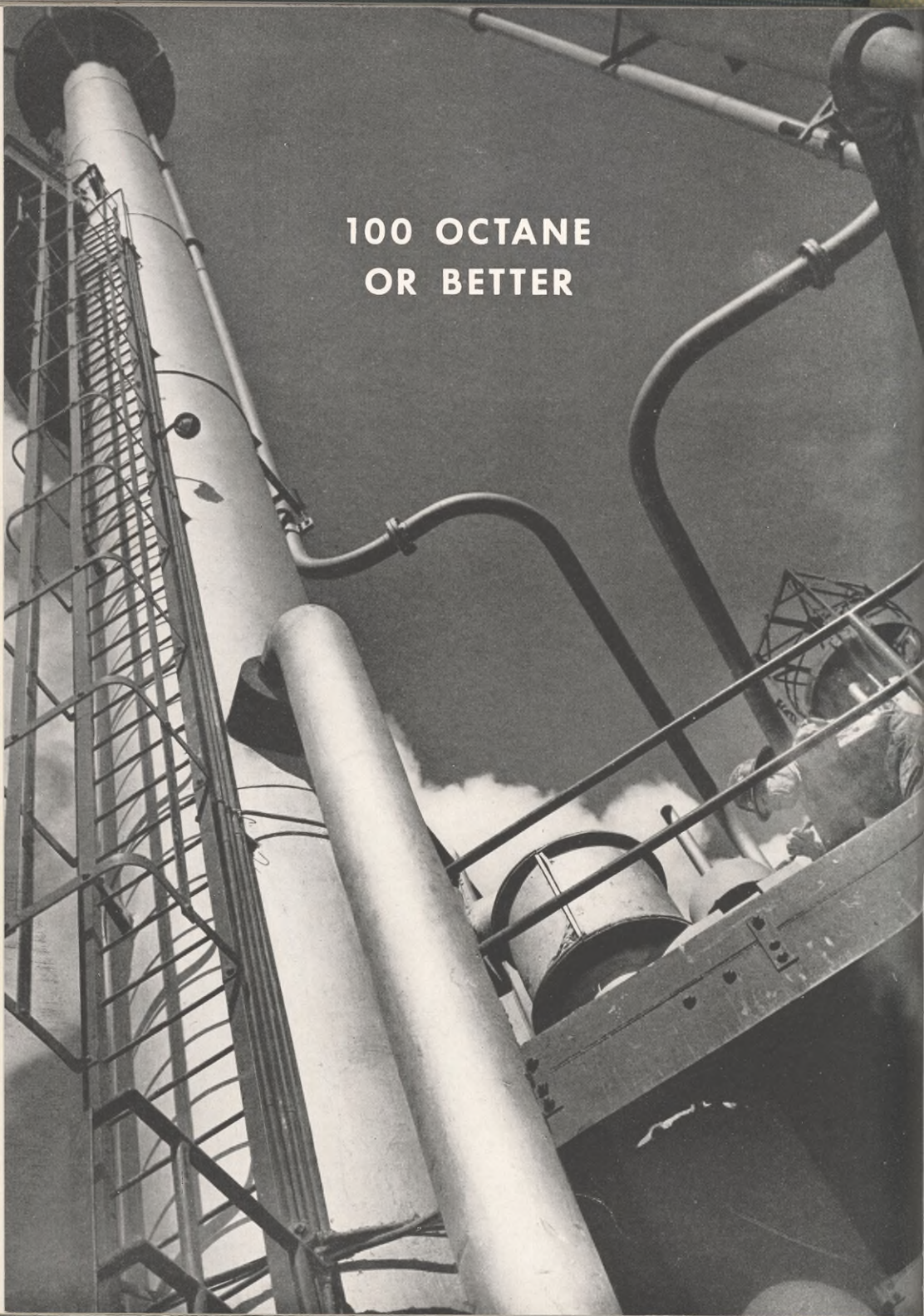
THE TEXACO STAR

FALL 1944


100 OCTANE
OR BETTER

THE TEXACO STAR

VOLUME XXXI NUMBER 3

FALL 1944

Front cover photograph by U. S. Army Signal Corps shows fully-loaded "Alligators" transporting troops along a road lined with fuel and lubricant drums on New Britain Island in the Southwest Pacific. Inside front cover photo by Robert Yarnall Richie illustrates a portion of an alkylation unit at Texaco's Los Angeles Works

A PUBLICATION OF THE TEXAS COMPANY

W. S. S. Rodgers, Chairman of the Board of Directors; Harry T. Klein, President; H. W. Dodge, M. Halpern, J. S. Leach, R. Ogarrio, C. E. Olmsted, James Tanham, and Torrey H. Webb, Vice Presidents; R. L. Saunders, Vice President and Secretary; L. H. Lindeman, Treasurer; Oscar J. Dorwin, General Counsel; Ernest C. Breeding, Comptroller, 135 East 42nd Street, New York 17, New York

MEMBER, THE HOUSE MAGAZINE INSTITUTE,
NATIONAL COUNCIL OF INDUSTRIAL EDITORS' ASSOCIATIONS

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135 East 42nd Street, New York 17, New York

★ Each of Texas' 254 counties has land under lease for oil and gas development, says the Texas Mid-Continent Oil and Gas Association. The acreage is about 75,787 square miles, or more than all land in West Virginia, Maryland, Vermont, New Hampshire, Massachusetts, New Jersey, Connecticut, Delaware, Rhode Island, and the District of Columbia.

Brief
AND TO THE POINT

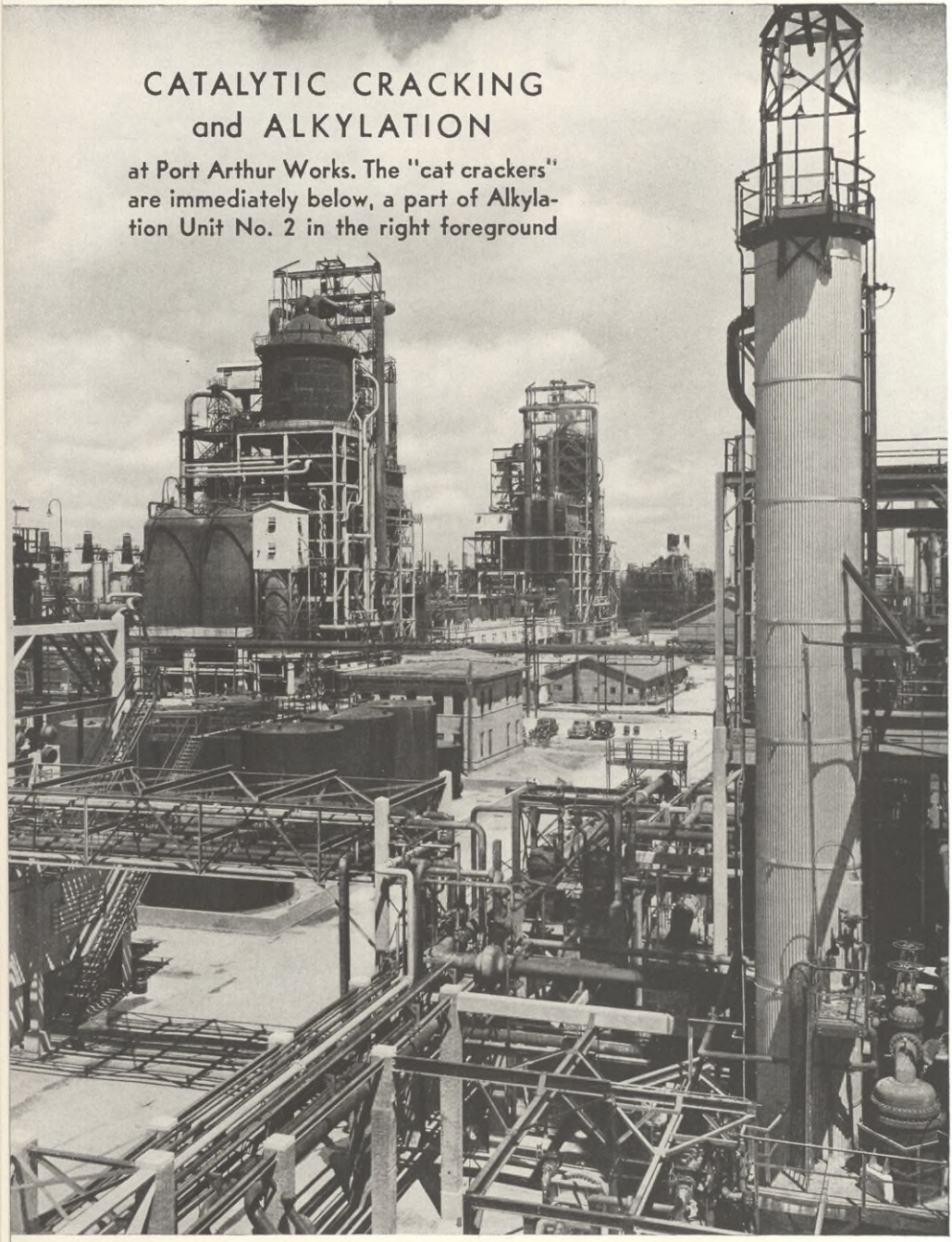
★ For rocket ammunition alone, the Navy is now spending or will soon spend $100,000,000 a month, according to official Navy sources. This is equal to the cost of all naval ammunition a few months ago.

★ Differences in temperature, moisture, and the seasons make rough roads out of smooth ones, according to the National Highway Users Conference. Delicate measuring instruments show that paved surfaces are rougher in the morning, when the pavement is warmer than the ground underneath, than in the afternoon.

★ Every day this year, says *Nation's Business*, the synthetic rubber industry is using enough alcohol to make 174,000,000 highballs.

★ Motor vehicles were first used by the U. S. Army during an active campaign in 1916.

★ Objects bearing the Texaco trademark turn up in odd places. The magazine *White Fathers Missions* tells of chairs, closets, wardrobes, and tables made by natives of Africa's lumber-scant northern gold coast from the wooden boxes which contain two tins each of Texaco kerosine or gasoline. An employe of The Texas Oil Company, Ltd. (England), serving with an anti-aircraft regiment during the invasion of Italy, found two large Texaco metal signs being used as a counter top in a local hardware store.



CATALYTIC CRACKING and ALKYLATION

at Port Arthur Works. The "cat crackers" are immediately below, a part of Alkylation Unit No. 2 in the right foreground

DEDICATED TO MARS

"THE TEXAS COMPANY *alone expects to spend in the neighborhood of 25 to 30 million dollars over the next few years in constructing new plants to manufacture 100-octane gasoline, toluene (which is the principal ingredient of TNT), and materials for making synthetic rubber."—President W. S. S. Rodgers in January, 1942.*

". . . The name of The Texas Company is synonymous with a thorough-going preparedness against all eventualities, of peace or war. . . . Without reserve, they are throwing into the successful prosecution of this struggle the accumulations of decades of shrewd, skilful, self-denying, and laborious effort."—Carl L. Estes, Texas newspaper publisher, in January, 1942.

". . . *The United States has pledged itself to become the arsenal of democracy. The Texas Company is a working unit of that arsenal. . . . The arm of Mars, the war god, must be drawn back to deliver its most powerful blow; his bow-string must be pulled taut almost to breaking to give the arrow its fullest force."—Looking Ahead at Forty*, THE TEXACO STAR, *April, 1942.*

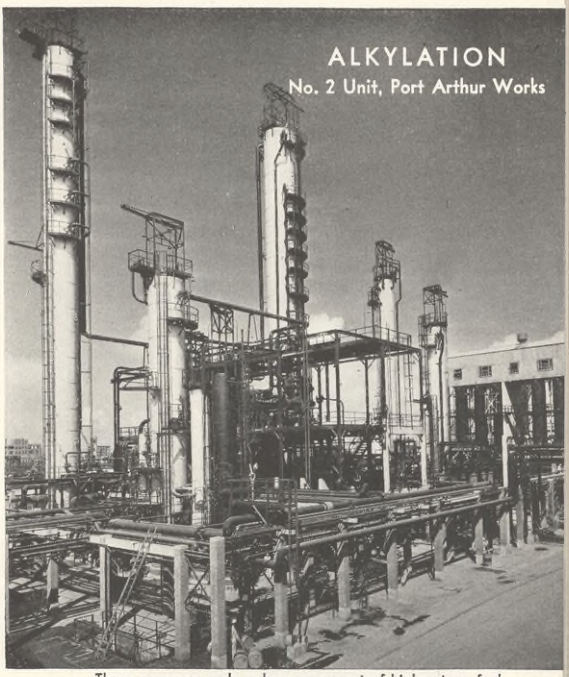
HERE are Texaco's larger war plants, on four pages and the inside front cover. As promised, they have been dedicated to winning the war.

After Pearl Harbor, the demands of military authorities for 100-octane gasoline doubled, tripled, and skyrocketed almost overnight. Bigger projects and blueprints multiplied with them; the industry's estimated costs rose to one billion dollars.

The Texas Company's Refining Department alone has spent $76,400,000 for war plant facilities. Producing and pipe line expenditures for means to supply them with raw materials have also been large.

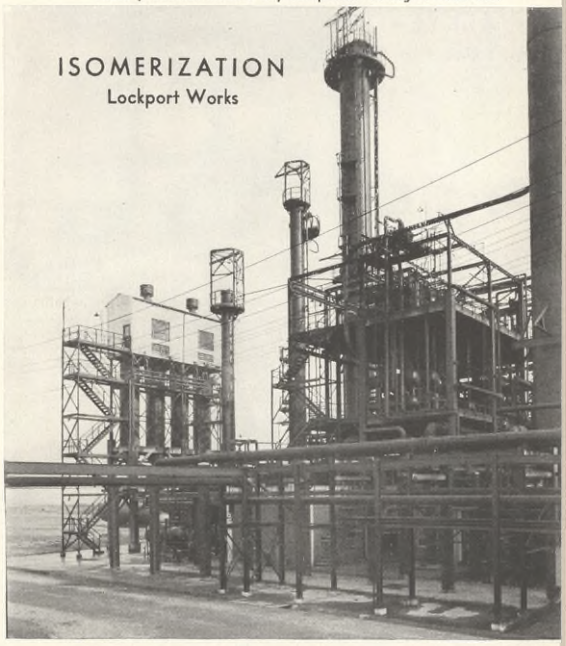
These plants are Texaco's own. Funds came from The Texas Company itself, and from Government loans which are being repaid rapidly in product.

THE TEXACO STAR is proud to give its employes and stockholders this first comprehensive glance at Texaco's power that looses the arrows and thunderbolts of the war god.

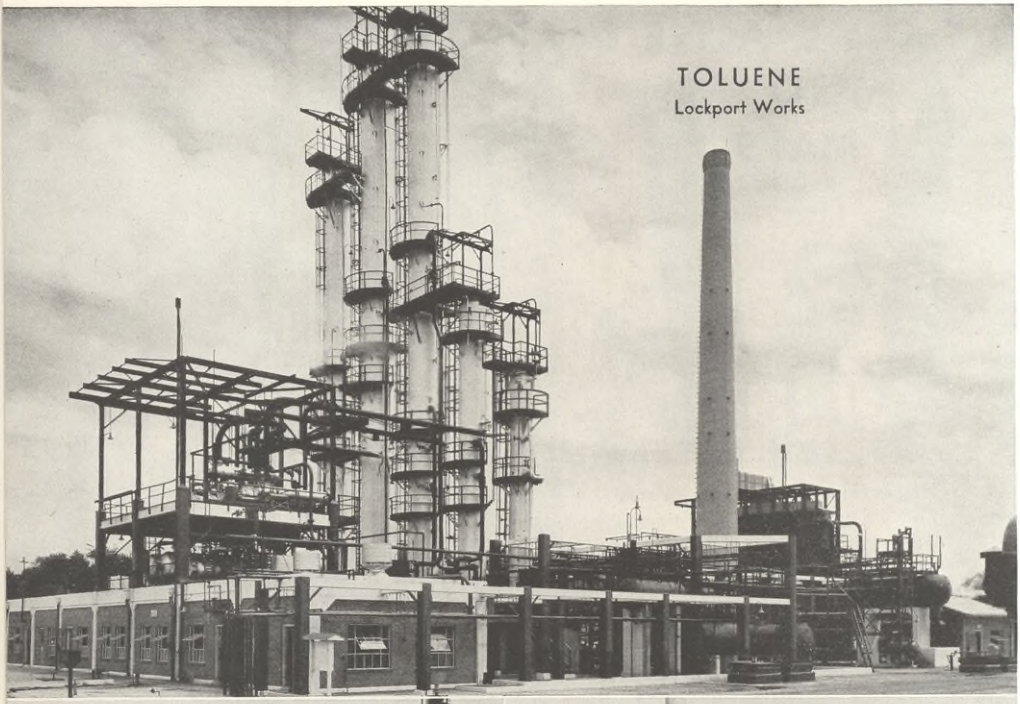


ALKYLATION
No. 2 Unit, Port Arthur Works

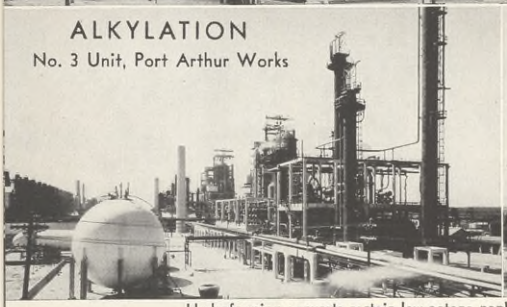
These processes make a key component of high-octane fuel



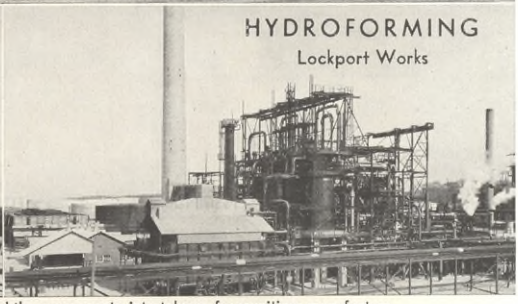
ISOMERIZATION
Lockport Works



TOLUENE
Lockport Works

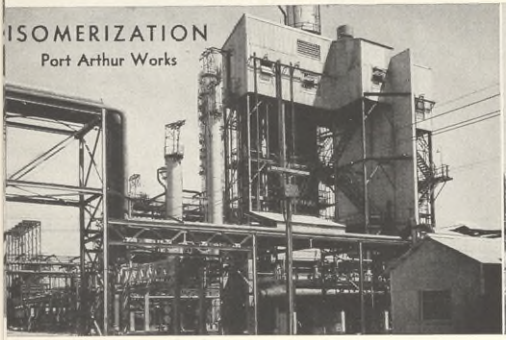


ALKYLATION
No. 3 Unit, Port Arthur Works

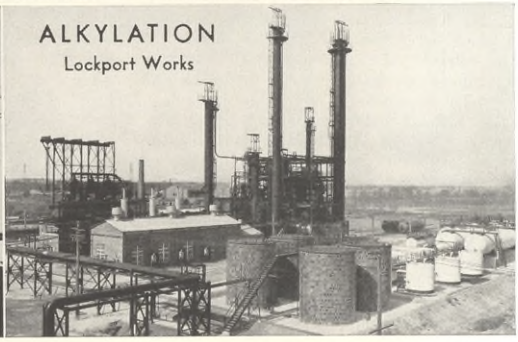


HYDROFORMING
Lockport Works

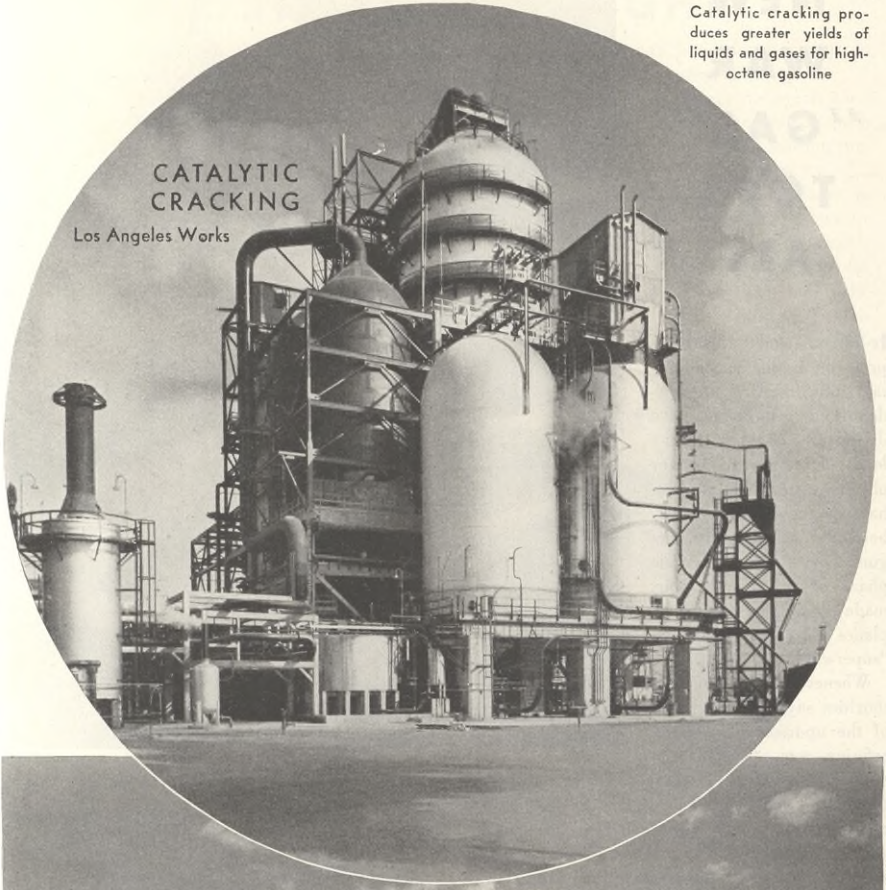
Hydroforming converts certain low-octane naphtha components into toluene for munitions manufacture



ISOMERIZATION
Port Arthur Works



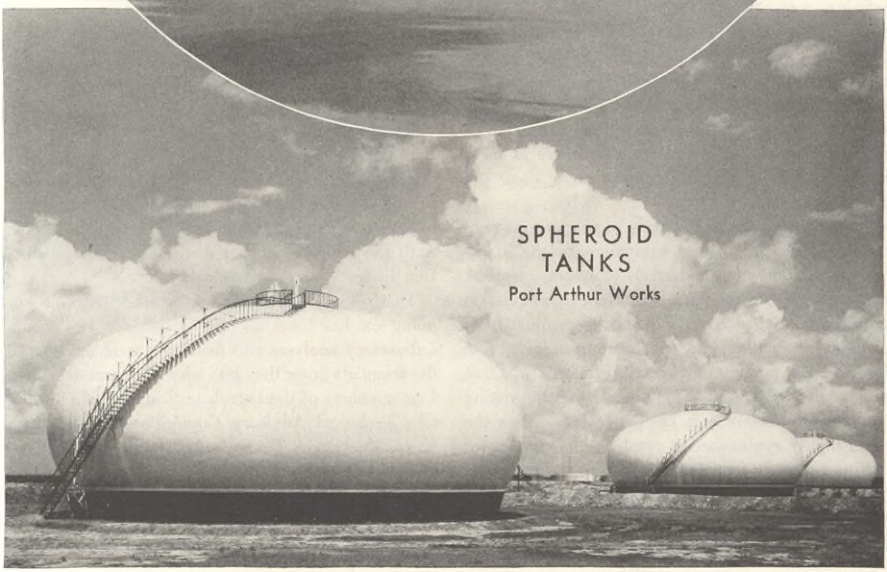
ALKYLATION
Lockport Works



CATALYTIC CRACKING

Los Angeles Works

Catalytic cracking produces greater yields of liquids and gases for high-octane gasoline



SPHEROID TANKS

Port Arthur Works

NEW WAR "GAS" TOPS ALL

KEYSTONE PHOTO

Test pilot checking gasoline tank in a B-29's wing. "Super-fuel" will increase the power of super-planes tremendously

IF the radio and the headlines proclaim in the not-too-distant future that an unprecedented number of planes have dropped amazingly heavy loads of bombs on military objectives in Japan, you can hazard a guess that the "super-bombing" of Nippon has begun. This will open a new phase of the Pacific war, made possible by our super-planes using "super-fuel" in "super-engines."

Whenever the military authorities say the word, most of the up-to-date petroleum refining war plants in the country—like those on the preceding pages—can turn out "super-fuel." With it, carrier-based planes, and gigantic B-29 Superfortresses particularly, will have greater cruising range. It will make possible the use of more powerful engines, will heighten maneuverability, and will permit bombers to carry heavier loads by delivering more horsepower per pound of engine.

Manufacture of three barrels of all-purpose military gasoline for ground equipment results in the loss to civilians of four barrels of motor gasoline; manufacture of three barrels of 100-octane aviation gasoline takes five barrels of motor gasoline from civilians, according to the Petroleum Administration for War. But making *one* barrel of the new fuel that some call "super-octane" necessitates eliminating *two* barrels of 100-octane. The better the gasoline, the more highly synthesized it must be and the less of it comes directly from a barrel of crude. The materials in this phenomenal fuel must be derived from petroleum gases by synthetic chemical processes or extracted by elaborate distillation methods from other available petroleum materials. It is the components of 100-octane rebuilt chemically to squeeze the utmost power from every drop.

Although several hundred thousand barrels of 100-octane gasoline are now being produced daily, only token quantities of "super-octane" are being made until the Allies need to reduce 100-octane production in favor of the new fuel.

That research on higher-performance gasoline was going on has been an open secret for two years. Laboratory analyses and field tests were made until the scientists knew they had what they wanted. Then four members of the Petroleum Industry War Council's Technical Advisory Committee—among them K. G. Mackenzie, Texaco's Assistant to Vice President and Chief Technologist—personally approached 900 of the industry's key technicians and acquainted them with the need, the urgency, and the over-all methods of preparing to make the new product.

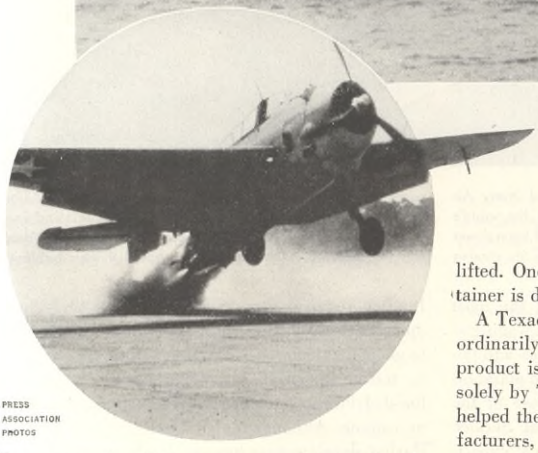
AIR STRIPS OVERNIGHT

THE cloak of secrecy was recently lifted from one war project The Texas Company has had under its wing for a long time. The public was told that Army Air Forces engineers built and restored more than 100 air fields in northern France within four months after D-Day. Machinery at a Texaco plant has been running day and night for many months to turn out the new product that helped make this possible.

The product is an asphalt-treated surfacing material that can be laid on earth after it has been compacted by a bull-dozer. The surfacing material is made in rolls like roofing paper and consists of asphalt-saturated burlap coated with a special asphalt and surfaced with fine mineral matter. It makes the surface entirely water-repellent.

These rolls, laid by machinery in overlapping strips on the air field, weigh only one-tenth as much for the surface they cover as the steel matting previously used for emergency landing strips.

Once laid, the material will support planes as heavy as fighter-bombers. If the surface is torn by a bad landing, or is bombed, it is a simple matter to level the surface and lay on a patch of the same material. A runway 150 feet wide and 3,600 feet long takes only 15 hours to surface in this way. The time saved gives the enemy no comfort.



Mariner Flying Boat (above) and Navy Avenger plane trail rocket smoke in taking off

PRESS ASSOCIATION PHOTOS

TAKE-OFF IN A FLASH

PROPELLED by 330-horsepower rockets under the fuselage, heavily-laden Navy warplanes now take off at steep angles from land, water, or carrier in about half the time they used to.

The rocket resembles a bomb in appearance and its blast lasts several seconds. The Navy has nicknamed it Jato. With its use, take-offs from all kinds of surfaces are shortened and heavier loads can be lifted. Once the fuel charge is exhausted, the container is dropped.

A Texaco petroleum product that is solid and not ordinarily used for fuel is used in these Jatos. This product is now being especially made and supplied solely by The Texas Company, whose technical men helped the Aerojet Engineering Corporation, manufacturers, to make jet-assisted take-offs practicable and useful to the Navy. Texaco technicians perfected the solid fuel sold to Aerojet and assisted in developing methods for mixing it in delicate proportions to assure absolute uniformity of burning. Without perfect uniformity and technique of charging the containers, an explosion would occur instead of a powerful thrust lasting sufficiently long to raise heavily loaded planes in the shortest possible time.

IMPOSSIBILITIES *Preferred*

BOEING PHOTO

Symbol of teamwork between U. S. industry and Army Air Forces, the Boeing B-29 Superfortress (above) is the world's largest bomber. The 100-octane which creates 8,800 horsepower in its engines, the oil and grease which lubricate its moving parts, the fluid for its hydraulic controls, the synthetic rubber used in its tires and self-sealing gasoline and oil tanks and lines, toluene for the TNT in the bombs it carries, are petroleum products that play an indispensable rôle aboard this air battleship

AT Wright Field, Dayton, Ohio, one of the most vitally important teams in our war effort is waging—and winning—a tremendous battle of ideas and designs, a never-ceasing struggle to attain and maintain airplanes and equipment superior to those of the enemy. The Army Air Forces Technical Service Command, whose headquarters and great experimental laboratories are at Wright Field, is like the quarterback on this "football" team. It calls the plays; American industry carries the ball. One of the reasons for U. S. air superiority today stems from the team's preference for accomplishing the impossible.

The goal is to keep years ahead of current aviation by thinking and working in terms of the future. It often requires years for new designs and developments to reach combat areas in sufficient quantity to make them effective. The intervening time is spent in testing, perfecting, and preparing production lines of industry to turn out the new developments in volume. Although only a few major post-Pearl Harbor developments have reached the war theaters as yet, many have been perfected and their production has begun.

Constant progress is being made in developing and improving flying equipment. The field is infinite in its scope, involving every science from astronomy to chemistry, from physics to physiology. The list of achievements which were once thought impossible—just "Buck Rogers" dreams of the future—is long.

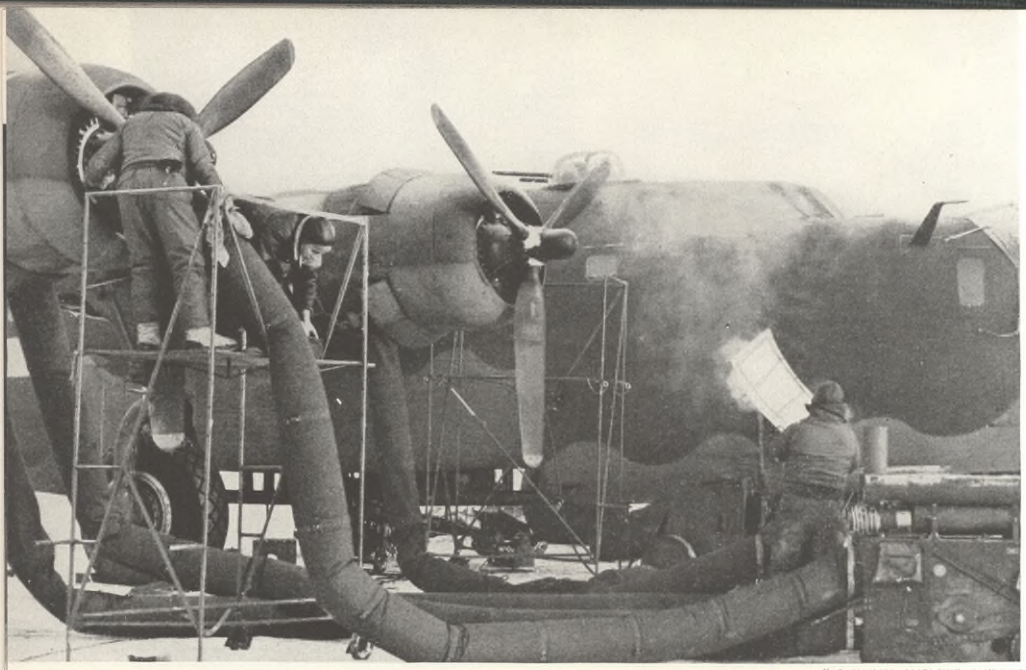
AIR TECHNICAL SERVICE COMMAND PHOTOS (CENTER PHOTO FROM ACME)

Research goes on constantly at Wright Field, hub of USAAF development and procurement activity. (Top left) This "Buck Rogers" aircraft is still in the experimental stage. (Top right) Propellers are run under simulated flight conditions in the Propeller Laboratory. (Center) Fliers' reactions are tested in the refrigerated altitude chamber, Aero-Medical Laboratory. (Lower left) Cameras undergo many flight tests. (Lower right) Graduate of Wright Field: P-61 "Black Widow" night fighter

ranging from the Superfortress, which requires 100-octane to turn its 16-and-one-half-foot, four-bladed propellers, to the jet-propelled Airacomet, which burns kerosine and is propellerless.

How does industry team up with the Air Technical Service Command to make these "Buck Rogers" dreams come true? In the petroleum industry, some of the things The Texas Company is doing will serve as an illustration:

In Texaco's research laboratories, scientists are constantly striving to improve the quality and performance characteristics of the products the Company supplies the Army Air Forces. Exhaustive low-temperature-starting tests, for example, help solve the tough winterization problem. However, since laboratory tests alone won't furnish all the answers, Texaco sends observers and advisers to Ladd Field, Alaska, where they assist the Command's engineers in developing lubricants and hydraulic fluids for use under sub-zero operating conditions. Company engineers work with the Command in a similar manner on tropicalization problems at Blythe Field, California, where the same lubricants and fluids are tested under high-temperature operating conditions in order to develop all-purpose products which will permit flying equipment to function perfectly regardless of temperature. And working with the Command from another angle on the same problems, are the Texaco specialists who assist in the tests conducted at the Wright Field laboratories, where all petroleum



U. S. ARMY AIR FORCES PHOTO FROM ACME

Licking arctic cold and tropical heat isn't easy—it takes exhaustive research under actual operating conditions, as well as in the laboratories at Wright Field. One development—movable engine heaters—is used by the Army Air Forces in frigid climates (above), becomes an air cooler in the tropics. Texaco has done much work on problems of cold starting

products used by the USAAF are finally approved.

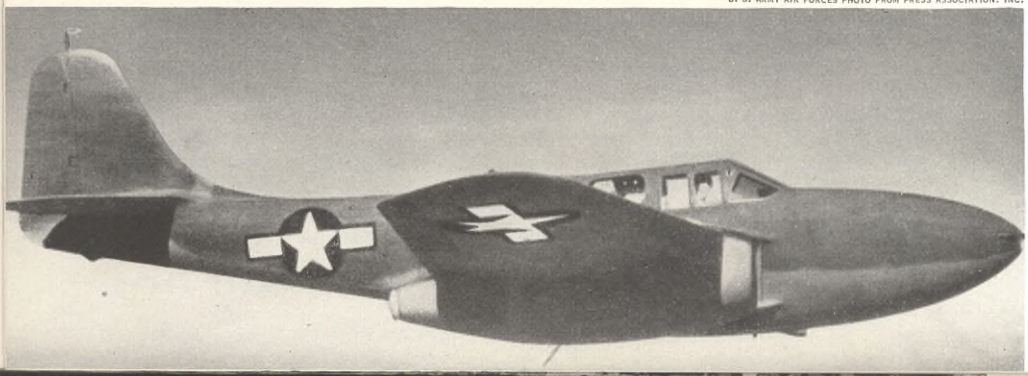
Texaco has a Government Specifications Committee, which meets monthly. Purpose of the committee is to review all petroleum product specifications of the armed forces, including the Army Air Forces, and to coördinate Texaco's research and manufacturing "know-how" to meet these specifications. Texaco also participates in the activities of the Coördinating Research Council, which works closely with the ATSC, as well as other branches of the armed forces, on the development of petroleum products.

Texaco has developed many special products for the Army Air Forces. Company engineers keep in close touch with Wright Field and are ready to assist in any of the developments of the ATSC laboratories. Whenever there is a need for a special fuel or lubricant, Texaco goes to work to make a product that will do the job.

Miracles are indeed performed at Wright Field, but the Air Technical Service Command is not the only branch of the armed forces where accomplishing the impossible is preferred. In the Navy, and in the Army Ordnance and many other departments, impossibilities are preferred, too. Texaco's rôle in the team formed by the Air Technical Service Command and industry is only one example of how the Company is coöperating with the armed forces as a whole in developing petroleum products for war.

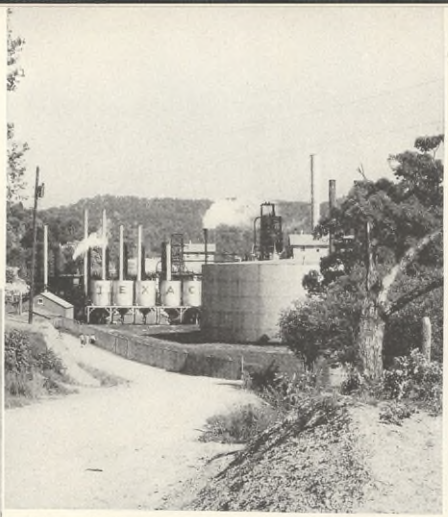
Jet propulsion may have a revolutionary effect on military and commercial aviation. The P-59A Airacomet (below), first American jet-propelled plane, is being used as a trainer, is known to have a high speed and high ceiling. Texaco collaborated on drawing up the plane's fuel and lubricant requirements, is watching the development of jet-propulsion engines closely

U. S. ARMY AIR FORCES PHOTO FROM PRESS ASSOCIATION, INC.



STAR CLOSE-UPS

PRYSE WORKS



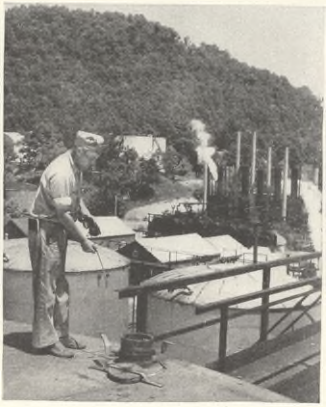
From placid mountain scenery, as you approach Pryse, the landscape changes to this bustling refinery view. Pryse is mainly a general store, a church, a school, some scattered homes, and what you see above. Even the refinery's post office address is % General Delivery

Old Glory, the Texaco house flag, and Texaco's service flag wave over Pryse's office building

Pipe Line Foreman C. R. Spurlock points out a job to Gauger Lenox Lawson and Pumper Lemon Caldwell at Pipe Line Pumping Station No. 1

★

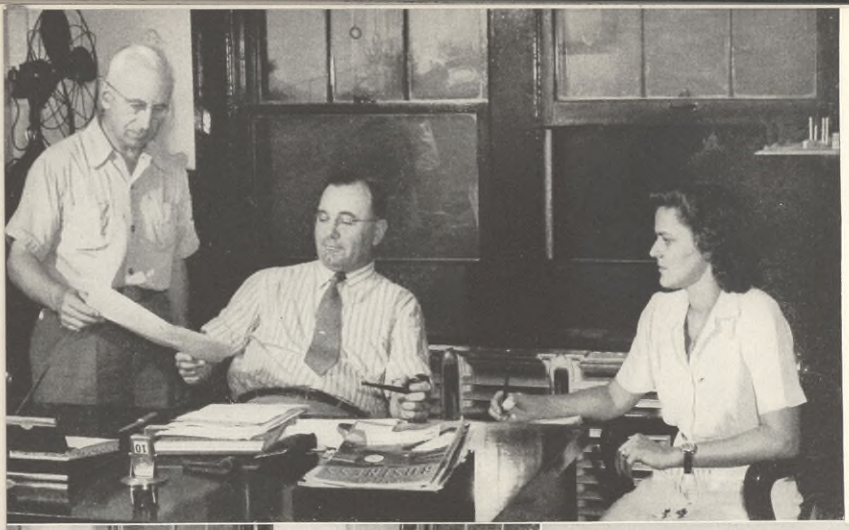
Pryse, Kentucky, is a real Texaco town, as Pryse Works with about 90 employes is its central industry and its chief source of population. This unit of the Refining Department is unusual for Texaco; it has its own pipe line from an oil field 18 miles distant



Gauger Arthur Metcalf gauges a storage tank. Much of the refinery is on a hillside, providing some gravity flow of stored crude

(Below, left) A pumping well in the oil field. Many of the roads are through creek beds. Part of this field was operated before World War I

(Below) Looking down on the loading rack from the office. Not many refineries have natural landscaping and peach trees outside the windows



STAR CLOSE-UPS

PR
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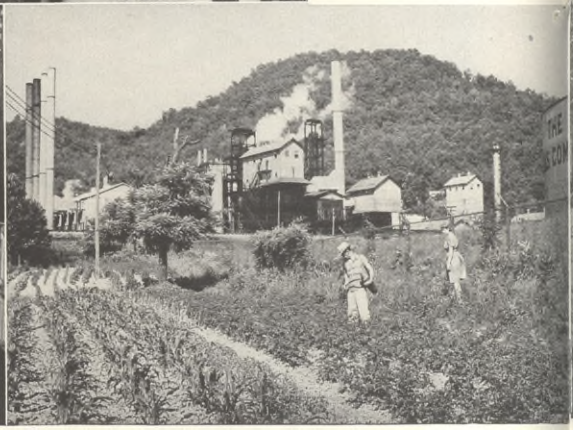
Pryse Works' Superintendent H. C. Wakefield pauses a moment in his office while giving dictation to Elizabeth George Carrington to look over a report brought in by Stock Clerk E. C. Muhleman

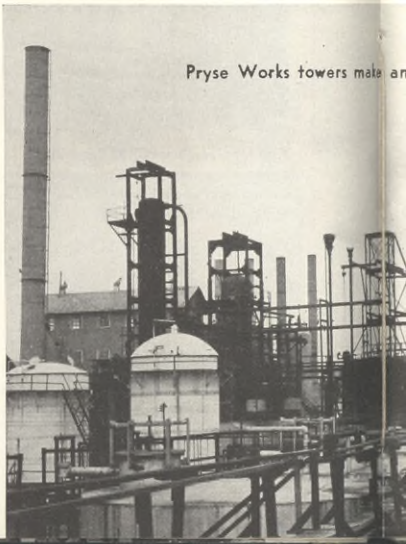
PHOTOS IN STAR CLO
ARE BY ROBERT L.

In the office are seen Charles W. Whitaker, Head General Clerk (left); Howard Mackey, Shipping Clerk, Keith L. Bishop, Payroll and Cost Clerk



"Bottom lands" of the Kentucky provide farms and gardens for employes. Here are Mr. and Mrs. Doyle Hackworth gardening

(Below) The distaff side of Pryse. This group of Red Cross workers, including three not pictured, folded 1,100 compresses at one working session



Pryse Works towers mate

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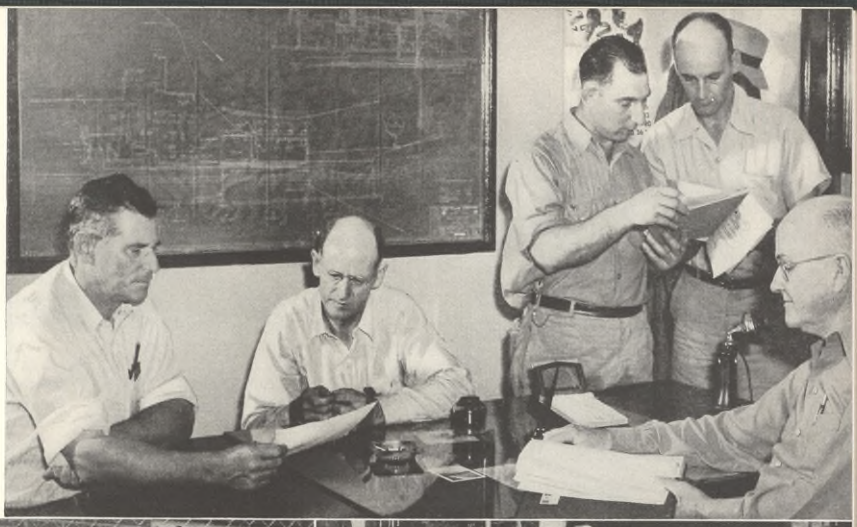


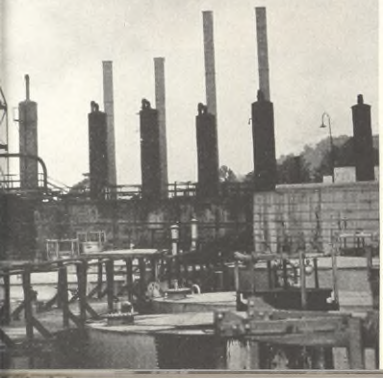
These make Pryse click: (left to right) B. J. Pendergrass, J. H. Garner, and L. C. Doutaz, all Foremen of various plant departments; Lawrence Holt, Chemist, and J. O. Traweek, Assistant Superintendent

LOSE-UPS
NESMITH

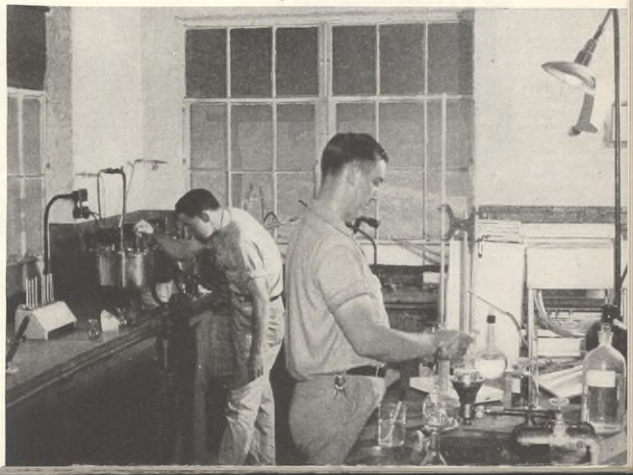
Pryse is proud of its safety record. A. D. Bechler, old-timer, helped build the plant, which The Texas Company bought in 1926

In this corner of the machine shop, Machinists Wm. Doutaz and William Sherrard do a careful job of checking measurements on a reconstruction task

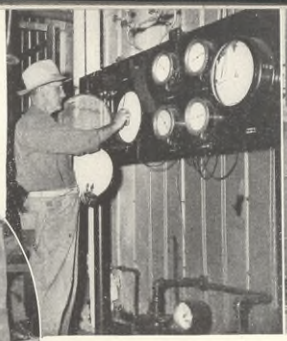
n interesting silhouette



Laboratory Testers Flynn Bach and C. L. Rice check the quality of gasoline, kerosine, fuel oils, and road oils which are the refinery's chief products



Truck Driver Roscoe Cox is proud to have been behind the wheel since 1935 without having a single accident

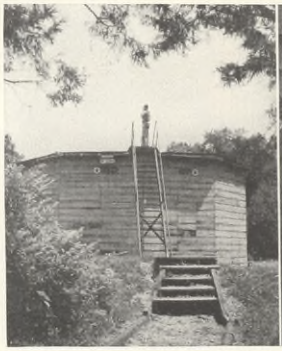


Electrician E. E. Northcutt changes dials on the meters in the power house, one of the jobs necessary with recording instruments

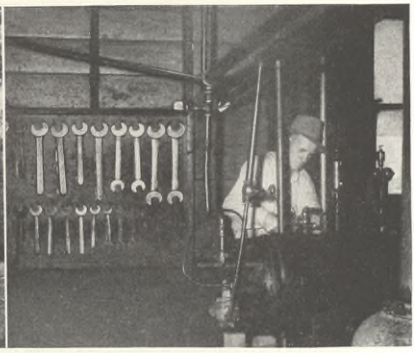
Gateman J. C. Breeding checks Storekeeper W. E. Maloney through the gate. Many Pryse employes own farms, walk considerable distances to work

STAR CLOSE-UPS

PRYSE WORKS



Chief Clerk M. B. Burks on a storage tank in the field. Tanks of wood are enclosed to prevent the sun's opening seams



Pumper Lemon Caldwell does a repair job on a pump at Pumping Station No. 1. The heavy machinery was hauled into the hills by oxen many years ago

W. L. Johnson, Clerk, and Storekeeper W. E. Maloney are responsible for quantities of supplies stowed in bins in their department

Machinists Second Class W. F. Smith and R. L. Kelley clean strainers on pipe line through which water is pumped from river to refinery

★

★

Boiler Fireman J. F. Tuggle (below), at his post where his task is to watch gauges and help maintain steam pressure and plant efficiency

Everybody WANTS TO FLY

GENDREAU PHOTO—BOEING AIRCRAFT COMPANY'S "CLIPPER OF TOMORROW"

By AUBREY KEIF
Manager, Aviation Sales,
The Texas Company

ADAPTED FROM A RECENT ADDRESS TO THE TERRITORIAL SALES MANAGERS OF THE TEXAS COMPANY

FROM time to time I have asked USAAF cadets why they picked the air forces, and what their particular reasons were for the choice, and they said, "Oh, I don't know, I always wanted to fly planes," or, "I've always been interested in aviation." That was practically the invariable answer—no heroics, no dramatics, no hurrah; just the simple statement. It was typical of all they said about their present job and their future prospects. Nobody mentioned patriotism, nobody mentioned danger. There was a thing to be done, and they were there to learn how to do it, and it went without saying. Nobody even said, "I want to get a crack at those Japs," or anything like that.

Most of them introduced the commercial angle, having to do with after the war. "And then, too," they'd say, "I figure that aviation will be more important than ever after the war is over, and I'll be able to make good money as a commercial pilot or in aviation—I mean if it works out that way for me," they amend quite unemotionally, and they smile straight at you.

That is the way most of these smiling lads are thinking—about how big aviation is going to be after the war, and the opportunities afforded.

Business men are thinking about aviation in terms of fast travel—"Why, we can leave New York at 10 o'clock tonight and be in Venezuela in the morning" or "How about breakfast in London and dinner in New York?"

The farmer is planning on getting perishable edibles into the metropolitan market through the medium of feeder and area air lines to transcontinental lines.

The sportsman dreams of leaving the metropolitan area in the morning and having a shot at a moose at a remote lake in Canada late that evening.

People are *thinking* aviation. Air travel has foreshortened the world, and when this war is history many persons will want to fly to far places. There will be industrial rehabilitation of those places now in war theaters. All of this will have an effect on the manufacturing of airplanes and aircraft engines. Schools will flourish to train new pilots, notwithstanding the many thousands that have been trained in the military. There will be thousands of airports available for conversion to commercial use.

EWING GALLOWAY

The Air Forces' men want jobs in post-war aviation

The petroleum industry will feel the effect, too. We strive at realism; we do not believe the air will be filled with aircraft, but we are sure there will be a greatly increased flying activity and we intend that The Texas Company shall predominate in the furnishing of aviation petroleum products.

There are 140,561 miles

EWING GALLOWAY

Planes are likely to carry considerable of tomorrow's cargo

of feeder system now applied for. Fifteen major airlines have applied for foreign routes. All domestic airlines have made formal application for extensive added services.

A minimum of 100,000 persons now living in urban areas want or expect to own private airplanes, according to figures gathered by the Crowell-Collier Publishing Company. The survey was made in cities and communities of people in the upper-income brackets. The figure of 100,000 planes represents a desire of only one per cent of those interviewed. An additional 200,000 upper-income urbanites indicated an aircraft as second on their list when and if available. Their first choice was the automobile, and 36 times as many people expressed the wish for an automobile as did those who would wish to buy an airplane.

Tom Beck of Crowell-Collier predicts that in the first five years after the war there will be 300,000 private aircraft purchased.

Over and above the civilian market, Mr. Beck revealed, there is a definite market among Army and Navy fliers, 73 per cent of whom want to own planes when they return to civilian life. Another 12 per cent of them want planes if they can afford them. Only 15 per cent had no interest in owning a plane.

Regarding the use of airlines after the war, Mr. Beck said the survey indicated that 62 per cent of the women questioned expected to use airlines facilities. The figure for the men was 68 per cent. More than 65 per cent of those surveyed would be interested in a round trip flight to Europe if the fare was not over $200.

A mail questionnaire to automobile dealers in cities of 100,000 or less, Mr. Beck said, revealed that eight out of every 10 dealers might be interested in selling light planes. A third of the auto dealers said they were already making plans for such business.

It may be interesting to take a look at two of the scheduled-operation aircraft that will be available in the post-war period. All of us are acquainted with the Lockheed *Constellation* which flashed non-stop in six hours and 58 minutes from Burbank, California, to Washington, D. C., fueled and lubricated by Texaco.

This aircraft, which will be operated by TWA, will carry 57 passengers in its commercial peacetime version, with every facility for first-class air travel. Demands of the war preclude its use commercially at this time. This craft is a distinct departure from anything built to date, in that it is a high-speed, luxury-type air liner. This craft has a speed of more than 300 miles per hour with a useful load of more than 14 tons.

DE MAURO FROM FREDERIC LEWIS

Thousands of persons want their own planes after the war

In the post-war period TWA may well fly 50 passengers with their baggage from New York to London in 13 and one-half hours, New York to Honolulu in 18 hours, New York to Tokio in 28 hours, New York to Moscow in 19 hours, New York to Manila in 35 hours, New York to Chungking in 35 hours, and New York to Paris in 14 and one-half hours.

Consolidated Vultee Aircraft Corporation is now manufacturing a commercial transport which in the day version will have 42 chairs, and will accommodate 24 persons in the sleeper version. This aircraft will also be capable of a speed of about 300 miles an hour and have a load-carrying capacity of 12 to 14 tons.

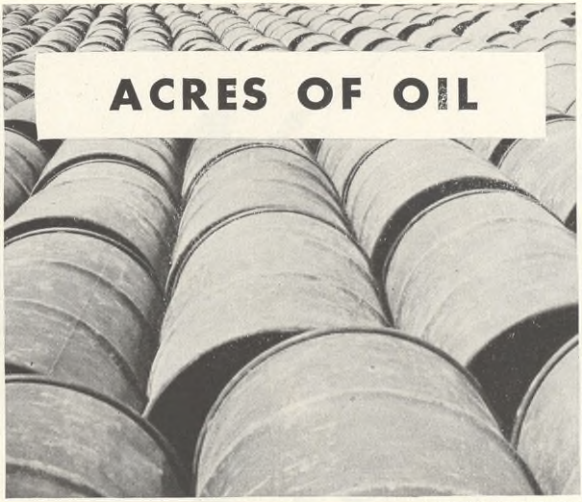
The helicopter has been the subject of a flood of publicity. The men who are designing and building helicopters realize full well that they have many engineering problems to overcome before the sales departments can hope to get a bead on even half the astronomic number of consumers predicted as the potential market. The helicopter will not be the craft for that vague "man in the street" for some time, because of the simple but inescapable fact that ease of control and inherent stability must be built into any craft for the average person. Neither of these two problems is insuperable, but those in position to know don't anticipate the helicopter's replacing—or even greatly supplementing—the automobile for a very minimum of five years.

Congestion is already a problem in some of the most recently improved airports; others hamper the movement of the larger craft. But if air transportation is to expand in the degree suggested above, present facilities are inadequate. There is an ambitious post-war airport program planned by governmental agencies. This, plus turned-back military airports, will give us a big potential in airport and bulk station gallonage.

The Texas Company at the present time enjoys a major portion of the commercial aviation petroleum business of the airlines operating in North America. Of the 23 airlines operating in North America, The Texas Company enjoys contractual relationship with 10. We anticipate that within a short time we will add others.

Elaborate plans for the distribution of Texaco aviation products abroad have already been laid, and we are improving our position domestically. The Texas Company is in a unique position in that it markets in all of the 48 states, and it will be a major responsibility of the Aviation Sales Division to provide potential gallonage that will warrant additional facilities.

ACRES OF OIL



OFFICIAL U. S. NAVY PHOTOGRAPH

By LEWIS B. SEBRING, JR.,
War Correspondent, The New York Herald Tribune

THIS is a petroleum war, there is no doubt about that. In 27 months as a war correspondent in the Southwest Pacific, I saw evidences of it on every hand—through the vast stretches of Australia and in the jungled, humid, wilderness of New Guinea, as well as in other islands to the north of Australia.

If there were one thing I would be likely to dream about in this war—the one thing I have seen everywhere I went and the one thing I saw in the year preceding this assignment, it would be gasoline drums. They are everywhere, and they bear more than exactly mute evidence to the importance of that product, and its allied products, in the struggle that is progressing satisfactorily for the United Nations because they have petroleum; the others haven't.

I say "more than exactly mute evidence" because while these drums do not talk, they can make plenty of noise, and at the most inopportune times. When you want to sleep, a truck full of them, or many trucks full of them, will come banging along a road. The sound of them—empty ones—clanging one against the other, continued one night after another

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LEWIS B. SEBRING, JR.

THE AUTHOR of this article, written especially for THE TEXACO STAR, was the first war correspondent sent by the *New York Herald Tribune* to any theater of operations after the United States entered the war. He arrived in Australia March 9, 1942, eight days before General Douglas MacArthur reached Australia from the Philippines. He remained in the Australia and New Guinea area until June, 1944, when he returned to the United States for a leave of absence and a turn at domestic reporting. Mr. Sebring is a native of Schenectady, New York, and a former night city editor of the *Herald Tribune*, with which he has been connected for 15 years. Before the assignment as war correspondent, he covered Army maneuvers and other pre-war activities from August, 1940, through 1941, and spent the Winter of 1940-41 with the 27th New York State Division in its training camp, Fort McClellan, at Anniston, Alabama.

as they were being loaded into a Liberty Ship at one forward New Guinea port to be returned to a base.

By far the most vivid recollection that one has is the sight of them—hundreds of them, thousands of them, piled and stored everywhere, being carried endlessly along roads in trucks, being loaded and unloaded from a vast variety of vessels, being greeted at forward bases almost with the affection of incoming human reinforcements or good friends.

Gasoline drums are symbolic of the part that petroleum is playing in the war. But their mention could be extended to the various oils and greases and the thousand and one by-products of a great industry. I have seen them in the most unexpected places.

Conversely, I have seen the effects of the lack of such products—fortunately seldom, and only in minor degree in the war zones themselves—but in the ordinary, every-day activities of a great country, Australia. Australia produces no gasoline, so whatever is used there for ordinary commercial purposes must be brought in. During the war, naturally, military demands come first. What is left is rationed among civilian users, and motorists bear the brunt.

Gasoline rationing in Australia for pleasure use is so far more severe than in the United States that Australians who hear of the A card ration here, or have occasion to come here and find out, feel that Americans are living quite in the lap of wartime luxury. The Australian allowance for non-essential or pleasure use is one and one-half to four and one-half Imperial gallons a *month*, depending on the horsepower of the car.

The result has been a vast increase in the Australian use of "gas producers,"—devilish-looking contrivances that are fitted in various places on pleasure cars and trucks, and feed carbon monoxide gas into the engine. This, after the motor has been started with the ordinary petrol, or gasoline, propels a car quite well except on hills, where there is a considerable loss of power. Just before leaving Australia, I took a 100-mile ride into the country near Melbourne with E. A. Doyle, managing editor of *The Melbourne Argus*, in his gas producer-equipped car. I found that it was quite as enjoyable as any pleasure trip in this country, once one forgot the unwieldy-looking charcoal burner fitted on the back.

Although the devices are very simple, they involve bother in their maintenance, and must be cleaned at least once on every trip to stay in good working order. You see them everywhere, on luxurious pleasure cars (as luxurious as pleasure cars can be after being used since production of new ones was stopped or import prohibited), on official government cars, on commercial trucks, and on jalopies. They have saved the day for the Australian motorist, but few will be anxious to retain them after the war.

PHOTO BY SEBRING

Australian editor looks into the motor fuel situation on his car equipped with gas producer apparatus

They have helped to contribute to the amount of motor fuel available for more essential war time uses, and that, of course, is so vast as to be almost unbelievable when figures for even a small part of the war consumption are studied. During a visit I made last February to an American base in northern New Guinea, I had a chance to look at statistics of gasoline and oils that had passed through the port in the preceding six months. Together they amounted to more than 90,000 tons, in more than 350,000 55-gallon drums. That makes a total of something like 19,250,000 gallons of petroleum products in *six* months, at a *small* base.

And it must be remembered that in this South Sea area, because of the comparatively small land masses and the great sea distances, full use of such gasoline and oil-consuming vehicles as tanks and motor trucks is not possible.

There are some tanks and many trucks in the South Seas areas, of course, but they can only be sent into the forward areas in platoons and companies rather than in battalions and regiments. But even then, steady flows of tremendous supplies are needed, and I saw that steady flow and those tremendous supplies everywhere I went—a great tribute to the vast, world-wide supply organization of the United States, and a tribute to those who are producing the necessary things.

Probably the greatest fuel dumps, of course, are at and near the great airfields, and those were in the greatest danger before the Japanese air force, like the German Luftwaffe, began to disappear from the skies over Allied installations. For miles and miles one can ride about the outlying installations of these fields among acres of drums, far too many to be camouflaged, which rely for protection only on the

SIGNAL CORPS PHOTO

A hit by enemy bombs on a gasoline dump

skill of Allied air strength and anti-aircraft defenses.

In the early days in the Southwest Pacific, these protective agencies were not present in great strength. We had losses, fortunately never too great, of the valuable fuels for waging war. At Port Moresby on the southeast coast of New Guinea, then the only forward American and Australian base, eyes would anxiously search the skies each day back in 1942 for the approach of Japanese planes. We knew they were after our supplies, and not least among them the gasoline and oil for our planes, the only medium for striking back in those days.

Every gallon of fuel we had was above ground, in full view. Sometimes during a raid an ominous black cloud would begin to arise from some valley or open field—a hit on the gasoline. Our people could only groan, and hope that those behind the lines would not fail them.

Now, at the larger of the rear bases, there are huge storage tanks, and to these the drums are brought from the forward areas for refilling, and then rushed back again so that never for a moment will the vital element of fuel be lacking. And I was present once when there was such a lack. Fortunately it was a quiet sector, and ships with supplies were on the way, but I shall never forget the worries that arose even in this circumstance.

It was at Cape Gloucester, at the extreme western tip of New Britain island, last January, a month after the gallant First Marine Division—the Guadalcanal Division—had landed there. Things had been going famously. The Japanese still left in the area were being pushed back into the mountains, and supplies were coming in a steady stream, largely via LSTs—the Navy and Coast Guard-operated Landing Ships, Tank. Food was plentiful, though of course very plain, and living conditions were good for a place that had never seen a white man before.

Trucks of dozens of varieties, jeeps, bull-dozers, amphibious landing vehicles—all the paraphernalia of war, even down there in the tropics—were on the roads at all hours in such volumes that regular traffic police had had to be established where there were not even roads a month before. The airfields for which we had captured the spot were not completed, so there were no planes.

Then one day a whisper went around that gasoline was getting short. There were worried looks on the faces of the higher officers, and serious conferences about the situation.

I doubt that even a shortage of food would have caused such tenseness, for you can always share even an emergency ration, and water can be found somewhere, but you can't share motor fuel and keep everything going. Aside from the trucks wheeling by the scores to and from the waterfront, there were still tanks operating in the foothills of Mount Talawe and down along the shore of Borgen Bay where the Japanese continued to hold out, and these had to be kept in action.

The next day an order came out, and it was as peremptory as any I have ever encountered. It said simply that every vehicle on the island, except those being used in combat, those being used for the carrying of necessary supplies, and the jeeps of the higher commanders or section chiefs who had to get around to carry on the campaign, would cease operating forthwith. And they did. No one questioned the order, for it was recognized by everybody there that lives depended on this one simple thing—motor fuel.

The following day LSTs with thousands of gallons of fuel arrived, and for hours I watched them being unloaded, by soldiers, many among them Negro quartermaster boys, and by Marines. All pitched in as though their lives depended on it. Intermittent Japanese air raids still were going on, and once the alert sounded, but these men never let up for a moment—they left all the looking up into the overcast sky to those whose business it was to ward off any attacks, and to bystanders like myself. Pictures of that unloading face this page.

This scene recalled—by its contrast—others that I had seen during the early days of the New Guinea fighting in 1942, when we were able to use none of this motor equipment, because there were no roads and we didn't have the materiel anyway. Then, fishing smacks brought from Australia, together with native canoes, furnished the water transportation that now, in 1944, has given way to the great transport and landing craft that are among the outstanding accomplishments of this war.

In 1942, when you were dumped off a plane at a secret landing field in some remote jungle spot, or landed on a primitive, undeveloped stretch of shore-

Photos taken by the author show United States Army trucks (top left) waiting for an LST bringing gasoline and oil when supplies were dangerously low. (At left) Trucks were backed down ramp and loaded. (Above) One leaves with its cargo. Note the devastated jungle

line from a small craft that seemed in danger of sinking at any moment, you just put yourself on your two feet and walked. There were, as I recall, only two jeeps, and no other motor vehicles in a long stretch of this kind of coastline east of Buna, the Japanese stronghold that fell on January 2, 1943, and thus furnished the keystone for subsequent pushes toward the Philippines. It was months before we were able to push through roads such as were built within hours at Cape Gloucester in late 1943.

When I returned to this Buna area in December, 1943, a year after I had last seen it, there were roads through former stretches of jungle that we said in 1942 could never be penetrated, and there were airfields—strewn about the landscape like matchsticks as one saw them from above—that not only for their being required millions of gallons of fuel, but were the result of that fuel having been used for construction purposes.

Early this year, I saw some of the evidences of growing Allied power in the Southwest Pacific, and knew it was indicative of growing Allied power throughout the world. Probably the most spectacular evidences were the dumps of fuel tins. It was during the period that preparations were being made for the push into the Admiralty Islands in February, and on into Hollandia in Dutch New Guinea in April.

At one northern New Guinea American base I visited, I was taken around on an all-day trip by the base commander, and I had my eyes opened plenty as to what we were pouring into these South Seas from just this one comparatively small base. For almost an hour we rode through fuel dumps—vast masses of 55-gallon drums of gasoline and oil being prepared for shipment forward. Then we went down to the docks and watched other hundreds of these containers being unloaded from Liberty Ships.

They were being as carefully hoarded as platinum might be, for each was to get its refill from storage tanks at the rear base, and go forward again.

Soon afterward, I returned to the northern base to see some of our troops start out for another operation—the First Cavalry Division going to the Admiralties. Not only the troops with their personal equipment were there at the departure point, but into every one of their landing craft, in as large quantities as every available space would hold, went drums of gasoline and oil. It was the same thing I had seen when the First Marine Division was about to take off from northern New Guinea for their landing at Cape Gloucester. The same story could be told about any intended landing; my colleagues in the Mediterranean, and in western Europe, could unfold the same picture.

THE JUNKMAN'S EYES ARE ON YOUR CAR

Car dealers are clamoring, in all parts of the country, for used cars that will run. Half of America's motorists drive cars six years old or more. Of these, it is estimated, 4,000 a day go to auto graveyards. Most are cars that might have been saved by the proper care

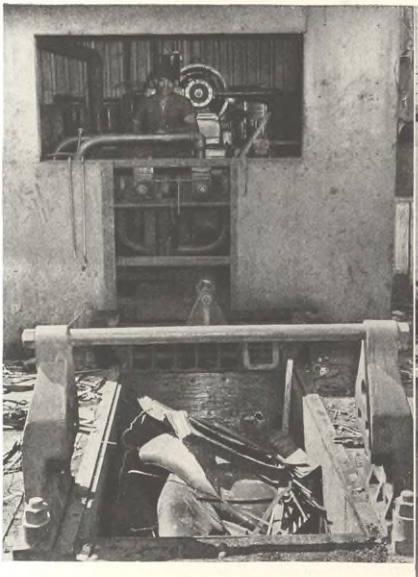
An automobile, once its salesman's boast and its owner's joy, comes to the ignominious end of its last mile. Such cars, victims of lack of care, become just scrap metal and spare parts

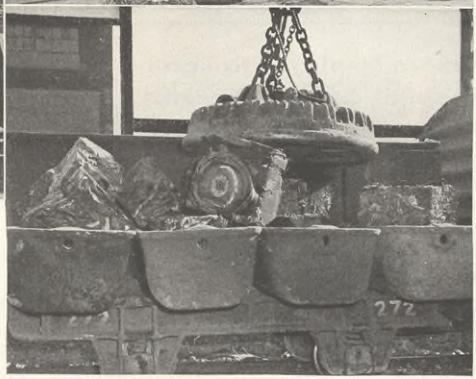
PHOTO STORY BY CONRAD EIGER FROM R. I. NESMITH

Row on row, models once shining queens of the highway await the wrecker's hammer and his torch

Re-usable parts stripped from them are stored in bins and sold for replacements

Proper and regular care has saved many an auto from an untimely ending





After valuable parts have been removed, the remaining metal from a car goes into this baler (above). Pressure squeezes the pieces into a compact mass. A huge magnet (above, right) loads them on flat cars. Another magnet lifts them off at the steel mill, and the melting pot (below) is the sorry grave of many a car that might have been kept by care

$100 BONDS FOR SERVICE MEN

A CHRISTMAS GIFT of a $100 United States War Savings Bond for every employe of The Texas Company on military leave of absence has been announced by President Harry T. Klein. Last Christmas a $50 War Bond was the Company's gift to each absent employe in the armed forces. All on military leave of absence up to and including December 24, 1944, will be entitled to the gift, and beneficiaries will receive the bonds of any who may have died in service during 1944.

Texaco Employes to Receive Hospital, Surgical Benefits

A HOSPITAL and surgical benefit plan for employes of The Texas Company and domestic subsidiaries has become effective throughout the United States. More than 93 per cent of eligible employes have associated themselves with the project, which is voluntary.

The plan provides benefits for hospital confinement and surgical operations not covered by workmen's compensation or similar provisions. These benefits do not interfere with but are in addition to any other hospital and surgical benefits to which the employe may be entitled under any other insurance policy or because of membership in any association. The plan is also in addition to the Company's own employe benefit plans covering accident, sickness, permanent total disability, and group life insurance and pensions, all still in effect.

The new plan offers payment of four dollars a day for each day the employe is confined in a hospital, up to 31 days for each period of disability; a surgeon's fee allowance providing amounts scaling up to $150 according to the nature of the operation; also reimbursement up to $20 for incidental hospital expenses such as operating room, X-rays, and tests. The individual pays 50 cents a month for the plan's benefits; the remainder is paid by the Company.

This picture, incorrectly captioned on page 15 of The Texaco Star's Summer number, is not of W. H. King, Jr., but of Lieut. John Paul Noack of Port Arthur Terminal, once pilot of the bomber *Bless-'Em-All*, now a prisoner of the Germans

Company Officials Rise in Public Positions

VICE PRESIDENT James Tanham is now chairman of the industry members of the War Labor Board, succeeding George Mead, president of the Mead Corporation of Dayton, Ohio.

General Counsel Oscar John Dorwin was recently made a member of the American Petroleum Industries Committee of the American Petroleum Institute. He follows, in that post, President Harry T. Klein, whom he also followed as Texaco's General Counsel.

Walter Hochuli, Manager of the Domestic Sales Department's Central Territory on loan to the Government as director of the Petroleum Administration for War's Marketing and Distribution Committee, is the new chairman of the Petroleum Requirements Committee of the PAW.

Trust is to Manage Universal Oil Securities

A TRUST known as the Petroleum Research Fund has been set up to administer the securities of the Universal Oil Products Company of Chicago, which were given to the American Chemical Society by a group of petroleum companies in September and accepted by the society in principle. The Guaranty Trust Company of New York has been named the trustee, and management and operation of the Universal Oil Products Company will be the responsibility of a board of directors to be appointed by the trust company.

Securities of the Universal Oil Products Company, one of the nation's leading research and development enterprises, were held by a number of oil companies, The Texas Company among them. The net profit from Universal will now flow to the American Chemical Society to be used for purposes of research in the petroleum and natural gas fields. The chemical society will have absolute discretion in the matter of selecting the research projects, but will have no obligation as far as management of Universal is concerned.

Symbol of America's might in the air, symbol also of the petroleum industry's skill in matching vast aircraft production with the superior fuels and lubricants needed, war planes such as those at the right now fill the sky over enemy countries

PHOTO FROM KEYSTONE

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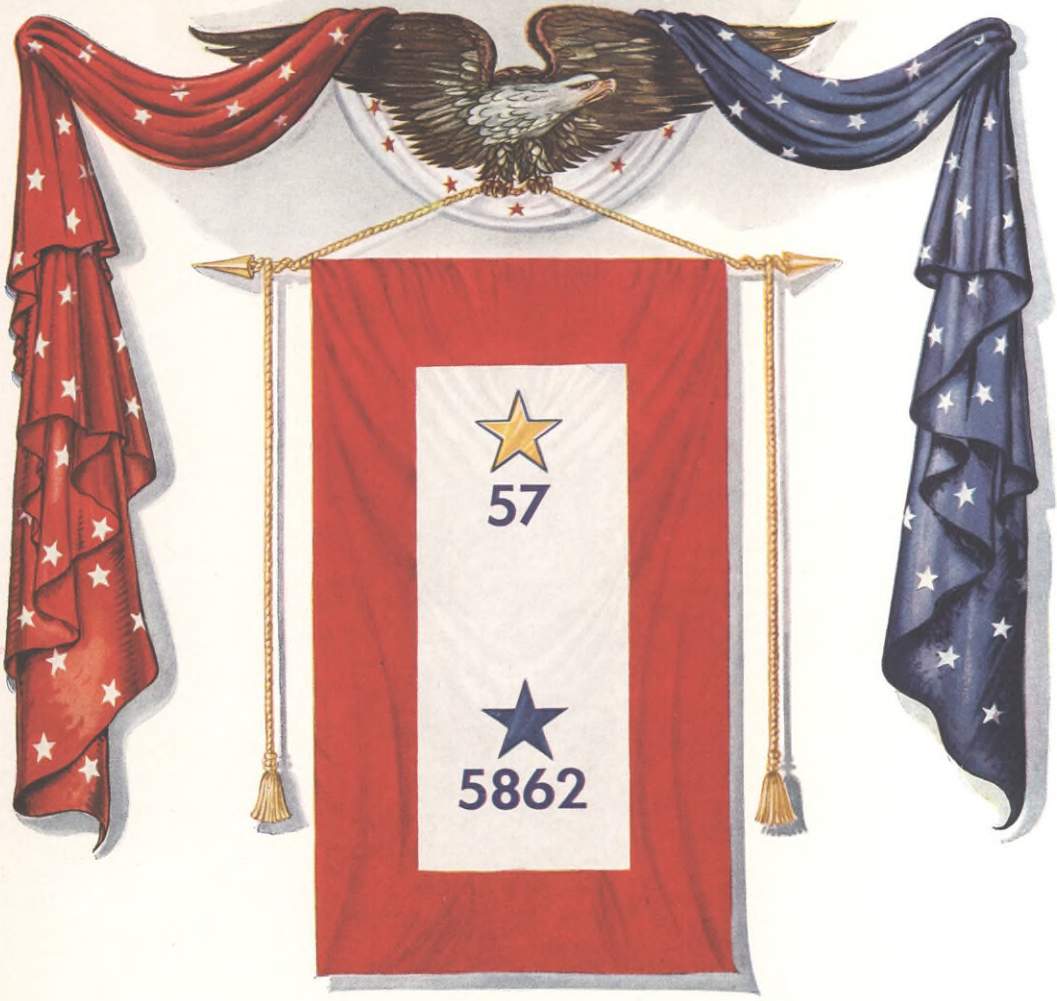
THE CONDÉ NAST PRESS, GREENWICH, CONNECTICUT



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THIS SERVICE FLAG of The Texas Company combined with its subsidiaries and affiliates shows employes on military leave of absence, in the United States armed forces only, as of early October. Those in the armed forces of other Allied nations number 760 additional, and 39 more, including some civilians, are known to have lost their lives under the flags of Allied nations other than the United States