

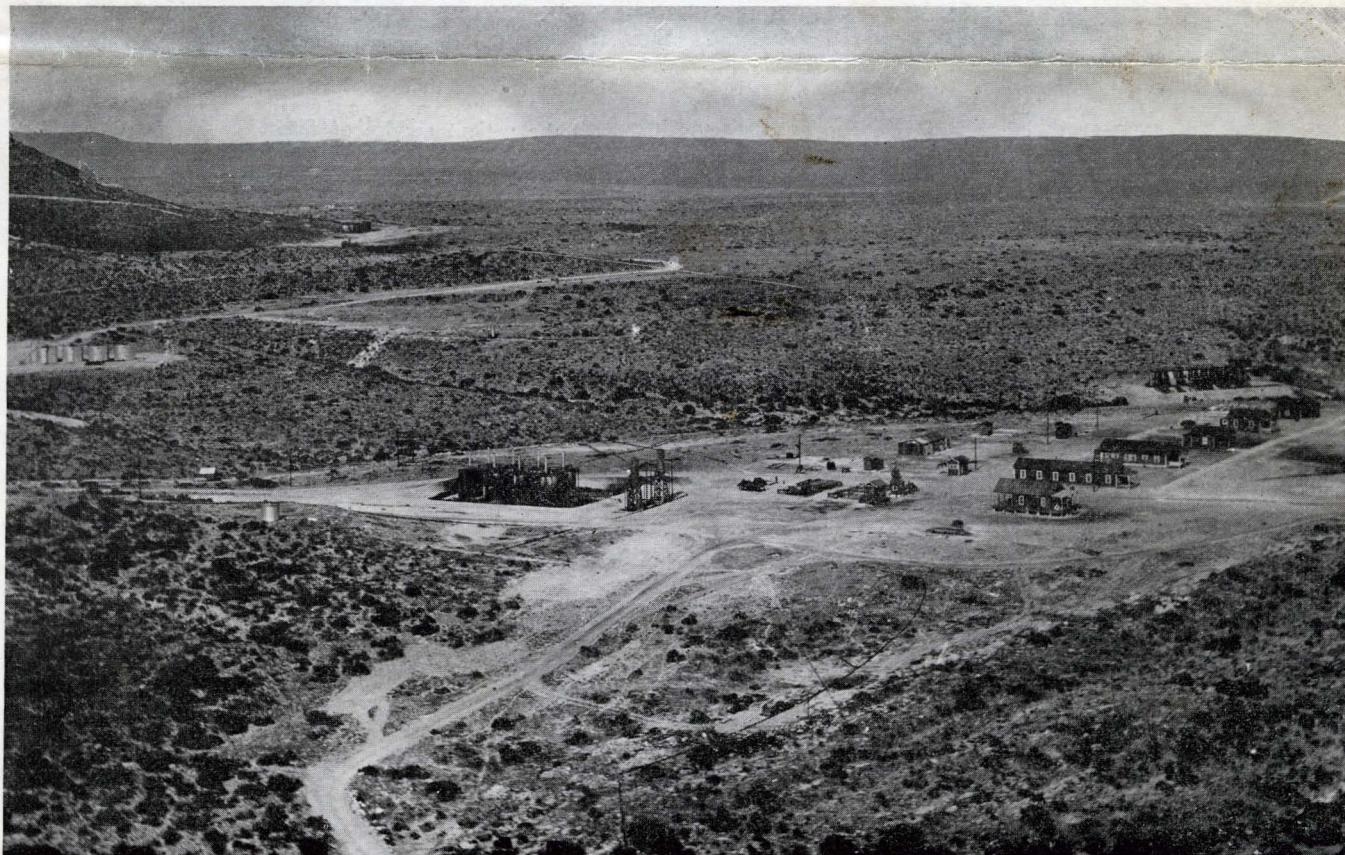


Published monthly to advance and promote friendly service with the customers of The Lufkin Foundry & Machine Co., Lufkin, Texas

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APRIL - MAY, 1929 — PICTURE NUMBER

No. 6



IN THE GREAT OPEN SPACES OF WEST TEXAS

Photo shows view of the famous Yates Pool in Pecos County. There is a well to every 100 acres, all flowing. Only the casing heads are visible above the ground. No derricks are used as wells are only about 1500 feet in depth and are handled with portable equipment. Production is on proration and opinion varies as to ultimate yield. Shell's camp, Trippett Lease, in the foreground.



Mother's Day

Sunday
May 12



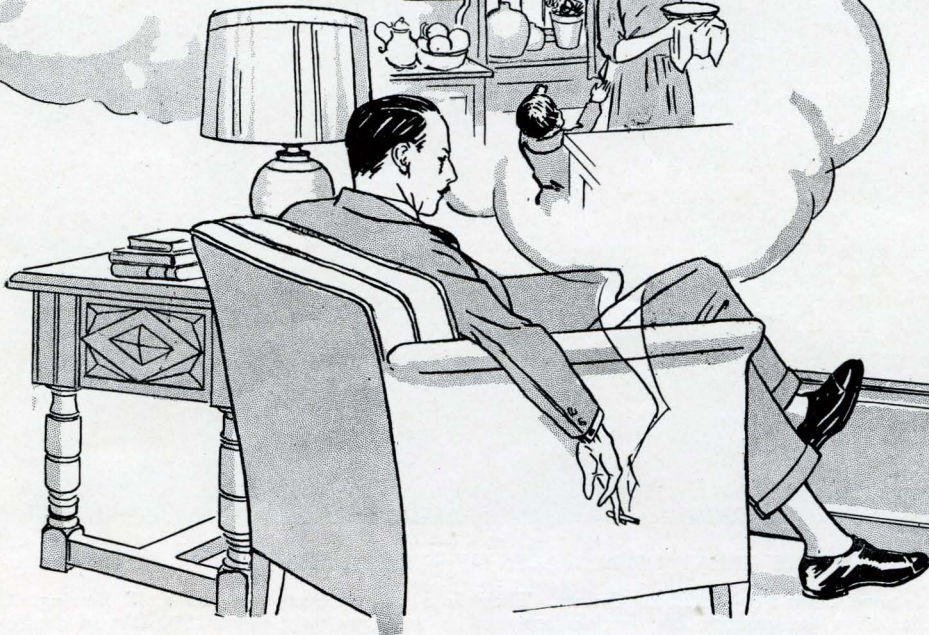
MOTHER O' MINE

Gentle hands that never weary
Toiling in love's vineyard sweet,
Eyes that seem forever cheery
When our eyes they chance to meet,
Tender, brave, patient, devoted,
This is always mother's way
Could her worth in gold be quoted
As you think of her today?

There shall never be another
Quite so tender, quite so kind,
As the patient little mother;
Nowhere on this earth you'll find
Her affection duplicated;
None so proud if you are fine.
Could her worth be overstated?
Not by any words of mine.

Vain are all our tributes to her
If in words alone they dwell,
We must live the praises due her;
There's no other way to tell
Gentle mother that we love her,
Would you say, as you recall
All the patient service of her,
You've been worthy of it all?

—Edgar Guest.



Joe Dunn
.29



Modern Worm Gearing

By G. H. ACKER, *Chief Engineer*
Cleveland Worm & Gear Co., Cleveland, Ohio

There is a constantly growing demand in all lines of industry for good gearing. Speed transformations that were formerly accomplished in a more or less slipshod manner with belts and chains are no longer considered satisfactory, and the present demand is for compact, efficient, and dependable drives that will eliminate risk and cut operating and maintenance costs.

Worm gearing is today being employed in every industry to meet this demand, and worm gearing, properly made, has proven consistently successful. In the steel mills, where continuous operation and shock loading are encountered as the regular characteristics of every speed reduction problem, worm gearing is popular. This popularity has been earned by performance. The steel mills are notorious for heavily overmotoring, and in many of the common worm gear applications in this industry, the service that the gears perform consists in rapidly manipulating the heavy masses of metal represented in furnace charges, billets manipulators, etc., where the full torque of the motor is utilized in accelerating the mass, and where rapid stopping sometimes much more severe in the resultant gear loads, is accomplished by magnetic braking.

In the rubber industry, mills, calenders, tubers, strainers, and large numbers of special conveying and handling devices are worm gear driven. It would be possible to cite numerous examples of exceptional service rendered by worm gearing in every line of industry, but it is sufficient to say that wherever a difficult and exacting speed reduction problem has been met with worm gearing, it has been met successfully. We are witnessing today the introduction of worm gearing as the rear axle drive in automobiles, and the performance of these axles is a concrete substantiation of the claims that are made for efficiency and life of worm gearing. Worm gears have been used on the majority of motor trucks for many years because of their compactness, and superior ability to handle the heavy loading encountered, and at the present time worm geared street railway axles are being introduced to meet the demand for a more dependable, smoother job.

In the oil field, engineers are alert for some mechanism to simplify their speed reduction problems, and they are turning their attention more and more to the advantages offered by worm gearings, and the same characteristics that have earned the endorsement of this gearing by the steel mill engineers throughout the country will recommend it to oil men as being particularly suitable for oil field work.

Of utmost importance in this respect is the great shock-load strength of the worm gear. Worm gearing is designed to withstand the normal working pressures to which it is to be subjected without wear and the proportions of the gearing are established on this

basis, rather than on the tensile strength of the metals employed, and an unusually large margin against breakage of parts is an inevitable result. In other forms of gearing, pressure angles of the order of $14\frac{1}{2}^\circ$ are employed to minimize rubbing and erosion of the tooth profile. The $14\frac{1}{2}^\circ$ tooth acts as a cantilever beam in transmitting load, and must be proportioned on that basis, the calculation centering on the probable tensile strength of the materials. In worm gearing much greater pressure angles are employed, as the mating materials are selected for their anti-friction qualities and the increased rubbing due to the higher pressure angle offers no difficulty. Consequently, the worm gear tooth is very stocky, and much broader at the base than a spur gear tooth of equivalent pitch would be, and the stresses set up in the tooth due to the cantilever loading are never sufficient to break out the tooth. Also, the bronze used in the manufacture of worm gears is ordinarily much more resilient than the materials employed in other forms of gearing, and a shock load is distributed over a greater number of teeth on that account.

Ratios of reduction as high as 100-1 are obtainable with worm gearing in a single stage, with but two working parts. The resulting economies in space required, and in maintenance, are usually of importance. The efficiency obtained with worm gearing correctly designed is as high as that obtained with any similar device, and is sustained indefinitely, by virtue of the tendency of the worm gear to maintain the theoretically correct tooth form.

Worm geared pumping units have been on the oil field market for several years, and their popularity reflects the successful service rendered by this type of gearing. Aside from the general merits of the gearing already discussed, it presents other advantages for this particular service. In the motor driven pumping unit, the loads are not even, due to the difficulty of obtaining perfect balance. Actually, over one revolution of the crank, the load pulses from maximum when the crank is at full stroke, to minimum when the crank is at the dead centers. The heavy loads come at two diametrically opposite points on the worm gear, and as the gear is designed to withstand wear at these points, it is very lightly loaded throughout the remainder of the periphery in consequence, the loading being a minimum when the crank is on the dead centers. This is an additional guarantee that no back-lash will develop on the dead centers, where reversal of load due to out of balance might be anticipated. This feature is peculiar to the worm drive, as the worm, being made of hardened and ground alloy steel, will not wear. In a spur geared mechanism, even though the pinion be made of harder material than the gear, both gear and pinion wear, resulting in increased back-lash throughout the complete cycle of the gearing.

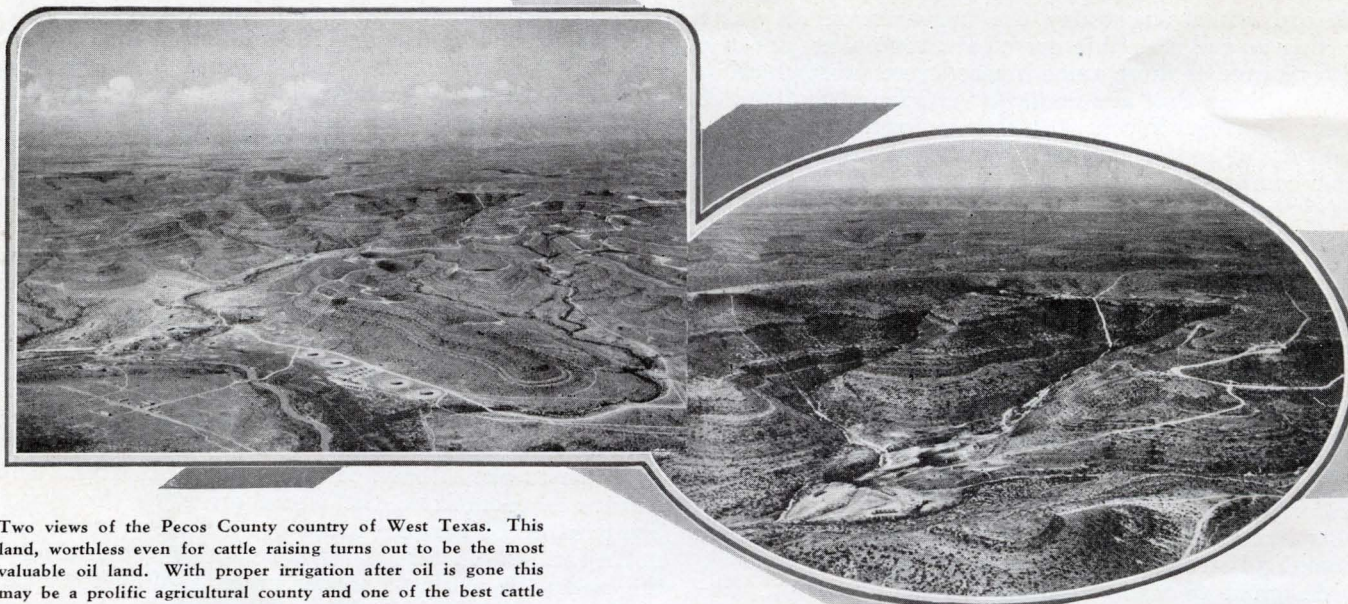


With the Men in the Field

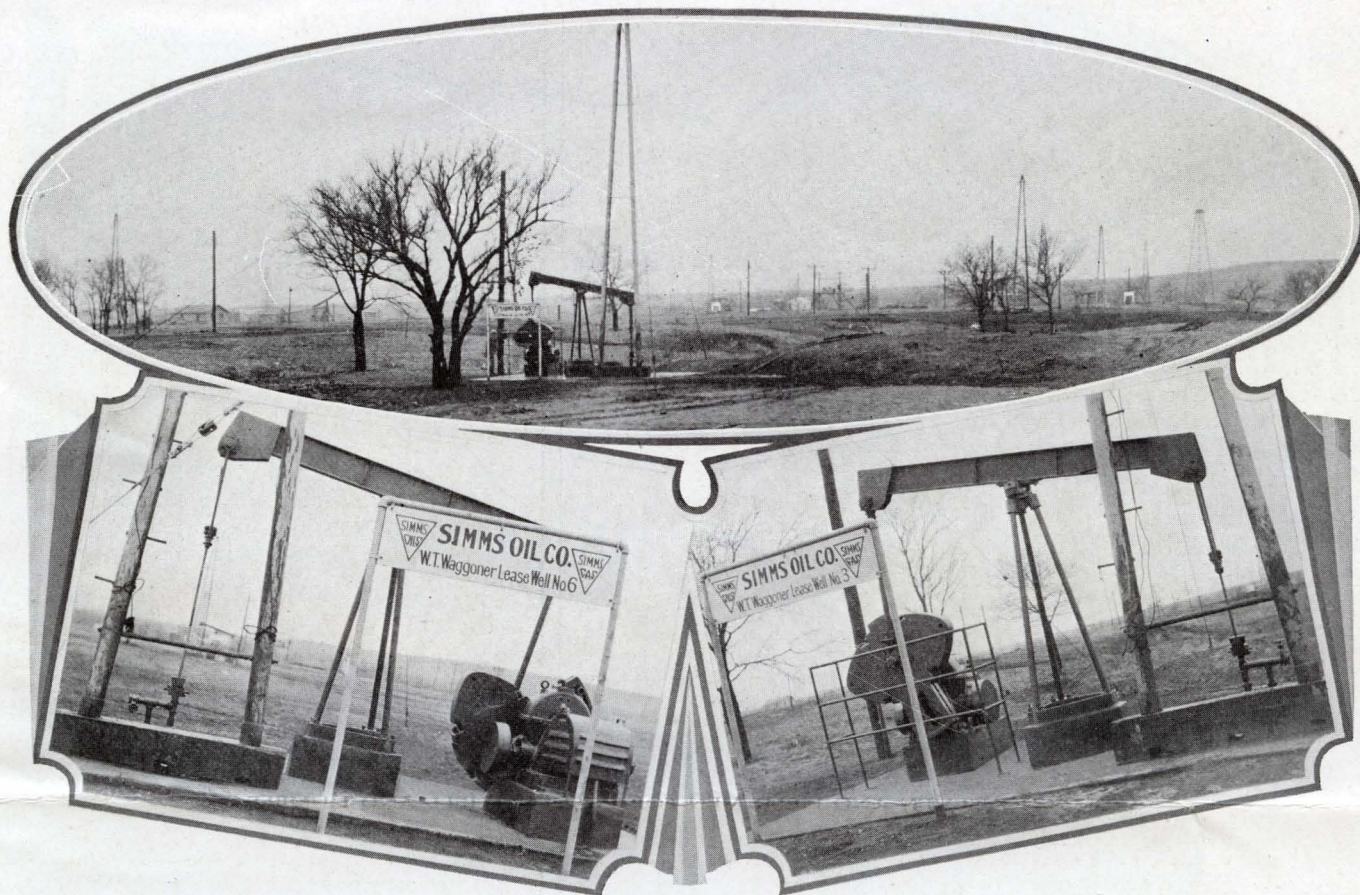


WAREHOUSEMEN AND FIELD MEN FOR COSDEN, SHELL AND HUMBLE

Upper left: Shell Corp'n., Hendricks Warehouse, Wink, Texas. *Left to right:* B. C. Wales, Hendricks Warehouseman, E. N. Van Duzee, Dist. Engineer; T. J. Brown, Payroll Clerk; A. S. Field, Superintendent; W. M. Padgett, Production Clerk; B. S. Robertson, Office Mgr.; J. P. Ridens, Telegraph Operator. *Right:* Humble, Wink, Texas Warehouse Force. Unfortunately the editor does not have the names of this distinguished group of Humble men. *Center:* Cosden & Company warehouse force, Big Springs, Texas. *Left to right:* W. B. Lake, Emsco; W. B. Smith, Pusher; C. A. Bumgardner, Superintendent; W. R. Hines, Continental Supply Company; C. R. Garrett, Warehouseman.



Two views of the Pecos County country of West Texas. This land, worthless even for cattle raising turns out to be the most valuable oil land. With proper irrigation after oil is gone this may be a prolific agricultural county and one of the best cattle sections of the West



WHERE BEAUTY AND ECONOMY COMBINE

Simms Company on the Wagner Ranch near Electra, Wichita County, Texas. *Upper:* General view of field, each well visible equipped with Lufkin Units. *Lower:* Close-ups of Simms Nos. 3 and 6 wells, showing neat clean, fire-proof installation of Lufkin Baby Unit. Wells on this lease are 1800 feet deep. We call your attention to this particular installation of the Simms Company, note how clean and neat, a condition almost impossible to have with the old Standard Rig; Lufkin Baby Units are designed for shallow production where Powers are impractical, especially in rough hilly country. Lufkin Baby Units operate with three to five horse power motors at a very small operating cost and are sturdy, efficient and handle large quantities of fluid.

April

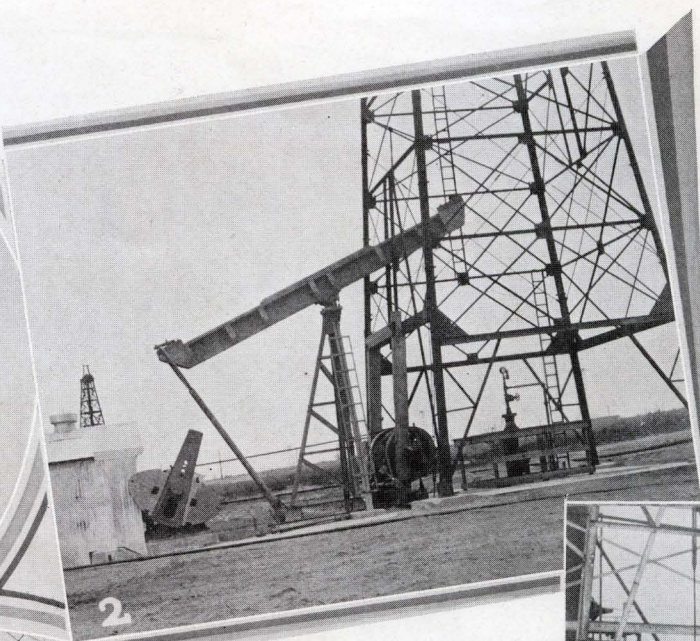
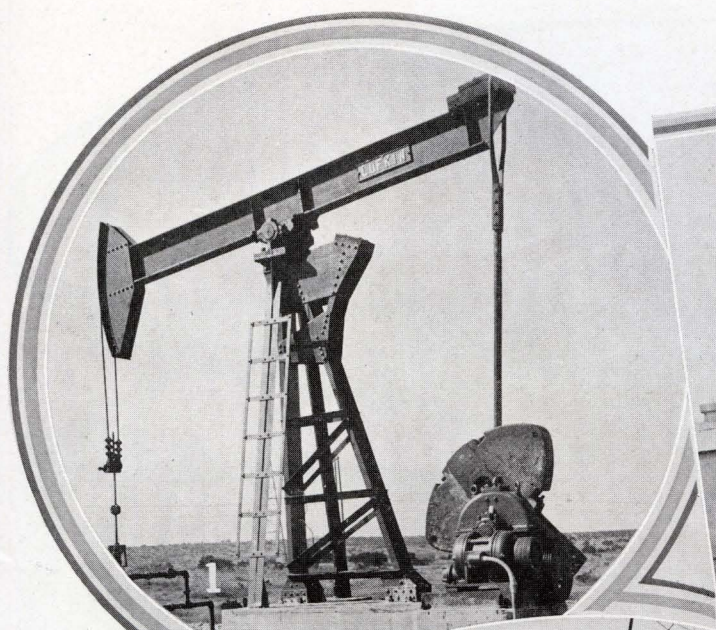
April is the fourth month in the year and has thirty days. It starts off with April Fool's Day and keeps fooling the public for the rest of the month. The only people who laugh at its jokes are the umbrella manufacturers. One of the biggest jokes of April is the ruination of the peach crops. If the crops are not ruined at least eleven times during the month, something is the matter with that particular April. The baseball season opens in the middle of April and this event causes little Willie, the office boy, to mourn the loss of both of his grandmothers and at least one of his grandpas. Many office boys move out to Utah where the Mormon laws allow them to have a half dozen or so grand-parents. April also brings Spring poems, Spring flowers, Spring fever and Spring tonics.

The best thing about April is that it is the month before May.

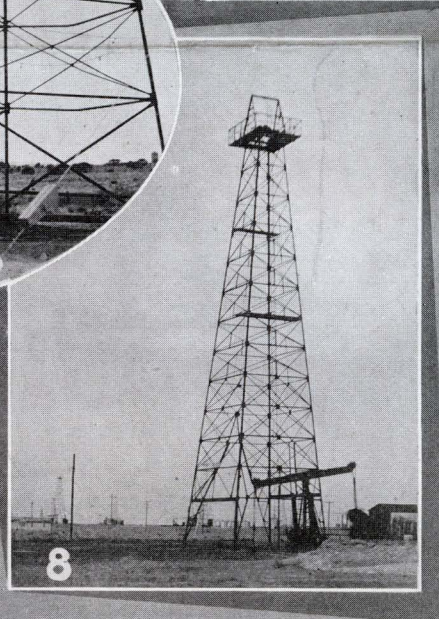
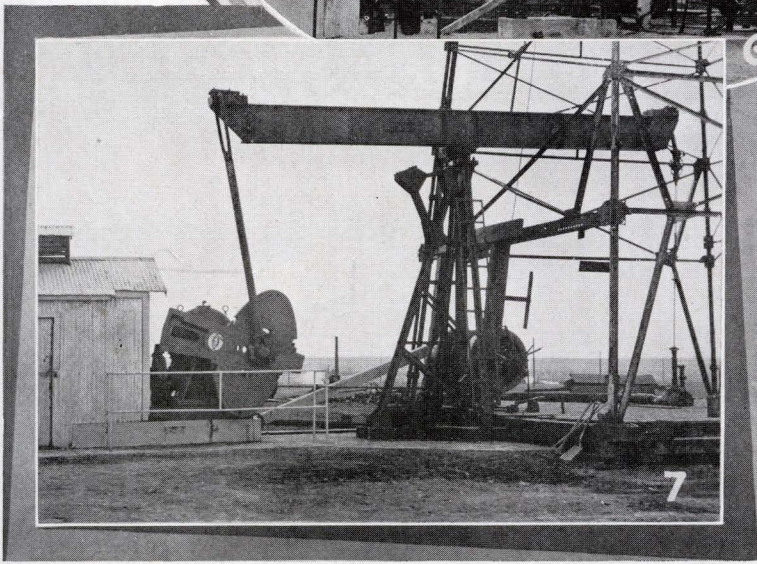


“Platinum Points”

Heres' a man that knows his stuff; (Name on request). He makes the statement that he drove his car up to a well in West Texas to inspect our equipment and having parked about twenty feet from the well, left his engine running and when he got upon the derrick floor he said he could hear the engine of his car running but could not hear any noise from the Lufkin Pumping unit. He said he knew of no machinery in the oil industry as noiseless. There's very little wear, where there's no noise.



With
LUFKIN
EQUIPMENT
IN THE
FIELD

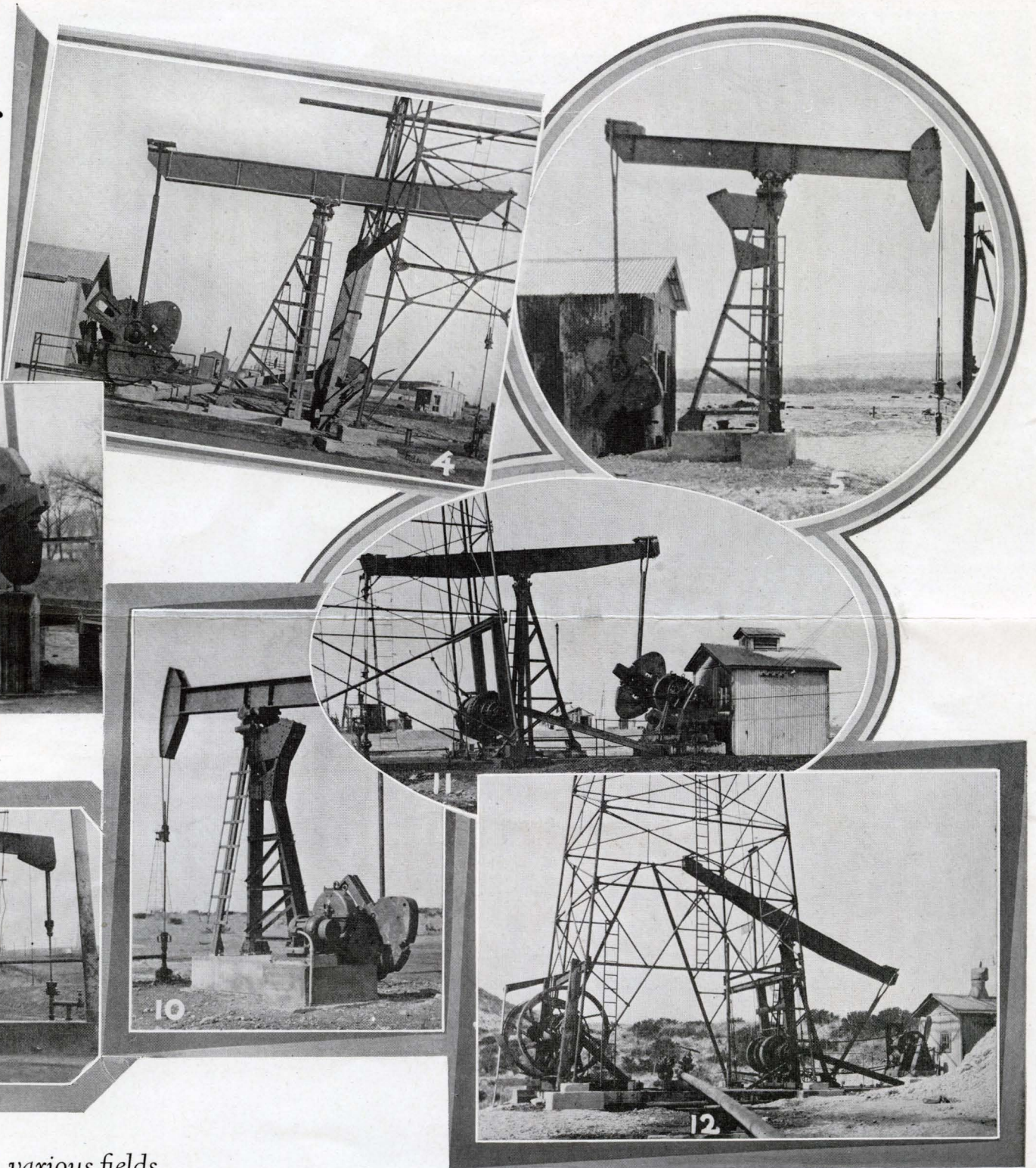


Lufkin equipment in service

No. 1, Marland Production Company, Chalk E-4, Howard County near Big Springs, Baby Unit and No. 3 Samson Post. No. 2, Tidal Oil Co., University No. 3, Crane County, Standard unit with complete Lufkin equipment which replaced Standard Rig. No. 3, typical Oxford Kansas installation. This unit is one of a large number purchased by one of the largest operators in Kansas who decided on Lufkin Units after running a number of tests on several makes of pumping units over a period of several weeks. Men in the picture are: *Left:* I. D. Jones, Assistant Superintendent of the Shell Petroleum Corporation. *Right:* Jess Pyle, Construction Superintendent of the Shell Petroleum Corp., at Oxford, Kansas. No. 4, Shell-Tex C No. 2, Winkler, County, Intermediate unit and auxiliary equipment. No. 5, *Extreme right top:* Shell Co., E No. 1, Yates Pool, Pecos County, ideal Baby Unit Installation. No. 6,



With ...
LUFKIN
EQUIPMENT
IN THE
FIELD



in service in various fields

Humble Smith B-3, Yates Pool, Pecos County, Standard Unit and auxiliary Equipment. No. 7, Louisiana Oil & Refining Company Settles No. 2 Howard County, complete Lufkin Installation. A neat installation. No. 8, General view Humble Company "C" lease, Winkler County. No. 9, Simms Company T. Wagner No. 3, Electra, Texas. Model installation of Lufkin Baby Unit. No. 10, Marland Clay G-1, Howard County Texas, near Big Springs. Baby Unit installation with No. 2 Samson Post. No. 11, Owen-Sloan Company, Dora Roberts No. 4, Howard County, Intermediate Unit with extra crank for shallow well; a help in balancing. No. 12, Simms M. A. Smith No. 1 Standard Unit. This well drilled in with Bull wheels and Lufkin No. 22 Hoist. Note how clean and neat each lease is. Fire hazard has been entirely eliminated, only a small motor house required in some instances, and everything accessible.



"SNAP SHOTS" OF, AND FROM OUR OKLAHOMA FRIENDS

Upper left: Walter W. Trout, Dist. Mgr., Tulsa Office; photo taken at the 101 Ranch near Ponca City. *Center:* I. D. Jones, Asst. Supt. Shell Petroleum Corp.; Lee Culver, Farm Boss, Shell Petroleum Corp.; A. V. Simonson, New York representative Lufkin Foundry. *Upper right:* A. V. Simonson. *Extreme left:* Mr. Bishoff, Drilling Supt., Shaffer Oil & Refining Co., Drumright. *Lower left:* W. W. Trout and stripped standard Unit at Oxford, Kansas. This is in overflow country—hence high foundation. *Center:* Mr. Badon, Electrical Engineer, Shaffer Oil & Refining Co., Drumright, Okla. *Lower right:* A. V. Simonson.

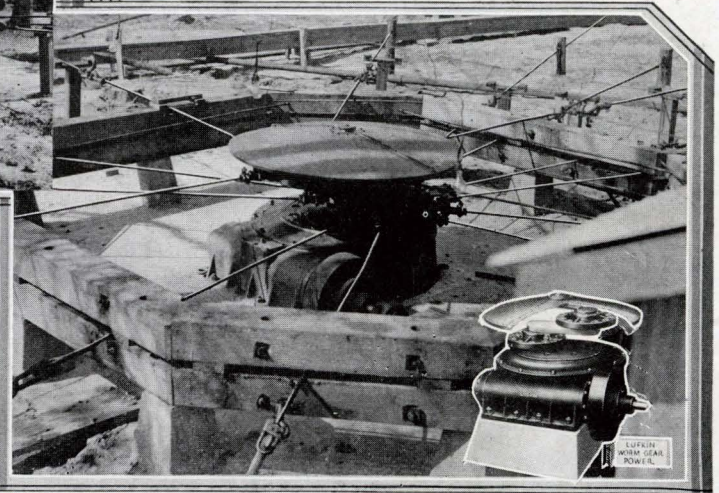
Miss Lucy Dee Owens

Who, in her very delightful way, entertained the visiting Purchasing Agents from the Houston Association who were recently the guests of Lufkin with several delightful readings.





SUN COMPANY, LIBERTY, TEXAS



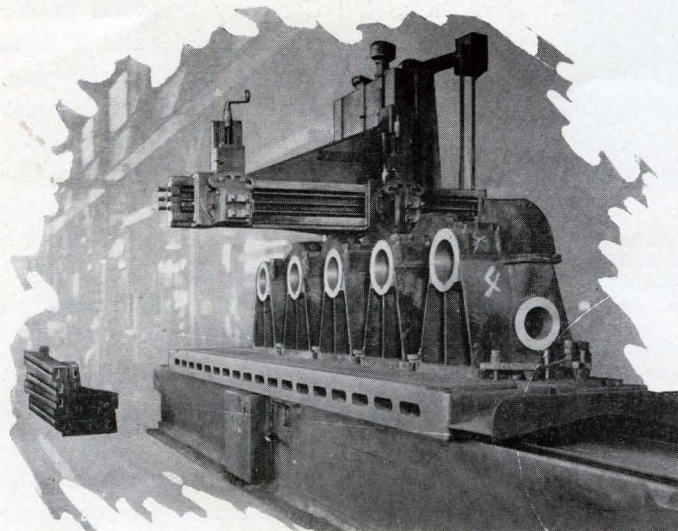
Lufkin Worm Gear Power

Two views of the Sun Company LUFKIN POWER at Liberty, Texas. This is the second such installation with this Company and the tenth LUFKIN POWER in this immediate section. The Sun Power at this time is handling 15 wells averaging 1800 ft. deep.

wear, thus saving power, and eliminating wear and tear and lowering operating expenses.

Note the small motor house required. No longer is the large band wheel house required with expensive belts to replace. The fire hazard has been entirely eliminated and the complete installation costs less than a good band wheel power. The LUFKIN POWER is equipped with easy rolling Hyatt Bearings and are built to operate for years with no perceptible

Such Companies as the Gulf, Humble, Sun, Fort Bend, Shell, and Simms Company are using Lufkin Worm Gear Powers.

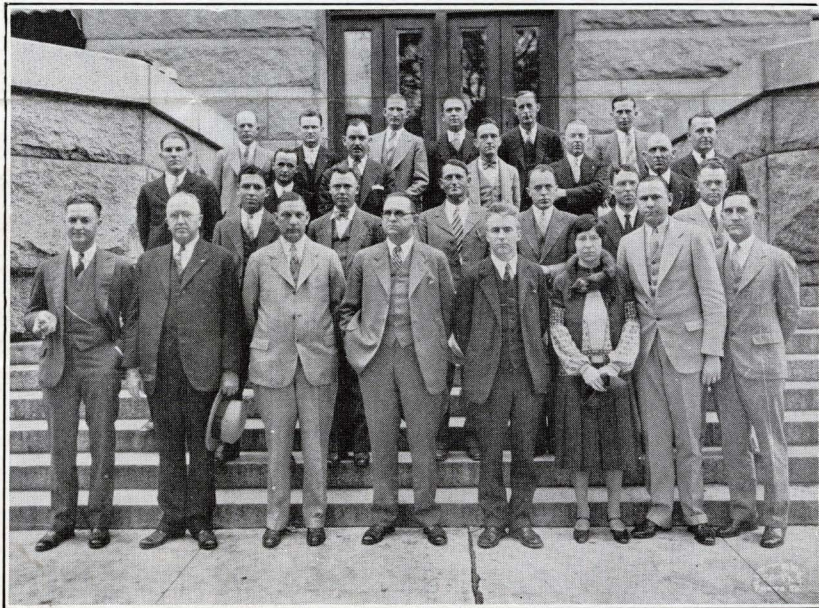
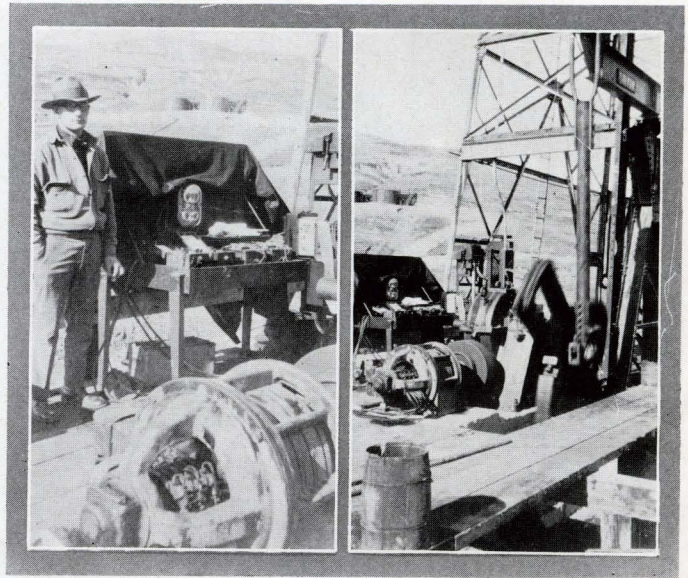


Mass Production in Our Lufkin Plant

Photo shows Cleveland Planer of latest design planing five Baby Units Gear Boxes at one time. This is a sample of production methods in our Lufkin Plant. Visiting oil men are always welcome. We have one of the best equipped plants in the Southwest.



George Roripaugh, Test Engineer, testing Lufkin Units at Mount Poso, Calif., with curve drawing Watt Meter, well balanced almost perfectly. Mount Poso field produces a very heavy 15° gravity oil and wells are from 1400 to 2000 feet in depth, this well being 1450' with 4" Tubing $\frac{3}{4}$ Rods, is handled nicely with our standard unit and requires about 17 H.P. There are many Lufkin Units around Bakersfield and Mount Poso.



RIO BRAVO SUPERVISORS

Left to right, 1st Row: S. T. Childress, Div. Supt.; M. C. McDowell, Div. Supt.; R. W. Shaw, Asst. to VP&GM; Jas. Hutcheson, Vice-Pres. and Gen. Mgr.; C. L. Baker, Chief Geologist; Miss Grace Newman, Asst. Paleontologist; Melbert Schwarz, Chief Engineer; J. M. Vetter, Supt. Land and Tax Dept., all of Houston office.
2nd Row: R. E. Russell, Storekeeper, Electra; R. S. Martin, Jr., Storekeeper, Pierce Junction; E. L. Spaugh, Chief Electrician, Pierce Junction; J. Zaba, Engineer; R. G. Gray, Asst. Landman; L. E. Greene, Draftsman, Houston.
3rd Row: Jno. A. Kirschke, Asst. Engineer, Houston; W. F. Tohill, Storekeeper, Spindletop; W. T. Radford, Field Foreman, Jacksonville; J. W. O'Brien, Field Foreman, Pierce Junction; C. E. Craddock, Storekeeper, Saratoga; W. W. Lewis, Field Foreman, Electra; C. R. Dennis, Accountant, Houston.
4th Row: U. V. Seales, Chief Clerk to Pur. Agt.; W. E. Morrison, Foreman, Wortham; L. E. McKinney, Field Foreman, Spindletop; W. H. Sanders, Jr., Chief Clerk to VP&GM; F. J. Hardy, Jr., Chief Clerk to Div. Supts.; J. V. Kuhlman, Storekeeper, Luling.

*Conference of Rio Bravo Storekeepers, Field Foremen and Heads at Houston, Texas
 January 17th and
 18th, 1929*

(The Southern Pacific Bulletin)

The semi-annual meeting of storekeepers, field foremen, and department heads of the Rio Bravo Oil Company was held in the Houston office on January 17 and 18. The operations of the company for the year 1928 were reviewed from all angles and several interesting papers were read on subjects pertaining to more efficient operations and elimination of various hazards prevalent to oil field practices. Members of the conference and their wives were guests of Mr. Hutcheson at San Jacinto Inn on the night of January 17.

Messrs. R. V. Plyler, field foreman, Saratoga, F. D. Wise, foreman Hall County, and R. S. Greer, field foreman, Luling, were unable to attend the conference on account of the flu.



Here's the Jokes

The First Thing

I Look For

(Ed.)



More Golf

"Pop," said the geologist's boy, "you took a day off today, didn't you?"

"Yes, son. How did you know?"

The boy's nose wrinkled up a little, and he said, "You smell so of golf."

A Good Place to Go

At an International Sunday School convention, in answer to the roll-call of the States, the reports were verbally given by the various state chairmen. When the "Lone Star" state was called, a brawny specimen of Southern manhood stepped out into the aisle, and with exceeding pride, said:

"We represent the state of Texas. The first white woman born in Texas is still living—she has now a population of over three million."

There was a pause of bewilderment for a moment, and then a voice from the gallery rang out, clear and distinct:

"Send that woman out to Monata—we need her."

He—What book are you reading?

She—It's called A Pair of Tights.

He—Who's it about?

She—Two Scotchmen.

Where the Tall Corn Grows

Toolie—"What did you do with the blonde you had out last night?"

Driller—"Oh, I gave her the air. She turned out to be one of these Iowa girls."

Toolie—"What do you mean, 'Iowa girls'?"

Driller—"You know. 'I owe a month's rent, etc.'"

Dumb Alice

"Don't you remember sweet Alice, Ben Bolt?"

Sweet Alice, whose hair was so brown;
Who wept with delight when you gave her a smile
And trembled with fear at your frown?"

No wonder the boy friends left poor Alice flat!
Who'd want to remember a wet smack like that?

—Baron Ireland, in *Life*.

The modern girl would rather mend a fellow's ways than his socks.

She: Can I entertain you in any way, shape or form?

He: Well, the last two methods sound promising.

"The first night I caught her in my arms. The next night I caught her in my pockets."

He was an engineering student and left blue prints on her neck.

Medical Poem

By the shores of Cuticura
By the sparkling Pluto Water
Lived the Prophylactic Chiclet,
Danderine, fair Buick's daughter.
She was loved by Instant Postum,
Son of Camels and Victrola;
Heir apparent to the Mazda;
Of the tribe of Coca Cola.
Through the Shredded Wheat they wandered,
Through the darkness strolled the lovers,
Lovely little Wrigley Chiclet;
Washed by Fairy, fed by Postum,
No Pyrene can quench the fire,
Nor an Aspirin still the heartache,
Of my Prest-O-lite desire;
Let us marry, little Djer-Kiss.

—*Journal of American Medical Association.*



JOHN D. BEST

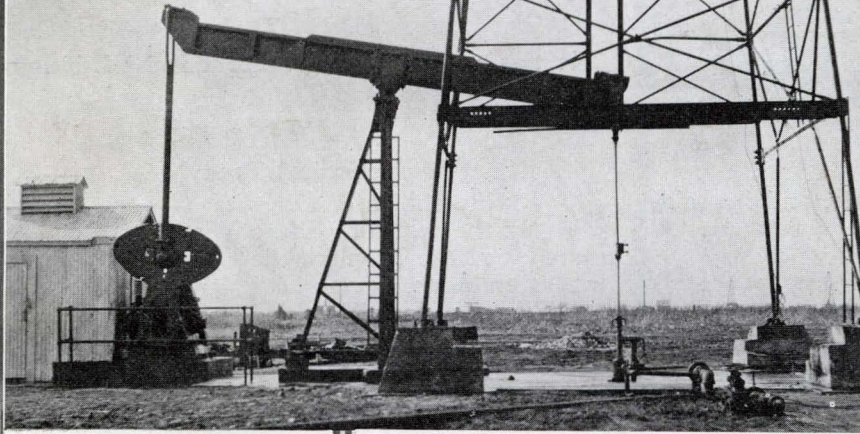
Field man in charge of our Odessa, Texas, warehouse.

"John D.," is he is known among his friends, is fast becoming acquainted with the customers and conditions out in the "wide open spaces" of West Texas.



LUFKIN UNIT

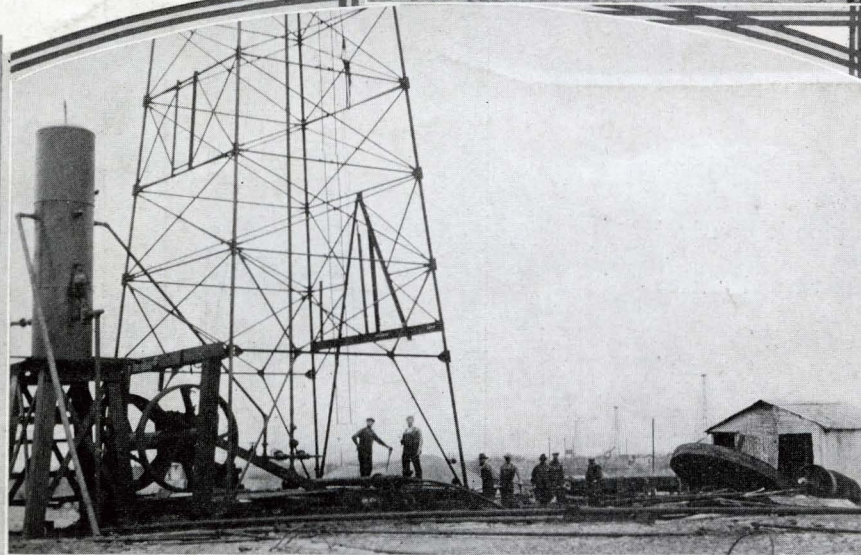
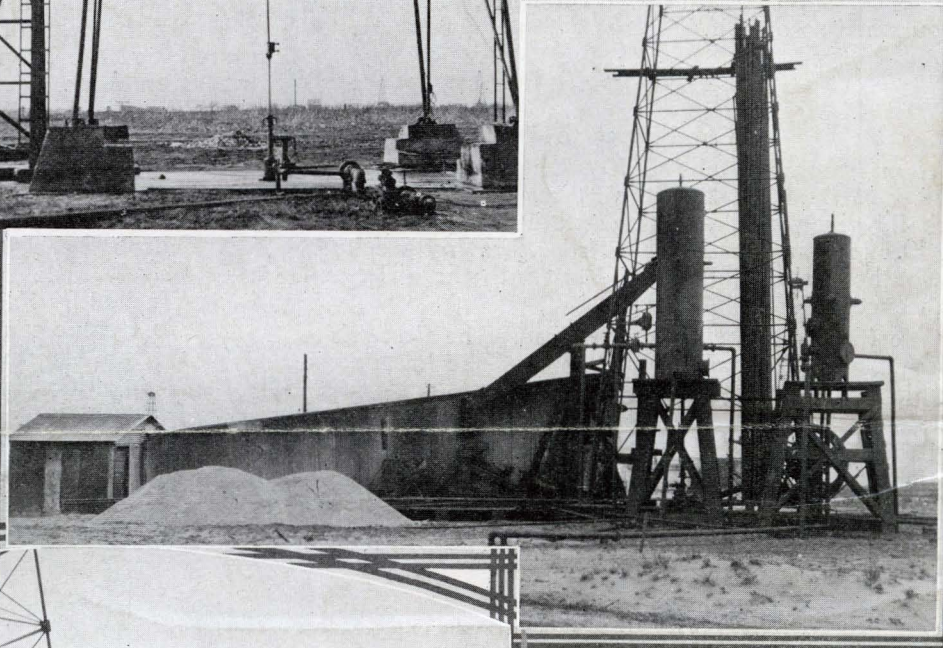
Replacing Standard Rig



7 Reasons for LUFKIN units

- 1- DEPENDABILITY
- 2- EFFICIENCY
- 3- FIRE PROOF
- 4- QUIETNESS
- 5- SIMPLICITY
- 6- COMPACTNESS
- 7- STRENGTH

Note fire risk comparison between Lufkin equipment and the old Standard Rig.



Lufkin Units are fast replacing the "old Standard Rig." Photo shows, center: Standard rig as installed. Lower picture: tearing out, getting ready to install Lufkin Unit. Upper left: Lufkin Unit installed. This is on Lease of one of the largest operations in Texas (name on request). Economy and fire hazard were the deciding factors in this instance. Note the neat clean appearance of the Lufkin installation as compared to the Standard Rig.

Lufkin Units are Manufactured at Lufkin, Texas, by

THE LUFKIN FOUNDRY & MACHINE COMPANY

Branch Offices and Warehouses:

HOUSTON TULSA LOS ANGELES ODESSA EL DORADO NEW YORK SEMINOLE