduce deposits. The combined action of lower deposits and reduced octane appetite serves to prolong your car's "power peak" and to reduce or eliminate knock.

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To prevent knock, Top Octane Sky Chief is especially tailored to today's high-compression engines. Part of this "custom-built" tailoring is the way the new gasoline upgrades the octane rating.

In the road and lab tests, Petrox "appreciated" the octane rating by as much as two numbers in some new cars. In other words, the Petrox in Top Octane Sky Chief actually raised the gasoline's road octane number. These boosts not only give highcompression engines more power, but they provide a reserve cushion which practically eliminates any possibility of detonation occurring, even in engines with heavy deposits.

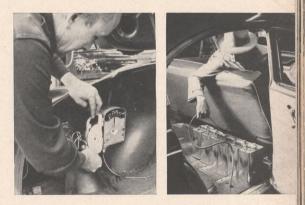
For any motorist, one of the biggest benefits in Top Octane Sky Chief is extra mileage per gallon.

In every road test, every car consistently came through with increased mileage. In the stop-and-go driving, as much as five per cent more miles per gallon was realized. This is equivalent to a free gallon of gasoline in every 20-gallon tank that is filled with new Top Octane Sky Chief. During a year, it is obvious that any motorist using Texaco's new gasoline could easily save himself many dollars.

In evaluating the new Sky Chief, it must be remembered that even before Petrox was added, Sky Chief was an outstanding gasoline, designed for those who wanted the best. New Sky Chief–100 per cent climate-controlled in all 48 states and with balanced volatility—is now, more than ever, the gasoline for those who want the best.

No matter what climate or temperature you may drive in—whether you live in Boston, Chicago, Denver, or Sacramento—you can rely on your car starting quickly, warming up rapidly, and moving along with highest power and economy when you use Top Octane Sky Chief.

As a stockholder or employe, and as a motorist, you will gain a double benefit from using Top Octane Sky Chief Super-Charged with Petrox. You will improve the performance of your car, saving yourself much money. You will also help to assure the continued prosperity of your company. END



Special speedometer in trunk compartment (*left*) gave accurate speed record of cars. Fuels (*right*) were alternated to determine each car's specific octane requirement.





A farmer plows the hard, rugged mountain slopes.

Puerto Rico U.S.A.

Called "Rich Port" by the conquistadores, the name has been a misnomer. Now an economic awakening is transforming this Caribbean island

WHEN a visitor to the Commonwealth of Puerto Rico disembarks at the airport in historic San Juan, he is handed a frosted drink (compliments of the insular government) and a booklet entitled *Que Pasa in Puerto Rico U.S.A.* 

As he awaits the delivery of his luggage, feeling rather excited by the hustle and bustle around him, he thumbs through the pages of *Que Pasa* to find out that "what's happening in Puerto Rico" is that restaurants want him to sample both their native and "continental" specialties, modern hotels seek him as their guest, night clubs want to entertain him with their lively performances, and boatmen want to take him where he'll catch the kind of fish that usually get away.

Obviously, he is wanted.

The competition for his patronage, so clearly illustrated in the numerous advertisements in the booklet, does not strike him as particularly unusual unless he happened to be a visitor to the island a decade or so ago. At that time, nobody handed him a welcome drink or much less cared a Caribbean hoot where he put up or how he spent his leisure hours.

If he knew Puerto Rico then, he will immediately be impressed by "what's happening" now.

The fact is, as one passenger put it, "You've got to hand it to them. They're really doing it up red, white, and blue."

You certainly do have to hand it to them, because in 10 years Puerto Rico has put itself back on the map after centuries of relative obscurity.

Even the casual observer will at once be aware of the island's new prominence as big planes whir down and ascend intermittently. The present San Juan airport plays host to more than 600,000 passengers a year. This tremendous traffic gave rise to the building of the new International Airport scheduled to be finished by December, 1954. It will be the first airport designed to accommodate jet planes.

Ever since Columbus discovered the island on his second voyage to the New World in 1493, Puerto Rico's problems have been numerous. Named "Rich

We step toward Puerto Rico's bright new future is the may housing projects which are springing up all over the Mod. White, modern apartments—such as this one in San un-now rise where slums once sprawled.



In the old marketplace of San Juan, shopkeeper displays modern wares.



Many traditional native crafts flourish along with the newly mechanized industries. Here are workers making tables and chairs out of rattan that is cut from Puerto Rico's many palm trees.



Another factory in "Operation Bootstrap," the industrial program which is attracting mainland dollars and know-how to the island.

Port" by the Spanish *conquistadores*, who depleted the island of the scant gold with which nature had endowed it, and who left it an ironical misnomer, Puerto Rico has had a tough fight for survival. From time to time, it suffered pirate onslaught, disease, famine, and overpopulation. Its mere million acres of arable land never yielded enough to feed the continuous influx of settlers from Spain.

Puerto Rico was, nonetheless, an important piece of colonial property, and the island remained the last stronghold of the Spanish Empire in the New World until it was ceded to the United States after the Spanish-American War. Only recently has Puerto Rico been given control of its own political affairs.

In 1947-48, when Puerto Rico began its campaign to encourage vacationers, the island received some 51,000 visitors, who spent a little less than \$5,000,000. Five years later, more than 100,000 tourists spent close to \$26,000,000.

The tourist, of course, is not expected to know what a great boon his business has been to the island's economy nor that the insular government, in the face of considerable criticism, invested heavily in new hotels and promotional campaigns to get that business. If he is at all perceptive, he will realize that what Puerto Rico has accomplished was not easy to do; that it involved a great many financial risks, a great deal of courage, and a great deal of perseverance, and that its success has created a far hapier people. He is only aware that Puerto Rico is exceptionally cordial and that Puerto Ricans are extremely proud of what their island now has to offer.

But tourism is only part of "what's happening in Puerto Rico U.S.A." The rest is not immediately apparent, for it doesn't occur to the visitor from the mainland that there is anything extraordinary about a tall, white smokestack on a tropical coast or a hillside where silver gasoline storage tanks shine down on a busy harbor.

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Nor is the "continental," as the *puertorriqueño* calls residents of the mainland U.S.A., struck by the sight of numerous banking firms, new housing developments, modern office buildings, and heavy automobile traffic.

To be sure, the island still possesses a lot of its early Spanish flavor and, though it is practically bilingual, its reigning culture is Hispanic. But regardless of heritage and despite the old Spanish churches and architectural remains, contemporary Puerto Rico is American enough to have put across

12

In 10 years, Puerto Rico has captured a bright spot on the industrial map of the world

one of the most incredible industrial programs in history. In 10 years, the island has accomplished what most countries have taken centuries to do. In 10 years, it has changed from virtually a one-crop economy, based on growing sugar cane, to an industrial economy that has made the civilized world at large sit up and take notice.

The industrial program is called "Operation Bootstrap," and its guiding light is the Economic Development Administration—known as "Fomento." Both on the island and in several major American cities, the Administration tackles the job of "getting sound, new business to Puerto Rico." To do this, Fomento has made a number of attractive offers to mainland industry.

Foremost among the inducements is a program of tax exemptions which grants qualifying industries immunity from income, property, and business taxes for a period up to 10 years.

A drive on any of the island's modern roadways (which, incidentally, are by far the best in the entire Caribbean, and which have largely been surfaced with Texaco Asphalt) shows Fomento to great advantage. New factories are everywhere. Strikingly modern, many of them bear the biggest names in American industry and many others are making names for themselves.

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As you pass the sign, "Another Project of Fomento," most guides and taxi drivers will proudly mention the number of factories operating on this 35-by-100-mile island (300, as of December, 1953). From the diversity of the products now produced electronics, buttons, hormones, shoes, machinery, and plastics, to name only a few—it would seem that the program knows no bounds.

By no means lost in the over-all picture of the island's swing to industrialization, native arts and rafts have also been woven into the commercial fabric. For centuries, needlework has held a promnent position in the island's handicrafts. Today, although luxury items are still handmade, machines now produce the major portion of Puerto Rico's home furnishings and ready-to-wear clothing.

Sugar, however, remains the island's main agricultural industry, and its production, as that of everyming else in Puerto Rico today, has been stepped up tremendously. Employing 150,000 workers exclu-



In a large sugar refinery, heavy rollers squeeze juice from shredded cane.



At Catano Terminal, petroleum products are pumped from tankers that come from Texaco's Port Arthur Works.

The palm-flanked entrance to the University of Puerto Rico in Rio Piedras.





At a dock in San Juan, Puerto Rico, a big freighter from the "continent" swings goods ashore.



Texaco's "Stop 18" Station (named after an old streetcar stop) is in Santurce, a large port city. One of many Texaco service stations on the island, it is strategically situated on a heavily traveled highway.

sive of the field hands who raise and cut the cane, sugar nets the island an annual income of \$160,000,000. Last year, Puerto Rico produced its biggest sugar crop.

Though the island already outranks all of the U. S. areas and any of the individual states in the production of sugar, it is hoped that the new Lajas Valley Hydroelectric and Irrigation Project will substantially increase the present output. This project aims to recover 30,000 acres of now useless land for agricultural purposes. In addition to yielding 32,500,000,000 gallons of irrigation water in its network of five dams and five reservoirs, the project's two power stations will also produce 100,000,000 kilowatt-hours of electricity annually. Texaco is supplying a substantial portion of the lubricants and gasoline required in this project.

The results of industrialization have been fantastic.

### Wherever you look, there is evidence of the "awakening"

The new economy has created the need for expanded banking facilities. It has rejuvenated dying businesses. It has spurred the Transportation Authority to start work on improved port, dock, and market installations. Most importantly, it has transformed an impoverished social structure into a progressive society that is wiping out disease and replacing its slums with airy, modern housing.

Though the island, rising green and salient out of the incredibly blue waters of the Atlantic Ocean and Caribbean Sea, may appear to lie like a lazy turtle in the tropical sun, there is nothing laggard about the Puerto Rican people. They are diligent and energetic and, in the light of their accomplishments, they realize that if employment is to increase and their standard of living to continue upward, they must double their efforts to teach and learn.

No one is more aware of this than the young people of Puerto Rico, to whom greater opportunities are open than ever before. They are filled with hope and ambition. They think in terms of success.

In addition to the University of Puerto Rico, whose academic standing compares favorably with mainland colleges, the Miguel Such Industrial School—the largest trade school in the world—offers free professional training in a diversity of occupations from auto mechanics to dressmaking.

Though the Miguel Such Industrial School is the most prominent, the Board of Education has established 10 other trade schools throughout the island, and all of them are training young Puerto Ricans to assume greater responsibility in industry.

Only occasionally does one see the ox-drawn carts that characterized the interior in the not too distant past. Though he will still see the women washing their laundry in the clear streams, he will also see a surprising number of new autos in unlikely places.

Modernization is probably nowhere more clearly revealed than by the figures of a recent report by the Department of Interior, which states that the number of passenger cars in Puerto Rico jumped from 28,600 in 1948 to well over 80,000 in 1953, and buses increased from 925 to 3,000. These statistics are an indication that the \$33,000,000 worth of roads and bridges now being constructed are going to be well traveled by motor vehicles.

These and many other sharp contrasts furnish ample evidence that Puerto Rico shines in a new aura-Pride of the Caribbean. END

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Rodman straddles a crest while climbing to "station."

# *Let's go to a* Gravity Meter Party

An exploration team pushes the hunt for oil into a California valley

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FEW Westerners want to live in bleak Cuyama Valley, a sandy, oblong bowl that extends for 50 miles through southern California. Lying between a low coastal range and the San Andreas fault (which set off the San Francisco earthquake in 1906), the valley is inhabited mostly by jack rabbits, quail, rattlesnakes, and a few head of cattle.

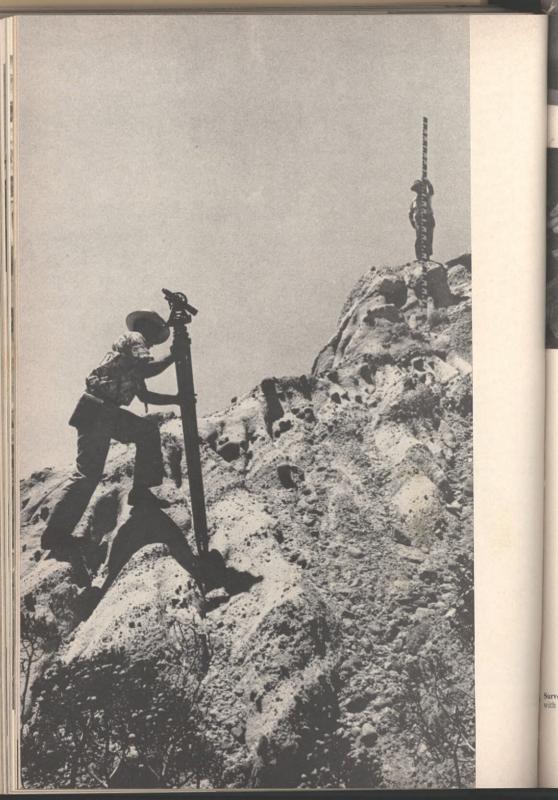
Recently, a band of Texaco "nomads" moved into this barren land. Their job: to explore for oil.

The young explorers and their families set up home in a trailer camp when they pulled into Taft (pop. 3,862), which sits on the fringe of the desert. Each morning, surveyors, rodmen, recorders, and assistants climbed into jeeps and bounced to the wastes of Cuyama. When these pictures were taken, the goal was Ballinger Canyon, a sagebrush-stubbled maze of ridges and vales. Even with all the talent packed into the jeeps, the star of the show was the gravity meter, a six-pound cylindrical instrument.

This device measures differences in the gravitational pull of geologic formations under the earth. It indicates where subsurface irregularities exist which, in turn, may be associated with structures favorable for the accumulation of oil.



Rodman, surveyor, recorder, and helper stride up the sandy, weed-covered flank of Ballinger Canyon, which veers off of the valley floor.





Recorder in jeep peers into gravity meter to read the gravitational pull of the earth.

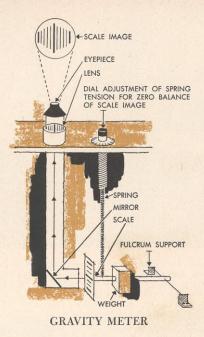
For rocky terrain, the gravity meter is a handy instrument

THE rugged topography and distorted underground structure of Cuyama Valley make gravimetric reconnaissance more practicable than seismic surveys, which require heavy and elaborate equipment that must be trucked in.

When the team got to Ballinger Canyon, it began to survey a network of points which had been marked on a map. The surveyor clambered up and down hills, carefully toting his transit. Close behind was his rodman with the black-and-white-striped pole. At the predetermined intervals, the surveyor took readings by "aiming" at the pole.

The recorder and his assistant followed in the jeep containing the gravity meter. (Where the jeep could not go, the recorder carried the meter.) Placing the meter on a pedestal in a hole in the jeep's floor, the recorder registered the gravity pull at each surveyor's marker.

weyor edges his way to spot where he can take a reading that transit. He will leave marker to guide recorder.



**Gravity meter** operates on principle similar to weighing scale. When weight is pulled down by force of gravity, the degree of pull is reflected by mirror to recorder.

Gravity meter team members take a break for lunch atop a bleak hill in Ballinger Canyon. In distance are more sprawling hills, parched from the Summer heat.





Forrest Lambrecht (right) who supervises Texaco's geophysical exploration on the West Coast, is a trailer guest of Surveyor A. B. Clark. After the day's exploration they catch up on news of the world outside Cuyama Valley.

**Recorder John Bolding** recounts a favorite bedtime story to his little girl, but she can barely keep her sleepy eyes open.

### From the wastelands, the men come back to comforts of home

**B**ACK home in his trailer the explorer becomes a family man. Like many good husbands, he helps his wife with the supper dishes. Afterward, he may read his child to sleep.

This gravity meter party is one of a number of Texaco oil exploration teams constantly at work in different parts of the country. (For one project, the Cuyama team took readings at 240 feet below sea level—in the Salton Sea area of the Imperial Valley.)

A great *esprit de corps* knits the two dozen wives, husbands, and small fry of the exploration team into one big family. Whatever the activity–unhooking trailers or planning a desert picnic–everyone pitches in to help.

The information that these explorers gather will help to point the way to possible new reserves of crude oil. Without such exploration, Texaco could not continue to discover new oil fields. END





**Outside trailer,** Mrs. A. B. Clark talks over big plans for the day with her son, who wants to "shoot jack-a-rabbits."

In the middle of a huddle at a trailer party, Computer George Borgman (center) carefully explains a game he has invented for the occasion.

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After the game, the party spreads out beyond the awning of Clark's trailer. But soon the bright conversation will die

down. For the men must be in bed by 11 o'clock in order to be fit when the 6 a.m. alarm goes off next morning.



### **TEXACO** PROFILES

Second of a Series

## "Exploration is like insurance"

A BORN prospector, Raymond Frank Baker has never stopped looking for oil. Though he is a top executive in The Texas Company, Ray Baker explores the frontiers for petroleum as he did when a ruddy, blue-eyed geologist fresh from graduate studies at Yale.

At 24 years of age, R. F. Baker started tramping over the plains and hills of Oklahoma in search of oil for Texaco. "Back in 1916," he recalls, "the producing men didn't want a geologist around. To them, I was another 'college-trained punk.' "Reminiscing, Ray Baker smiles. "One day, the manager in Tulsa ordered all of the geologists to 'scram out of here and stay out!" Adds Baker, "Only he used a more emphatic word than 'scram.' "Fortunately, other ideas prevailed. Young Ray and his fellow geologists went right on studying outcroppings and rock configurations, and new oil reserves were discovered for Texaco.

Ray Baker got along easily with everyone. He had a quiet charm, and he knew how to keep his silence until he found the right answer. Recently, an old friend and associate said: "Baker is a real Connecticut Yankee . . . short on words but long on judgment."

Ray Baker has done much to strengthen the Domestic Producing Department. His Yankee shrewdness has helped build The Texas Company to a second-place position in both domestic crude oil production and reserves. As Texaco's Chief Geologist, Ray Baker assembled a staff of geologists and geophysicists that is one of the finest in the oil industry, Texaco has always been a leader in the development and perfection of new methods of oil exploration. It was one of the first oil companies to explore successfully with geophysical instruments.

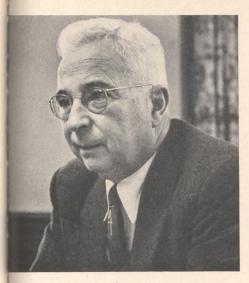
Over the years, Baker and his staff "worked" vast areas of land throughout the United States and Canada. On their recommendation, The Texas Company has constantly added to its holdings oil prospective acreage on which many important oil fields have been discovered.

In 1933, when R. F. Baker became Assistant to the Vice President in charge of the Domestic Producing Department, Texaco wells were yielding little more than 100,000 barrels of crude oil a day. Twenty years later, the domestic production was nearly four times as great. In 1933, Texaco had to purchase 43 per cent of its crude oil from other companies; today, it buys about 20 per cent. This points up how far The Texas Company has come in acquiring its own oil production.

The position of General Manager of Domestic Producing was created in 1947, and Ray Baker was promoted to this new post. In 1949, he was elected Vice President in charge of Domestic Producing opera-



High on the seat of his Model T (the year is 1917), Geologist Ray Baker sets out with his surveying equipment to explore prospective oil structure near Foraker, Oklahoma.



RAYMOND FRANK BAKER Executive Vice President

tions. He became a Director of Texaco in 1950. Two years later, Ray Baker was elected Executive Vice President of The Texas Company, and in 1953 he became a member of the Executive Committee.

During his 38 years with Texaco, Ray Baker has been guided by a strong basic principle—that geology is the most reliable tool for finding oil fields and increasing Texaco's production of crude oil. "New fields are an investment for the future," says the Executive Vice President. "Sure, you have to take a risk now and then on a new discovery." Then he adds, "But it should be a reasonable risk."

It has been Ray Baker's job to take plenty of risks in looking for oil. He has planned these risks after carefully surveying prospective territory with the latest scientific methods and equipment. As a result, a high percentage of Texaco's "gambles" on wildcat wells has paid off.

Today, Ray Baker's main role is to help form toplevel decisions that affect exploration and production in Texaco's world-wide operations. He works closely with Board Chairman J. S. Leach and President Augustus C. Long. Ray Baker describes this work with typical modesty. "One day, we discuss an operation in Canada . . . the next day, we make a decision about producing in the United States. Another day, we form plans on production in South America." He regularly confers with Vice Presidents Everett R. Filley and James T. Wood, Jr., who head Domestic Producing and Foreign Operations (Western Hemisphere), respectively. Out of these consultations emerge the final decisions which set many major operations into motion.

As Executive Vice President, Ray Baker's influence also extends to Texaco affiliates throughout the Western Hemisphere and West Africa. He even finds time to be a director of several Texaco subsidiaries and affiliates that handle everything from the licensing of patents to the manufacture of natural gasoline and carbon black.

Because of his varied and heavy duties, R. F. Baker's calm temperament is a surprise to anyone who meets him for the first time. "Ray Baker is as relaxed as any man I know," says one of his close associates. "He takes everything in his stride."

This fine equilibrium doesn't mean that Ray Baker can't make his wishes known if it is necessary. With a New Englander's economy of words, he makes a pointed comment that leaves no doubt as to his opinion.

Ray Baker is probably the most voluble with his granddaughter, Carol, who is four-and-one-halfyears old. Around the Baker home, Carol tries to monopolize much of her grandfather's time. The Bakers live in Pelham, a suburb of New York City near Long Island Sound. The large, comfortable Baker house is built of stucco and stone and is surrounded by flower gardens and shrubbery.

Some of Ray Baker's spare time is taken up with the art of lapidary; i.e., cutting and polishing precious stones. It is Mr. Baker's natural love of minerology that led him into developing this hobby several years ago. He likes nothing better than to take a rough mineral into his basement workship, cut it, and turn it into a highly polished gem.

Today, the Executive Vice President doesn't get into the field very often, but when he does, he is the perfect guide. Geologist Baker still has the enthusiasm of a youngster out on his first exploration. Commented one Texaco executive who made a recent tour with him: "Wherever he goes, Ray Baker looks for oil. He loves to point out and explain all kinds of ground and rock formation."

His curiosity and interpretive ability will always lead him to new oil fields. As long as prospectors like Ray Baker work for The Texas Company, oil reserves and production will increase.

"The oil that we find today," says the forwardlooking Baker, "will be produced 10 years from now." Then thoughtfully, "After all, exploration is like taking out insurance." END



A Statement by J. S. LEACH, Chairman of the Board of The Texas Company, with respect to President Eisenhower's Message to Congress on Foreign Economic Policy

HE President of the United States recently sent a Message to the Congress outlining his views and containing his recommendations for legislative action in the field of foreign economic policy.

As a large company in an important industry, operating primarily in the United States, but also to a significant degree on a world-wide basis, The Texas Company has a deep interest in the development of an intelligent and consistent foreign economic policy for the nation. Such a policy must recognize the interdependence of the economies of the Free World and the key role played by the United States - not only by its Government, but also by its privately owned economic units. It is essential to the continuing growth and prosperity, and to the solidarity of the Free World, that mutually advantageous international trade and investment be encouraged. It is clearly in the national interest that measures serving that end should be taken out of politics and pursued on a bipartisan basis.

The President's Message defines a gradual program to curtail foreign aid, to encourage investment abroad, to facilitate convertibility of foreign currencies, and to expand international trade. While anyone may differ in detail and in degree on some points, it must be acknowledged that both the general philosophy expressed by the President and his specific recommendations represent a realistic approach to the problem. It would be a significant forward step for the nation if his program were translated into legislation.

Referring to certain specific parts of the President's program, The Texas Company:

[1] Agrees that the continued economic development of other countries will best be served by encouragement of private investment abroad.

[2] Approves of the tax revision suggestions to encourage private activity abroad. It is gratifying to see that some of them are already in the process of being realized in legislation.

[3] Commends the expressed intention to encourage private investment abroad, particularly the promised diplomatic support of United States investors overseas. and the use of treaties to establish rules for the fair treatment of foreign investment.

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[4] Welcomes the suggestion that the antitrust laws should be revised to acknowledge the right of every country to regulate trade within its own borders.

[5] Notes with great interest the section of the Message dealing with United States dependence on imported raw materials. As a member of an industry producing a strategic material, the domestic resources of which are not limitless, The Texas Company counts it essential to develop external sources of supply. Their development will be best achieved if left in private hands. The President wisely stated that our national ITA policy should encourage their relatively easy flow in international trade. The Texas Company has no intention of flooding the country with imported oil to the detriment of domestic production, but it is only prudent practice to have sources available to cushion normal domestic fluctuations, to be ready to help fill the constantly growing domestic demand, and to meet great emergencies.

[6] Believes that the President's recommendations on tariffs and trade policy represent the minimum steps that should be taken at this time. We must be willing to buy, if we are to sell abroad. As a major creditor nation we must do our full share in alleviating the so-called "dollar-gap." If we take the lead in lowering trade barriers, other nations can follow. Together we can then enjoy the mutual advantages of expanding international trade.

[7] Recognizes that the attainment of currency convertibility rests primarily on the actions of other nations than our own. In all negotiations with other countries, however, our Government should lend its influence to persuade them to take progressive steps toward convertibility as circumstances permit. END

AN FRANCISCO Directors Inspect California Properties

A SAN ARDO

PASO ROBLES

BARBARA.

PRODUCTION CYCLING PLANTS

SALES TERMINALS

BULK PLANTS

TANK FARMS AND PIPE LINES

BAKERSFIE

LOS ANGELES

ONG BEACH

ARVIN

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At a Texaco well in a vineyard at Arvin, California, members of the Directors' inspection party were presented with baskets of grapes by the property owners. *Left to right:* lessor H. A. Krauter, Director R. C. Shields, West Coast Vice President and host Torrey H. Webb, lessor R. W. Yaussy.

THE Directors of The Texas Company are men who look upon their responsibilities as trustees of the Company's owners—the more than 121,000 Texaco stockholders—with utmost seriousness. They believe that the reports and proposals they review at Board meetings do not alone suffice to give them a proper picture of the Company's operations. Believing, as they do, that first-hand knowledge of Texaco field operations is essential, the Directors periodically visit various parts of the country where Company installations and operations are concentrated. One such area is California. Late last year, the Directors inspected Company properties in that portion of The Golden State shown on the map at left. Their inspection covered the four basic functions of The Texas Company's integrated operations: producing, pipe line transportation, refining, and marketing. In California, the second greatest oil producing state in the nation, and second in the country in reserves, Texaco's operations are steadily growing in importance. **END** 



Group picture of Texaco Directors, taken in front of the offices at Los Angeles Works, shows (*left to right*) R. F. Baker, Executive Vice President; G. N. Aldredeg, J. H. Lapham, Augustus C. Long, President; M. Halpern, Vice President (Refining); J. S. Leach, Board Chairman; L. J. Norris, W. H. Mitchell, R. L. Saunders, Vice President; Henry U. Harris, W. J. Cummings, R. C. Shields, Charles L. McCune, and Harry T. Klein, Directors W. S. Gray and W. S. S. Rodgers were not present for picture.

This cord confirms the authorization of credit, during the period shown, the firm where the statement of the Number H. V. JOHNSON JR. B-60050 44 MAPLE AVE. NEWARK, N. J. TEX THE d sub errors please present this EXPIRES OCT. 31, 1954 THE TEXAS COMPANY

# Your CREDIT is good!

IN RESPONSE to a letter sent to stockholders early in March from Texaco Vice President C. B. Barrett, who is in charge of Domestic Sales, more than 17,000 Texaco shareholders have been furnished, at their request, with a Texaco National Credit Card. They join the many thousands of other motorists throughout the country who find it pays in convenience and security—to be Texaco Credit Card holders.

If you have not yet joined the ranks of Texaco Credit Card users, here are some of the advantages you may be passing up:

Consider the matter of convenience. Carrying a Texaco National Credit Card is one way to avoid running short of cash while making a long motor trip. And if you are reluctant to take a large sum of money with you on a trip, a Texaco Credit Card will help make it possible for you to get along with a minimum amount of cash. A Texaco Credit Card is as good as cash at a Texaco dealer station, and the card will take up no more room in your wallet or purse than an identification card.

You can, of course, use your Texaco National Credit Card in every state of the Union, wherever a dealer sells Texaco Gasolines. If you travel in Canada, any McColl-Frontenac dealer who sells Texaco Gasolines will honor your credit card.

Your card will purchase a wide range of products and services. Whether your car needs a new battery, Marfak Lubrication Service, washing, a spare tire, some accessory, or a tank full of Top Octane Sky Chief Gasoline Super-Charged with Petrox, a Texaco National Credit Card will get it for you. The copies of invoices from your credit card purchases will be an aid in making up your income tax returns. If you use your car in your business, the credit card invoices offer another advantage by giving you a record of the bulk of your automotive expenses.

Obviously, the invoices also help you to keep an accurate account of your traveling costs. One longtime user of a Texaco Credit Card wrote in: "I find that my card is absolutely essential as a bookkeeping aid when I travel."

If you decide you would like to enjoy the advantages of a Texaco National Credit Card, here's how to apply for one:

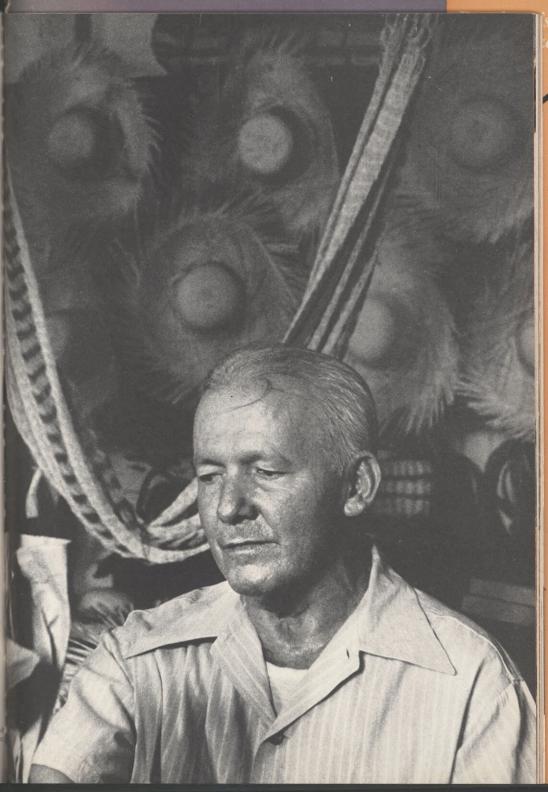
Just stop in at your neighborhood Texaco dealer and fill out an application, or, if you prefer, write directly to The Texas Company, 135 East 42nd Street, New York 17, New York. A husband and wife may apply for separate cards.

Of course, many Texaco stockholders have been Texaco Credit Card users for years. Other stockholders loyally "buy Texaco" but prefer to pay cash. No matter whether you buy on a cash basis or on a credit basis, you—as a Texaco stockholder—have the best of all reasons to purchase Texaco products: when you "buy Texaco," you are contributing to the successful progress of The Texas Company.

A large number of Texaco stockholders know from experience that a Texaco National Credit Card and Texaco products make a great combination when "on the road."

If you haven't already applied for a Texaco Credit Card, why not do so now? END

Patiently and skillfully, this Puerto Rican artisan the hats that line the wall of his shop in San Ja





### SOUTHERN STARS

MARKETING AREAS PRODUCTION SALES TERMINALS CRUDE OIL TERMINALS REFINERIES

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**F**<sup>OR</sup> many years, Texaco's red star with the green "T" has been a familiar sight in most Latin American countries. Through the operation of its Latin American subsidiaries and distributors, The Texas Company strives

to carry out a "Good Neighbor" policy we ever Texaco operations (see above) are a ducted. Our aim has always been to m Texaco's southern stars symbols of g citizenship as well as fine petroleum prode