The Luffkin Line

FOURTH QUARTER, 1936 » Vol. XV « No. 4

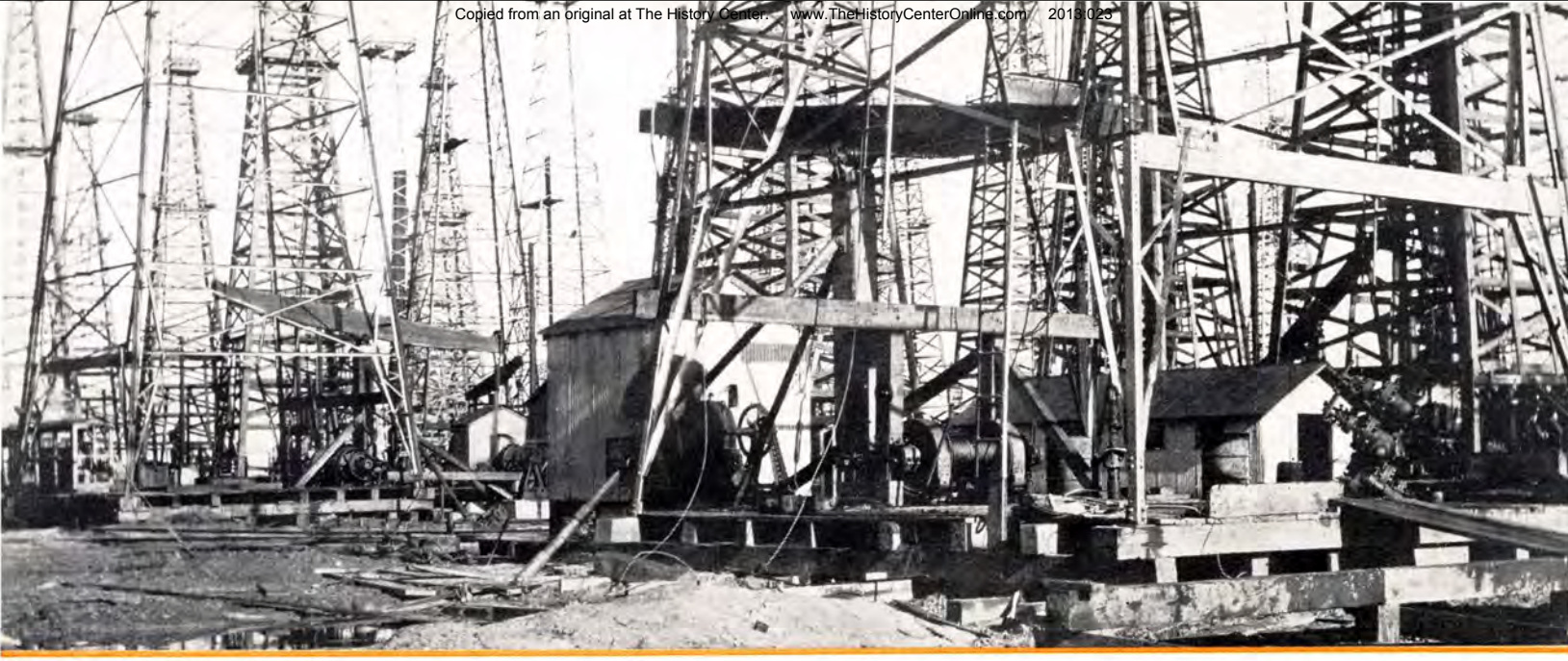
Lufkin Long Stroke Unit installation on well of a major oil operator at Westlake, La.

. . . *reflection* . . . *meditation* . . . *contemplation!* We look back to the days when such installations proved almost "night-mares" and costs were next to prohibitive.

Reflections

Such an installation as here depicted sends back the reflected glory of progress that has made possible the inexpensive standardization of such leases, to which have been added also

. . . *efficiency!*



An early scene in the old Spindletop field. In the foreground is a lease of a major oil company, Weed No. 4. Practically every installation in the old Spindletop field was equipped by Lufkin, many of which are visible in this photograph.

A SHORT HISTORY OF THE GULF COASTAL AND SOUTH TEXAS OIL FIELDS

By BRAD MILLS, Associate Editor, **The Oil Weekly**

OIL IN THE GULF COAST . . .

The history of oil along the Texas-Louisiana Gulf Coast covers a comparatively brief period, yet during a short span of 25 years the district has become one of the most important oil reserves in the world. The rapid rise of oil production within the area has been filled with excitement, romance, tragedy and comedy that are characteristic of a very colorful industry.

The Gulf Coast became a great oil producer overnight, in sharp contrast to a very gradual development of production in many districts. This sudden flow of riches from a vast strip that had been neglected for a generation attracted operators from all over the world and touched off a development campaign that had led to one important discovery after another. As the result of this activity the oil industry exceeds every single industry along the Gulf Coast in importance and there is little likelihood that this dominant position will be lost.

Prior to the discovery of oil in commercial quantities along the great coastal strip, geologists and practical oil men from other districts contended that the flat belt held little promise. Lack of surface indications was interpreted to mean a corresponding lack of sub-surface conditions favorable for the accumulation of oil. The absurdity of many of the early geological reports is very interesting and astounding, proving that it is unsafe to condemn a district ahead of the drill.

Spindle Top! No history of oil development along the Gulf Coast would be interesting or correct without direct emphasis on this birthplace of the industry along the prolific coastal strip. Spindle Top derives its name from a mound located about three miles south of the original business section of Beaumont, Texas. The knoll or mound originally was called Sour Springs Mound because of the character of water obtained from wells drilled there. The water was very sour and gave off quantities of sulphuretted hydrogen, while wells, springs and ponds around the base of the mound were strongly tainted with sulphuric acid.

Such indications were important to many who knew about them, and more or less sporadic drilling had been done on and near the mound before the real discovery was made. Patillo Higgins was one of these pioneers. Walter B. Sharp, who later organized The Texas Company, in company with J. S. Cullinan, was at one time a drilling contractor, and as early as 1893 contracted to drill for oil near the base of Spindle Top Mound. He used a light rotary with a 70-foot derrick, a 25-horsepower boiler and a 16-horsepower engine. After a long series of mechanical

AFTER THE SHOT
A coastal well paying off.

Drilling crew on Atlantic No. 4 in the old Spindletop field. Many of these men will be recognized as having played an important part in development of the last Spindletop field.

difficulties, failure of the fuel, water and casing supply, and a siege of bad weather, the well was abandoned at 418 feet.

Higgins inserted an advertisement in a trade journal in 1899, and a short time later received a letter from Capt. Anthony F. Lucas, a mining engineer of Washington, D. C. Captain Lucas a short time later came to Beaumont and became actively interested in efforts to develop oil on Spindle Top Mound. The first Lucas well was drilled to 575 feet, but was abandoned after a small amount of oil had been obtained. Guffey and Galey, a well known Pittsburgh firm, was interested after Lucas had exhausted his capital, and again drilling started in earnest.

The discovery well, Lucas No. 2, was spudded in October 27, 1900, with Hamill Brothers as contractors and Curt Hamill as driller. The well was located 930 feet southeast of the first Lucas well, and on a tract leased from McFaddin, Weiss & Kyle, with Guffey and Galey holding the principal interest. The casing was carried or driven as hole was made, but it could not be forced much below 900 feet. Drilling was continued in open hole to 1160 feet, the final completion depth.

Oil was noticed in the ditch, but the crew was astonished when the well suddenly came in. The bit had been changed and about 700 feet of four-inch drill pipe run back into the hole when the well blew in with a mighty rush.

The 700 feet of drill pipe was blown through the derrick. Accurate reports stated that following the solid drill pipe string came the column of drilling fluid; a great eruption of mud, sand and rocks, mixed with gas; and a solid column of oil. The oil immediately spouted above the top of the derrick, and with increasing pressure soon forced a solid stream of oil to a height of 200 feet.

The well flowed wild for nine days, and production probably exceeded 1,000,000 barrels during that brief period. Hastily constructed levees helped to trap and hold the oil, but the waste was enormous. Captain Lucas offered $10,000 to any person bringing the well under control, but the offer resulted in the receipt of hundreds of telegrams from people all over the United States. After the well was brought under control, the lake of oil around the well caught fire and burned.

One well after another blew out at Spindle Top, and various tales are told of how they finally were brought under control. Old-timers claim that it was possible to go by boat from Beaumont to Orange on oil—the oil of course being on the waterway. The ravines running toward the river were full of oil. The price of oil dropped until there was practically no sale for it. The price touched 10 cents per barrel at one time, with no takers in sight.

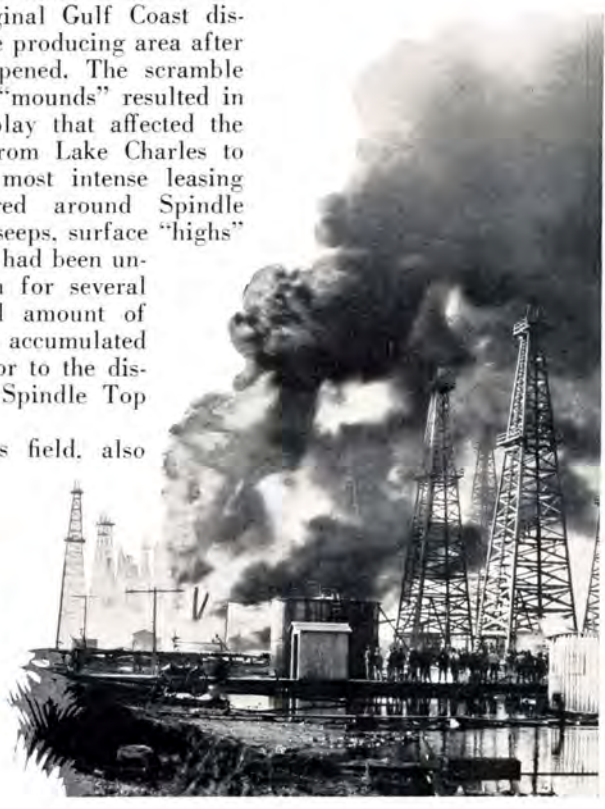
Beaumont boomed beyond all expectations. Thousands rushed to the city to participate in the new prosperity. The postoffice couldn't handle the business and the "general delivery" line was the dread of all visitors.

The world's smallest leases were sold at Spindle Top. Any number of leases were only three feet square, and many leases were only two feet by three feet. Promoters calculated the smallest space that would support a well, and sold leases on such a basis. A number of wells actually were drilled on these small leases, but it was necessary to borrow space from dozens of other leaseholders before drilling could start. So many wells were drilled in one district that it was difficult several years later to find an undrilled spot for starting a deep test. As many as 500 wells were started on a single five-acre tract, and more than 100 wells were drilled on the famous "lone acre."

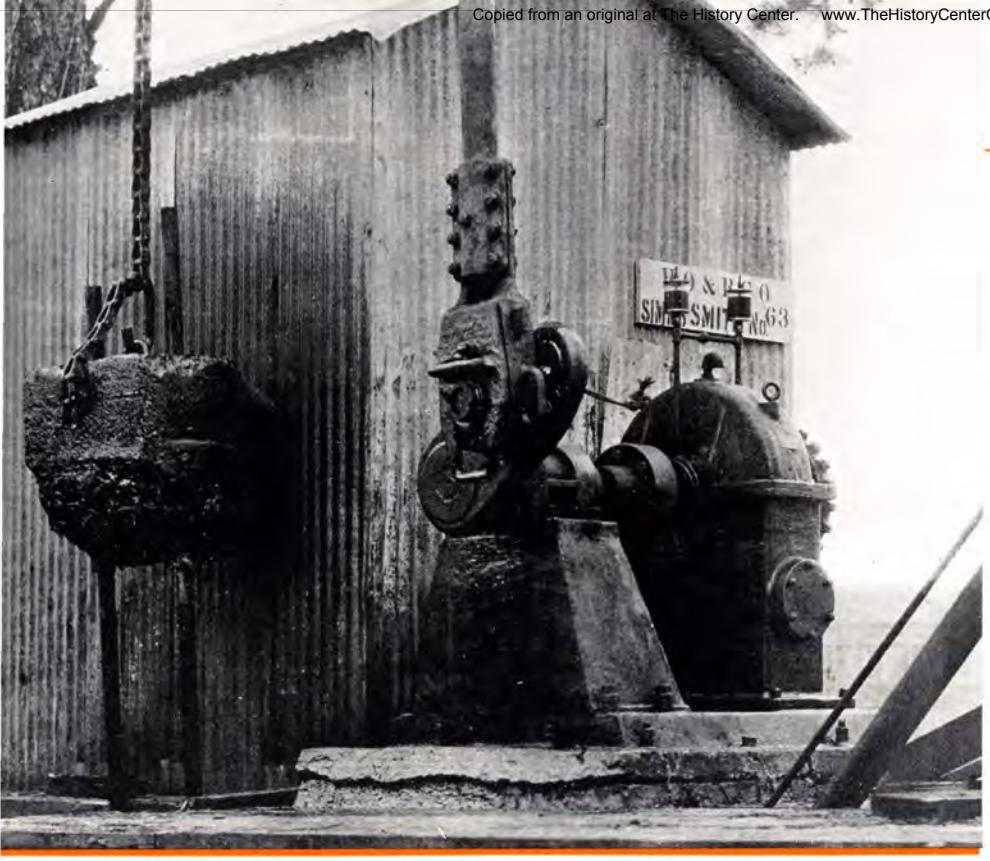
The peak of early production was reached in 1902 when the field yielded 17,421,000 barrels of oil. The decline was rapid, and in less than 10 years the field was producing less than 1,000,000 barrels yearly. Some of the first completions were very prolific. Hayward Oil Company's No. 2 filled a 55,000-barrel tank in less than 10 hours, and a number of wells flowed more than 50,000 barrels daily. Spindle Top soon became a name and a legend, but the effect of the discovery endured.

A search for new oil fields followed the original Gulf Coast discovery, and one producing area after another was opened. The scramble to lease other "mounds" resulted in a great land play that affected the coastal strip from Lake Charles to Houston. The most intense leasing activity centered around Spindle Top, since oil seeps, surface "highs" and sour water had been under observation for several years. A small amount of oil had been accumulated from seeps prior to the discovery of the Spindle Top field in 1901.

The Jennings field, also

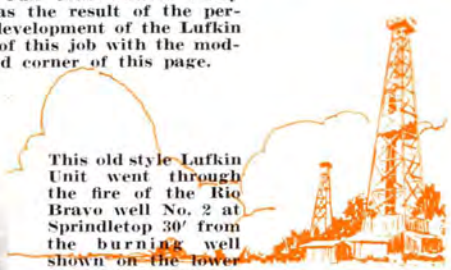


Many will recall the old Rio Bravo gusher fire which wrought such damage in the old Spindletop field.



Lufkin Unit No. 1 still in operation on a Gulf Coast Lease. Many units were sold to this major operator, as the result of the performance of this unit. Some idea of the development of the Lufkin unit may be appreciated by a comparison of this job with the modern installation in the lower right hand corner of this page.

This old style Lufkin Unit went through the fire of the Rio Bravo well No. 2 at Sprindletop 30′ from the burning well shown on the lower right hand corner of page 4. This unit was operated immediately after the fire without attention, and was the only piece of equipment salvaged on this well.



The Lufkin Line

The Jennings field increased its production steadily from 1902, and reached a peak output in 1906, when 9,025,000 barrels reached the market. Salt water was a production killer in this field, and many tales of woe have been laid to this dreaded encroachment. The following poem, appearing in the Fuel Oil Journal, gives an idea of the feeling of some of the disappointed operators:

I blew myself on Isabel,
With velvet from a flowing well
At Jennings when the prime was on;
Nor cared she that the grime was on
The hand that shoved the money through
For ropes of pearl and sunburst, too—
She wore engagement ring of mine,
Graved with my name;
But when my spouter went to brine,
She jumped the game.

Again I blew myself on Sue,
When Benck brought in his No. 2
At Vinton, when the field was young.
I held a lease. The field was strung
With hope's red rainbows, and on her
I blew myself for silk and fur.
She pledged me on my solitaire—
And kept the same;
But later when I busted there,
She jumped the game.

The first development at Sour Lake, which is less than 20 miles west of Beaumont and in Hardin County, was in 1893. A small amount of 16 gravity oil was found at a depth of about 300 feet, but commercial production known as Evangeline, was discovered in 1901. The first well was drilled by Heywood Brothers, and it was in this field that these men achieved their greatest success. The discovery well was a good producer, and many 10,000- and 12,000-barrel producers were completed. One well at Jennings, drilled by Heywood Brothers, flowed for six months, during which time it produced more than 1,000,000 barrels of oil.

It was this field that led to the development of oil well screen, an important invention that has made production possible in so many Gulf Coast fields. The producing zone was a loose bed of sand that gave much trouble. The sand produced with the oil cut out surface connections, and it is reported that a pipe line was worn out by the cutting action of the sand.

Modern installation of a major operator. Note the improvement in the design of the Lufkin Unit in this installation as compared with the one above. Lufkin Engineers are constantly at work improving the design and efficiency of our equipment.

Marine operations along the Louisiana Coast have greatly increased oil production in several areas. This picture shows one of the major oil company's drilling and boiler barges that float or sink, as the occasion demands.

was not obtained at that time. Savage Brothers developed a small amount of heavy oil in shallow wells in 1895, and in 1898 the Gulf Coast Refining Company built a 100-barrel refinery in the field to handle production from a number of shallow wells.

Deeper drilling was started in 1901, at which time the Guffey Company drilled a 1200-foot well on the west side of the field. The Great Western Company obtained a heavy flow of hot water at a depth of 1500 feet, but in 1902 this company struck a natural flow of oil in a well at 683 feet on the Wirt Davis tract. The well soon sanded up, as no screen was set. In May, 1902, the Atlantic & Pacific well flowed over the derrick in the presence of representatives of large oil companies. On the following July 11, Guffey No. 2 blew out, and the next day Guffey No. 3 did likewise. On July 18, Guffey No. 2 came in as a gusher. A little later the Sour Lake Oil Company completed a well that made about 10,000 barrels from a sand at only 375 feet. The usual excitement did not attend the early Sour Lake development, but it arrived a little later in a big way. Early in 1903 The Texas Company, backed mainly by John W. Gates, bought 850 acres in the heart of the Sour Lake field for $900,000. The first well was drilled on trial, but after a flow of more than 10,000 barrels was obtained, the purchasers exercised their option. The first test well flowed a six-inch stream of oil more than 100 feet through the trees, the secret test having been made on a rainy night. The development that followed made millions for the Texas Company.

Production soon reached 30,000 barrels daily, and the daily output in August, 1903, touched 100,000 barrels. The price of oil dropped from 65 cents to 15 cents per barrel. All of the first production was obtained from a shallow sand at 375 feet and a cap rock found at about 800 feet. Peak production was reached in 1903, when the field yielded more than 8,000,000 barrels of oil.

Deeper production was developed in 1914 by the West and Humble Oil interests. This started another boom for Sour Lake and was the signal for an extensive drilling campaign that raised production to about 28,000 barrels daily. On the Hardin County tract Humble Oil & Refining Company's No. 14 Hardin came in during the fall of 1916, producing 14,000 barrels of oil, and made more than 1,000,000 barrels of oil before it stopped flowing several months later.

Saratoga is one of the oldest Gulf Coast fields, the first well having been drilled in 1860. The first test showed some heavy oil. A spring pole was used in drilling this interesting well. Some time later Savage Brothers drilled to a depth of 250 feet and developed a small amount of heavy oil. In 1901 Ben Hooks drilled Hooks No. 1 to a depth of 1000 feet and completed the well as a 500-barrel producer. The Rio Bravo and Guffey interests have controlled the field almost from the start, with the Sun Company and others having smaller interests in the field. Saratoga never was a sensational producer, but in 1905 the field accounted for a number of 10,000-barrel wells.

The Batson field was discovered through oil and gas seepages, the first producing well having been drilled in October, 1903, by the Paraffine Oil Company, which later became a part of Humble Oil & Refining Company. Several wells were completed in rapid succession, but the real excitement did not begin until December 19, when Paraffine No. 2 came in making 6000 barrels of

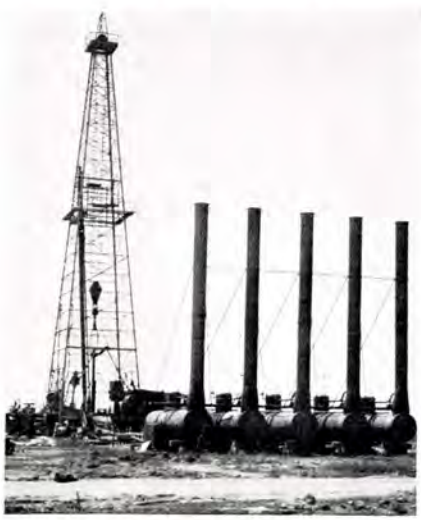
A major oil company uses a special bolted wood construction for a derrick foundation in Freeport, Texas, where a good derrick floor elevation was important because of danger from floods.

The famous Conroe Crater after the well had been brought under control. The well belonged to the Harrison & Abercrombie Interests, and was purchased by Humble Oil & Refining Company. Humble brought the well under control by drilling deviated hole from the surface.

30 gravity oil. The same interests completed a 15,000-barrel producer a short time later, and soon a flood of production forced oil prices down to 25 cents per barrel.

During the next few months Batson experienced a great boom, as evidenced by a production of almost 11,000,000 barrels of oil in 1904, the peak year. The danger from gas was great and it was difficult to find fresh air in the field. Even wild geese, attracted at night by the great gas flares, were said to have been asphyxiated by the gas. The gas became so bad that a rule was made to burn it as it was separated from the oil. One man built his house at night by the light of these great natural torches. Guffey Petroleum Company's Riley No. 1 produced 34,000 barrels of oil in a single day. Batson's production came from several sands between 200 and 1200 feet. Salt water soon entered the field and many wells suddenly turned entirely to salt water. Production declined rapidly after 1904.

The Humble field has been a prolific producer, and is one of the few major fields that reached a peak production during its discovery year. The discovery well, D. R. Beaty's No. 1, was completed January 9, 1905, as a 5000-barrel producer at 700 feet. An intensive development campaign followed and the field produced 15,594,000 barrels of oil during 1905. Many of the shallow wells were prolific producers. In 1915 and 1916



Superior Oil Company's drilling outfit that recently extended a deep producing area at Jennings, Louisiana.

deeper producing zones were found and the field again became a leading Gulf Coast producer.

The Goose Creek field was discovered in 1906, but did not become a factor until 1917 and 1918. The famous "Sweet 16," drilled by Simms and Company, flowed at a 35,000-barrel rate for a short time. The field has produced almost 70,000,000 barrels of oil, this crude being desirable for making lubricating oil.

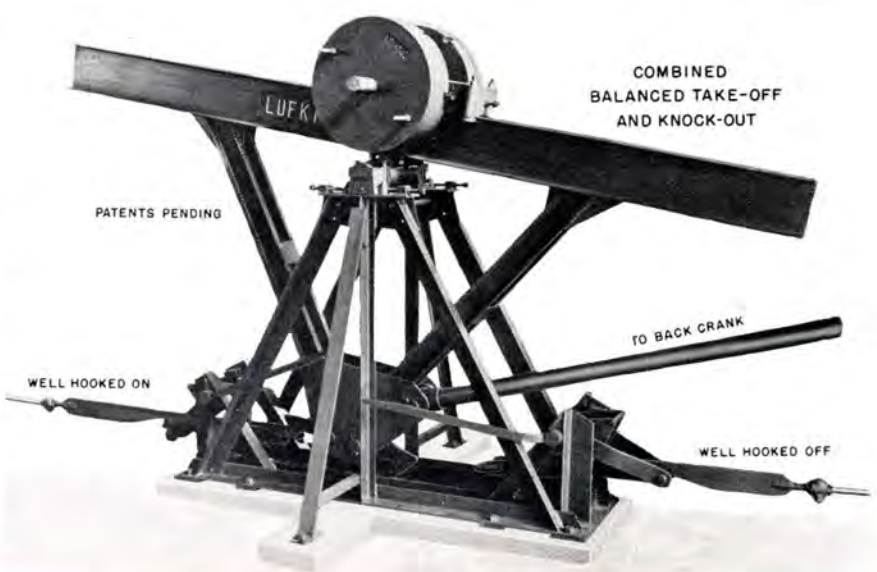
Barbers Hill, Vinton, Markham, Hull, West Columbia and many other salt domes were opened to development between 1910 and 1920. Many fields that later became major factors did not yield large quantities of oil for several years.

About 1923 geophysics was introduced to the Gulf Coast, and during the next 10 years the reserves of the district were more than doubled. Through use of the magnetometer, torsion balance, and seismograph, many important oil fields have been found. Most of the early discoveries were made because of surface indications, and it became difficult to find new fields in the flat districts. Geophysics filled this breach, since a lack of surface indications in no way affected the location of structures.

Deeper production in several fields, notably Spindle Top, Orange, and Barbers Hill, between 1920 and 1930 accounted for a large part of the Gulf Coast total. Flank production around many salt domes was very important.

A new type of production has been developed along the Gulf Coast since 1931, with the entrance of the deep seated salt dome. Conroe, Tomball, Raccoon Bend, Anahuac, Hastings, Dickinson, Bosco and Tepetate are

■ CONTINUED ON PAGE 18



The Lufkin Combination counterbalance take off and knockout.

W. D. WINSTON, JR.,
Secretary
Lufkin Foundry & Machine Co.
The boy who signs and receives the checks.

With the Lufkin Cameraman

On the following pages we present personalities in various fields, particularly the Gulf Coast and South Texas fields who have been kind enough to pose for the Lufkin Cameraman. Interspersed throughout these pages are various types of Lufkin installations along side the men in charge of operations.

From time to time the Lufkin Cameraman will visit various fields and we trust that our good friends will not refuse to have their photos taken.

As a result of photographs appearing in the Lufkin Line, friendships have been renewed by men who have been out of touch with each other for as much as twenty years. Your photo in the Lufkin Line may be the means of communication with old friends of long standing.

We will appreciate your cooperation very much.

THRU LENS AND SHUTTER

Left: Mr. F. O. Dean. Right: Mr. R. B. Knight. K & A Oil Co., Talco, Texas.

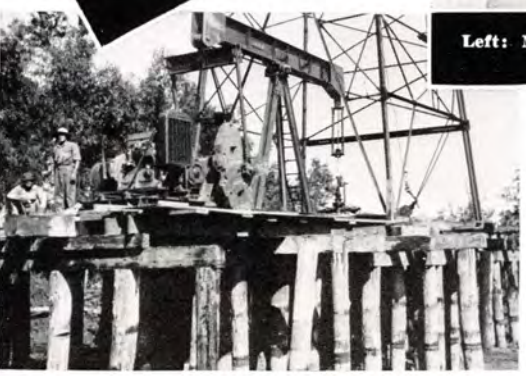
State Capitol and reflection, Baton Rouge, La.

Bryan's "Skipper Dan" —a fine English Setter that has made quite a record. His proud owner is D. E. Bryan, Magnolia Petroleum Company, Dallas, Texas.

Mr. J. A. Byrd, with Bradley & Foshee, Kilgore, Texas.

Left: M. E. Gaskill. Right: R. P. Bates. Gaskill & Godlin Oil Co., Gladewater, Texas.

Piling Installation, Lufkin Equipment for Standard Oil Company of La., Plaquemine, La.



Champlin & Bass, Inc., Gregg County, Texas. Lufkin S.C. No. 4 Unit complete with back-crank equipment for pulling additional wells.

Left to right: Geo. Pierce, Supt. at Plaquemine, La.; W. P. Brown, Auditor, Shreveport, La.; R. P. Ingram, Chief Clerk, Standard Oil Company of Louisiana, Plaquemine, La.

Left: J. D. Scott, Jr., Saxet Oil Co., Kilgore. Right: Art Bennett, Lufkin's Longview, Texas, representative.

REPUBLIC PRODUCTION COMPANY, Beaumont District—Left: H. F. Miers, Foreman. Right: Geo. S. Reardon, Superintendent.

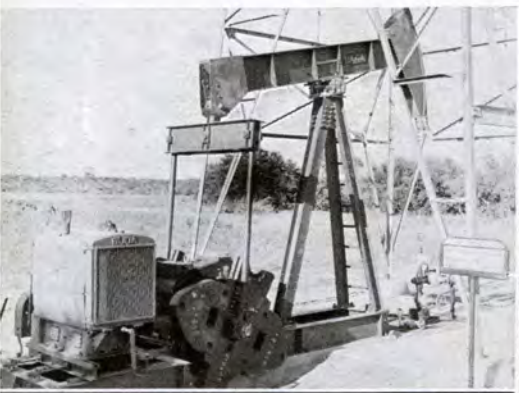
HOUSTON OIL COMPANY, Ariola, Texas—M. M. Williams, Warehouseman, J. V. Massey, Production Foreman; L. H. Delaune, Pumper.

No. 1409 Lufkin T.C. 2-31-B Unit, Ariola X Fee—Republic Production & Houston Oil Company, Ariola Texas.

ARIOLA FIELD

Operators and Lufkin installations.

Houston Oil & Republic Production Company—Ariola X Fee No. 3, Ariola, Texas, Lufkin T.C. 2-31-B Unit.



Texas Company S. E. Young lease, Dirks field, Bee County, Lufkin T.C. 2-31 Unit.

Attractive office and station of Dirks Brothers, Tuleta, Texas.

O. B. Fultz, Superintendent Mills Bennett Production Company; Margaret Ray Fultz, daughter; R. A. Frazee, Clerk; Beeville District.

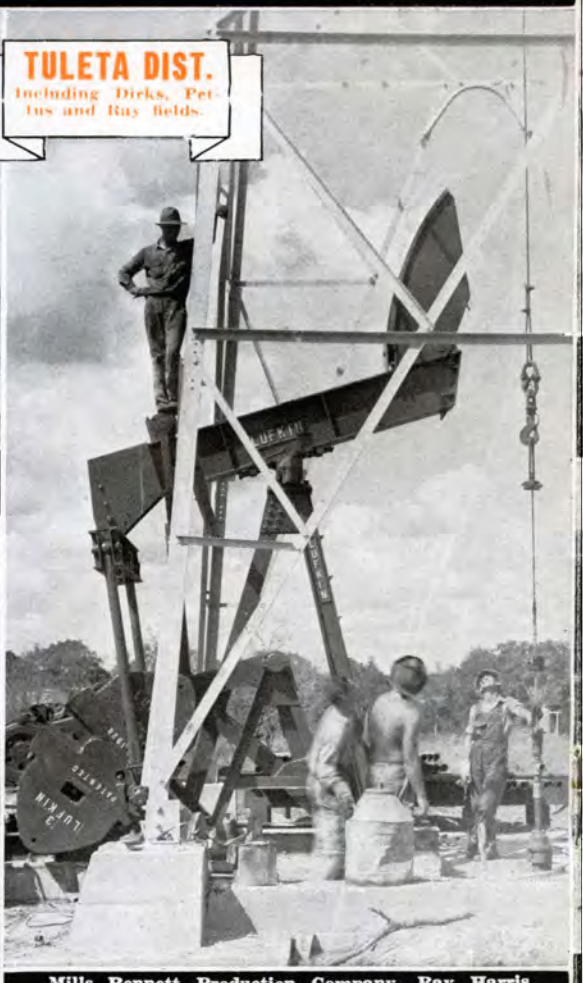
TULETA DIST.

Including Dirks, Pettus and Ray fields.

Pettus Refining Company, McKinney lease in the North Pettus field, Lufkin T.C. 3-18.

Stanolind Oil & Gas Company, Ray field, Bee County, G. W. Walton No. 3, Lufkin T.C. 3-22 Unit.

Lufkin T.C. 3-22 Unit installation for major oil company in the Dirks field, Bee County, E. D. Miller, Pumper.



Mills Bennett Production Company, Ray Harris lease, West Tuleta Pool, Bee County. Lufkin Unit T.C. 3-22B. Note horse head lifted for clearing well.

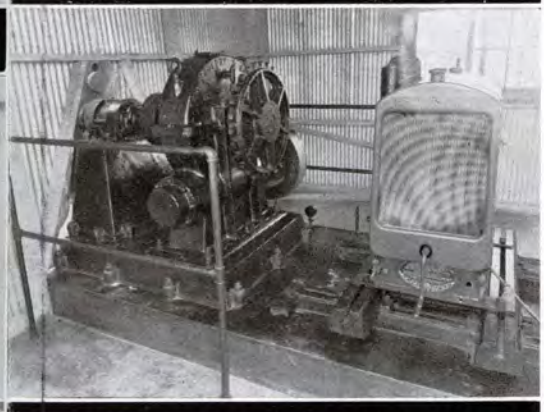
HUMBLE OFFICE EMPOYEES, Government Wells District, Freer, Texas—Left to right, first row: L. H. Golden, Lufkin's Representative; G. R. Miller, Clerk; J. Am Kemp, Farm Boss; J. S. Bell, Pet. Engr.; Don Shaw, Pet. Engr.; W. W. Hamilton, Clerk; J. M. Barber, Pet. Engr.; D. O. Holder, Clerk; H. R. Barkely, Clerk. Left to right, second row: O. S. Bowers, Clerk; J. F. Kasper, Clerk; F. K. Sawyer, Clerk; C. F. Burrage, Asst. Chief Clerk; M. L. Hambrick, Clerk; J. C. Calkins, Clerk; H. S. Slayton, Head Clerk; Jack Pierce, Clerk. Left to right, third row: Noal Rice, Yardman; N. P. Roberts, Clerk; H. C. Wheeler, Clerk; A. S. Kothmann, Clerk; J. W. Redford, Tool Pusher; R. W. Roach, Farm Boss; T. L. Craig, Clerk; "Cunny" Cunningham, Geologist.

Texas Company, Ruiz No. 2, Loma Novia field, Duval County, Lufkin T.C. 3-22 pumping unit.

TEXAS COMPANY EMPLOYEES—Freer, Texas: L. L. Shattuck, Clerk; J. H. Harlan, Clerk; J. W. Boother, Dist. Clerk; C. A. Ward, Prod. Supt., Lufkin; L. H. Golden, Rep.

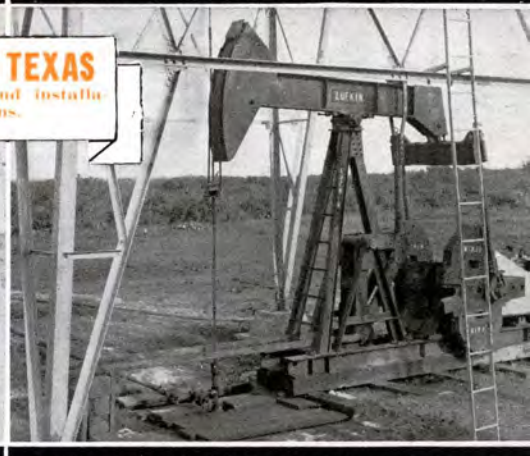
Lufkin's Office and Display, Alice, Texas.

Texas Company's R. O. Van Fleet, Dist Engr., left, and W. C. Rump, Res. Engr., Freer District.



One of the early Lufkin units, built in 1925 and still in first class operating condition pulling two wells for a major oil company in Duval County. This is the old style worm gear unit with pedestal bearing, Unit No. 47.

Lufkins Never Wear Out. This is a typical installation of about 40 such units transferred to Duval County by a major oil company. This unit is pumping 3 wells by means of back-crank equipment.

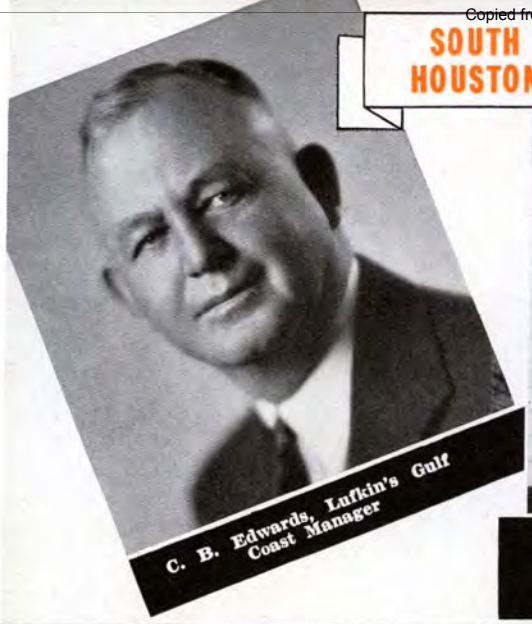


Lufkin Unit T.C. 3-225 with bell crank take-off, Welder lease, Loma Novia field, Duval County, major oil company.

At the Crossroads: Lufkin T.C. 3-22 Unit, Texas Company B. Ruiz No. 3 lease, Loma Novia field. This unit is setting in the corner of the road in the Loma Novia field; to the left Government Wells field; to the right, the Seven Sisters Pool.

HUMBLE OIL & REFINING COMPANY EMPLOYEES, Southwest Texas Division, Corpus Christi, Texas—Sitting: T. W. Ryan, Clerk; Joe Freeman, Stenographer; R. G. Gerber, Division Draftsman. Front Row: L. W. Telford, Draftsman; Ralph McKnight, Draftsman; J. R. Bellamy, Clerk; N. S. Stringfellow, Clerk; R. O. Frame, Asst. Division Superintendent. Second Row: G. B. Wells, Clerk; Bowman Thomas, Division Petroleum Engineer; Joyce Adams, Division Trans. Foreman; P. H. Kelly, Division Chief Clerk and Warehouseman; A. O. Behling, Division Superintendent; Leo Gallagher, Assistant Division Chief Clerk and Warehouseman; L. D. Webster, Assistant Division Petroleum Engr.

SOUTH HOUSTON



C. B. Edwards, Lufkin's Gulf Coast Manager

STANOLIND OIL & GAS COMPANY EMPLOYEES, South Houston District—Back, Left to Right: Bull Smith, Truck Pusher, English Truck Lines; Lester Bille, Field Clerk; John Seis, Warehouseman; M. C. Kelly, Prod. Clerk; R. M. Johnson, Head Roustabout. Front Row: John Huckabay; B. L. Ragsdale, App. Engr.; F. C. Beleau, Supt.; C. M. Hosted, Field Engr. Sitting, Front: Skeet Harder, Prod. Foreman.

R. A. (Ralph) Noble, Lufkin's Gulf Coast representative

L. H. (Larry) Golden, Lufkin's representative at Alice, Texas.

Stanolind Oil & Gas Company, South Houston District, Lufkin S.C. No. 58 Unit.

Ralph Ludwick, Dist. Engr., Stanolind Oil & Gas Co., Wichita, Kansas.

ATLANTIC OIL PRODUCING COMPANY, Great Bend, Kansas—Left to Right: Dewey Jordan (Prod. Supt.); Dick Ragan, Mat. Man; S. K. Myers, Farm Boss.

Jerry Jordan, son of Mr. and Mrs. Dewey Jordan, Great Bend, Kan. (Future Lufkin user.)

A. B. (Art) Bennett, Lufkin's East Texas representative with headquarters at Longview, Texas.

Miscellaneous snapshots by the Lufkin cameraman

Woodley Petroleum Co., Blue Ridge, Texas. Lufkin S.C. No. 56 Unit with bell crank take-off for pumping additional wells.

Lufkin Special Unit, T.C. 2-41 Stanolind Oil & Gas Co., High Island, Texas.

Lufkin Long Stroke Unit (120" maximum) No. 10-41, Magnolia Petroleum Company, Westlake, Louisiana. Note compactness.

Lufkin Wire line swing, Major Oil Company installation in Bee County. NOTE Lufkin "Bull-dog" Unit in background, Lufkin Jack in center.

LULING OIL & GAS COMPANY, Caesar Pool—Left to Right, Front: C. R. Rees, P Line Foreman; A. L. Judd, Welder; A. W. Kunitz, Office Manager; Wallace Ril Drilling Superintendent. Back: Joe Luark, Production Foreman; W. C. Lewallen, Tr Foreman; Claude Talley, Roustabout; E. N. Jones, Superintendent.

Luling Oil & Gas Company, Caesar Pool, Bee Coun Lufkin No. 58 Unit with back side crank and counte balance vertical swing.

Lufkin No. 31 Unit with Lufkin counterbalance vertical swing pulling 4 wells, Luling Oil & Gas Company, Caesar Pool, Bee County.

McAlester Fuel Company, Caesar Pool, Bee County, Lufkin T.C. 4-11 Unit. Tom Van Deventer, Production Foreman, is the gentleman in the picture.

Lufkin T.C. 5-7 Unit with plain cranks and bear balance, Luling Oil & Gas Company, Caesar Poo Bee County.

No. 1411 Lufkin T.C. 3-22 Unit, South Texas Developing Company, Well No. A.C.A. of a major oil company, Conroe, Texas.

Bob Kean, Superintendent, Mortex Oil Company, Conroe, Texas.

HUMBLE OIL & REFINING COMPANY EMPLOYEES—Conroe, Texas: C. G. Swank, Production Foreman; H. Durst, Engineer; R. S. Hendrix, Chief Clerk.

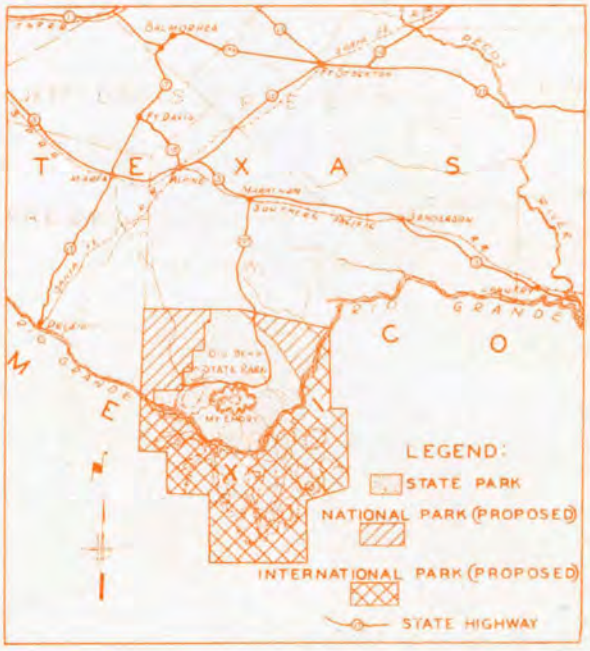
Major oil company installation of Lufkin T.C. 3-22 Unit in the Conroe, Texas, field.

Green Gulch and Casa Grande, beautiful flat-topped peak in the Chisos Mountains, within the confines of the new Big Bend National Park.

UNCLE SAM'S NEWEST PLAYGROUND

By HARRY VAN DEMARK
Editor "Texas Parade"
to whom we are indebted for this article and the accompanying illustrations.

Winding its generally lazy, uncertain way between the United States and Mexico, the Rio Grande cuts a wide, eccentric arch southward where the Texas plains give way to rugged mountains. Here is the Big Bend country, storied haunt of bad men and their dauntless enemies, the Texas Rangers. Like a good, benevolent relative, Uncle Sam is now going to make this, almost the last stamping ground of the wild west, into a national park, replacing the rutted wagon roads with smooth PWA trails, so that the most timid tourist may perhaps play golf over a territory that was once as wild as any schoolboy's dream.



Extending over an area that is as great as the combined states of Massachusetts, New Jersey, Delaware and Rhode Island, Big Bend has a scenic beauty that is almost an unknown quantity in the United States. Railroads have never found it profitable to run tracks deep into this section because of the scant outlook for pay freight and the meager population. Brewster county, the largest of the five counties in that section, has an area greater than the state of Connecticut, yet only seven thousand people live there.

As planned the new national park will contain about 1,500,000 acres in Brewster and Presidio counties. It is hoped that it will be extended into Mexico under an arrangement similar to that completed in 1932 when the Waterton Lakes-Glacier International Peace Park was established between the United States and Can-

Top: Paisano Peak. Legend says that in the middle of the seventeenth century two Spaniards met here, clasped hands, and exchanged a greeting, "Mi Paisano" (My Countryman), hence the name, Paisano Peak. Below: Walls of Boquillos Canyon, 2000 feet high.

ada. The Mexican land across the Rio Grande is similar to that in the Big Bend, having at the same time all the picturesque atmosphere of Old Mexico.

Many years ago the Rio Grande was working hard to cut a passage through the great limestone barrier known as the "Mesa De Anguila." This was at last accomplished and the result of these years of labor on the part of this great river is the gorgeous Santa Helena Canyon.

This is the beginning of the big bend of the Rio Grande creating that part of the Southwest known as the Big Bend area. The river on leaving the Santa Helena Canyon turned south rather than taking the easier eastward route. It seemed to be looking for more worlds to conquer. As it continued its southward bend, it encountered the Mariscal Mountains. Here, rather than turn north and go around the barrier, it cut a deep twist through this mountain, and we have the center canyon known as the Mariscal. Here the river starts its northward swing to complete the Big Bend. On this journey more obstacles were encountered as the "Sierra Del Caballo Muerto" (Dead Horse Mountain) blocked its path; but having completed two jobs of canyon-making the old river dug in and as a result we have the beautiful Boquillos Canyon, marking the eastern point of the Big Bend Park as designated by the state.

This eighty-five-mile river line, passing through these three amazing canyons forms the southern present boundary of the Big Bend State Park.

Beginning at the lowest end of Bosquillos Canyon, the western boundary line follows up the Sierra Del Caballo Muerto and Santiago Mountains to Persimmon Gap, where the highway crosses the Santiago Mountains. The northern boundary line follows along the Santiagos for about two miles. Here the line takes a southwesterly direction, passing through the Rosillos (Rose) and Christmas Mountains to the old border town of Lajetas (Flat Stones) at the western end of the Santa Helena Canyon. This comprises an area of approximately one million acres.

Almost in the center of this area, there rises out of its semiarid surroundings, the Chisos (Ghost) Mountains, which attain an altitude of eight thousand feet and are packed full of thrills, are beautiful in design and color and covered with trees, flowers and shrubs of many species.

To reach this wonder spot you leave U. S. Highway No. 90, and State Highway No. 3 at Mara-

The gateway to the Big Bend National Park, in the Chisos range, eighty-five miles south of Alpine.

Top view: The Witte Museum Expedition in the Big Bend district, 1924. Center: Caves in Eagle Nest Canyon. Bottom: The Chisos (Ghost) Mountains are so named because of their extraordinary coloring at night. This view was taken just as the sun was setting. The photographs on this page were taken by George C. Nalle, Sr., of Austin, and one of the state's outstanding amateur photographers.

thon, Texas, (shown on the accompanying map) and turn south over a new state highway that is under construction from Marathon to Santa Helena Canyon. This road is maintained in excellent condition and no difficulties will be encountered along the route. Should trouble develop, courteous treatment and assistance will be extended you by the highway employees at any of several road camps.

As you travel southward from Marathon you pass through rolling hills, on which graze many fine herds of cattle. This continues for some twenty-five miles. Then you enter into the limestone hills on which the greasewood, catclaw, Spanish dagger and other semi-arid vegetation abounds.

No timber of any kind is visible, yet on all sides rise lofty mountains. Always in the distance one notes a majestic range, towering above all others. These are the Chisos Mountains in the very heart of the Big Bend Park. Continuing your journey southward you cross the Santiago Mountains through Persimmon Gap, from which point you get your first real view of the Chisos, some fifty miles away. Leaving the Gap you travel along the Rosillos Mountains on into Tornillo desert, taking its name Tornillo (screw) from the screw beans growing along the dry creek beds.

This desert is one of the beauty spots of your trip. Beds of blue, yellow, green, brown and white clays catch the sunlight and make a picture long to be remembered. Here are great petrified trees, some ten feet in diameter and fifty to seventy-five feet in length, mute evidence of giant forests of bygone ages.

Leaving the desert you start your climb toward the Chisos range. The visitor has now probably begun to doubt the existence of trees and shrubs, as nothing but desert vegetation is in sight. Climbing ever upward you soon reach an altitude of 4000 feet, where stately oaks and pines and flowering shrubs and plants greet you on all sides. You enter the Chisos Mountains through Green Gulch at the head of which stands beautiful Casa Grande peak. You continue up Green Gulch, traveling over a new scenic highway, built by the CCC boys, until you reach the divide at an elevation of 6000 feet. From this vantage point the glories of the mountains in all directions will astound you; for you have left the semiarid country which exists in every direction around the Chisos, and are now in a paradise of scenery and vegetation. Here in the Chisos are preserved fauna and flora of many parts of our country. Here you will find reminders of Canada, Colorado, the Tropics. Here East, West, North and South meet and leave their marks. Here is preserved the legends and romance of the Great Southwest.

Rising in spots to a height of 8,000 feet, the Chisos range offers a climate unexcelled. Here you sleep under cover every night in the year. Cool and delightful in summer, invigorating but not uncomfortable in winter, the Chisos provides a year-round playground for the sight-seer and vacation-

ist, as well as a paradise for the geologist, archaeologist, botanist, ornithologist and biologist.

To the south, east and west of the Chisos you encounter the pure Mexican atmosphere, adobe huts, burros, good Mexican food and the spirit of *manana*, its strumming guitars and songs and customs of another race.

The history of the Big Bend area extends backward into the dark ages of American chronology, for here in the rock wall shelters is found the handicraft of the Basket-Maker Indians, known to us only by the cultural remains preserved in the dry dust of these shelters. The rude paintings depicting man and beast, some of geometrical design, are the attempts of early man to leave some record of his surroundings and his struggle for existence. The true meaning of these paintings is still a mystery.

On the south bank of the Rio Grande, where it reaches the point farthest south, stands the ruins of the old Mission and Presidio of San Vicente. Old records tell us that all the men of the Presidio were criminals, sent there to labor in the development of mines. Consequently there are many legends and stories of buried treasure and lost mines in and near the Chisos Mountains.

The great war trail of the Comanches came out of the plains country and through the very heart of the Big Bend. It crossed the Rio Grande near San Vicente and reached into the distant state of Durango. Early American travelers tell of this trail being lined with the bleached bones of thousands of horses and cattle taken in Mexico, which perished of thirst as they were driven north by the red man.

In this Big Bend area the secrets of geology open before you like the pages of a book. The part played by fire, wind and water is told in the torn and twisted masses of lava and stone which are exposed for your inspection. Fossils, many of rare and beautiful pattern, ranging in size from a quarter of an inch to more than three feet in diameter, are found. Skeletons of monstrous prehistoric animals, petrified trees and stumps of enormous size, all tell the story of ancient times.

Along the river, hot water springs, with temperatures as high as 105 degrees, gush from the rocks and in some places bubble up through the cool waters of the river. Years of usage have proved these waters to be of a curative value. Near by you find deep bedrock mortars, with evidence of much use by the Indians. No doubt the medicine man worked his magic with the aid of these waters.

The bird lover will find more than two hundred feathered species in the area, among them the rare wild pigeon, the beautiful golden eagle and the colima warbler.

The botanist will find some five hundred plants to study, as well as the tall Ponderosa pine, the Douglas fir, many oaks, aspen, willow, mahogany, ash, Arizona cypress, and junipers, all growing side by side with cacti.

Deer, black bears, coyotes, pumas, bobcats, foxes and numerous other animals roam the forests. Beavers build their dams along the Rio Grande. If you are interested in reptiles you have some forty species to greet you, including the green and pink rattlers.

The State Parks Board, working with the National Park Service, is planning a development of the area, to provide accommodations for visitors, construct trails to make the area accessible, and at the same time not destroy its natural beauty. It is the desire of all concerned to preserve this storehouse of wonders as nearly as possible in the way nature built it.

Late in 1934 a CCC camp was established in the Chisos Mountains to begin the work of making the area accessible to travelers. A beautiful highway has been constructed up Green Gulch, crossing the divide at an elevation of 6000 feet, then winding down into the "Basin." There are many

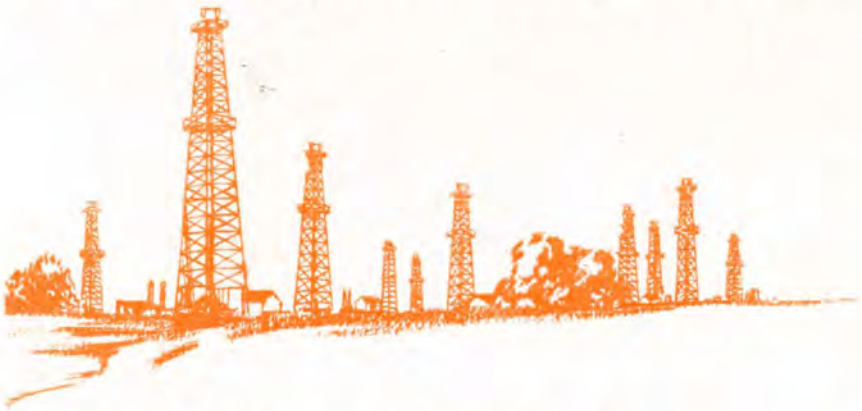
Below left: Exploring an Indian cave, Chisos Mountains, Big Bend National Park. Below right: A hardy tourist penetrating the rugged Big Bend district. The completion of roads will soon make this area easy of access to motorists.

miles of fine trails for horseback riding and hiking. An ample water supply has been developed and everything is now ready to start a program of establishing accommodations for visitors. If you care to camp out, there are many beautiful spots now available. But you should provide plenty of cover for the trip. Gasoline is available at a point midway between the Park and Marathon, and also at several points on the river.

The ideal trip is to drive from Marathon or Alpine to the Chisos Mountains. Spend a few days, or perhaps a week, seeing the beauties of the mountains. Take a one-day trip to the Santa Helena Canyon, visiting the mining towns of Study Butte and Terlingua en route. Return to camp or continue down along the Rio Grande through Castalon, Johnson's Ranch, San Vicente and into Boquillos, where you may secure the finest Mexican food. Here you will see the beautiful Boquillos Canyon and the towering Del Carmen Mountains, one of the most glorious views to be seen on the continent.

Alpine will provide the tourist with fine hotel accommodations and friendly assistance in arranging your trip. Hotel accommodations may also be secured at Marathon and at either town or elsewhere in the area you will meet genuine western hospitality.

In the Big Bend area the visitor will find pleasure resting among towering peaks and beautiful trees. The student will become wiser in the knowledge of nature's handicraft. The invigorating climate in both summer and winter will provide rest and recreation for those who seek a secluded spot for health or pleasure, or both.



OIL IN THE GULF COAST

▪ CONTINUED FROM PAGE 7

structures of this type, and their discovery should be attributed to geophysics. Fields of this type produce exclusively from above the salt, and in no instance has salt been found.

The first Gulf Coast production was very shallow, but the trend has been toward greater depths from the beginning. Perhaps the deepest commercial production in the world has been developed at Bayou St. Dennis, Louisiana, and Old Ocean, Texas, where wells recently were completed just above 10,000 feet.

The history of South Texas has been one of consistent expansion over a wide area. Following successful drilling along trends in Duval, Webb, Jim Hogg, Live Oak, Bee and Goliad Counties, the area around Corpus Christi Bay rapidly fell under development.

South Texas has been regarded as one of the most promising "poor boy" drilling areas in the United States, due to the comparatively low cost of operations. Many small but substantial operators have played important roles in the development of good fields in several counties. Although a high percentage of wells in several fields has been placed on the pump, pumping installations compare favorably with those in larger fields in other districts.

Early development dates back to 1905, but the most important fields in South Texas are comparatively new. The Refugio field was indicated by a gas discovery in 1920, but commercial oil was not developed until 1928. The Greta field is one of the newer producing areas in South Texas, and perhaps the largest oil reserve in the entire district. This area was discovered in 1933 by Smith and Seagraves, and it is estimated that the field ultimately will yield more than 75,000,000 barrels of oil. Tomoconnor is another important recent addition to Refugio County fields, being about two years old.

The Government Wells and Loma Novia fields in Duval County are major producing areas in every way, and together represent an oil reserve of more than 100,000,000 barrels. Seven Sisters is another important Duval County field.

The Saxet and Saxet Heights fields near Corpus Christi are interesting newer fields along the coast, and the Plymouth field in San Patricio County is regarded as a major area.

Dozens of small pumping fields in South Texas are being profitably operated by both major and independent companies, and the district offers unusual opportunities for development on a modest scale.

The Luffkin Line

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The Rightful Owner

A man who had not been very good during his earthly life died and went below. As soon as he got to the nether regions, he began to give orders for changing the positions of the furnaces, and commenced bossing the imps around. One of them reported to Satan how the newcomer was acting.

"Say," said Satan to him, "you act as though you owned this place."

"Sure," said the man, "my wife gave it to me while I was on earth."

★

Falling Allowed

Diner: I see that tips are forbidden here.

Waitress: Bless your heart, sir, so was the apples in the garden of Eden.

★

Blind

Irate Fan: Hey, ump, where's your dog?

Umpire: What dog? I haven't a dog.

Fan: Well, you're the first blind man I've ever seen that didn't have one!

★

Not Interested

Senator: What did the audience do when you said you never paid a cent for a vote and never would?

Congressman: Well, a few of them applauded but the rest of them got up and walked out.

★

Modern Proverbs

Tell the truth — and shame the family.

Many are cold, but few are frozen.

A fool and his money are soon spotted.

Hot Cha!

A girl met an old flame who had turned her down, and decided to highhat him.

"Sorry," she murmured when the hostess introduced him to her. "I didn't get your name."

"I know you didn't," replied the ex-boy friend, "but you certainly tried hard enough."

★

"I'll be frank with you," said the young man when the embrace was over. "You're not the first girl I ever kissed."

"I'll be frank with you," she answered. "You've got a lot to learn."

This Bow-Wows 'Em

Pedestrian: (to boy leading skinny mongrel pup) "What kind of a dog is that, my boy?"

Boy: "This is a Police Dog."

Pedestrian: "That doesn't look like a police dog."

Boy: "Nope, it's in the secret service."

★

"McDonall, will ye not have a cigarette?"

"Thank ye, no. I never smoke wi' gloves on. I canna stand the smell o' burning leather."

★

Visitor: "How far is it to Washington?"

Native: "Wa'al, I don't rightly know, but I'll call Eph. Eph'll know. He's traveled all over. He's got shoes."

★

A careful driver approached a railroad; he stopped, looked and listened. All he heard was the car behind him crashing into his gas tank.

★

Uncle and niece watched the young people dance about them.

"I'll bet you never saw any dancing like that back in the nineties, uncle?"

"Once—but the place was raided."

Good Business

The happiest business in the world
Is that of making friends,
And no "investment" on "the street"
Pays larger dividends.
For life is more than stocks and bonds,
And love, than rate per cent,
And he who gives in friendship's name
Shall reap as he has spent.
Life is the great investment,
And no man lives in vain
Who guards a hundred friendships
As a miser guards his gain.

Compare the LUFKIN-TROUT CRANK

Believe it or *NOT!*

(with apologies to RIPLEY)

THE NEW LUFKIN NO. 37 CATALOG IS NOW ON THE PRESS. WRITE TODAY FOR YOUR COPY!

1. It is *NOT* necessary to send a truck to the tool house, or supply store, for extra weights if crank pin is set out one hole.
2. Two men are *NOT* required to put on or take off weights, when well conditions change.
3. Thirty minutes to one hour is *NOT* required to change counterbalance. (Only five minutes with a Lufkin-Trout crank!)
4. It is *NOT* hazardous to workman to increase, or decrease, counterbalance on a Lufkin-Trout crank.
5. Lufkin-Trout cranks do *NOT* consist of a dozen or more parts.
6. There is *NOT* excessive crank shaft bearing strains due to a long radius of gyration.

COMPARE THE LUFKIN-TROUT CRANK WITH ANY COMPETITIVE CRANK!

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