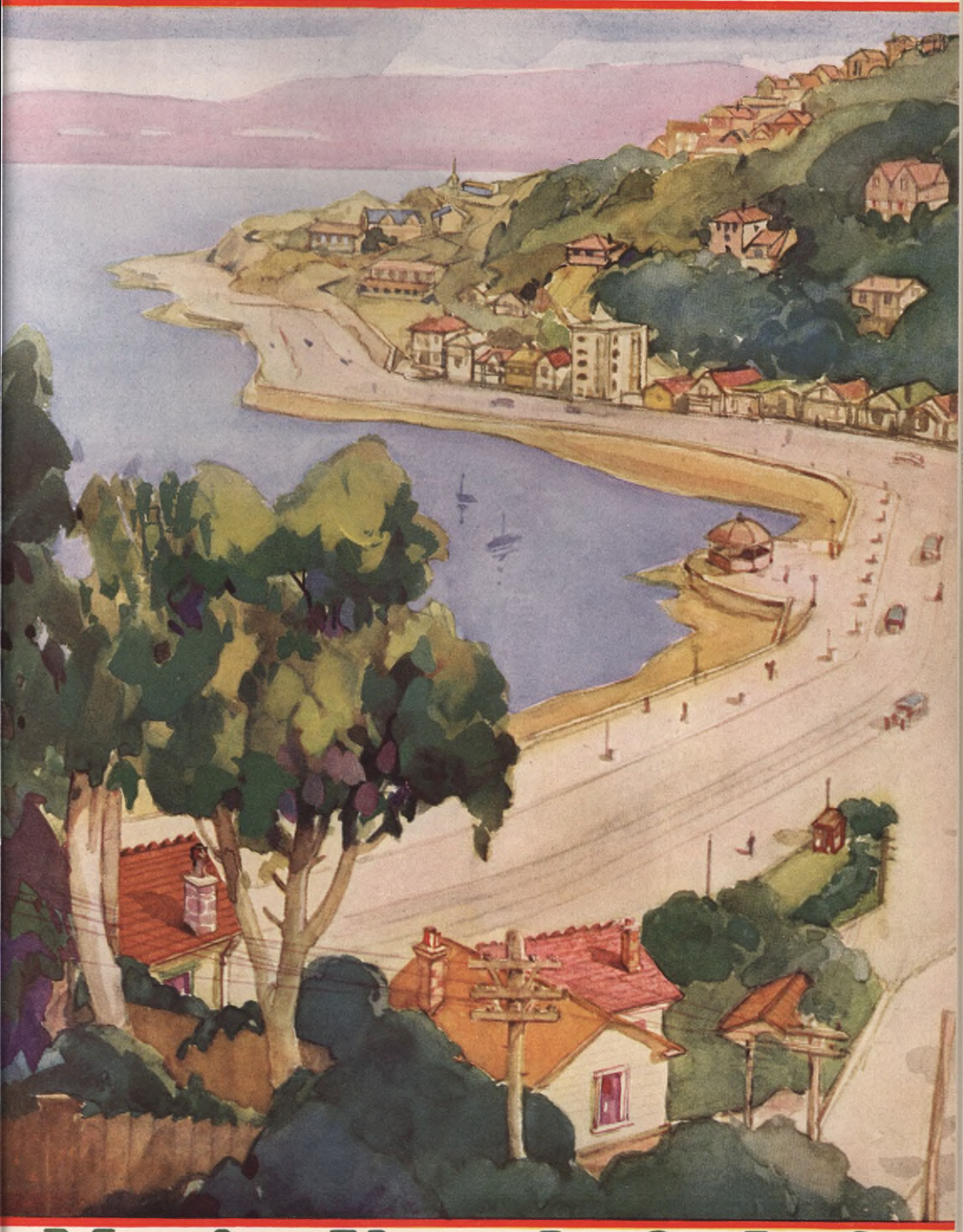
The TEXACO STAR



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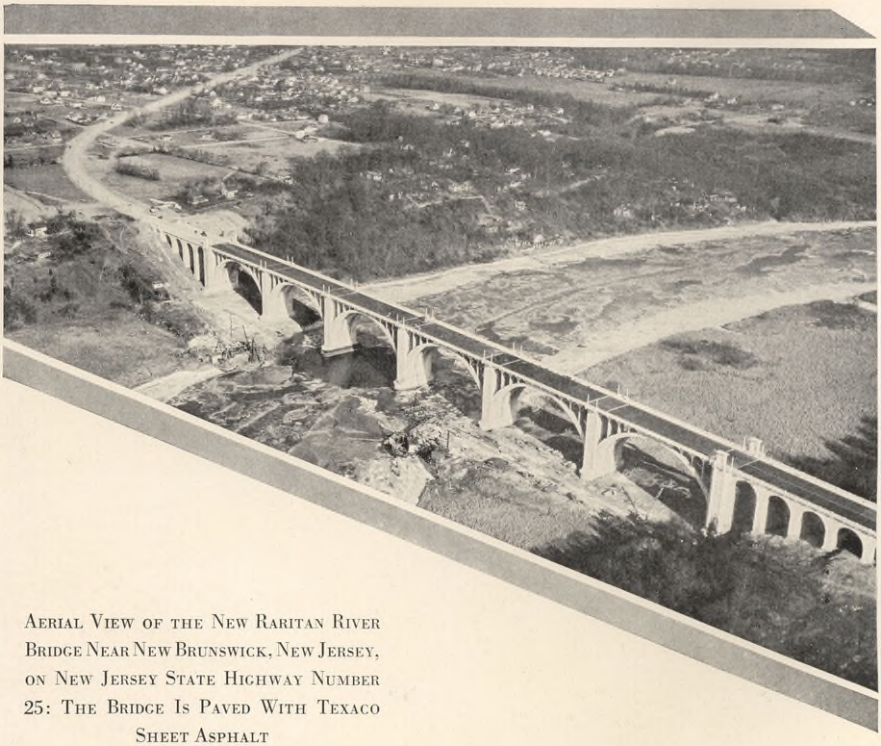

Aerial View of the New Raritan River Bridge Near New Brunswick, New Jersey, on New Jersey State Highway Number 25: The Bridge Is Paved With Texaco Sheet Asphalt

The TEXACO STAR

A PUBLICATION OF THE TEXAS COMPANY

VOL. XVII NO. 5 MAY, 1930

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Brief and to the Point

★ The telephone number of The Texas Company's new New York Offices is Murray Hill 7701.

★ The hand that rocked the cradle now drives the family car.

★ American automobiles will travel 156,000,000,000 miles in 1930, according to the National Automobile Chamber of Commerce. This is more than four thousand times the distance to the planet Mars.

★ An interesting article concerning The Texas Company and the extent of its operations appears in the current issue of *Fortune*, the new de luxe magazine of industry.

★ There are now approximately 99,000 miles of trunk and gathering lines for crude oil in this country. These lines contain more than 18,000,000 barrels of oil at all times and involve an annual expense estimated at a quarter of a billion dollars for maintenance and new construction.

★ The presses and other equipment of the Condé Nast Press, where THE TEXACO STAR is printed, are lubricated exclusively with TEXACO products. An article concerning the Condé Nast organization appears in this issue.

★ "The automobile of the future will make the present contraption look like a hay wagon. Within ten years we'll have automobiles traveling one hundred miles an hour, weighing less than one thousand pounds, costing less than a thousand dollars and covering eighty miles on a gallon of gas," predicts Charles F. Kettering, inventor of the automobile self-starter.

★ By-products of natural gasoline, such as methane, ethane, propane and butane, are used in the manufacture of perfumes and fuel for cigarette lighters.

★ "We cannot, as a nation, afford to waste our supply of this priceless natural resource at the very time that other great oil producing countries are zealously conserving theirs," says the *Providence* (Rhode Island) *Journal*.

★ Two types of airplane motors which use oil for fuel were demonstrated last year.

★ The harbor at Wellington, New Zealand, said to be one of the most beautiful ports in the world, is the subject of our front cover this month. An article on the marketing of TEXACO products in that country appears in this issue.

★ TEXACO Crater Compound is now being used at the new hangar of the Goodyear Zeppelin Corporation at Akron, Ohio, where the Navy's latest dirigible, the ZRS-4 is under construction.

★ The statistician who claims that the automobile industry has not yet reached the saturation point ought to ride in a rumble seat during a rain. —*Life*.

★ Membership in the American Petroleum Institute is available to any person actively engaged in the petroleum or allied industries. The Institute is an organization of individuals, not of companies.

★ Oil tankers contribute approximately twenty per cent of the total toll collections in the Panama Canal.

CONTENTS

For this Issue

While the contents of this journal are copyrighted, other publications are welcome to reprint any article or illustration (except such as are shown to have been separately copyrighted by others) provided due credit is given to The Texas Company.

Printed monthly for distribution to employes and stockholders

Address: THE TEXACO STAR, The Texas Company
135 East 42 Street New York City

EDITORIAL BOARD
R. B. Newcomb, Jr.
Blanche N. Gallagher Philip C. Humphrey

★

The Annual Meeting

At the annual meeting of stockholders of The Texas Corporation, held in New York on April 22, 1930, the following were elected directors: George G. Allen, C. B. Ames, T. J. Donoghue, William A. Fisher, J. N. Hill, R. C. Holmes, Henry G. Lapham, John H. Lapham, E. C. Lufkin, T. Rieber, Albert Rockwell, W. S. S. Rodgers and Eugene M. Stevens.

At the directors' meeting held immediately after the adjournment of the stockholders' meeting, the following were elected to the offices designated: R. C. Holmes, President; C. B. Ames, Vice-President; T. J. Donoghue, Vice-President; F. T. Manley, Vice-President; G. L. Noble, Vice-President; R. Ogarrio, Vice-President; T. Rieber, Vice-President; W. S. S. Rodgers, Vice-President; Harry T. Klein, General Counsel; E. M. Crone, Secretary; C. E. Woodbridge, Treasurer; and Ira McFarland, Comptroller.

Tell the Public

The consumption of gasoline in this country has increased four times in the last ten years. State tax collections on gasoline during the same period have multiplied more than one hundred times. Total gasoline tax revenue will come to nearly six hundred million dollars this year.

The average motorist knows little and cares less about the enormous sums being collected by state legislatures in the form of taxes on motor fuel. The reason is obvious. While taxes have mounted, the price per gallon has remained fairly constant and such increases as have developed have been gradual. The consumer, as long as he can buy gasoline at an ordinary rate, does not bother particularly about where his money goes.

To quote the American Petroleum Institute in a resolution adopted last March: "The oil industry does not oppose the levying of a gasoline tax where all the revenue derived therefrom is used solely for highway construction or maintenance purposes, but opposes the fixing of a rate per gallon tax beyond reasonable bonds or where the rate the consumer must pay is out of equable proportion to the price of the gasoline."

Some state governments are already proposing that gasoline tax funds be used for general purposes which bear no relation to highway construction. A few of the leading states, *The Oil and Gas Journal* points out, are collecting as much revenue in gasoline taxes as met their total expenses for state government not so many years ago. "As the revenue from gasoline taxation grows," says this publication, "there will be an increasing temptation to apply it to general purposes with the effect that the motorist will be paying a higher tax than others for ordinary state expenses."

The consumer cannot be expected to pick up this knowledge for himself. When he does realize it, it is probable that he will blame the oil industry. It is up to the industry to educate him to this unhealthy condition. Pamphlets outlining the situation have been prepared by the American Petroleum Institute for distribution to motorists at filling stations. The summer motoring season is nearly upon us. Why not let the public know the truth?

"The Company"

"Ever stop to think that *you* are the *company* to those with whom you come in contact?" says a bulletin of the American Petroleum Institute. "Ever consider that what you do and say, how you treat others, creates a picture of the company you work for in the minds of those you serve?

"The public's opinion of any company is formed chiefly from its contact with that company's employes. By their words and deeds, their service or lack of it, they can make or break their employer.

"Efficient, happy employes create the impression of an efficient, trustworthy, successful company. Inefficient, surly employes paint a picture of an inefficient, despotic, crooked business.

"Did it ever occur to you that it might have been the ice man who cursed the cook, kicked the dog, broke the refrigerator and left the doors open that made the iceless refrigerator popular? The surly conductor and touchy motorman who snarled at the patrons, dumped them into their seats and treated them as pests might have paved the way for the motor bus. The careless groceryman who stocked his shelves to suit his own tastes, paid little heed to the wants of his customers and kept a dirty, dark and dismal shop might well have nurtured the growth of the chain store."

A recent survey by the American Motorists Association shows that every seventh time a dollar bill changes hands, it goes to a filling station.

The revelations concerning Colonel Edwin L. Drake, which THE STAR is now publishing in serial form, are attracting a generous amount of attention. The consensus seems to be that if there are new facts, let us have them.

Not all, however, is fan mail. We have had to fortify ourselves against the charges that are invariably hurled at pioneers but, so far, we have stood up very well.

We aim to please; hence, when a distraught parent-stockholder writes us such a letter as this, we leap to his rescue: "All four of my children own stock, yet only the youngest—eight years old—is getting THE STAR, much to the consternation of at least two of the others. Can't you please straighten out the matter so that harmony may once more reign in our home?"

Among other good things, Mack Thompson, ace contributor from our Casper Works, will be back with us shortly. Mack, whose stories on dude ranches and on silver fox farming you ought to be ashamed to forget, has been very busy, but his newest engaging opus will be spread upon these appreciative pages ere long.

Every young woman, one is entitled to assume, has some inherent ambition to be a breadwinner: Miss Blanche Taylor of Detroit, nineteen years of age, some time ago abandoned the idea of operating a tea-room, teaching kindergarten or becoming a danseuse, and is now enjoying the distinction of being the only—or one of the few—women filling station attendants in the world.

Our photographer caught Miss Taylor at a TEXACO station in her home town where business, believe us, is brisk.

TIMES WIDE WORLD

Hawks Greeted on his Arrival by Mrs. Hawks, City Officials and Representatives of The Texas Company

P. & A.

Captain Hawks Demonstrating Glider's Telephone Equipment

The *Eaglet* Spreads Its Wings

The Story of the First Transcontinental Glider Flight

By FRANK M. HAWKS

Captain Frank M. Hawks, Superintendent of the Texas Company's Aviation Division, left San Diego, California, on March 30 in the TEXACO Eaglet, *a Company-owned glider. Towed at the end of a five-hundred-foot cable, he crossed the continent, a distance of 2960 miles, in 36 hours and 47 minutes of flying time, making nineteen stops and devoting nine hours and twelve minutes to gliding and soaring exhibitions along the route. The story of the* Eaglet's *maiden voyage has been written by Captain Hawks expressly for readers of* THE TEXACO STAR.

WHAT does a transcontinental glider flight prove? Of what benefit to aviation or humanity in general is it for a man to hop from the Pacific to the Atlantic in a motorless airship yanked along at the end of a five-hundred-foot rope?

The recent coast-to-coast flight of the TEXACO *Eaglet* was more than a stunt. Its purpose, solely and simply, was to stimulate an interest in gliding, and gliding, as I pointed out in an article for THE TEXACO STAR a few months ago, is one means by which the nation as a whole is going to become air-minded.

Glider flying, as I have said before, is within the reach of any person's ability and purse. It is not only one of the finest sports of our time but it is an inexpensive and a safe one.

For nearly a year past I have been interested in

TIMES WIDE WORLD

The "TEXACO VII" *and the* Eaglet *as They Took Off from San Diego*

gliding and when arrangements for the transcontinental flight of the "aerial train" were completed, plans for building the TEXACO *Eaglet* were drawn up.

The *Eaglet* was designed and built by Professor R. E. Franklin, of the University of Michigan, and his brother Wallace. It is of the monoplane type, with detachable wings, each panel 25 feet long making a total wingspread of fifty feet. The triangular fuselage, 21 feet long, is of tubular steel, as are the external wing bracing struts. The wings are conventional, with I-beam spars and spruce ribs covered with fabric. It weighs three hundred pounds empty and with pilot and cargo scales about five hundred pounds.

Fully loaded, the *Eaglet* has a stalling speed of about fifteen miles an hour. Its gliding ratio is 22 to one, which means that from an altitude of one mile, in quiet air, it can glide to any place within a 22-mile radius. Its accentuated control surfaces make it admirably adapted for soaring. To the nose of the little ship is attached a combined release for the tow cable and shock cord catch, the latter being used only in launching from the ground with an elastic rope.

By far one of the most important features of the *Eaglet* is the telephone installation, by which the pilot can communicate with the pilot or passengers in the towing plane. Had it not been for the telephone, I doubt that the flight could have been so successfully completed. The Western Electric Company made all of this possible by their wonderful coöperation.

On the *Eaglet's* instrument board, the first to be installed in a glider, are an air speed indicator, altimeter and bank indicator, a product especially designed for gliders by the Consolidated Instrument Company. In addition the board was equipped with a sensitive Paulin altimeter which is especially valuable in soaring flight. The landing gear is a combination skid and brake-equipped wheel and both brake and tow line release on the nose of the glider are actuated by short cables leading to handles in the cockpit. Once in the *Eaglet* I certainly didn't have much room to go through setting-up exercises but it was comfortable enough and, as I found out later to my great relief, quite watertight, due to the streamlined coupe arrangement made of pyralax.

The towing plane was our own little Waco biplane, "TEXACO VII," powered with a single Wright Whirlwind J5 motor of two hundred horsepower and piloted ably and beautifully by J. D. ("Duke") Jernigan, aviation representative of The Texas Company and to whom a great deal of the credit for the success of the flight must go. It was no cinch to fly the *Eaglet*, but I could see the towing plane and know what was happening; Jernigan had to go by guess and by my telephoned orders.

After several days devoted to testing the glider and the tow plane over San Diego, we decided that we were ready and at 7.45 o'clock (Western Time) on the morning of March 30 we took off from Lindbergh Field. The sky was overcast but Duke gave his ship the gun and away we sailed up into the blue sky.

TIMES WIDE WORLD

Hawks and Jernigan at Tulsa

The Crew of the Aerial Train at the Start of the Flight

The first two hours of the flight were most eventful. Most of the time Duke and Wally and I carried on a three-cornered telephone conversation. We were much concerned about the low ceiling and the possibility of successfully weaving over the first range of mountains. Our first stop was Yuma, Arizona, where we refueled the "TEXACO VII" with TEXACO Aviation Gasoline, stopped half an hour for a brief rest and then headed for Phoenix, Arizona.

Phoenix loomed up ahead shortly before 2 p. m. (Mountain Time). I cut loose from the plane, soaring in the teeth of a husky breeze which kept me up for 55 minutes, gradually losing altitude until I landed on the field.

We stopped two hours for a rest in Phoenix and then were off again for Tucson, about a hundred miles to the southeast. We were bucking a strong wind. A safe landing for both of us was accomplished there, although it was an hour after dark when I cut loose from the "TEXACO VII" and glided toward the field. We landed at 7.25 p. m. and decided to call it a day. We had traveled four hundred miles.

The second day we started out bravely, fortified with a grand breakfast, and we were on the field shortly after daybreak. We had hardly left the ground when I noticed that the telephone connection wasn't working properly. We were still climbing and had gone about ten miles from Tucson when Duke decided to turn back to repair the telephone. As we banked around to go back, at about 2500 feet altitude, both ships were suddenly thrown on one wing by a stiff uppercurrent of air. I saw the "TEXACO VII" dip to the left and the Eaglet obediently followed, although I must confess I didn't want it to. We sideslipped downward, the tow line slacked and as we righted the ships, it tightened up again with a snap and broke a few feet back of the tail of the tow ship.

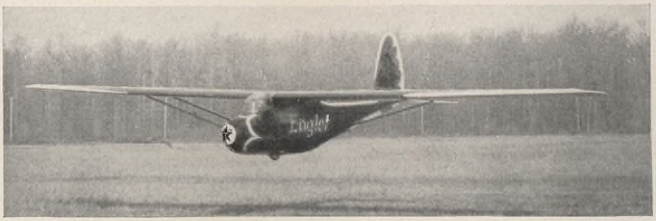
Naturally about five hundred feet of tow cable hanging to the nose of the *Eaglet* didn't make it very easy to handle and I was ten good miles from home without an engine. I released the tow rope, which dropped somewhere in the desert, and then began to glide back to Tucson. The 22-to-one ratio made this easy of accomplishment and we spent the rest of the day rigging up a new tow line. Searching for the dropped cable in that desolate country was out of the question. We seemed to be stuck for the night, as the wind was acting badly, so we decided to stay in Tucson one more day and go direct to Sweetwater, Texas, the next day, covering two days' flying in one.

The Captain Comes Up Smiling

ASSOCIATED PRESS

That next day proved to be one of the toughest I had ever spent in aircraft of any kind. We took off about daybreak; the wind had subsided but the ceiling was low and visibility was very poor. As we neared our scheduled stop at Lourdsburg, New Mexico, it began to rain and I was pleased to find that not a drop entered the cabin of the *Eaglet*.

Duke and I discussed the situation over our telephone and decided to climb higher in search of better weather. Up we climbed, five, six thousand, seven, eight thousand feet from the earth and then ran plumb smack into a line



The Eaglet Obediently Follows the Tow Ship

squall. The wind tossed us around like two match boxes held together with thread.

"Dive her, Duke!" I yelled and both machines began to ease down. Then I noticed that the *Eaglet* was gaining on the plane, the tow-line getting slacker every second.

"Give her the gun!" I shouted. Duke pushed on it and down we plunged like stones, in a straight "power dive." The "TEXACO VII" began to draw away again and the tow-line got more taut.

"Easy! Easy!" I cautioned, and Duke straightened her out.

Had it not been for the telephone I feel sure that we would have lost our cable again.

We had to skip Lourdsburg, and stopped in El Paso only long enough to get a bite to eat and greet the crowd on the field. As we pushed on toward Pecos, we established what I believe is a new unofficial altitude record for gliders, as the altimeter registered more than ten thousand feet between Sierra Blanca and Pecos. We had climbed up there to find calmer air.

Right through Pecos we went with hardly a glance below, and beyond Pecos we ran into a beautifully calm air which contributed not a little to our enjoyment of the balance of the day's flying. A brief stop at Midland, Texas, followed, where we gave the tow ship another dose of TEXACO gasoline and oil and I did a 25-minute program of gliding. Sunset saw us drawing into Sweetwater on scheduled time. We had covered 710 miles, about a quarter of our journey.

A good night's sleep and a big breakfast at Sweetwater put us in fine condition for the next hop; Sweetwater to Tulsa, Oklahoma, with scheduled stops at Wichita Falls, Texas, and Oklahoma City. We made the distance, 375 miles, in five hours flying time. The *Eaglet* went through her paces at Wichita Falls in good shape and it was half an hour from the time I cast off from the "TEXACO VII" until the little glider landed on the field. Another brief exhibition of gliding entertained the folks at Oklahoma City.

As we neared Tulsa a heavy fog forced us to travel below one thousand feet altitude. I didn't want to take a chance on not being able to see the tow plane.

The fog seemed to be pretty fond of Tulsa, for the next morning it was still hanging around. For a time we thought we would have to lose another day, but a weather report came through saying that conditions around Springfield, Missouri, were favorable and we took off.

For several minutes we climbed up to get on top of the fog bank. The air was quiet which didn't make me mad as my hands were full of blisters from wrestling with the control stick in the *Eaglet* the day before.

A big crowd was on hand at Springfield and for 25 minutes after casting off from the tow plane I was able to glide and soar. Touching the ground hardly long enough to drink a cup of coffee, we pushed off again in the direction of East St. Louis, Missouri, and came down on the field there as the sun was setting in our wake.

The next day proved a tough one for everybody in the aerial train. We took off from East St. Louis and hopped

P. & A.

J. D. Jernigan, Tow Ship Pilot

quickly to Terre Haute for gas and oil. As Duke was nosing her up after our takeoff from Dresser Field, Terre Haute, at about 1200 feet the towline snapped again. Naturally our telephone cable went with it.

Fortunately I had formed a habit of keeping constantly on the watch for emergency landing fields, and remembered a race track about two miles away. I turned the *Eaglet's* nose toward it and, with all of the cable still hanging on, began the glide toward earth. When I reached a spot where I knew we could locate the tow wire again, I released it and a few seconds later landed on the infield of the race track, followed by Duke in the "TEXACO VII."

Prof. Franklin, Builder of the Eaglet, Placing the Hood

Wally hopped out of the tow plane, we located the cable and after an hour's delay in making repairs, we again took off for Indianapolis. We had just time for lunch there and then headed into the wind toward Columbus.

The strain of the trip was beginning to tell a little on all of us. My chief trouble was in keeping awake, for the humming of the wind through the struts made a wonderful lullaby. I found the best way to keep from falling asleep was to sing over the telephone to Duke and Wally and I can guarantee that my singing is enough to keep anybody awake. In fact, Duke observed caustically that my tenor-baritone rendition of "Little By Little" was enough to wake the dead.

The weather man was good to us on the hop from Columbus to Cleveland and we made it without difficulty. Though Cleveland may seem a long distance from New York to the layman, to us it meant that we had nearly reached our goal.

Buffalo, New York, was the next scheduled stop and we made it in good time. Taking off from Cleveland airport at 2.05 p.m. on April 5, we arrived over Buffalo at 4.05 and I was able to give a 25-minute gliding exhibition. We had made the trip from San Diego to Buffalo in 31 hours and twelve minutes flying time, at an average speed of 82 miles an hour. Eight hours and six minutes of our trip had been devoted to soaring.

Of the entire trip, the last day's flying was by far the worst. Leaving Buffalo at 8 a.m., we ran into a cloudy sky and some rough air that made me bump around like a trout at the end of a line. The weather man hadn't promised us anything and we weren't disappointed.

An hour and twenty minutes later we sighted the city of Syracuse and I was delighted to find the weather there so good that the *Eaglet* gave one of the best performances of her trip. I cast off at three thousand feet, soared *(Continued on Last Page)*

Close-up of the Tow Line Connections

It's Our Move

Company's New York Offices Transferred on Scheduled Time

AT three o'clock on the afternoon of April 4, employes of The Texas Company's New York Offices closed their desks and left the Whitehall Building for the last time. At nine o'clock on the following Monday morning they reported for duty at 135 East 42nd Street, some four miles uptown, and a few minutes later business was going on as if nothing out of the ordinary had happened.

The Texas Company moved into the Whitehall Building in 1910. Early last year it was decided to follow the trend of many other business organizations and locate the offices in the busy midtown district, in the heart of what is known as the Grand Central Zone. Fourteen floors in the Chrysler Building, then under construction, were leased, and preparations for our occupancy of the new quarters were begun.

EWING GALLOWAY

Our New Home Pierces the Early Morning Clouds

For months previous to the move a special committee assigned space, re-located offices, and, as the time for the actual move drew near, appointed departmental sub-committees to assist in the work.

As an initial step, an inventory of all equipment was made and actual measurements taken. Blueprints were then drawn up, showing the location of each piece of furniture in every room of the new building. The week before the move, all equipment was tagged, showing the floor, section and room to which it was to go, and loose material, such as papers, stationery and records, was packed in bins and boxes.

At six o'clock Friday night, April 4, six of the thirty motor vans used were backed up to the three exits of the Whitehall Building and the move was officially under way. Approximately half of the moving committee was stationed in the Whitehall Building with temporary headquarters on the sixth floor. The other half was assigned to the Chrysler Building. Telephone connections had been established between the two buildings and soon the first of the six hundred vanloads was nosing its way uptown through the quiet streets of lower Manhattan.

Under the supervision of sub-committee members and sixteen foremen, 270 men moved the equipment, which included three thousand boxes, five hundred special bins for the transportation of valuable papers and 75 special bins for address card trays. Each vanload was insured for $10,000. Ten elevators were in operation at the Whitehall Building while fifteen lifts at the Chrysler Building moved the equipment into its new home.

Dawn, breaking slowly over Battery Park, on the southernmost tip of Manhattan Island, saw the big Whitehall Building still ablaze with lights. Giant vans at the entrances eased their bulk against improvised wooden runways, down which there moved a steady stream of desks, filing cabinets, chairs and tables.

All day Saturday, the fifth, and all that night and into Sunday the move progressed. Patrons of night clubs in midtown Manhattan saw the big vans lumbering through the streets and on the morning

of the seventh skippers of tug boats and ferries, nosing their way through the fog which in the early morning always wraps the harbor in a damp, gray cloud, saw the lights in the big Whitehall Building blink out, one by one.

Up in the Chrysler Building, sub-committee workers were unpacking boxes and bins and making things ready so that employes would be able to begin work immediately Monday morning. All-night coffee shops in the vicinity attracted unusually heavy patronage.

EWING GALLOWAY

Our Old Home—The Whitehall Building

Realty experts maintain that the Company's move was the largest ever consummated in the Grand Central Zone. Our offices occupy approximately one fourth of the rentable space in the new building and extend from the 16th to the 29th floors. There are 77 stories in the building.

The building stands at the corner of Lexington Avenue and 42nd Street. Forty years ago this site was a playground in the midst of railroad tracks and "squatter" shanties. Demolition of the old buildings occupying the site was begun October 15, 1928, and the ground was ready for excavation in 21 days. On November 11 the digging was started and for several months steam shovels and dynamite gradually ate a mammoth hole sixty feet down to the solid bed-rock underlying Manhattan.

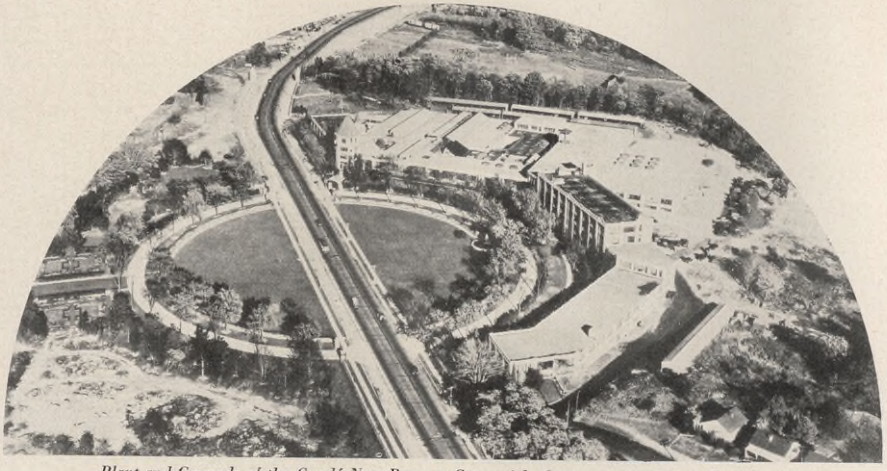
The building is 1046 feet high and was erected at a cost of approximately $15,000,000. A few years ago it would have been impossible to erect a building of this height because elevators could not be constructed to operate the entire distance. One elevator can now go from the first floor to the top in a single trip, traveling approximately one thousand feet a minute. All mechanical equipment in the structure is lubricated with TEXACO products.

An interesting feature developed during the construction of the edifice which was going on simultaneously with that of the Bank of the Manhattan building at 40 Wall Street, now the third highest structure in the world. Architects for the two buildings each had a contract to design the tallest office building in the world. Up to within a few months of the completion of structural steel work, it was generally believed that the Bank of the Manhattan building had won out in the "race." A metal spire was constructed in secret in an elevator shaft near the top of the Chrysler building and when the final beam had been laid on the downtown structure, the spire was pushed up from the shaft in the Chrysler tower topping the other structure by 100 feet.

The view from the observation gallery near the top of the new building is remarkable. The sightseer may look north and see up the Hudson River to Dobbs Ferry and watch construction work on the new Hudson River Bridge at 178th Street. Looking southward, he may see the Goddess of Liberty in the Lower Bay. To the west is the New Jersey shore and on the east lies the Sound, Long Island, and the gray-green Atlantic. —P. C. H.

IRA MARTIN

The Building as Seen from a Neighboring Tower



Plant and Grounds of the Condé Nast Press at Greenwich, Conn., on the Boston Post Road

Behind the Scenes With TEXACO Users

V—The Condé Nast Press

MORE THAN TWO MILLION MAGAZINES AND HUNDREDS OF THOUSANDS OF COPIES OF ADVERTISERS' BOOKLETS AND BROADSIDES ARE PRODUCED EACH MONTH BY THE CONDÉ NAST PRESS, AT GREENWICH, CONN., WHERE TEXACO LUBRICANTS ARE USED EXCLUSIVELY. THE FOLLOWING ARTICLE IS THE FIFTH OF A SERIES CONCERNING IMPORTANT COMPANY CUSTOMERS.

THIRTY-FOUR miles north of New York City on the historic Boston Post Road is located the printing plant of the Condé Nast Publications at Greenwich, Connecticut. Here 2,200,000 copies of representative American magazines are published every month. In addition, other millions of advertising books, pamphlets and trade publications maintain the plant in day and night operation.

These books reflect the perfection of twentieth century system and efficiency, yet are created in an atmosphere reminiscent of the early days of guild labor, when a trade was not only a means of sustenance but a task performed with an honest pride in one's work. How this maximum quality and quantity production is made possible is a study in modern business methods.

For a month's output of magazines, approximately sixty carloads of paper, nearly two million pounds, are delivered to the plant. Daily, two or three carloads of outgoing magazines are shipped from their own sub-station of the United States Post Office to "Constant Reader" and "Old Subscriber." These publications include *Vogue, Vanity Fair, House & Garden, American Golfer, Arts and Decoration, Nation's Business, Field and Stream, Nature Magazine, Business Week, System, Charm, American Girl,* THE TEXACO STAR, and that sprightly weekly, *The New Yorker.*

The plant and the grounds surrounding it resemble more closely a college campus than a factory. The site has been laid out with a circular stone wall five hundred feet in diameter, bisected by the highway and fringed with elm trees, evergreens, dogwood, cedars and shrubs. Across the highway from the plant itself is a formal garden, containing imported statuary and literally hundreds of varieties of flowers.

Landscaping this particular piece of ground was accomplished with difficulty. The plot on which the plant stands was originally as bare and uninviting a piece of terrain as you could find in Connecticut. Great, bare masses of stone outcropped on the surface of the ground and the soil between the rocks was so thin that even weeds had a struggle to remain alive on it.

Within five years the spot was completely transformed. Rocks were blasted away and made into stone walls, the ground was leveled, 65 American elm trees were transplanted and set into deep holes far down in the ground and the entire area was

carefully turfed. Among the statuary pieces which adorn the grounds is a Florentine baptismal fount, five hundred years old, now serving as a bird bath. A Georgian love temple, imported from England, faces a lovely fountain which is illuminated at night by marine flood lights.

More than half a million dollars were spent on this landscaping project alone but it has been money well spent. It is the belief of the Nast organization, a belief shown to have been a sound one, that employes function more efficiently in pleasant surroundings.

The plant itself is the last word in printing equipment. The visitor being "shown through" travels in a continuous line, never once crossing his tracks; starting with the composing rooms, electrotype foundry, and pressrooms, and ending in the bindery, mailing, and shipping departments.

One learns that in this plant a month's output includes some fifteen million color pages and approximately two hundred million black and white pages.

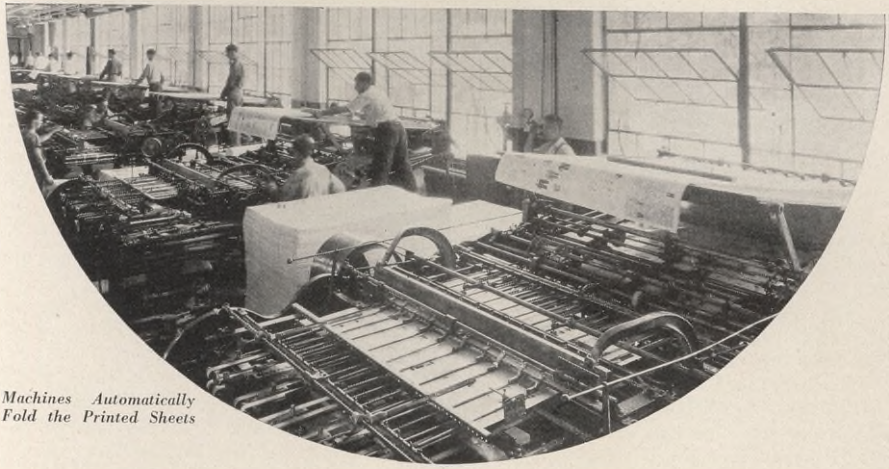
As the visitor steps into the composing room, he is struck by the immaculateness of the place and is told that the walls and floors are vacuum cleaned regularly in order to prevent dust from accumulating and spreading.

To the left, a battery of Linotype machines are at work setting type, while farther along, "make-up men" are fitting type and photo engravings into page forms in accordance with the layouts made by artists on the editorial staffs of the various magazines. As soon as a page form is completed, proofs are "pulled" and sent to the proof readers who indicate corrections. After corrections are made, new proofs are sent to the editors of the publications for perusal. The proofs are then approved or marked for revision by the editors and the pages are prepared for the electrotyper.

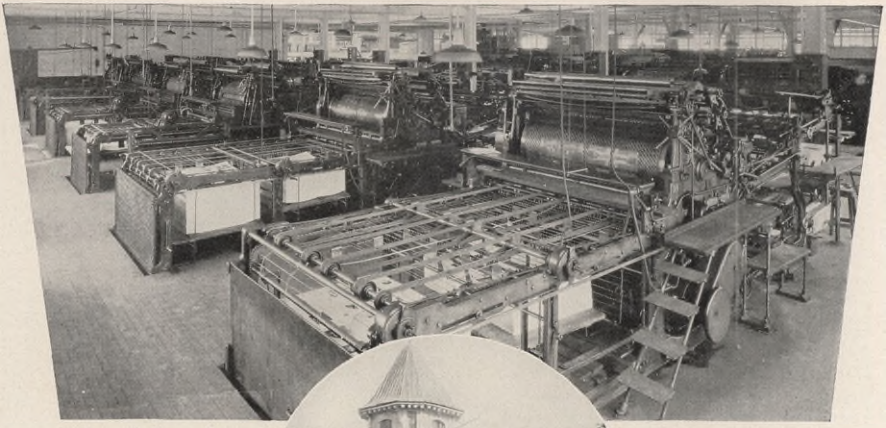
After the "final OK" from the editor, the forms are laid out on a table called a "stone," locked in metal frames and electrotyped. When the electrotypes have been locked in place on the press and prepared so that every detail of type and illustration prints perfectly, a "skid" of paper, approximately 12,000 sheets, about 72 inches long and 49 inches wide, depending on the size of the magazine, is put into place on the "feeder" end of the press and the machinery put in motion.

The problem, is, of course, to make sure that only one sheet at a time is fed into the press. This is accomplished by the use of suctions, blowers, combers, gears and cams. Combers separate the sheets, an air tube near the top of the skid of paper blows a sheet off the top and at the same time pneumatic suckers pick up the top sheet and bring it forward until it is engaged between rollers and tapes. It is carried down to grippers which bring the sheet between the printing plates and the printing cylinder and deposit it on the delivery end of the press, a printed sheet.

These presses operate with great rapidity. Once printed, the flat sheets are fed into folding machines and when given the correct number of folds become "signatures." The folded signatures are taken to the assembling machines which collate them with appropriate color inserts and carry them along an endless chain belt to the wire stapler mechanism,



Machines Automatically Fold the Printed Sheets



Section of Press Room Showing Rotary Presses

Gateway to the Garden Adjoining the Plant

the glue immersion, the coverer and the power clamps which unite the integral parts into a finely-bound book, with uncut edges.

This gathering machine is a marvel of efficiency. Should anything untoward occur, the entire machine comes to an instantaneous stop and a semaphore flies up at the spot where the trouble has developed.

Operators remedy the difficulty, and start the machine again. So delicately is this gathering machine adjusted that if a single leaf does not fall into its proper place in a magazine, the machine stops and the semaphore flies up at the point at which the miss occurred.

At the end of the gathering machines, sit inspectors whose sole duty is to glance through the magazines as they are assembled. The books are taken to a continuous trimmer and are trimmed top, bottom, and one side in a single operation while another belt conveyor takes the trimmed books to the mailing department for shipping. Should one of these books appear defective, the inspector orders the machine stopped and rejects the entire run of that particular group. The rejected books are taken into a separate department where young women inspect each magazine and save those which are not damaged.

Printing is an operation which requires absolute uniformity of temperature and moisture content in the air. For this purpose a uniform heat is maintained and automatic humidifiers send a constant spray of fine water vapor into the air. So effectively are the factors of temperature and humidity controlled that even though the working temperature in the press rooms is always more than eighty degrees, one does not experience the slightest feeling of discomfort.

Another problem is that of static electricity. Static caused by friction between the sheets of paper and rapidly moving machinery, can cause untold difficulty; the sheets will stick together and to nearly anything with which they come in contact. This is overcome by special static neutralizers installed on each machine.

Nearly one thousand men and women are employed by the Condé Nast Press and the increasing scope of its operations has never made it necessary to lay off any workers for a single day since it began.

It is obvious that delicate machinery operating at such terrific speeds, and subject to such rigid schedules as publications require must be lubricated with the very highest quality oils. There must be no breakdown in operation.

TEXACO lubricants in the form of light oils, heavy oils and greases are doing a considerable part in making for quality as well as quantity production by this universally acknowledged leader in the printing industry.

PHOTOS COPYRIGHT
THE TEXAS COMPANY (CALIFORNIA)

Mr. Kennedy (Right)
His Photographer
and their Camera

Oil Prospecting From the Air

Charting the Faults and Anticlines With Aid of the Aerial Camera

By MEL S. KENNEDY
Aerial Surveyor, The Texas Company (California)

THE gradual development of an air-consciousness in this country has resulted in a variety of useful applications of the airplane to scientific problems. Among the most important of these has been aerial mapping or survey for the study of areas possessing oil production potentialities.

The past few years have witnessed a great advance in the science of aerial photography. Modern methods insure a degree of accuracy in mapping which would have entailed prohibitive expense under the old methods, if, indeed, it could have been achieved at all.

Examining Photos in Relief

Aerial maps have been made of areas which never could have been mapped from the ground. In Alaska, for example, the costly ground survey system has been supplanted in many cases by aerial survey, with the result that hitherto inaccessible territories have been opened up for development.

Rear Admiral Richard E. Byrd used this method of recording the vast, unknown antarctic areas and has returned with photographic records far more valuable than any which he might have been able to obtain by other methods in such a comparatively short time. In Canada many earlier ground surveys have been scrapped, as recent aerial maps have shown them to be inaccurate.

Aerial maps have probably been most intensively applied in California, where practically every major oil company has tried out the aerial survey and reported favorably upon it. The Texas Company (California) has mapped approximately 6500 square miles in this way, 20,000 negatives having been used. This is

San Andreas Fault Along the Temblor Range (Top) and Geologist's Notations on Photo Taken at 12,000 feet

a leading figure for any oil company to date.

The most convincing illustration of the practical value and enormous potentialities of aerial mapping in the petroleum industry is found in the field results obtained, the speed with which large areas may be covered and the wealth of detail furnished. It would be economically impractical to make topographical records to such an extent by any other method.

In considering the results of this work which have been of importance to the oil industry, let us first consider the matter from the viewpoint of the geologist, since he has probably been rendered greater assistance than workers in any other department of the business. The aerial map is now the rule rather than the exception in geological studies; it is seldom indeed that a major operator today will start on any geological problem without aerial maps to aid him.

Drainage readily can be followed on aerial photographs and these drainage lines are frequently indicative of the folds or anticlines which may be present. The aerial map also reflects quite definitely rifts and conditions of displacements and often indicates a contact between beds through changes in soil color on opposite sides of the contact. It is not unusual for the student of an aerial map to follow contacts even through fields of standing grain because of the fact that different types of soil result in different densities of vegetation. Rock faults may be picked up in the same way and in like manner oil seepages are likely to be reflected in the growth of vegetation and the way it grows.

When an area has been mapped from the air, the contact prints, with roughly-matched index and mosaics (finished maps) are first turned over to the field geologists. The work of these men can be carried on to any desired extent, but it usually consists of indicating by symbols the location and the amount of dips in the bedding planes, also the location of contacts between beds of different formations.

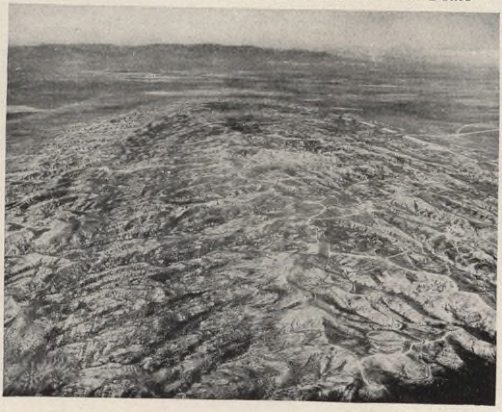
One of the most desirable features of the aerial map is the ease by which one can locate oneself on the map. This is made possible by recognizing individual trees, bushes, roads, trails, power lines, railroads or pipe lines which appear in the picture.

Large-scale contour maps for engineering purposes can now be made by placing the aerial photograph on a plane table and using it as a base map for topography. This method enables the surveyor to locate himself and orient the table by reference to the surrounding objects. Contours can be drawn on the photograph itself by the ordinary method of stadia surveying. After a little practice a topographer can cover two or three times as much ground in a day as he could with an ordinary plane table sheet.

Aerial Photo with Surface Contours —Covering About One Square Mile

Due to the fact that almost any point in the picture may be identified, the stadia method of survey is often replaced by using some form of height-measuring instrument, which enables one man to carry on the entire work of topographic mapping. Usually a battery of aneroid barometers is used and in one particular area three Paulin altimeters were employed. Two of these were graduated in ten-foot intervals while the other was in two-foot intervals for more accurate readings. The topographic map was made with a ten-foot contour interval and a probable error of less than five feet in the final adjusted elevations. The map covered an area approximately ten miles long and three miles wide. The work was completed in thirty days by one man in the field, the prints having been delivered to the Company's office four days after the pictures were taken.

A Salt Dome from the Air—Kettleman Hills North Dome



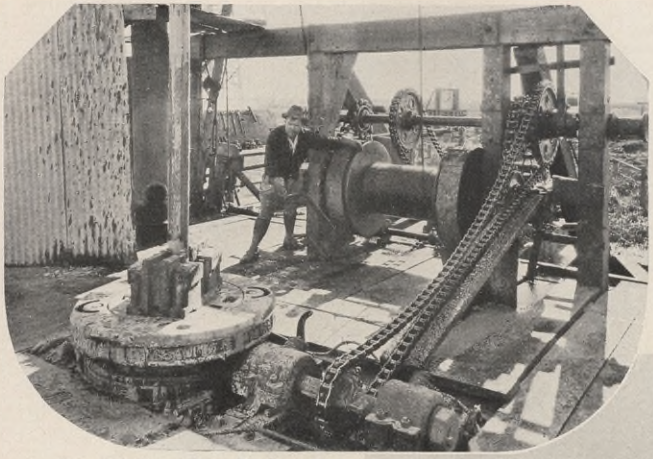
The photographers have successfully taken pictures of three hundred square miles a day at a 12,000-foot altitude. Prints from pictures taken at this height are on a scale of about one inch to every thousand feet. This scale has proved most satisfactory for our purposes because of the great detail made possible.

In January of this year The Texas Company (California) completed the Salinas Valley aerial survey, the largest of its kind in the United States. Mosaics are now being constructed in sheet form which will show the various townships within the area. Making the photographs required 75 flying hours, 64 of which were used in actual surveying and the balance in flying between the base and the mapped area. The area was mapped in eighteen flying days, a record for aerial mapping.

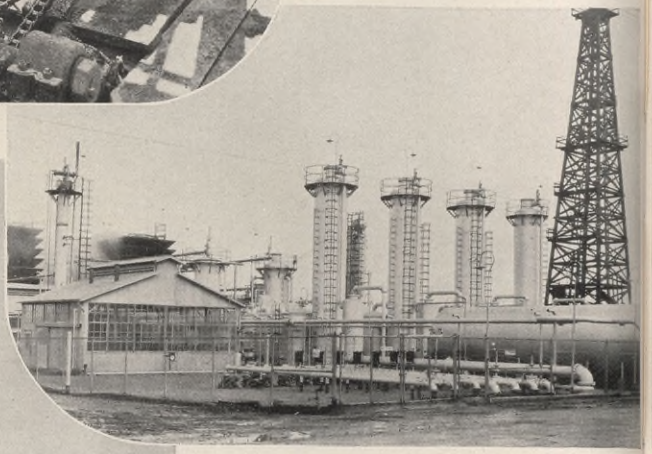
A specific saving was recently effected by The Texas Pipe Line Company, which used aerial photography to survey about five hundred square miles in Texas for the routing of a pipe line. This method undoubtedly will be used extensively in future projects. Even greater savings will be accomplished as the science of aerial photography becomes more highly developed.

TEXACO IN T

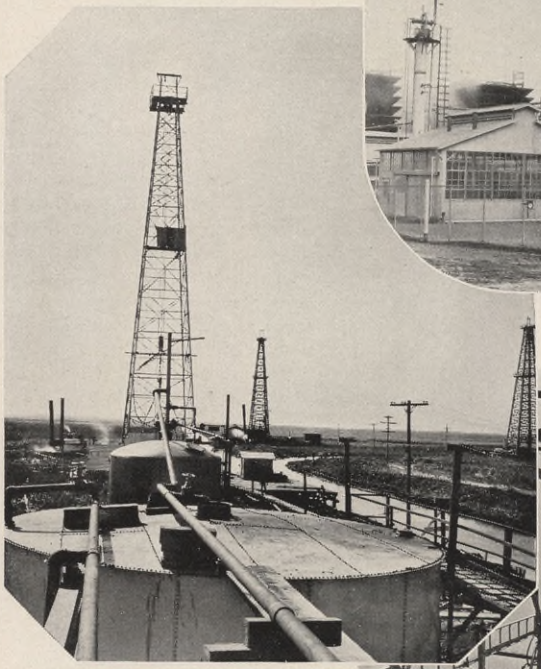
The Accompanying Photograp
Activities of The Texas Com
Santa Fé Springs, California,
Field Near Our Port Nech



Rotary Drill and Draw Works on Our Polk No. 2 in the Port Neches Field



Gasoline Plant No. 5B of The Texas Company (California), Located at Signal Hill



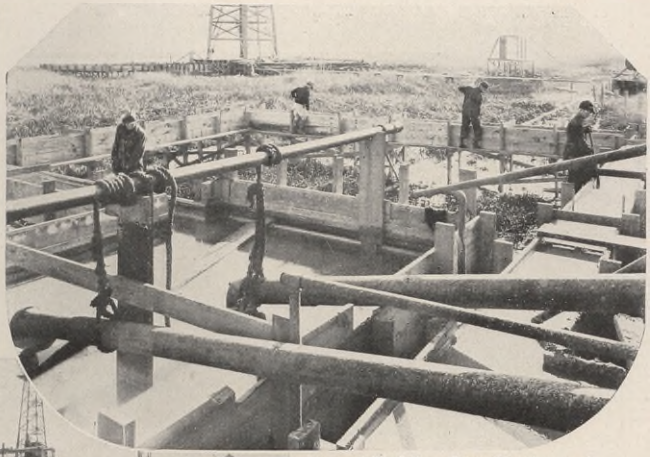
Three Wells in Port Neches Field, Polk No. 2, Kuhn No. 1 and Stark No. 1

★

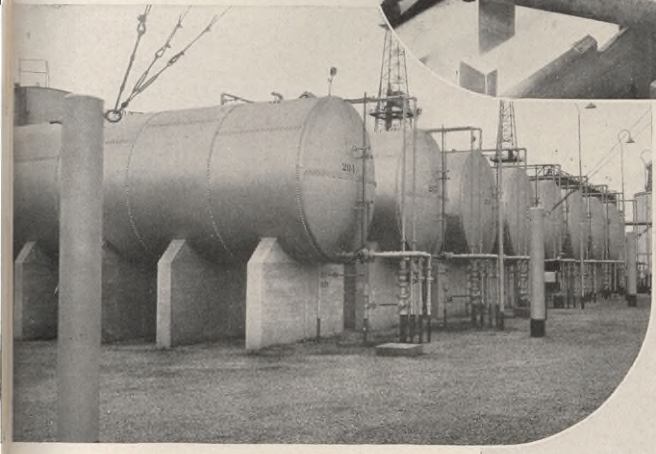
Ant's Eye View of a Well Derrick Looking Toward the Crown Block

THE FIELD

graphs Illustrate Producing
Company at Signal Hill and
nia, and in the Port Neches
Neches Refinery in Texas



View of Mud Box, Pump Suctions and Mud Box Ditch of Our Polk No. 2



Tankage Facilities at Our Gasoline Plant No. 9 B at Santa Fé Springs, California

Wells on Fee Property at Signal Hill, Cal., Our No. 1 in Foreground

★

Canal Dug from Neches River to Our Holdings, Port Neches Field

The "TEXACO VII" *on a Trial Run in Holland Waters*

From Rotterdam to Rio

A New Company Tank Lighter is Taken for a Ride

By H. M. OLDIS

Chief Engineer, Export Department

A TANK lighter, built in Holland and shipped to Brazil on the deck of a larger vessel, has recently been put into service in the harbor of Rio de Janeiro for The Texas Company (South America) Limited. The lighter is named "TEXACO VII," after the custom of the Marine Department, which is to name all small craft "TEXACO," followed by a numeral, each country or territory having a set of numerals, beginning with "I."

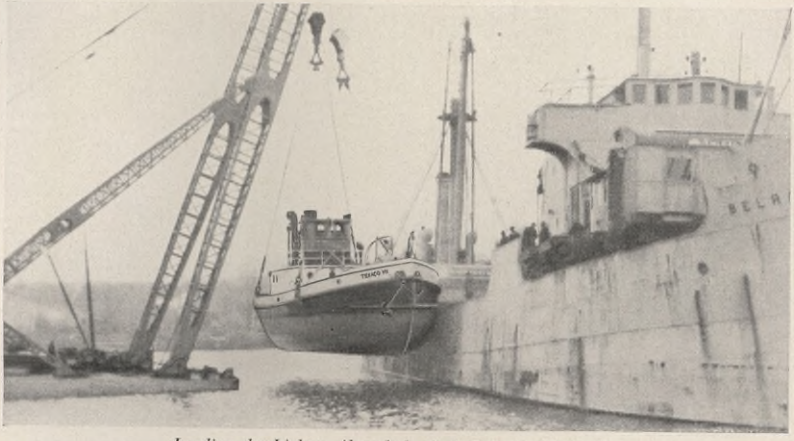
Last year The Texas Corporation's Brazilian subsidiary announced its need for a power tank lighter and arrangements were made to purchase the vessel from the firm of Jonkers and Stand, H.I., Ambacht, Holland.

The problem was how to deliver the little craft from Rotterdam, Holland, to Rio de Janeiro, a distance of more than five thousand miles.

Two methods of shipment were available: first, a crew could be placed on board, the vessel loaded with sufficient fuel and stores, and sent out under her own power; second, the "TEXACO VII" could be placed bodily on board a carrying vessel.

There is only one firm in the world that could possibly handle the latter proposition. That is the firm of Christen Smith, of Oslo, Norway. Mr. Smith is an old-time sea captain and on his many voyages throughout the world he observed the need for specially-designed ships to handle bulky and heavy cargoes. He followed up his idea and now has a fleet of such ships traveling the high seas. The fleet includes seven motor vessels and two steamers, all of which are TEXACO lubricated throughout. Plans and weights of the "TEXACO VII" were accordingly placed in the hands of this firm and in due time they advised that they could handle our boat on the

Unloading the "TEXACO VII" *at Rio de Janeiro, Brazil*



Loading the Lighter Aboard the S. S. Belray at Rotterdam

deck of one of their ships, the steamer *Belray*.

In the meantime, work on the lighter proceeded satisfactorily and on her trial runs the "TEXACO VII" made a speed of 9.53 knots an hour. She has a capacity of 50,000 gallons and is powered with a two hundred-horsepower Deutz full Diesel engine. She is 91 feet, six inches long overall, has a moulded breadth of 24 feet and a loaded draft of six feet, nine inches. In shipping terms she has a deadweight of 135 tons and a displacement of 274 tons, at 2240 pounds to the ton. The boat has been equipped to quarter a crew of five and arrangements have been made to extend the cabin to house a crew of seven if this is needed.

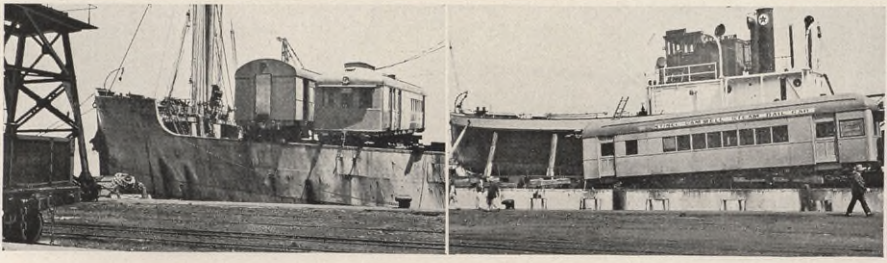
Shortly after the boat's delivery at Rotterdam, Christen Smith's *S. S. Belray* called at the Port of Rotterdam to take the "TEXACO VII" aboard. The loading of the boat took approximately two hours and on the same day the *S. S. Belray* set sail for Rio. In addition to carrying the "TEXACO VII," she was loaded with railway locomotives and passenger cars, a number of the latter being located on her deck.

It is fortunate that it was decided to send the "TEXACO VII" by carrying vessel rather than under her own power, for at the time of her trip terrific storms were ravaging the East Atlantic.

The *S. S. Belray* arrived in Rio de Janeiro, cargo intact, 29 days after leaving Rotterdam and unloading was begun two days later. Most of the *Belray's* loading tackle was being used to capacity in unloading the railway cars, so a Brazilian Navy derrick was placed in service. This derrick, the largest piece of equipment of its kind in Brazil, lifted the bow of the "TEXACO VII," the *Belray's* tackle handled the stern, and she was lifted, cleared and lowered into the Bay of Rio in exactly three hours.

According to the latest reports from Brazil, the "TEXACO VII," has been duly registered under the Brazilian flag, placed in service and is operating perfectly. In fact, an official of The Texas Company (South America) Limited, writes: "All of us are very proud of her as she is the best looking and best operating piece of equipment in the harbor."

Railway Cars Were Fellow-Passengers On the Deck of the S. S. Belray



Left to Right: Lou Kemp, Jeptha Billingsley and Governor Dan Moody of Texas

Texas Keeps Faith With Her Forebears

Company Representative Performs a Valuable Public Service

ALMOST any American can tell you that Napoleon is buried in Paris, or that the mortal remains of George Washington are in a tomb at Mount Vernon. How many of us can name the last resting place of any one of our state heroes?

In Texas they have decided to do something about it. And the man responsible for the original idea is Lou Kemp, Asphalt Sales Department Representative of The Texas Company at our Houston Office.

Kemp has been for many years a keen student of Texas history. About three years ago he began to wonder where the outstanding men of the days when the State of Texas was a republic were buried. He began to investigate in his spare time and found to his surprise that many famous Texans were lying in unmarked graves in abandoned family cemeteries, scattered all through the southern portion of the State.

The first grave which he found was that of General Edward H. Tarrant, a noted Indian fighter and jurist, and the man from whom Tarrant County received its name. He was buried on his plantation in Ellis County and there were only two men living who knew the location of his grave; one a man now 85 years old, who was born and reared on the Tarrant plantation, and the other a former Negro slave who was about ten years old when Tarrant died. Both had watched a tree grow up on the General's grave, decay and fall down, leaving only a stump to mark the last resting place of this sturdy defender of the colony against the Indians.

Kemp explained the situation to the local chapter of the Daughters of the Republic of Texas, at Fort Worth, and they urged him to have General Tarrant's body removed to Forth Worth. This was done on March 2 (Texas Independence Day) 1928. The newspapers were enthusiastic in their comments and state-wide interest was aroused.

The next man whose body was removed was Edwin Waller, a signer of the Texas Declaration of Independence and the man who had charge of building the first capitol of Texas at Austin, in 1839. This was not the first capitol in Texas, but the first which was located in Austin. Austin city officials readily agreed to pay expenses incidental to the removal of Waller's body from the Waller family cemetery in Waller County to the State Cemetery at Austin.

Kemp began to get scores of letters from people telling him of abandoned and little-known graves of men equally prominent and eventually he took the matter up personally with Governor Dan Moody. The governor told him that if an appropriation could be obtained through the legislature, he would gladly approve it.

The state legislature was almost unanimously in favor of the idea and there was no difficulty in passing the bill. The act provided that the work be done under the supervision of the State Board of Control, which body promptly appointed Kemp to act as its agent.

During the fourth called session of the legislature, Kemp had the remains of Governor Peter Hansborough Bell, who was buried in North Carolina,

returned to Texas and funeral services were held in the senate chamber of the state capitol. Both branches of the legislature adjourned and attended in a body. This was repeated during the fifth called session of the legislature when services over the body of Judge Robert M. Williamson, "Three-Legged Willie," probably the most noted jurist of the Republic days, were held in the senate chamber under similar circumstances.

The work now commands state-wide attention and those in charge are flooded with letters from descendants of famous and near-famous Texans. There was no intention in Kemp's mind of commercializing the idea and it is still strictly a hobby and a labor of love.

The early history of Texas, according to Kemp, is fascinating, and every Texan is proud of it. To tell the story very briefly: Stephen Fuller Austin, in 1822, was granted an immense tract of land, first by Spain and subsequently by Mexico, for the purpose of colonization. The first three hundred families which Austin brought with him are known as the "Old Three Hundred," and to be a descendant of one of these is in Texas equivalent to being an "F. F. V." in Virginia, a "Native Son" in California or a Lowell or a Cabot in Boston, Massachusetts.

As other settlers from all parts of the United States flocked into Texas, the Mexican government became alarmed and reversed its liberal position by issuing drastic decrees and passing unjust laws against the colonists. On March 2, 1836, the colonists held a convention at old Washington-on-the-Brazos River and declared themselves a republic, free and independent of Mexico. Before the convention had ended, news arrived that General Santa Anna, president and dictator of Mexico, at the head of eight thousand soldiers, had massacred the 180 defenders of the Alamo at San Antonio.

The Republic of Texas was formed, with Sam Houston as commander-in-chief of the army. Its forces were victorious and Texas remained a republic for nine years, recognized as such by England, France, the United States and other nations, but not by Mexico. When, by mutual agreement, Texas was annexed to the United States, Mexico declared war, was defeated and ceded Texas to our country.

The people of Texas have honored their outstanding men by naming most of the 252 counties in the state for them and by erecting monuments to their memory. Kemp's project has created a new interest in the early history of Texas.

After the appropriation by the state legislature, Kemp during the period that followed, has secured the removal to the State Cemetery at Austin of the following men:

Jesse Billingsley, captain of a company at San Jacinto, whose remains were removed from his old plantation in Bastrop County on September 3, 1929; Richard Ellis, president of the convention that signed the declaration, and for whom Ellis County is named; Robert Potter who, prior to coming into Texas, was a United States congressman from North Carolina. He was a signer of the declaration and first Secretary of the Texas Navy. He was killed on March 2, 1842, and since that time had lain in an unmarked grave on the banks of Caddo Lake in Marion County.

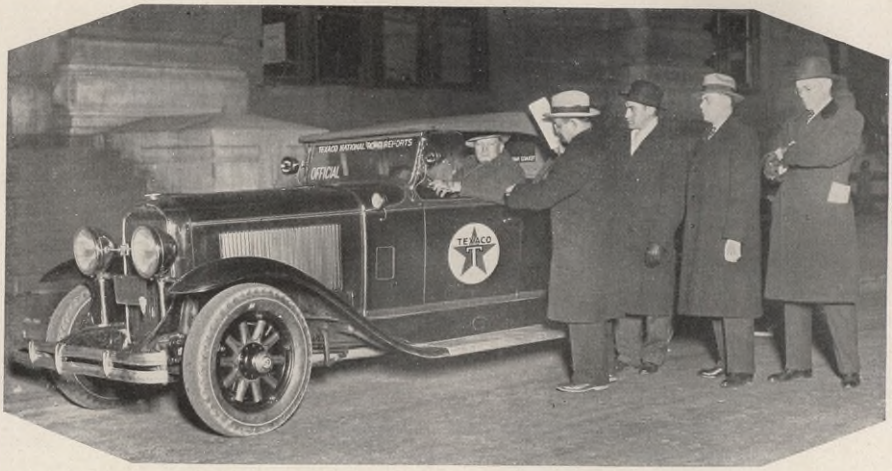
Oliver Jones, chairman of the senate committee which designed the present state flag of Texas, Jesse Grimes, a signer of the declaration and Hardin R. Runnels, fourth governor of Texas, who was buried in an abandoned family cemetery in Bowie County.

Royal T. Wheeler, a member of the supreme court of the Republic of Texas and chief justice of the supreme court when it became a state. His remains and those of his wife were removed from a cemetery near Galveston, which had been destroyed by a tropical storm in 1900.

Others include John E. Greer, a member of the senate of the Republic, Robert M. Williamson, an outstanding jurist in the days of the Republic, and James Pinckney Henderson, whose remains were removed from the old Congressional Cemetery at Washington, D. C., on April 21 last. The latter was minister from Texas to England and France, a brigadier general in the army, first Governor of Texas and later a senator from Texas to the United States Congress. Henderson County is named in his honor.

In addition to making arrangements for the removal of the bodies of these famous men and their subsequent interment in the State Cemetery, Kemp arranged for the erection of several monuments on the unmarked graves of noted Texans. The state has shown its appreciation of his work by designating that section of a highway which passes through the State Cemetery as Lou Kemp Highway, and a brass plate, inscribed with his name has been set into the road at that point.

Monument to the Father of Texas
In the State Cemetery at Austin



Officials Get Mr. Hawley Off to an Early Morning Start at New York

A Flying Trip By Auto

Hawley Proves Practicability of TEXACO *National Road Reports*

ON Monday morning, March 10, Cecil Hawley, Director of The Texas Company's TEXACO National Road Reports, got into his Buick roadster at New York City and started the engine. Sixteen and a half days later he stopped his car in front of the Company's New York office building and climbed out. In the interim he had covered 10,423 miles, New York to San Francisco and return, with a two-day stop-over at Los Angeles.

Mr. Hawley's object was to prove that one can make a transcontinental automobile trip any time during the year, providing that he takes the trouble to find out about road conditions on the way. In addition he showed that such a trip can be made without breaking the speed laws of any state. Moreover the trip proved the efficiency of the various State Highway Maintenance Departments. His car was fueled and lubricated, of course, with TEXACO New and Better Gasoline and TEXACO Oil.

Briefly, Mr. Hawley passed through the following cities, here stopping for lunch, there at a TEXACO service station for fuel and oil, and being interviewed along the route by newspaper and automobile representatives: Elizabeth, New Jersey; Harrisburg, Chambersburg and Pittsburgh, Pennsylvania; Lisbon, Salem, Cleveland, Oberlin, Free-

"On Time" at Cheyenne, Wyo.

(Top) Snatching a Quick Bite at Portland, Ore.

(Left) The Finish—Mr. Vos Checks Mr. Hawley in

mont and Maymee, Ohio; Elkhart, Indiana; Chicago, Illinois; Milwaukee and Madison, Wisconsin; Dubuque, Cedar Rapids, Des Moines, Omaha; Wahoo, Lincoln, Hastings, Holyoke and Sterling, Nebraska; Denver, Colorado; Cheyenne and Laramie, Wyoming; Salt Lake City and Ogden, Utah; Pendleton, Portland and Salem, Oregon; Tacoma and Seattle, Washington; Oakland, San Francisco, Los Angeles and San Diego, California; Yuma, Phoenix, Mesa, Casa Grande, Tucson and Douglas, Arizona; El Paso, Pecos, Big Spring, Abilene, Fort Worth, Alvarado, Waco, Houston, Beaumont, Lake Charles, Iowa, Kinder, Opelousas and Lafayette, Texas; New Orleans, Louisiana; Jackson, Mississippi; Montgomery, Alabama; Augusta and Atlanta, Georgia; Raleigh, North Carolina; Richmond, Virginia; Washington, D. C.; Philadelphia, Pennsylvania; Trenton and Newark, New Jersey, and back to New York City.

Mr. Hawley reached Chicago at 9:35 on the morning of the 11th. He drove his car into Seattle, Washington, just five days, eighteen hours and 45 minutes after leaving New York, having covered a distance of approximately four thousand miles.

For the past several months, in addition to supervising the distribution of TEXACO road maps, a weekly column of road conditions throughout the country has been appearing in Sunday newspapers from the Atlantic Seaboard to the Pacific Coast. These weekly columns are sent out by the TEXACO National Road Reports office. Automobile editors of newspapers who print the weekly reports were on hand along Mr. Hawley's route and considerable space in these papers was devoted to the tour. The trip was based entirely on material contained in these road reports and Mr. Hawley maintains that an average driver can duplicate his feat if he will avail himself of this service and, naturally, if he uses TEXACO gasoline and oil.

Taking Time Out to be Photographed at Kane Run, 1866

Turning the Clock Back

Something New Concerning the Country's First Oil Enterprise

By HENRY H. TOWNSHEND

Part II

IT is quite generally appreciated that the path traversed by petroleum's pioneers was not strewn with anything approximating roses: the Pennsylvania Rock Oil Company, which was the nation's first oil company, was destined from the outset for a quick and not particularly spectacular fate. It may truthfully be said that the first oil company in this country was nipped in the bud; one of its officers, gifted with more vision than his fellows, discovered that the leases had not been signed properly, by which devious but possibly pardonable agency he effected the dissolution of that organization and saved several speculative scalps.

The move served principally to relieve the company of persons to whom such then visionary enterprises as the oil business were distasteful, and following its dissolution, Uncle James organized the Seneca Oil Company, which raised itself phoenix-like from the ashes and started out confidently. Several New Haven men remained with him. My uncle, who was associated in the New Haven bank with William A. Ives, refused to have his name directly connected with the project, pointing out that the more hard-headed of his depositors might legitimately register an objection should the head of that institution consent to ally himself with such a "fly-by-night" movement.

The cost of drilling the Drake well, it seems interesting at this time to observe, was considerable, and the records of disbursements to the Colonel support that observation. While, as I previously pointed out, I am in no particularly argumentative mood concerning the Colonel's financiers, it seems to me absurd for anyone to contend that the Colonel

could have gone to Titusville, burdened with such a visionary scheme as it then was, and expect affluent Titusvillians, whoever they may have been, to finance him. It is recorded that financial support was given Drake in no small measure by Titusville business men following his arrival, and I have implicit confidence in the accuracy of that statement. Yet I believe that these were matters which were solely Drake's personal responsibility and that his employers were never aware that Drake was obtaining outside assistance in financing the enterprise.

The Colonel, in the letters which he wrote to New Haven, emphasized his consistent need for money, and it is quite logical that he found it frequently necessary to obtain it from other sources. As far as I know, there is no record to indicate how frequently he solicited it among the people of Titusville, or how much he obtained. But upon Drake's extravagance, the following letter from my uncle's records appears to shed a considerable amount of light:

This Map is in the Possession of the Author—Circle Indicates the Drake Wells

Holmden Street in the Town of Pithole, Just 65 Years Ago

"Drake was a jovial, pleasant man, fond of telling stories. He had a vivid imagination and would entertain a room-full all evening telling about his experiences. He was improvident, liberal even to extravagance, and, as one of the stable boys at Erie said, not knowing he was talking to one of Drake's employers: 'I tell you, we have a rich time up here when Colonel Drake comes—the way he pitches the quarters 'round to us boys is a caution!' "

I have read and heard at least a dozen different explanations for Drake's having gone to Titusville as the emissary of the Pennsylvania Rock Oil Company: Drake knew the oil business, it is said, and Drake was the chief factor in the company, it is further reported. The entirely supportable fact of the matter is that Drake was sent to Titusville because, in the first place, the demands of his business were such that a vacation interfered not in the least with his plans, and in the second, because he was an erstwhile railroad man and passes were available to him. This happy combination of circumstances led my uncle and his associates to select him.

It is by now quite common knowledge that Drake was not a colonel. The designation was fastened upon him by my uncle, who unashamedly explains in his scribbled memoirs how the military recognition came to be affixed: "When Drake was about to go to the oil land in Pennsylvania," my uncle writes, "I suggested that it would be a good thing for him to have a title, and asked him if he had one. He said, 'No, all the title I ever had is Conductor.' I then told him: 'Well, they will think a lot more of you perhaps out there if you have a title, so as it will be some two weeks before you get there—since you have to stop in New York for supplies—I'll send papers and letters to you at Titusville and will direct them to 'Colonel' E. L. Drake.

"So I sent papers to him and had them all directed that way. The result was that when Drake alighted from the stage at Titusville, the people rushed up, shook hands, and said: 'How are you, Colonel Drake?' From that time and ever after he was known as Colonel Drake."

In my uncle's memoranda I have found occasional traces of bitterness, and rather than condemn him too hastily, I would prefer to review briefly what were probably the reasons for it: We find a young man investing heavily in a highly speculative enterprise, yet one in which he had implicit faith—that his faith in it was justified is adequately borne out by the remarkable growth of the petroleum industry itself. At the finish, he finds himself

(Top) A Party of Englishmen Visit the Armstrong Farm, 1869

(Left) Their Main Object at Bonanza Flats Was to Get Out the Oil

fighting a lone battle which he is certain to lose, both the financial and moral support of his friends withdrawn, a man whom he selected as his company's ambassador to the oil regions taking what glory there was for himself, and powerless through it all to do anything about it.

In a sense, Drake himself was the victim of circumstance. He was the "contact man" for the company in Titusville, and when the Drake well was completed, it was quite naturally that to him most of the glory fell. He was fêted and idolized, and being possessed of an imagination of considerable proportions, he assumed the rôle of hero with effortless good-will. Newspapers paid him tribute, civic bodies sought to have him affiliated with them, and during the darker days of the aftermath, Pennsylvania's legislature voted his contribution to science of sufficient importance to warrant granting him a pension. Pills of these dimensions were bitter for his employers to swallow.

The business correspondence of the Pennsylvania and Seneca companies conclusively reveals that the

An Artist's View of an Oil Rush (Top) and Penn Transportation Company Office at Oil Creek, 1861.

beginning of the oil industry was no holiday, and if slightly strained relations occurred between Drake and his New Haven associates, there is little occasion for wonder.

The public did not take kindly to the product at the outset. My uncle reports that—"it was a long time before a process was found for deodorizing it. The smell was very offensive. It was difficult at first to get men and the railroad companies to handle it on account of the smell. They got the idea that it was unwholesome and unhealthy, would create disease and death—obstacles it seemed almost impossible to overcome, and as I was the acknowledged head of the concern, it was I who had to stand the brunt and know the whys and wherefores, and if I said I didn't know (for I could not and neither did anyone else know about it, where it came from, how it was made and so on) their looks indicated that they thought I ought to know."

In its early state of unimprovement, commercial sympathy was only occasional. Under date of March 30, 1861, my uncle Fred (treasurer of the company) received the following terse communication from the Assistant Superintendent of the New York and New Haven Railroad:

"Dear Sir:

"No sir, it would not be convenient to pay the bills you present from the Seneca Oil Company, as it was left only for trial with us, and your Mr. Pierpont, the person who solicited its trial, was satisfied that it was good for nothing, and we gave him notice to take it away."

Heartaches were as frequent as heart beats in that crusading era, and it seems to me that after the first few barrages of disappointment, the sponsors of the enterprise threw caution rather thoroughly to the winds. It is the old story of the little boy whose eyes were bigger than his stomach: Having made but a superficial dent in local business, the inexcusably enthused oil men considered the possibilities of marketing abroad.

The concluding installment of this article will appear in the June issue of THE TEXACO STAR.

Wellington Harbor, North Island, New Zealand

(Left) A Native Chieftain, Mahuta Te Teko

Globe-Trotting with TEXACO

X—NEW ZEALAND

By E. L. KAULA

Managing Director—New Zealand
The Texas Company (Australasia) Limited

NEW ZEALAND, the Wonderland of the Pacific, has been described as "the sample-room of nature," for these fortunate isles—the remnant of a vast continent—have a comprehensive exhibition of all the best kinds of scenery that a world traveler could wish to see. Rivers which leap over rocky ledges or roar in foaming rapids; rivers which wind quietly through farming landscapes—New Zealand has them all. Deep blue lakes lie in fiord-forms among the mountains of Otago and Southland. In the Southern Alps, where the highest crystal crest —Mount Cook—is challenged in majesty by other princely peaks, there is a great company of towering heads, splendidly crowned. Glaciers, spectacular caves and verdant forests all please the nature-lover, while the fresh green pastures of plains and hills lend the contrast of cultivated beauty.

Of the various natural wonders of New Zealand probably the most famed is the thermal region of Rotorua. Larger than Yellowstone National Park, it has a greater variety of phenomena than its American rival. Close to hissing geysers, bubbling hot springs and mud volcanoes, are lakes of peace and refreshing beauty. The government has established baths here which have a high reputation for the cure of certain ailments.

Thousands of tourists visit Rotorua annually and it is here that the Maoris maintain many of their native customs and arts. The Maoris are Polynesians who came to New Zealand about a thousand years ago from Pacific Islands farther north. They have been well described as "a race of warriors, farmers, foresters, hunters, seamen; a race of artists, poets and legend tellers; a people hospitable, ceremony-loving, punctilious, intensely religious; a race of mystics and prophets; ancient ocean rovers, who preserve the memories of centuries of sailing the wide Pacific, sailing ever eastward 'to the gateways of the day' ".

The Maoris are often compared with the Hawaiians and, like the latter, had reached a high state of civilization when the islands were re-discovered in 1769 by the famous navigator and explorer, Cap-

Pohutu Geyser at Rotorua, on the North Island

EWING GALLOWAY

Beautiful Russell Falls, National Park, Tasmania

"Hongi," a Maori Greeting

tain Cook. The men were fierce warriors, whose warfare was conducted according to well-established customs, some of which were barbarous, others chivalrous. These methods of fighting were exhibited as recently as 1870, when the closing incidents of the Maori rebellions were enacted.

Due to their native culture and intelligence, the Maoris have rapidly assimilated the civilization of the "Pakeha," or white man. They have political equality and there are always several Maori members of Parliament. Many of the native customs and traditions are faithfully preserved, such as dances, songs and various rites. The "Haka" and "Poi" dances are probably the most famous of these ceremonies.

The name of this country, New Zealand, is a link with the original discovery in 1642 by the Dutch explorer, Abel Tasman. More than one hundred years passed before further attention was attracted to the islands by the landing of Captain Cook, who secured the territory for the British Crown. It was not until 1840 that organized colonization had its first measure of success.

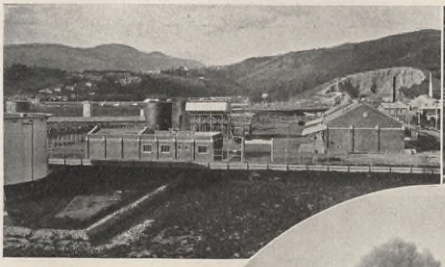
The main geographical divisions are the North Island and the South Island. These are separated by Cook Strait, which is less than twenty miles wide at its narrowest point. The total area is approximately 103,000 square miles and the total population only about one and one-half million. About 94 per cent of the people are of British descent or birth.

Similar to Australia, Canada and South Africa—its sister members of the British Empire—New Zealand is a self-governing Dominion. The government is modeled on the English system. There is one Parliament consisting of an upper and a lower house. Suffrage is practically universal.

The capital is located at Wellington, a city of about 130,000 people, situated at the southernmost end of the North Island. It was here that the first permanent settlement was made in 1840. One of the greatest features of Wellington is its magnificent harbor which ranks in size and beauty with any in the world. On account of the ease of communication with other parts of the Dominion, most of the head offices of the large financial and commercial enterprises are located here.

The largest city in New Zealand is Auckland, with an urban population of more than 200,000. The other two main centers are Christchurch and Dunedin, both on the eastern coast of the South Island. There are also a number of important smaller cities in both islands.

Of recent years New Zealand has enjoyed remarkable prosperity. This has been due to the success of the pastoral industries on which the Dominion almost entirely depends. There are ap-



General View of Our Bulk Terminal at Dunedin

Tank Truck Delivering TEXACO *at Wellington*

proximately 27,000,000 sheep and 1,500,000 dairy cows; in fact, the Dominion is the world's largest exporter of dairy produce.

In 1921 the first arrangements were made for the distribution of TEXACO products in New Zealand. Offices were opened in Wellington and Auckland by The Texas Company (Australasia) Limited, in conjunction with a local company which acted as agents for our kerosene and gasoline. At that time these products were handled by all companies solely in tins and cases. It was not until 1925 that distribution of gasoline in bulk was introduced.

An Active Volcano in Tongariro National Park

For several years TEXACO Gasoline, or Motor Spirit as it is called in New Zealand, continued to be sold in cases. Late in 1928 the decision was made to provide facilities for bulk distribution. A building program was immediately embarked upon, including the construction of ocean terminals, interior bulk stations, tank cars, tank and stake trucks, and other necessary equipment. This construction is now rapidly nearing completion and since October 1929, the New Zealand public is becoming more and more familiar with the TEXACO Red Star with the Green "T".

View of Company Warehouses at Wellington

Coincident with our construction work, there has been an expansion in our marketing organization. In April 1929, offices were opened in Christchurch and Dunedin, marking our first serious efforts in the South Island. We are now fully organized to care for our business throughout the Dominion.

Marketing and distribution of gasoline and other products follows along lines very similar to those operating in the United States. There is one important exception in that there are no service stations owned or controlled by the oil companies. Gasoline pumps and motor oil equipment are loaned to the privately-owned stations and garages. During the last few months, hundreds of TEXACO pumps have been installed to enable motorists to purchase the New and Better TEXACO Motor Spirit wherever they may be. Attractive red motor oil tanks have also been provided for our Gold-

(Cont'd on last page)

OUR WHO'S WHO

LOUIS WILTZ KEMP, otherwise Lou Kemp, who is mentioned elsewhere in this issue in connection with his activities in behalf of the heroes of Texas, was born at Cameron, Milam County, Texas, and after a high school education there entered the engineering department of the University of Texas with the class of 1905. He began his work for The Texas Company in 1909 when the Paving and Roads Division was formed and was given a leave of absence in 1917 to enter the United States Army. He served as a second lieutenant in the air corps during the World War and when he returned in 1919 was given his old position as Manager of the Paving and Roads Division. He left the Company for a time to go into business for himself but later, when the Asphalt Sales Department was formed, Mr. Kemp again joined the Company as Representative for that department at Houston. He is married and has one child.

MEL S. KENNEDY, who wrote the article on aerial photography for this issue of THE TEXACO STAR, was born in St. Louis, Missouri, and attended the Michigan School of Mines. Before graduating from that institution he enlisted in the Army during the World War and saw eighteen months of service as a second lieutenant in the infantry. After several years of experience in geological, real estate and engineering fields he entered the employ of The Texas Company (California) where he is at the present time in charge of aerial surveys. He holds a reserve commission as a lieutenant in the United States Army Air Corps.

SPENCER RETIRES

AFTER a long period of service Assistant Treasurer T. A. Spencer, of our Houston Office, has been retired under the Plan for Employes as of March 1, 1930.

Mr. Spencer was born in Virginia, September 18, 1863. He entered the employ of The Texas Company December 1, 1905, at Beaumont, Texas, and after service in the New York and Houston Offices, was appointed Assistant Treasurer of the Producers Oil Company in June 1908. He continued in the Producing Department when the operations of the Producers Oil Company were taken over by that Department and was appointed Assistant Treasurer of The Texas Company July 29, 1919.

For those who wish to plan vacation trips early in the season, the TEXACO National Road Reports office at 135 East 42nd Street, New York, (Room 1636) will be open from 8:30 a.m. to 6 p.m. If you are not located in New York, write the office giving the approximate time you have to spend and the principal points you wish to visit. Their experts will give you a routing or let you know when to call and discuss it with them.

GLOBE-TROTTING

(Continued from page 31)

en Motor Oils, which have established an enviable reputation compatible with their qualities.

For sales and administrative purposes, we divide New Zealand into four districts, known by the names of the four principal cities. In each of these cities is a district office. The head office for New Zealand is located at Wellington. Each of the districts is an independent unit, directed from the head office.

With the exception of Christchurch, which is not on the coast, an ocean terminal has been constructed at each of the four main centers. The terminal for Christchurch is located at Lyttelton, its port, about seven miles from the city. A bulk station and warehouses have been built at Christchurch, receiving products by rail from Lyttelton. From the terminals and Christchurch station, deliveries are made by rail to the interior bulk stations, which have been built at all the important country centers. The station at Invercargill at the tip of the South Island is probably the southernmost TEXACO plant in the world. The only inhabited land further south than this is in Southern Argentine.

In the construction of the new plants and in the painting of tank cars and motor trucks, the standards observed in the United States have been followed as closely as possible. Hence, a visitor from our parent organization would find himself in very familiar surroundings. He would also feel at home among the New Zealand staff, ninety-eight per cent of whom are local employes, working with the earnestness and enthusiasm characteristic of TEXACO organizations throughout the world.

Photographs other than those showing Company facilities, unless otherwise credited, are by courtesy of the New Zealand Government Publicity Bureau

THE EAGLET SPREADS ITS WINGS

(Continued from page 7)

to six thousand, back to three and up again to six thousand. For forty minutes I remained aloft and believe I could have stayed there most of the day.

Taking off from Syracuse on the last lap of our journey, I thought, for the first time in the trip, that I really would have to abandon the *Eaglet* and take to my parachute. The wind tossed the little glider around so violently that nose her down as I might, she would not descend. The control surfaces must have been strained by this, for as we passed over Albany I noticed a distinct heaviness in the right wing; this made flying more difficult.

It started to rain at Yonkers but at five thousand feet I cut loose from the "TEXACO VII" for the last time and began the long glide toward Van Cortlandt Park, the northernmost outpost of New York City. I saw a huge crowd on the field and fifteen minutes later made my landing, to be greeted by Mrs. Hawks, officials of The Texas Company, representatives of New York's city government, prominent aviators and some 30,000 other folks who were nice enough to come out and see the landing.

We had covered 2960 miles, making nineteen hops, in 36 hours and 47 minutes of flying time and nine hours and twelve minutes of gliding. Duke and Wally landed the tow plane at Newark Airport, New Jersey, and our little jaunt was over.

Just what the flight has accomplished must remain to be seen. Surely thousands have at least become interested in the possibilities offered by gliding as a sport, a decidedly different thing from navigating a glider at the end of a tow rope. We adopted the aerial train idea simply to get the glider from one place to another. It was the soaring exhibitions which were of more importance.

Once again I want to express my appreciation for the fine work of "Duke" Jernigan and Wallace Franklin. The Western Electric Company also will never be forgotten for their part in not only making telephone communication possible, but loaning and servicing our equipment throughout the trip, nor will the uniform operation of the TEXACO aviation products which carried our aerial train through on schedule time without a second's delay due to engine difficulties.

The author wishes to acknowledge his indebtedness to the North American Newspaper Alliance for permission to reprint extracts from articles concerning the flight which are copyrighted by that organization.

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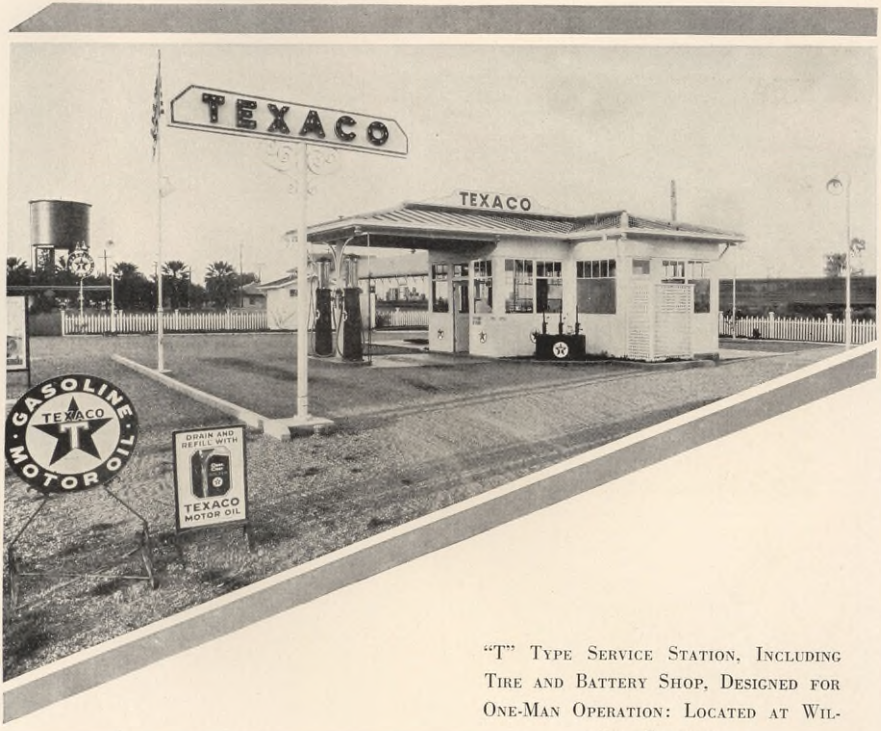

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WOMEN DRIVERS

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Careful of her own car, thoughtful of the safety of others, the woman driver of today has won an enviable reputation for safe driving. Through skill and unselfishness she has proven that the hazards of motoring can be practically eliminated and motor wear reduced to an unbelievably low minimum.

With the same care that she selects her household needs, she has singled out the most economical and most dependable motor products. This is the reason so many women stop only at Texaco Service Stations. They know that with Texaco Golden Motor Oil and Texaco Gasoline they will not only attain finer performance but a cleaner, more thoroughly protected engine—one that can be relied upon in every situation regardless of weather—an engine that will perform smoothly after many miles of travel and years of service.

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GASOLINE—MOTOR OIL

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* *Statistics indicate*—24% of licensed drivers in the U. S. A. are women. Yet they are involved in only 6% of all automobile accidents.