TEXACO STAR

VOL. XIII APRIL, 1926 NO. 4

Team-Work

Today all things worth while are accomplished by team-work. The round-the-world flight of our army aviators is a paramount example of team-work and of team-workers. Auxiliary planes, naval bases, battleships, radio stations, all had a part in this momentous flight—all worked together in perfect harmony to send the stars and stripes around the globe in the air.

Unless you are a team-worker, you are little likely to succeed under modern conditions. Few can accomplish anything alone, unaided. Civilization is built on team-work—is team-work. All trade, all commerce, all industry sprang from team-work—unified effort of thought, actions, resources, and capital.

A man to be a team-worker must be every inch a man. He is ready to give and take. He is a diplomat. He does not expect to have always everything his own way. He is broad enough to try to see things from the other person's point of view. He is accommodating, obliging, and helpful. He cooperates. He plays the game fair.

In business every man should be a team-worker. There is no half-way mark. Either you are or you are not.

The goods a dealer sells are the goods we make. His interests are our interests. His growth and success, if he is a team-worker, helps us. And our facilities, our large organization, and our resources are a bulwark of defense for him.

One hundred per cent team-work will pay one hundred per cent dividends.—*Curtis Service.*

The following resolutions were adopted by the Board of Directors:

MR. ELGOOD C. LUFKIN having announced his retirement as Chairman of the Board, and it being our desire to express here an appreciation of his services to the Company, and likewise the personal esteem in which he is held by this board and its members,

THEREFORE BE IT RESOLVED, that Mr. Lufkin's official connection with the Company, successively as Vice President, President, and Chairman of the Board, was characterized in all seasons by the highest type of devotion to duty, resulting not only in success itself, but affording an example to others who may assume similar responsibilities now or hereafter.

BE IT FURTHER RESOLVED, that personal association with him has been most delightful. A charming character, a man of attainments, a true gentleman, he has most thoroughly endeared himself to all, and we extend to him our best wishes for health and happiness.

CLARENCE PORTER DODGE, Director, Secretary, and Manager of the Sales Department of the Southern Territory of The Texas Company, was born at Lynchburg, Virginia, on March 13, 1868, and died of injuries received in an automobile accident at Memphis, Tennessee, at five o'clock a. m., January 13, 1926, closing a period of continuous service with the company of over 22 years. He was reared in Texas, being brought to this State by his parents when an infant. He was for a time in public life, being the first Purchasing Agent of the State of Texas. He became connected with The Texas Company, at Beaumont, Texas, on June 13, 1903, and was its first Purchasing Agent. He passed away in the prime of his strength and usefulness, his career marshaling almost the complete history of the origin and growth of our company, therefore:

BE IT RESOLVED, by the directors of The Texas Company, in regular meeting assembled, that we recognize in the death of Mr. Dodge an irreparable calamity, and that we express to his family and his friends our profound appreciation of his faithful and loyal service to the company, our admiration for his ability, and our sorrow over his loss.

BE IT FURTHER RESOLVED, that a copy of this resolution be engrossed upon the minutes of this meeting, and that the Secretary be instructed to forward a copy to the different members of his bereaved family.

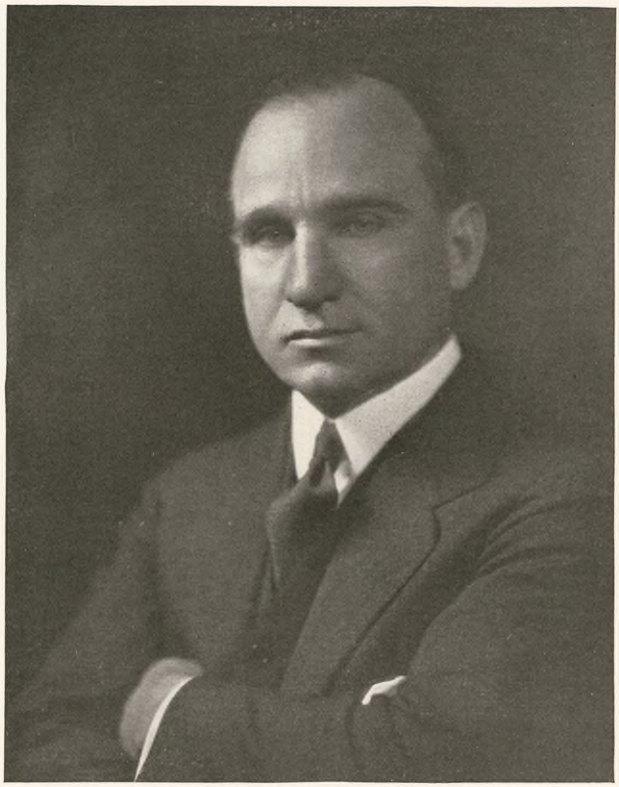
R. C. Holmes

Mr. R. C. Holmes is a type of oil executive thoroughly seasoned by knowledge acquired from the ground up. Having a grandparent who was an oil and gas producer as early as 1880 may have pointed the way, but boyhood familiarity with the paraphernalia of the industry and vacation-time labors in the oil refinery, which was the mainstay of his home town, proved decisive. After finishing school in 1895 he joined the Standard Oil Company of New York at Olean, N. Y., and found his way to positions of authority there and later with the Solar Refining Company in Galatea, Ohio.

While his wide experience in the refining of petroleum dates back to the early operations of the Olean and Galatea refineries, the major portion of his career has been devoted to the construction of refineries and the perfection of processes and products within The Texas Company, which he joined as Manager of the Refining Department at the time of the incorporation of The Texas Company. Probably no other individual in the history of the oil business has built up from the beginning oil manufacturing plants of the magnitude of The Texas Company's.

A clear foresight of a world-wide distribution of Texaco products for all requirements can be credited to Mr. Holmes in the steady, conservative, and efficient manner in which the manufacturing, storage, and terminal facilities have been planned, built, and enlarged from time to time, and in their strategic locations. At all times he has had a broad knowledge of production, transportation, manufacturing, and marketing. His problems are always solved by a complete picture of the pertinent points from every phase of the industry. To this he has devoted thirty years of his life.

Nation-wide prominence in pressure still operations has been properly credited to Mr. Holmes. In the development of the process that bears his name years of study and research were required. Only those who have been close to him through these years can attest the untiring energy applied against odds that at times appeared insurmountable. Regardless of subsequent happenings through so-called infringement suits, it is a fact known to those who trailed along with him that he started with a naked theory, stayed with it through all of the research adversities, and



R. C. Holmes

finally exploded the skeptic's admonition "It can't be done."

While Mr. Holmes has continued in the management and direction of the Refining Department of The Texas Company since the beginning of the company, he became a Director in 1906, a Vice President and Chairman of the Manufacturing and Marketing Committee in 1913, a member of the Executive Committee of The Texas Company and President of The Texas Company of Mexico in 1920, President of The Texas Steamship Company, assuming direction of the marine affairs of The Texas Company, in 1922.

In addition to carrying on his regular work during the world war with the increased duties due to the conditions at that time, he was Chairman of the Subcommittee on Refining of the National Petroleum War Service Committee, also a member of the Priorities Committee on Refinery Materials and Tinplate.

He has always shown a disposition to cooperate with Government bureaus whenever they appeared to be attempting to give helpful and constructive aid. In 1917, when the Bureau of Mines and Bureau of Standards sent out questionnaires and invitations to all branches of the oil industry to make their recommenda-

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"All for Each—Each for All"

Address: The Texaco Star, The Texas Company, Houston, Texas

The Annual Meeting

At the annual meeting of the stockholders of The Texas Company, held at the Company's office in Houston, Texas, March 16, 1926, the following were elected directors of the Company:

Amos L. Beaty	J. N. Hill
R. C. Holmes	E. C. Lufkin
T. J. Donoghue	F. D. Stout
G. L. Noble	John H. Lapham
D. J. Moran	Henry G. Lapham
W. W. Bruce	Albert Rockwell
J. J. Mitchell	

At Directors' meeting held immediately after adjournment of the meeting of stockholders, the following were elected to offices designated:

Amos L. Beaty	Chairman of Board
R. C. Holmes	President
T. J. Donoghue	First Vice President
G. L. Noble	Vice President
D. J. Moran	Vice President
W. W. Bruce	Vice President
W. N. Capen	V-President (Special)
Harry T. Klein	General Counsel
C. E. Woodbridge	Treasurer

The following appointments were made:

Ira McFarland	Comptroller
Guy Carroll	Ass't Sec'y & Ass't Treas.
W. G. McConkey	Assistant Secretary
E. M. Crone	Assistant Secretary
James A. Merlis	Assistant Secretary
J. B. Duke	Assistant Secretary
J. S. Ballard	Assistant Secretary
R. Hekeler	Assistant Secretary
D. B. Tobey	Assistant Treasurer
A. M. Donoghue	Assistant Treasurer
G. W. Foster	Assistant Treasurer
T. A. Spencer	Assistant Treasurer
H. G. Symms	Assistant Treasurer
L. H. Lindeman	Assistant Treasurer

The following Executive appointments were announced:

W. S. S. Rodgers	Ass't to the President
A. S. Alston	Ass't to the President
Ernest Carroll	Ass't to First V-President
R. Ogarrio	Ass't to D. J. Moran, V.P.

The following directors were elected to constitute the Executive Committee:

Amos L. Beaty	T. J. Donoghue
R. C. Holmes	D. J. Moran
J. N. Hill	Henry G. Lapham
J. J. Mitchell	

The changes on the Board of Directors consisted in the election of W. W. Bruce (New York), Henry G. Lapham (Boston), and Albert Rockwell (Warren, Pa.) to take the places of C. P. Dodge, C. B. Ames, and L H. Lapham; Henry G. Lapham was elected a member of the Executive Committee.

Amos L. Beaty succeeds E. C. Lufkin as Chairman of the Board.

R. C. Holmes succeeds Amos L. Beaty as President.

Harry T. Klein was elected General Counsel *vice* C. B. Ames, retired.

tions and to help those bureaus to formulate and adopt a standard specification for Motor Gasolines for Government and for private use, it is understood that Mr. Holmes was the only one who submitted a definite recommendation for a specification and who went there favoring the adoption of a specification. Nevertheless a specification was adopted, and it is doubtful if there is any one in the industry who could now be found who thinks that the adoption of a specification was unwise.

It is believed that without exception Mr. Holmes has unselfishly and without comparable financial gain given more thought and energy to the utilization of the "squeal" in petroleum than any other man at present identified with the industry. He has been a pacemaker not only for The Texas Company but for the industry. Initiative, inventive, and organization ingenuity are present in an increasing degree in his makeup and still greater accomplishments are forecasted for him.

Behind a natural and dignified exterior, one will find a warm interior, friendship, and goodfellowship. Mr. Holmes loves a saddle horse, enjoys golf and other beneficial forms of exercise and recreation. Such recreation he takes regularly and consistently in an effort to keep in good health. No form of recreation can, however, interfere unduly with any problem he is endeavoring to solve.

His greatest hobby, if he really has a hobby, is young men. He enjoys the rare qualification of measuring the possibilities and limitations of young men as they enter his large organization. His patience and understanding in rearing them to maturity to fit some branch of the industry is an art with him. It can be said that he has woven a network of humanity about himself and contributed to practically every department of the company men who give The Texas Company a rating second to none for loyalty, integrity, and general ability.

Burt E. Hull

Burt E. Hull is a Texan, born in Grimes County near Navasota. He attended high school in Houston, and in 1904 secured a degree of Bachelor of Science in Civil Engineering at the A. and M. College of Texas. While a boy he utilized his school vacations by working wherever he could. After leaving college he was employed by the Southern Pacific Railroad and its subsidiaries.

Burt E. Hull

In January 1905 he was employed by The Texas Company in its Pipe Line Department, being first engaged in the construction of a six-inch pipe line from Humble to Sour Lake. In November 1906 he left for Tulsa to begin the engineering work on the pipe line which is now the heart of our large system.

In 1908 he was transferred to the Refining Department at Port Arthur, and in 1911 he was appointed Chief Engineer, Refining Department, with headquarters at Houston. He served in that position until July 1922, when he was elected Vice President and General Manager of The Texas Company of Mexico, S. A., with headquarters in Tampico.

On March 22, 1926, he was elected President of The Texas Pipe Line Company of Texas, and on the same date Vice President of The Texas Pipe Line Company of Oklahoma. He continues on the Board of Directors of The Texas Company of Mexico.

Throughout his career with The Texas Company Mr. Hull has given his undivided attention to his assignments, and his rise has been richly merited. With his perfect memory of incidents he has accumulated a storehouse of experience that will, we know, serve The Texas Company in no ordinary degree. He goes to the pipe line companies with a thorough knowledge of the pipe line business in all of its phases.

While his election means primarily executive duties, those who are subordinate to him will have every opportunity to know him and his policies, as his manly and magnanimous character develops acquaintances, in whatever community he resides, into staunch and enduring friendships. He will be always sympathetic, but at the same time all will know and recognize that he will maintain strict discipline. He has an uncanny knowledge of details, and, above all, knows the capacity

and limitations of the men employed. He brings to his position the spirit of coöperation that means so much to the success of The Texas Company in its broad operations.

The Pipe Line Companies are to be congratulated for an executive head so well qualified. Mr. Hull may make some changes, but men who are pursuing the right course need have no fears.

Citizens' Military Training Camps

Have you decided when to take and how to spend your vacation? If you are a young man, it would be well to consider camping with Uncle Sam this summer.

The Government offers you thirty days in the open air under a program which will fill you with 'pep' and which holds twice the action and enjoyment any ordinary vacation would afford. All expenses are paid, including railroad fare to and from camp, food, athletic equipment, and lodging. Add to this, physical training under expert instructors (designed to build up the bodies of young men), military drill, rifle and pistol marksmanship, and the chance to obtain a commission in the Officers' Reserve Corps.

College and high-school students, trade and professional men, and office workers have filled the Citizens' Military Training Camps to capacity in each of the five years they have been in existence. More than 120,000 youths between the ages of 17 and 24 have enjoyed the advantages of the C. M. T. C.

This year the War Department plans to train a greater number than ever before, and from experience gained in conducting the camps in former years the 1926 encampments will be more attractive, if possible, than those preceding.

The purpose of the Citizens' Military Training Camps is to bring together young men of high types from all parts of the country, and through expert physical direction and military training, to benefit the young men individually and bring them to a realization of what their flag and country really mean.

There are four courses of training. Each of these contemplates thirty days for four consecutive years. The Basic course, for first year students without previous training, provides preliminary instruction in athletics, military drill, marksmanship, and other subjects, laying a foundation for the more advanced courses. First aid, camp sanitation, and personal hygiene are handled by thoroughly qualified Army medical officers. This course has a maximum of athletic and recreational activities to build up physically each candidate.

Three other courses, the Red, the White, and the Blue, follow the Basic course. These courses afford opportunities to specialize in the various arms of the service. In the Red course every applicant is permitted to select the branch in which he is to be trained. There is the Cavalry, where the young men are taught how to ride and handle a horse properly; the Signal Corps, in which radio, telegraphy, and other forms of communication are taught; the Infantry, Engineers, Field Artillery, *etc.* In the White and Blue courses candidates continue to specialize in the branch selected, and graduation from the Blue or final course confers upon the successful student eligibility to take the examination for appointment as a second lieutenant in the Officers' Reserve Corps.

The Citizens' Military Training Camps offer to the youth of America the best possible opportunity to mingle with other young men of their age, and to rub shoulders with them while undergoing military drill or participating in athletics in a way which they will never otherwise be able to do. Leading teachers, business men, and high public officials heartily endorsed the movement. Samuel Woodfill, the outstanding hero of the World War, said: "I wish that every young man might realize the value to himself of the course at the Citizens' Military Training Camps. Here is acquired the faculty of correct and quick decision and self-reliance in emergency. The youths who take this training will be more effective in their daily duties and will have laid a foundation for better citizenship. The trained man, in all undertakings in life, has a splendid chance to succeed—the other, poor fellow, has none."

The War Department believes that anyone attending these camps will find himself better fitted to advance in whatever profession or trade he may be engaged. Many thousands of young men have already taken the course and letters of appreciation, both from them and from their parents, indicate that the training received has been highly beneficial.

Major W. F. Harrell, Chief, Army Information Service, writing to the editor, says:

"Industry is coming to realize the value of having its young workers return from their

camp training improved mentally, morally, and physically, and with a finer feeling toward their fellow workers and the institution they serve. Some business concerns have made arrangements to permit a number of their employes to remain thirty days in camp at full pay in lieu of their regular two-weeks vacations; others give pay for two weeks, the remainder of the period being without pay. It is believed that these policies, or suitable modifications thereof, will amply repay both employers and employes. The former will see increased efficiency in their organizations, efficiency that comes from discipline and teamwork. The latter will return to work improved both mentally and physically, and thus increase their opportunities for advancement in the business world.

"We are not urging anyone to attend, but we would like every family to be familiar with the course that is offered in order that those who wish to do so may avail themselves of the opportunity extended."

History Revises Judgments

(From the Boston Transcript)

An incident of the present year, the eightieth after the opening of the war between the United States and Mexico, will be the dedication, at Resaca de la Palma, in Texas, of a park consisting of the ground whereon was fought the battle at that spot, May 9, 1846, between the American forces under General Taylor and the Mexicans under General Arista. This ground has been bought and presented for the purpose of a public park to the Valley Historical Society of Texas. Resaca was not the first fight of the Mexican War, for the combat at Palo Alto had taken place on the previous day, but Resaca was the more sanguinary battle, and the more important because it forced the Mexicans to withdraw across the Rio Grande to what is still Mexican soil. The commemoration should be a noteworthy incident, because this spirited and victorious fight at Resaca de la Palma was really the beginning of the expansive development of the United States through military operations.

Boston and New England were not proud of Palo Alto and Resaca. They did not want a war of conquest, and did not want a new slave State added on the southwestern border. The legislature of Massachusetts had formally protested against the annexation and admission of Texas; it even declared that it could not recognize the annexation. Elsewhere in the United States the word was, "Our country, right or wrong," Here it was, "Let the country be right," and our people thought the Mexican War was wrong. Nevertheless the war was fought, with beneficent consequences. It is strange how history can revise judgments. Today we can not imagine our country without the portions of it taken from Mexico.

Massachusetts might, no doubt, if invited, send a representative to Resaca de la Palma at the opening of the commemorative park, if for no other reason than to convey at least a tacit acknowledgment of the fact that we now rejoice to share with Texas the benefits of General Taylor's brilliant victory there and the momentous consequences to civilization of the war that followed it.

The Russian Government

In 1881 Alexander II, Emperor of Russia, while riding in St. Petersburg, was mortally wounded by a bomb hurled by nihilists. Forty-five years later the present government of Russia has given pensions to the surviving assassins.

Commenting upon this, the editor of the *Houston Post-Dispatch* remarks: "Not satisfied with the slaughtering of the late czar and his family, and the looting of the tombs of the royal family, the present government would delve into the past and bestow gratuities upon the survivors of the murderous gangs of other days. If an American can imagine the United States government bestowing pensions upon the relatives of Czolgosz, the anarchist slayer of President McKinley, he can imagine America gone bolshevik. What will our American defenders of the soviet regime—some of them in the United States Senate—have to say concerning this latest Russian official indorsement of murder?"

At the present moment Russia is the source of universal evil from which poison spreads all over the world.—*General Alexander Lukomsky.*

The worthless and offensive members of society, whose existence is a social pest, invariably think themselves the most ill-used people alive, and never get over their astonishment at the ingratitude and selfishness of their contemporaries.—*Emerson.*

Patent Litigation

R. C. HOLMES, President, The Texas Company

Replying to inquiries from some of our stockholders as to what effect the litigation instituted by the Government involving cracking patents will have on The Texas Company, I wish to say that it is the opinion of the company's counsel, patent attorneys, and patent experts that the government's claims of fraud are absolutely without foundation, and that The Texas Company's position will be fully vindicated in court.

In 1924 the Government filed a suit at Chicago against the Standard Oil Company of Indiana, the Standard Oil Company of New Jersey, Gasoline Products Company, and The Texas Company as primary defendants, alleging that the procuring and treating of cracking patents, by the four companies named, as valid patents covering and controlling processes for cracking gasoline, was but a device to lend color of legality to a combination, conspiracy, and monopoly for the purpose of restraining competition in the gasoline trade.

These companies had entered into certain contracts, providing that said companies and their respective licensees had the right, upon certain reasonable terms mentioned, to use the cracking patents of any or all of these primary defendants; the contracts in question providing for the payment to The Texas Company of a certain share of all royalties collected from such licensees.

The Government contended that these contracts constituted a conspiracy in restraint of trade. The Texas Company contended that said agreements were fair, reasonable, and lawfully supported by valuable considerations, and that none of them tended to restrain or monopolize trade, but on the contrary encouraged, promoted, and enlarged trade and commerce and diminished the natural restraint inherent in every patent and extended to every licensee of The Texas Company immunity under the patents and patent rights of its primary co-defendants without additional cost to such licensees.

It would seem to be too plain to admit of argument that the action of these four companies in permitting each other and their licensees to use all their patents would certainly not restrain competition; but on the contrary that competition in the gasoline trade would have been restrained if each of the four companies in question had exercised their legal rights in restricting any one but their licensees from using their respective patents.

The Government has been taking testimony in this suit for nearly two years before a Master appointed by the Federal Court at Chicago, and the case has developed very satisfactorily from the standpoint of the companies involved. The primary effort of the Government was an effort to show that the patents involved were of such a narrow scope considering the prior art that the assertion of such patent rights by the primary defendants was but a device to lend color of legality to the conspiracy between the four companies, which the Government alleged existed.

After litigating this question for nearly two years and without making any material progress, the Government is now shifting its ground by attempting to amend its petition in the Chicago suit and by filing a suit in the Brooklyn Federal Court, alleging that certain of the Adams patents owned by The Texas Company were procured by means of fraudulent affidavits.

Briefly stated, the facts are these:

About the year 1909 The Texas Company began a comprehensive and scientific study of the problem of increasing the supply of gasoline by utilizing and converting the less valuable petroleum fractions.

It was recognized as a fact, at that time, that certain heavy oils could be transformed to some extent into lighter oils by treatment under heat and pressure, but nevertheless no complete or adequate information as to how this could be accomplished in a practical commercial way was available. Nor was it known that any actual commercial operations had been successfully carried out in the past; nor that the early processes and apparatus could be successfully utilized in actual practice for the production of the newly demanded product —gasoline. There was at that time no known industrial process or apparatus for manufacturing gasoline by cracking or decomposition through the application of high heat and superatmospheric pressure. With this extremely limited theoretical knowledge of the general results attainable by heat treatment of oil

under pressure, The Texas Company attacked the problem of manufacturing cracked gasoline, and expended large sums of money in scientific research, experimentation, and development, and in the employment of trained scientists and skilled inventive and mechanical experts to carry on the work.

During the year 1911 the Company was brought into contact with one Joseph H. Adams, who had then for more than ten years been making an independent and personal study of this problem and devoting his inventive talent to its solution. Adams, as early as December 1, 1909, had filed a patent application in the United States Patent Office for a patent on an invention in Oil Converting Apparatus, and on December 31, 1909, had filed another patent application on a Process for the Conversion of Liquids, Fluids, and Oils. These two patent applications disclosed a new and useful apparatus and process for producing gasoline from heavier petroleum fractions by cracking or decomposition through the agency of high temperatures and high superatmospheric pressures, but in a manner and under such conditions of operation and construction as to make possible the manufacture of cracked gasoline on a commercial and practical scale.

The Texas Company assisted Adams in the commercial perfection and protection of his inventions, and after years of thought, study, and endeavor, given to the problem by Adams and other trained experts and skilled inventors employed by this Company, a process and suitable apparatus for cracking oil into gasoline, or a gasoline-like product, were perfected and put into practical commercial use on a large scale by The Texas Company.

The two pending Adams patent applications, referred to, eventually matured into patents, and in addition thereto, numerous other patents on important improvement inventions of Adams and other employes of the Company, as well as of independent outside inventors, were procured from time to time. Beside the many patents which this Company has already obtained, it now has on file in the United States Patent Office numerous patent applications for further important improvements in oil-cracking processes and apparatus, which applications are pending in the names of certain of its staff of inventive experts.

The actual expenditures made by this Company in research work and experimentation, and in the perfection and acquisition of patents, has run into millions of dollars, all of which was expended in good faith. We intend to defend ourselves, even against the Government itself, as fortunately we may under our system.

Our counsel, patent attorneys, and patent experts have been intimately in touch with these cracking patent matters for many years, and we are all confident that no fraud was practiced in securing the issuance of the Adams patents from the Patent Office.

We Lost Two Men

We lost two men who volunteered to row a life-boat from the *President Roosevelt* through the terrific gale, waves sixty feet high, to the sinking freighter *Antinoe*. Ernest Heitman, 28, boatswain's mate, New York, and Uno Wirteman master-at arms Finland, nearly reached the *Antinoe*, when a great wave engulfed them. They were seen no more. We lost four other boats, but have saved twelve famished sailors of the *Antinoe* crew.—Radio from the *President Roosevelt.*

A howling storm, a raging sea,
A sinking hulk upon the lee,
A slashing blizzard, roaring gale,
And shattered decks and tattered sail.

Who'll row a lifeboat through that hell
With death a-riding every swell?
Who'll risk his hide to save the tars
Still clinging vain to crashing spars?

Two dauntless sailors volunteer—
No football crowd to rise and cheer.
Through hissing waters, shrieking skies,
They fight the tempest of their lives.

They battle on, near reach the goal,
As wilder yet the billows roll;
Now sweeps a giant, angry wave,
A yawning maw—it is their grave.

"We lost two men"—terse ship report:
Thank God, in times of sheik and sport
The tribe's still true. A wreath to them,
Those gallant dead—we lost two *Men*!

—*Charles Ludwig.*
(In the Cincinnati *Times Star.*)

To fire a man for mistakes is really absurd—the chances are that the new man will be just as incompetent. Keep your men and shift them if necessary, but stick to the men who know your business. If you throw out an old employe you have to educate a new one. The splendid thing to do is to take the incompetent man, and through patience and right treatment make him competent.—*Elbert Hubbard.*

The Year 1925

The summaries which follow are on a consolidated basis, including The Texas Company and subsidiaries, except where the contrary appears; and such corrections as have been found necessary are made in the figures used last year for 1924.

Income and Surplus Account

	December 31, 1925	December 31, 1924	Inc. or Dec.
Gross Earnings for Year Ended	$159,396,626.70	$139,613,621.71	+$19,783,004.99
Expenses	89,392,823.44	89,065,053.79	+ 327,769.65
Net Earnings	$ 70,003,803.26	$ 50,548,567.92	+$19,455,235.34
Deductions	22,084,402.50	19,228,321.34	+ 2,856,081.16
	$ 47,919,400.76	$ 31,320,246.58	+$16,599,154.18
Less Inventory Adjustment	8,314,322.35	4,861,972.02	+ 3,452,350.33
Available for Dividends and Surplus	$ 39,605,078.41	$ 26,458,274.56	+$13,146,803.85
Surplus at End of Previous Year	95,201,709.28	88,477,434.72	+ 6,724,274.56
Direct Deductions	1,606,764.58		+ 1,606,764.58
	$133,200,023.11	$114,935,709.28	+$18,264,313.83
Dividends Paid	19,734,000.00	19,734,000.00	
Surplus	$113,466,023.11	$ 95,201,709.28	+$18,264,313.83

Balance Sheet

Assets			
FIXED ASSETS:			
Lands, Leases, Wells and Equipment	$ 55,547,225.12	$ 48,754,564.66	+$ 6,792,660.46
Oil Pipe Lines and Tank Farms	52,059,508.52	52,170,308.60	— 110,800.08
Refineries and Terminals	70,254,307.45	69,941,079.46	+ 313,227.99
Tank Cars and Other R. R. Equipt.	3,227,729.35	3,307,747.11	— 80,017.76
Ships and Marine Equipment	29,101,459.88	29,212,570.26	— 111,110.38
Sales Stations, Facilities and Equipt.	41,328,724.96	38,618,010.31	+ 2,710,714.65
Miscellaneous	2,504,083.74	2,508,442.66	— 4,358.92
	$254,113,039.02	$244,602,723.06	+$ 9,510,315.96
CORPORATE SECURITIES	1,144,752.49	1,834,607.95	— 689,855.46
CURRENT ASSETS:			
Cash	18,814,105.89	16,900,372.80	+ 1,913,733.09
Accounts Receivable	19,151,991.34	18,663,809.40	+ 488,181.94
Notes Receivable	2,815,423.90	2,702,993.52	+ 112,430.38
Merchandise, Crude and Refined Oils	94,419,601.52	83,422,488.87	+ 10,997,112.65
Storehouse Supplies	5,657,702.47	6,646,240.62	— 988,538.15
Deferred Charges to Operations	1,521,404.66	960,520.37	+ 560,965.29
	$397,638,111.29	$375,733,765.59	+$21,904,345.70
Liabilities			
Capital Stock	$164,450,000.00	$164,450,000.00	
Surplus	113,466,023.11	95,201,709.28	+$18,264,313.83
Reserves:			
Depreciation	96,583,562.24	85,040,898.95	+ 11,542,663.29
Amortization of Facilities	2,431,740.43	2,431,740.43	
Deferred Purchase Obligations	945,605.16	2,178,019.08	— 1,232,413.92
Current Liabilities:			
Accounts Payable	14,028,766.43	12,512,774.75	+ 1,515,991.68
Notes Payable	1,232,413.92	11,268,623.10	— 10,036,209.18
Estimated Federal Taxes	4,500,000.00	2,650,000.00	+ 1,850,000.00
	$397,638,111.29	$375,733,765.59	+$21,904,345.70

Producing Operations

In U. S.

Crude Oil Produced (Barrels):	1925	1924	Inc. or Dec.
North Texas	3,142,193	2,275,757	+ 866,436
North Central Texas	881,150	1,076,925	— 195,775
South and Central Texas	6,941,848	6,527,867	+ 413,981
Louisiana	1,218,499	1,313,675	— 95,176
Arkansas	3,439,724	2,189,128	+1,250,596
Oklahoma and Kansas	4,371,330	3,765,217	+ 606,113
Wyoming	554,653	314,129	+ 240,524
Colorado	647,012	255,594	+ 391,418
New Mexico	10,727		+ 10,727
Total	21,207,136	17,718,292	+3,488,844
Producing Wells at End of Year:			
North Texas	875	758	+ 117
North Central Texas	252	183	+ 69
South and Central Texas	279	243	+ 36
Louisiana	269	262	+ 7
Arkansas	182	117	+ 65
Oklahoma and Kansas	1,202	1,163	+ 39
Wyoming	46	24	+ 22
Colorado	6	1	+ 5
New Mexico	3		+ 3
Total	3,114	2,751	+ 363
Oil Wells Completed During Year	310	213	+ 97
Gas Wells Completed	21	20	+ 1
Oil Wells Abandoned	95	170	— 75
Dry Holes Drilled	122	58	+ 64
Wells Drilling at End of Year	70	46	+ 24
Acreage Held at End of Year:			
Fee Lands (Acres)	483,883	476,611	+ 7,272
Leaseholds (Acres)	1,198,075	911,369	+ 286,706
Total	1,681,958	1,387,980	+ 293,978
Gasoline Production from Casinghead and Natural Gas:			
Number of Plants at End of Year	14	14	
Production During Year (Gallons)	16,412,294	16,259,104	+ 153,190
Natural Gas Produced (M Cu. Ft.)	17,327,784	17,177,703	+ 150,081
Natural Gas Wells at End of Year	99	92	+ 7
Pipe Lines for Gas (Miles)	319	280	+ 39

In Mexico

	1925	1924	Inc. or Dec.
Crude Oil Produced (Barrels)	740,056	1,573,520	— 833,464
Oil Wells Completed	3	5	— 2
Dry Holes Drilled	4	3	+ 1
Wells Abandoned	5	3	+ 2
Producing Wells at End of Year	23	25	— 2
Wells Drilling	1		+ 1

Acreage Held:			
Fee Lands (Acres)	2,242	2,242	
Leaseholds (Acres)	5,872	27,353	— 21,481
Total	8,114	29,595	— 21,481

Production shown is gross. Royalty and other outside interests averaged, in U. S., 15.9% for 1925 and 15.4% for 1924; in Mexico, 26.7% for 1925 and 23.6% for 1924.

Crude Oil Purchased

	1925	1924	Inc. or Dec.
In United States (Barrels)	20,950,431	18,731,344	+2,219,087
In Mexico (Barrels)	2,497,846	2,748,421	— 250,575

Refining Operations

(Quantities in 42-gallon Barrels Unless Other Measure is Stated)

	1925	1924	Inc. or Dec.
Crudes Run	34,414,290	35,919,830	—1,505,540
Production:			
Gasolines	15,212,576	14,355,194	+ 857,382
Kerosenes	2,804,049	3,808,260	—1,004,211
Lubricating Oils	1,356,687	1,477,301	— 120,614
Gas Oils	43,515	319,493	— 275,978
Fuel Oils	10,698,239	12,402,461	—1,704,222
Asphalt (Tons)	288,809	323,909	— 35,100
Paraffin Wax (Tons)	4,147	4,667	— 520
Petroleum Coke (Tons)	882	1,442	— 560
Roofing (Squares)	998,344	885,546	+ 112,798
Shooks Manufactured	8,323,441	6,324,189	+1,999,252
Cases Manufactured	8,503,520	8,381,612	+ 121,908
Cans Manufactured	21,454,934	21,735,652	— 280,718
Asphalt Drums Manufactured	161,456	144,321	+ 17,135
Asphalt Barrels Manufactured	211,714	297,718	— 86,004

This does not include greases, compounds, and specialties made from products listed above.

Pipe Line Operations

Runs (Barrels):	1925	1924	Inc. or Dec.
Texas	22,575,227	22,927,487	— 352,260
Louisiana	2,579,817	2,863,684	— 283,867
Arkansas	4,550,439	4,277,276	+ 273,163
Oklahoma	5,988,948	5,119,975	+ 868,973
Total	35,694,431	35,188,422	+ 506,009
Delivered to Refineries (Barrels):			
Texas	23,792,752	24,245,383	— 452,631
Louisiana	2,246,720	2,154,534	+ 92,186
Oklahoma	3,207,324	4,205,313	— 997,989
Total	29,246,796	30,605,230	—1,358,434
Transported for Others (Barrels)	8,353,320	9,587,753	—1,234,433
Trunk Line Mileage at End of Year:			
Texas	1,626.74	1,598.10	+ 28.64
Louisiana	161.33	159.30	+ 2.03
Arkansas	33.75	33.75	
Oklahoma	389.62	388.28	+ 1.34
Total	2,211.44	2,179.43	+ 32.01

Loop and Branch Lines:			
Texas	441.42	477.02	— 35.60
Louisiana	18.61	19.22	— .61
Oklahoma	258.67	253.05	+ 5.62
Total	718.70	749.29	— 30.59
Gathering Lines:			
Texas	996.61	837.99	+ 158.62
Louisiana	138.13	139.02	— .89
Arkansas	73.14	67.28	+ 5.86
Oklahoma	608.31	651.33	— 43.02
Total	1,816.19	1,695.62	+ 120.57
All Lines:			
Texas	3,064.77	2,913.11	+ 151.66
Louisiana	318.07	317.54	+ .53
Arkansas	106.89	101.03	+ 5.86
Oklahoma	1,256.60	1,292.66	— 36.06
Total	4,746.33	4,624.34	+ 121.99
Telegraph and Telephone Lines:			
Miles of Wire Operated	9,841.50	9,967.50	— 126.00
Miles of Pole Lines	1,229.50	1,279.25	— 49.75

Ships and Shipping

Cargo Carried (Tons of 2,240 lbs.):	1925	1924	Inc. or Dec.
In Ocean Vessels Owned	2,516,495	2,748,713	— 232,218
In Ocean Vessels Operated Under Charter	10,572	555	+ 10,017
	2,527,067	2,740,268	— 222,201
In Harbor Lighters Owned	715,507	606,155	+ 109,352
In Harbor Lighters Optd. Under Charter	13,130	23,875	— 10,745
	728,637	630,030	+ 98,607
Total	3,255,704	3,379,298	— 123,594
Fuel Consumed:			
Fuel Oil (Barrels)	1,013,622	1,078,769	— 65,147
Gasoline (Barrels)	406	434	— 28
Coal (Tons of 2,240 lbs.)	1,304	1,612	— 308
Nautical Miles Run by Ocean Vessels:			
Loaded	611,354	670,276	— 58,922
In Ballast	601,822	623,858	— 22,036
	1,213,176	1,294,134	— 80,958

Railway Traffic

Tank Cars in Service:	December 31, 1925	December 31, 1924	Inc. or Dec.
Owned Cars	1,871	1,922	— 51
Leased Cars	3,519	3,341	+ 178
Total	5,390	5,263	+ 127
Tank Cars Loaded During Year Ended:			
Company Cars Owned or Leased	100,469	104,225	— 3,756
Other Cars	9,806	9,412	+ 394
Total	110,275	113,637	— 3,362
Total Mileage of Company Cars	61,631,268	70,024,155	—8,392,887
Average Mileage per Car	11,434	13,310	— 1,876
Average Daily Mileage per Car	31.33	36.36	— 5.03

Gross Revenue

	1925	1924	Inc. or Dec.
Northern Territory	$ 80,802,884.77	$ 76,735,225.76	+$ 4,067,659.01
Southern Territory	50,226,293.43	42,130,247.48	+ 8,096,045.95
Asphalt Sales	4,917,309.72	4,843,228.03	+ 74,081.69
Railway Sales	5,967,582.49	5,161,877.94	+ 805,704.55
Foreign Sales	49,770,796.52	48,055,169.90	+ 1,715,626.62
Special Sales	2,567,151.76	2,111,056.30	+ 456,095.46
Natural Gas	1,305,028.28	1,268,395.98	+ 36,632.30
Pipeage (on Oil Carried for Others)	2,184,203.96	2,574,255.39	— 390,051.43
From Other Sources	10,212,948.00	9,258,904.98	+ 954,043.02
Total	$207,954,198.93	$192,138,361.76	+$15,815,837.17

This does not include insurance claims collected, Federal tax refunds, proceeds from sale of obsolete equipment, salvaged materials, etc.

Taxes Paid in U. S.

	1925	1924	Inc. or Dec.
Federal Income Tax for Previous Year	$ 2,667,548.57	$ 312.50	+$2,667,236.07
Capital Stock	281,477.00	274,040.00	+ 7,437.00
State Franchise, etc.	843,847.04	683,500.36	+ 160,346.68
Ad Valorem	2,404,532.83	2,383,099.57	+ 21,433.26
Oil Inspection	418,739.52	393,619.34	+ 25,120.18
Gasoline Taxes	9,182,295.74	6,494,289.51	+ 2,688,006.23
Licenses and Permits	182,606.41	141,702.03	+ 40,814.38
Total	$15,981,047.11	$10,370,653.31	+$5,610,393.80

The Folly of Making Excuses

Excuses are all that many persons have to offer for making mistakes. The main reason for their mistakes that are expensive is that they do not concentrate and stick to one line of service until they become expert in it. Jumping from one line to another in early life is the ruination of many who would have been comfortable and happy, the directors of others, loved and admired by all, had they confined their efforts to some useful line of endeavor.

If you neglect in youth to confine your efforts to some useful line you will be forced to work your physical body in later life and only be able to use mental faculties in regretting the neglected opportunities of concentrating and applying your thoughtful energy to some one line in your early life.

Working your body with a dreamy, absent, or regretful mind—there is only one on the job, and that fellow eats and consumes clothing and requires shelter. Working your body in connection with a creative mind—there are two on the job, and only one eater, greatly increasing the earning power of the consumer.

If you stick to one line in the early part of your life you are able to work your mind on creative betterment with pleasure, happiness, and joy, thus becoming a contributor to the world's betterment, respected by all in the harvest time of life. "A man's gift maketh room for him and bringeth him before great men." (*Proverbs*, 18-16.) "Man's gift," which is his self-development, coupled with kindness, makes room for him in his declining years with his relatives and friends. Note, "bringeth him before great men." This applies to the energetic periods of our lives. When people want things done they send for the man who knows how to do them. His gift, or ability to succeed, attracts the attention of great men, and he is inquired of concerning his knowledge

Continued on page thirty-two

Foreman Training Class—Port Arthur Works

Building Texaco Workers

II. The Man Above Shoulder Level

A. A. NICHOSON, Employment Supervisor, Port Arthur Works

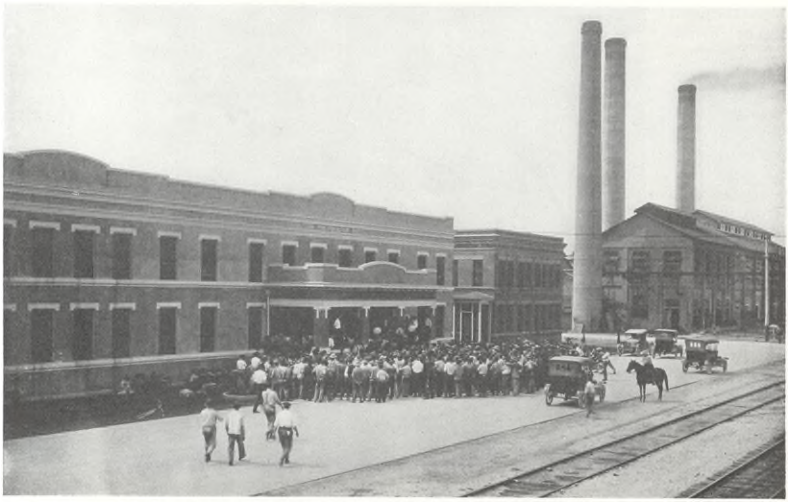
INDUSTRY is made up of two general classes of machines. One is human and the other metallic—the former is a divine creation, while the latter is a man-made contraption—one is nerves and flesh and blood and reasoning, while the other is cold iron and polished steel—the one is driven by human impulses, while the other is driven by some harnessed motive power. The great plan of industry is to so coördinate these machines as to produce maximum results, both as to quality and quantity of production. Inasmuch as the brain of the human machine must direct and guide the activity of his co-worker made from iron and steel, it is obvious that the mental growth and development of the worker in industry parallels, if not exceeds, the physical side.

The industry of today and the industry of tomorrow must have more brains than brawn, if any concern is to keep in the industrial race for supremacy. In this race there are three chief factors concerned:

First, there is clear production, primarily dependent upon equipment and processes, which is another way of saying that in this factor the metallic machine plays the most important part.

Second, it is imperative that there be quantity production, and, in the main, this factor is dependent upon the hand work and the head work of the human machine, both in the handling of raw material and in the manipulation of the mechanical co-workers.

Third, the most important item is the one of quality production, so essential in affording satisfaction to the public, in maintaining and improving the reputation of the company, and in eliminating the great industrial leech of



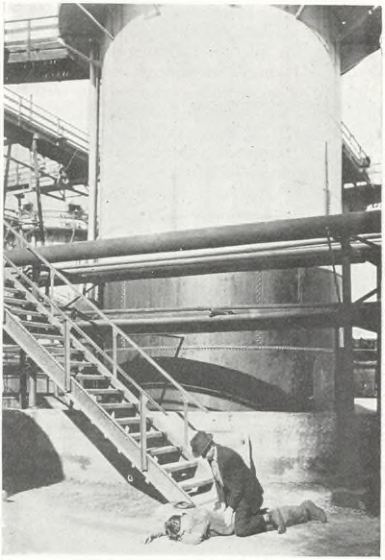
Superintendent addressing "Gang Meeting" at Port Arthur Works

wastage and spoilage. This is solely dependent upon the heart work of the human machine—the attitude that the worker has toward his job, his foreman, and his company—which is always a reasonably true reflection of the mind and its flexibility in adjusting itself to meet different conditions.

The worker grows as he knows, and although one may glean a certain amount of knowledge from observation and absorption, nevertheless we can not concede that the rank and file of industry is made up of Lincolns or Edisons or other similar minds who do not require reasonable training and tutoring if the concerns which they represent are going to be able to continue in the industrial race of today and tomorrow.

Industrial education and training begins when the worker reports on the job for the first time and continues so long as he remains a part of the organization. It must be a never ending process of acquainting him with facts and former experiences, all of which will enable him to see clearly the part that he carried in individual responsibility with relation to the program of production in which he plays a part.

The worker is human—a complicated non-replaceable asset in the great industrial scheme, whose motive power is human brain, making it readily obvious that he can not be placed



Employe administering prone pressure method of resuscitation

out in the plant and set in motion like a mechanical device and forgotten until he shall have broken down or worn out and then be tossed on a scrap pile to be remelted like so much iron. Being human he responds, and therein lies the great difference between men and machines. He is the fundamental basis of all production, and as such must be properly developed through a number of training channels, if we are to expect from him a high degree of efficiency. These channels will depend upon the man, the job, and the surrounding circumstances. It may be through open acknowledgment of good work performed, or patience and instruction when he produces poor quality and quantity of work; or it may be through the printed pages of a text-book, supervised by competent instructors; or it may be through constructive reprimand or equitable discipline.

A corner in the Library at Port Arthur Works

The Texas Company's plants are practically all situated in or near large communities, where exceptional opportunities are afforded the workers for self-improvement, both from academic knowledge and vocational training. In some of the plants Americanization schools are conducted, which hold a strong appeal to the foreign born worker. From time to time, in all of the plants, educational rallies and lectures are held, as well as conducting regular and systematic courses among the foremen. Classes covering the work of First Aid and Personal Hygiene are held in the larger plants, which have plant physicians and first aid staffs, and every employe is personally instructed in the prone pressure method of resuscitation.

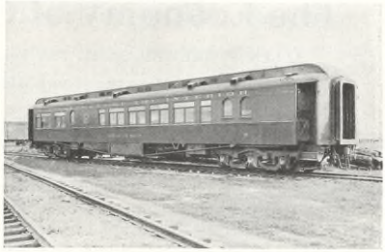
Safety Sign

In the manufacturing section of the Refining Department vocational courses are given to the operators. These courses consist of texts prepared to cover every particular phase of operation, and after studying them the operators are given an examination covering the subject. The result of these examinations becomes a part of the employe's record, and those found to be below a passing grade of 75% are given special tutoring until they are brought up to a standard of proficiency. Employes who pursue correspondence courses are in many ways assisted in their efforts, and all attained grades in any and all types of educational courses

are recorded in their folders. By these records and through such mediums, it is possible to effect intelligent and deserved transfers from one department or plant to another department or plant with much more understanding and fairness than could otherwise be done.

The problem of industry is to see that the worker is assigned, so far as practicable, to tasks of his liking; but often, before this can be done with any efficient results, he must first be educated for such a position. Education, whether it be academic or vocational, will teach an employe the intelligent way to do his work; it will increase interest past the mark of pay check or curiosity; it will enable him to grow into the organization; it will enable him to better appreciate his opportunity and to more clearly understand the company policies; it will uproot radicalism and put the worker on a firm basis of reasoning and appreciation; it will furnish contentment without quenching ambition, and it will certainly become pronounced in the quality of any product.

From time to time transfers and promotions are effected in the various departments, and such opportunities fall to those best qualified for the responsibility, and rates are adjusted so as to be consistent with work performed. The strong tendency of the educational program is to develop the mental man so that he parallels the physical man; for after all the mind is master, and both efficiency and improvement must come through well guided mental effort rather than by a floundering physical struggle. The mental quality of any work force is always a fair gauge of the quality of merchandise produced.



First Aid Car—Bureau of Mines

Salesmen of northern territory (sixteen of them) who recently visited Port Arthur Works and other plants in this vicinity, also several members of the management of the Port Arthur plants and Houston offices.

"This inspection trip to our mother refinery," says Motor Oil Medium, "was the reward to the two Representatives in each District (three each in New York and Norfolk, account of consolidation of Districts) whose Zones made the first and second best showing in 1925 on these three things: (1) Increased sales, (2) Decreased expenses, (3) Maintenance of Collections above 75% of outstanding balance of the previous month."

The Economy of Oil As A Boiler Fuel

ALLEN F. BREWER, M. E., The Texas Company, Editor of "Lubrication"

Paper read before the recent Mid-West Power Conference in Chicago

The status of oil as a steam boiler fuel today is in many respects problematical. Developments over the last few years have indicated that neither crude petroleum nor its residual or distillate products can be relied upon as assured substitutes for solid fuels.

In effect fuel oil is a specialized fuel. In other words, its use must be decided upon not only on the matter of economics but also that of prior right. For we can justly state that certain phases of industry and power should receive preference. Foremost in this regard is, of course, the Navy. Fuel oil is an absolute naval essential, and as such must be conserved to meet requirements over as long a period as possible. Likewise in the merchant marine, especially on mail carrying vessels, has fuel oil proved to be one of the prime means of effecting economies of labor, materials, and, above all, time. In certain cases of railroad operation this prerogative also holds true, especially in non-coal bearing localities, or wherever danger of forest fires *etc.* caused by sparks or live coals must be guarded against. Fuel oil is an ideal steam boiler fuel, its use, however, should not be snatched at promiscuously. As with most ideals, it is difficult of attainment, and frequently a costly undertaking; for once adopted we are at the mercy of a market where the demand will usually far exceed the supply.

On the other hand, these statements should not be misconstrued as indicating that fuel oil is impossible for stationary boiler purposes. Within the area of the oil fields, wherever tidewater delivery is possible, and in event of the possibility of obtaining delivery contracts based over preferably not less than two years time, fuel oil will be a most attractive proposition to the power plant management.

Wherever fuel oil is to be used as stationary boiler fuel, it must be fired with a maximum of care and economy, not only in the interests of your pocketbooks, but also the conservation of a vital national resource. We must heed such facts as:

1. The proper pre-heating of the oil prior to firing.
2. The cleanliness of both boiler and furnace to insure a maximum of heat transfer.
3. The reduction of air leaks in settings or around boiler headers.
4. The accurate control of the air required for combustion.
5. The prevention of oil leaks prior to delivery of the fuel, or within the furnace, from faulty joints, burner tips, *etc.*

Lack of observance of any of these will tend to reduce the unit evaporative power of the oil and necessitate the firing of additional fuel to meet the steam requirements.

A dollar-and-cents analysis of what might easily result will be of interest. For example let us assume that an average grade of heavy Mexican crude oil is being used. Under normal conditions this will have an evaporative power of approximately 14 pounds of water per pound of oil. If the daily evaporation calculation indicates that this figure is lower, say 12 pounds of water, it is evident that we are using considerably more oil than necessary. If over a day's run the boilers are required to generate 2,800,000 pounds of steam at the average rate of 14 pounds of evaporation, approximately 200,000 pounds of oil would be required. In event of the rate of evaporation being but 12 pounds, 233,333 pounds of oil would be necessary to develop the same volume of steam. In other words, we would be wasting 33,333 pounds of oil or approximately 100 barrels per day. If we assume that the cost of this oil is $1.50 per barrel, it is evident that the loss of $150 per day is too high to be overlooked.

The Matter of Pre-Heating

The extent to which the fuel oil should be pre-heated will depend largely upon the viscosity and gravity. As a rule, the heavier or more viscous the oil the higher should be its firing temperature in order to insure effective pumping and atomization. In the case of crude oils such as certain heavy Mexican varieties, or topped crudes which originally contained a low percentage of lighter fractions, the requisite temperature may often be considerably above the flash point. For example, an oil of from 10 to 12 Beaume gravity may require heating to 200 to 300 degrees F., but due to the low proportion of lighter products present, which would tend to flash at lower tempera-

tures, the possibility of fire hazard being involved is remote. As a rule flashing will only be prevalent in proportion to the rate at which these more volatile constituents are freed from the surface of the oil, and therefore there will be but little possibility of the entire volume of the oil flashing simultaneously. According to the grade of oil being fired, it will as a rule be advisable to experiment to a certain extent to determine the proper degree of preheating.

It will be interesting to note that relatively new grades of fuel oil have been developed in connection with new processes of handling and refining which run comparatively low in Beaume gravity and also very low in viscosity. A recent analysis of an oil of this character indicated a Beaume gravity of approximately 15 degrees and a viscosity at 122 degres F. of approximately 200 sec. Saybolt. This would indicate a fluidity at normal temperature of an ordinary machine lubricatinng oil. Such a fuel oil would not require nearly as much preheating as a more viscous residual product of the same Beaume gravity.

Atomization and the readiness with which the oil can be pumped are the general indications of the correct degree to heat a fuel oil. Too low an oil temperature will tend to preclude effective atomization and render pumping of heavier oils relatively difficult. Such products, if too sluggish, may flow intermittently and cause a decrease in fuel delivery to the burners. Other frequent results of insufficient heating may be excessive smoke due to incomplete combustion and the possibility of clogging the burner tips. Too high an oil temperature, on the other hand, may give rise to carbonization within the burner or oil lines and unsteady burning due to pulsation.

Preheating must, therefore, be given most careful consideration, and the type of heater be chosen with a view to obtaining the maximum of heat transfer. As a general rule, steam is used as the heating medium. In many cases, especially where higher gravity oils are being used, it will be practicable to employ exhaust steam for this purpose. With oils requiring a firing temperature above 200 degrees F. it has been found best to use live steam. With an effective type of fuel oil heater of the double pipe coil type, multipass, or film type, *etc.*, a minimum of steam will be required, and the cost of preheating reduced to a negligible factor in comparison with the fuel economies and increased efficiency which are made possible.

Cleanliness of Boiler and Furnace

In the attainment of maximum fuel economy cleanliness of both the furnace and boiler heating surfaces is another important factor. To be sure, the possibility of marked accumulations of dirt and soot will be less than when firing solid fuels. Furthermore there is no ash to contend with. But these very facts frequently lead to carelessness and the mistaken impression that cleaning boilers is of minor importance. Soot accumulations on the fire side of boiler heating surfaces, as well as possible water deposits within, must be corrected, else the rate of heat transfer and evaporation will be reduced to a marked degree.

An effective means of cleaning a boiler of soot is to install soot blowers and use them at regular intervals. In general they should be turned on at least once a day. Many engineers will advise their use once every watch or shift.

The matter of cleaning the water side of boilers will depend upon the nature of the feed water being used. A hard water will call for at least a weekly washing of the lowermost tubes and mud drum, with a thorough cleaning of scale once every six to eight weeks. The use of softer natural water or water that has been adequately treated will simplify this problem; little scale will accumulate, and a periodic washing perhaps every ten days to two weeks will suffice.

The matter of furnace cleaning will depend to a large extent upon the degree to which the oil is atomized and the rate of firing. Imperfect atomization or the firing of globules of oil too large or heavy to be completely burned will result in coking, especially on the checkerwork below the burners due to accumulations of unburned fuel. Not only will this mean a direct loss in heat units, but also the clogging of the air spaces in the checkerwork. This will reduce the size of the appertures through which air for combustion can penetrate (especially in a steam or air atomized system) with consequent reduction in the rate of evaporation, the possible inability of the boiler to meet horse power requirements, and the necessity for increased fuel consumption.

Hard firing under higher overloads will tend to cause damage to brickwork and boiler settings, especially if a type of burner is used which is capable of throwing a relatively long flame. Impingement of this flame on the brickwork will exert more or less of a blow torch action. Ultimately this will cause damage to the brickwork with the result that not only

will the setting be weakened, but also the necessary curvature of the flame may be interfered with, reducing the complete distribution of the gases around the heating surfaces. Too long a flame in company with imperfectly atomized oil may also result in coking or carbon deposits on the brickwork. For these reasons the furnace should be examined at regular intervals, say whenever the boiler is down for complete cleaning of tubes, any coke deposits being removed and brickwork repaired wherever necessary.

Control of Air and Reduction of Leaks

Perhaps the most prevalent cause of reduced boiler efficiencies when burning fuel oil is the admission of too much excess air either intentionally or through leaks in the boiler setting. This will be indicated by low CO_2 readings in the flue gas analysis; for, although low CO_2 may also be due to the admission of too little air or improper mixing of air with the gases of combustion, as a rule too much air is the probable explanation.

In view of this fact, boiler settings, header joints, and all other brickwork should be examined periodically. A very effective method is to make such an examination when the boilers are firing, using a lighted candle flame as the testing medium. As this flame is passed along the joints, if it is drawn inward it is an indication of an air leak. Such points should be accurately marked and promptly caulked or plugged with a suitable sealing medium such as asbestos wicking or cement.

Oil Leaks

Leaks from burner tips, pipe joints, fittings, heater connections, and pumps must be guarded against; for not only will they mean a direct waste of oil but also a distinct fire hazard will be involved. Where oil piping is located in trenches, underground (as from storage tanks), or elsewhere in dark or obscure parts of the plant, leaks may continue unobserved for some length of time, especially if on the tank side of the oil meter, provided one is installed. Occurring from parts of the system between the meter and boilers, however, they will be indicated, even if in no visible manner, by a low resultant evaporation.

As a general rule, fuel oil leaks will ultimately show up in the form of drippings, oozing out on to the surroundings, or discoloration of the adjacent earth. Oil does not easily disappear, even if leaking directly into waterways or ditches. There should be little difficulty in determining that leakage is taking place and tracing it to the point at fault.

The correction of oil leaks at joints or connections should be promptly taken care of, not only in the interests of economy, but also safety. Certain grades of oil give off appreciable amounts of vapor. Such vapors are heavier than air and therefore tend to collect in lower levels, such as ditches, drains or pits, to remain indefinitely unless these are thoroughly ventilated. The periodic hosing down of the average boiler room may free all drains of such vapors, but it should never be depended upon; there is too great a possibility of the vapors lurking untouched, to become a hazard in case a naked flame of any description may chance to reach them.

An effective means of correcting oil leaks is to make up the faulty joints anew, using a suitable joint compound, a mixture of litharge and glycerin, or paper board soaked in shellac as a flange gasket. It is advisable never to tamper with tight joints unless unavoidable in the correction of leaky ones. When they must be broken they should be made up anew in the same careful manner as recommended for those wherein leaks have been found.

Specifications and Purchase

The question of the selection and purchase of fuel oils is of interest, especially from the viewpoint of specifications. The purpose of a specification is to insure the obtaining of the most suitable product at the best possible price. The tendency to impose undue limitations in writing fuel oil specifications often defeats the object in view. In consequence, very frequently certain grades of oils which are quite suited to the requirements involved may be excluded by an unwarranted specification in regard to fire point or calorific value, for example.

What we need is a broader view in fuel oil specifications and a greater confidence in the ability of the marketer. He above all should be conversant with market conditions, and the best judge as to the physical characteristics of fuel oils and their suitability for the purpose.

In brief: Will an oil meet the conditions in your plant, will it pump freely when subjected to your normal heater capacity, will it atomize properly at this temperature when passed through your burners, should be the gist of your specifications, rather than idealistic figures in regard to fire point, sulphur content,

and calorific value. Those of us who have fired low gravity still bottoms, products which frequently run heavier than water and require heating to 300 degrees F. or above, know how practicable it is to attain effective atomization and an evaporation of 14½ pounds of water per pound of fuel notwithstanding the fact that such products have a comparatively low calorific value and often run high in sulphur.

The same holds true with heavy Mexican crude oils. Their fire point is often well under the temperature necessary for preheating, they run high in sulphur and low in B. T. U.'s; yet they give us the results and approximate the ideal nearly to the same extent as a high gravity Navy grade of fuel oil. Relative to the latter, in the vernacular—"try and get it."

Then, too, we must take the nature of our burners into account. Mechanical burner systems of the marine or stationary type with relatively small burner orifices, and subjected to ordinances or rules in regard to the maximum degree of preheating, will of course require more attention to gravity and viscosity than will some of the more simple installations. An instance of a typical specification will emphasize this point. The request was simply for fuel oil, with no mention as to whether it was for use under steam boilers, in stationary or marine service, or in oil engines. They did, however, specify their ideas as to the gravity, viscosity, sulphur content, calorific value, and flash point, which in reality limited the market to the highest grade of distillate fuel oils. When pressed for further information, it developed that the system was an antiquated round flame, steam atomized set of burners installed under horizontal return tubular boilers. Where the impression was gained as to the need for such a high grade of oil was not divulged, yet the purchasers were unwittingly prepared to pay a premium simply through ignorance of how to buy their oil or perhaps some fear that the oil marketers might "gyp" them if they didn't write an ironclad specification. The fact of the matter is, most purchasers "gyp" themselves under such conditions. Furthermore, the sorry part of it is, if you try to offer them a lower gravity fuel oil and contend it is just as good, they often become mistrustful of your object.

The essential fact for the purchaser of fuel oil to remember is that the reputable oil marketer today is usually an expert in this matter of oil burning. "Necktie Salesmen" don't sell fuel oils; sound out the next fuel oil marketer you meet and you'll probably find he's a graduate engineer, perhaps holding a marine or stationary license, with a knowledge of combustion which you would do well to take advantage of.

The better procedure would therefore be to discard that specific mandatory attitude in which so many enter the oil market, and instead present the conditions and requirements before these experts for their advice. It costs no more and certainly will be beneficial to peace of mind and pocketbooks. It is not the object of the oil marketer to sell a rarity, or the highest priced fuel possible. He would lose out in the long run, for ultimately you would be bound to see the light and realize that specifications are secondary to information regarding your actual operating conditions, the design of your system, and the results desired. The logical consequence would be that you would then turn to a more scrupulous dealer whose aim is future business and repeat orders rather than a desire to sell you at high prices higher grades of oil than your conditions warrant.

Conclusion

The purpose of this paper has been to stress the importance of those several essential factors which vitally affect economy in the burning of fuel oil under steam boilers. The cost of steam generation is directly dependant upon the cost of fuel and the extent to which waste may occur. We therefore owe it to ourselves, our management, and the world at large, to observe every possible care in the conservation of fuel oil, and in the firing of it to obtain the maximum efficiency from our boilers.

Of course, it has been possible only to touch the high spots in this discussion. There are innumerable "pinks" and ideas in connection with the practical handling of fuel oils which must be observed, for ultimate efficiency depends upon the efficiency of firing. These points however, have all been so extensively discussed in the technical press that the operator has really no excuse if he overlooks them. But he requires the coöperation of the management. He requires encouragement in study and recognition of effort in the improvement of plant efficiency. To understand this the management must become more conversant with the factors in this fuel oil problem. Hence the angle from which the subject has been approached and the emphasis on specifications, purchasing, preheating, cleanliness, leaks, and draft control.

Cities That Pave with Texaco Asphalt

The dots on this map are pins numbering about 1175. Each pin represents a city or town in which Texaco asphalt pavements are serving today. (The plate had to be trimmed for use on this page and a few pins in New Mexico, Colorado, and Nebraska are not shown.)

The solitary pin which in 1906 represented that initial yardage of Texaco paving laid in New Orleans, La., has multiplied in every direction. Practically every State east of the Rocky Mountains is today represented on the Texaco Map. In length of service, these Texaco pavements vary from those original veteran pavements in New Orleans, still under traffic, to the many thousands of square yards completed during 1925.

When a certain type of material is promoted for road or street work one of the principal talking points used is "cost of maintenance." There are Texaco pavements varying from one to fourteen years in service which have required no maintenance whatever.

Those who study this Texaco Map must bear in mind that it represents only the mileage of Texaco paving that has been laid within city limits. The millions of square yards of Texaco-paved County and State and Federal highways are not accounted for here.

Highway Engineering

Talk broadcast from Station WDAF, Kansas City, Mo., by A. R. YOUNG, Chief Engineer, Asphalt Sales Department, The Texas Company

Highway engineering pertains to the location, design, construction, and maintenance of roadway surfaces, providing for the safe, satisfactory, uninterrupted, and economical operation of vehicular traffic. The increase of motor driven vehicular traffic in the United States from a registration of 4 in 1895 to 19,999,436 in 1925 has practically eliminated the consideration of anything except motor vehicles. There are in the United States 3,002,916 miles of highways over which there passed in 1925 approximately 88,000,000,000 miles of motor traffic.

Public thoroughfares must be constructed and maintained by governmental agencies at public expense. Recognizing that it is an impossibility to improve all roads with high type surfaces, the various governmental engineering departments have classified highways into three classes: Federal Aid highways, State highways, and County highways. The mileage of Federal Aid highways is limited by law to 200,349, and on this the Federal Government participates in the cost of construction and the Federal Highway Engineering Department approves the location, design, and construction of the roadway surfaces. The State system usually embraces the Federal Aid system and in some instances additional State highways. The County system comprises the remaining highways.

Different methods of providing funds are used. Many States are issuing bonds to be retired by the accumulation of motor licenses or by direct property tax levies. Other States finance their highways "pay as you go," through funds from license fees and a tax on motor fuel. All States collect license fees and all but four assess motor fuel taxes, varying from one cent per gallon to four cents.

A primary system consisting of 7% and a secondary system of 10% of the highway mileage of the United States will connect every county seat, all the important population centers, and will serve 80% of the population.

On account of the vast amount of money required to complete the primary and the secondary highways, it will be many years before satisfactory connected systems are completed. There has been completed approximately 490,000 miles of surfaced highways, 66% low type construction, 24% intermediate type, 10% high type.

The location of a highway determines the operating efficiency of motor vehicles. The permanent part of any properly designed highway is its accurately located right of way. Unfortunately freedom in the selection of the most desirable location is limited because old routes have been legally designated as rights of way. The locating highway engineer chooses as direct and as nearly level a line as is possible, reducing distances, eliminating short turns, and avoiding steep grades. Grades are reduced by means of cuts and fills to a maximum that will not overtax the efficiency of motors. Grade crossings, whenever possible, are eliminated either by re-location, viaducts, or subways.

After the location of the right of way, construction of the roadbed and the bridging of the water ways are the next problems. The survey to bring the roadbed to proper grade and cross section requires careful measurements and computations, and the structures for bridging water ways require careful consideration. The maximum volume of water carried by the stream to be bridged is determined: the area of the water shed must be measured, the maximum rainfall per hour ascertained, and the volume of run-off computed, which determines the water-way opening required. The design of the bridge to meet the conditions, the grade line of the finished roadway, and the loads imposed by traffic must be worked out. Soundings must be made to determine the load-carrying capacity of the foundation sub-strata. Detailed plans must be drawn and stress sheets computed.

An important part of highway engineering is the design and supervision of the construction of the roadway wearing surface. The importance of the thoroughfare and the kind and volume of the traffic should determine the type of wearing surface.

The participation of the Federal Government has had a marked influence in uniform classification and higher quality of roadway surfaces. The Federal Government is participating to the extent of almost $100,000,000 a year and by the influences of the Federal

Highway Engineering Department is bringing about, through the coöperation of State highway engineering departments, standardization of specifications, equipment, inspection, construction, uniform markings, and regular maintenance. The Federal Highway Engineering Department urges that every section of the Federal Aid system be improved to a degree consistent with the density and character of the traffic. On this basis types of highway construction have been divided into three classes: low type—graded and drained roadways, sand-clay surfaces, and gravel; intermediate type—water-bound macadam and bituminous macadam; high type—bituminous concrete, portland cement concrete, brick, *etc.*

Many factors must be taken into consideration in determining the type of wearing surface to be constructed. A sound economical basis must be established. The yearly savings in operating costs in vehicular traffic must equal or exceed the annual cost of the wearing surface. In order to determine this, the amount and character of traffic must be learned; careful traffic surveys must be made; the number and classes of vehicles recorded; traffic influences studied; changes in future volume and character of traffic estimated; and the availability and cost of road building material analyzed. Through the correlation of this information the engineer determines whether a low, intermediate, or high type surface should be used.

The engineering problems involved in the low type and in the intermediate type of roadways are mainly those of correct location, alignment, cross section design, correction of subsoil weakness, drainage, and maintenance.

In the high type surface all of the ingenuity and the art of the highway engineer is brought into play. An analysis of demands having established the necessity of high class construction, the highway engineer attacks the problems from the standpoint of annual cost, operating efficiency, and continuity of service. In arriving at the operating efficiency of a wearing surface, not only the effect of the vehicle upon it must be considered but also the effect of the roadway upon the vehicle. With $11,000,000,000 worth of motor vehicles, depreciation through unsatisfactory roadway surfaces assumes no small proportion.

The static load is not the destructive force in vehicular traffic. The deterioration is caused by the moving load. The important destructive forces of the moving load are caused by impact and by friction. A heavy load moving at high speed over a rigid surface develops destructive impact and frictional stresses which are highly detrimental to both the roadway surface and the moving vehicle. The reduction of these destructive forces is accomplished by reduced rigidity and increased smoothness.

Outside of the destructive stresses of vehicular motion, there are other stresses from natural forces. Temperature stresses are the most destructive of these. In a dense rigid surface the expansion due to temperature change from 0° to 110° F. is approximately 38 inches in one mile. The reverse is true for contraction from high to low temperature. To the expansion stresses are due the crushing of the surface so frequently observed: to the contraction, the cross cracks at frequent intervals. In addition to the effects of extremes in expansion and contraction, there are other stresses set up by daily and nightly changes of temperature and by sub-base movements, which are particularly manifested by longitudinal cracks developing near the quarter point in the roadway surface. The destructive influences of these stresses are mitigated by reducing rigidity and by properly proportioned and arranged steel reinforcement.

Constructive supervision and inspection assumes an important part in the properly constructed roadway surface. All material entering as an ingredient into a roadway surface should be tested to meet standards of strength and purity. The proper proportioning of ingredients and the correct handling of equipment by experienced operators under proper working conditions and in seasonable weather, must be insisted upon by the highway engineer. Contours, grades, and alignments must be rigidly adhered to, and no surface irregularities or inequalities permitted. Proper curing and aging of the roadway surface after construction must be required.

Maintenance of completed surfaces is of vast importance. There is no roadway surface that does not require careful and continuous maintenance. The high type surface requires less maintenance than the low type; but, on account of the capital invested and the importance of high type roadways to the traffic, the obligations of satisfactory maintenance are more binding for the high type than for the other types.

Activities and responsibility in the field of highway engineering have vastly increased during the last few years. Highway construction is fast approaching a place of first importance in America's industries. The design, markings, traffic regulations, and maintenance to give economical and continuous traffic operation is the goal in highway engineering.

LAW CURRENT

Rob't A. John

INHERITANCE TAX.—Under the Montana statute, an ante-nuptial gift, where it is to take effect after death, is subject to the inheritance tax. *In re Oppenheimer's Estate*, 243 Pacific, 589.

POLICE REGULATIONS—STREET BUMPER.—A municipal corporation, in order to challenge the attention of autoists, erected in the city of Vicksburg, Mississippi, a bumper across the street, it being a concrete obstruction five inches high and five feet wide at the base. The plaintiff sued the city for damages to his car in striking said bumper while driving on the street. The Supreme Court of Mississippi holds that such a device or obstruction placed on said street by the city was negligence, and sustained a verdict for damages for plaintiff. *City of Vicksburg v. Harralson*, 101 Southern, 713.

CHECK ON BANK—INSUFFICIENT FUNDS.—A statute of the State of Alabama makes the fact that when a check is presented for payment at a bank and there are insufficient funds on deposit to the credit of the drawer to meet the same, *prima facie* evidence of fraud on the part of the drawer, subjecting him to criminal prosecution. The Court of Appeals of Alabama in the case of *Goolsby v. State*, 104 Southern, 906, holds that the said law is invalid.

MALICIOUS PROSECUTION.—The Supreme Court of Massachusetts has held that where upon complaint of a party the defendant has been tried before an examining magistrate and is bound over to the grand jury, or where tried and convicted in a trial court and his case afterwards reversed, then in a suit for damages under such circumstances it will be conclusively presumed that probable cause exists in an action by the party charged with the offense as against the party making the complaint. *Wingersky v.Gray*, 150, N. E., 164.

BANKS—DUTY OF SECRECY.—Case and Comment, page 8, calls attention to an English case holding that there is an implied contract between banker and depositor not to divulge to third persons the state of the depositor's account at the bank, the analogy being the same as to oil balances or interests with oil companies. In an article, the following exceptions are urged:

1. Where the disclosure is under compulsion by law.

2. Where there is a duty to the public to disclose.

3. Where the interests of the bank require disclosure.

4. Where the disclosure is made by the express or implied consent of the customer, the exceptions being approved by the English Court. *Tournier v. National Provincial & Union Bank*, 1 K. B., 461, reported in 12 B. R. C., 1021.

MINES AND MINERALS—CONVEYANCES.—The Supreme Court of the State of Texas, acting through the Commission of Appeals, has held that a deed with no reservation as to minerals in the granting clause, but reserving the minerals only in the reddendum or concluding clause of the deed, does not make the reservation repugnant to the granting clause, and the minerals will be reserved, reversing and rendering a decision of the Court of Civil Appeals in the same case reported in 261 S.W., 506. *Associated Oil Company v. Hart*, 277 S. W., 1043.

FURNISHING PUMPS AND TANKS TO DEALERS.—The opinion of the Court of Civil Appeals in the case of *State of Texas v. Gulf Refining Company*, 279 S. W., 526, is the final decision (the Supreme Court having denied writ of error) in the famous controversy concerning the furnishing of pumps and tanks to dealers by refineries and requiring the dealers to use such appliances only in handling the products sold by such refineries, the Court holding that it is not a violation of the anti-trust laws of Texas. In coming to its conclusions, certain contracts are expressly approved as exceptions to the rule against restrictive contracts. It is worth while to quote them as follows:

1. Contracts of agency, wherein the agent is prohibited, either generally or to a limited extent, from dealing for himself or representing others besides his principal.

2. Contracts for the sale of a business and good will attaching to it, in which the seller agrees for a limited time not to engage in a competing business within a limited territory.

3. Contracts of lease, where the lessee binds himself as regards the rented premises either to sell only the products of the lessor, or not to sell the products of a competitor.

4. Cases in which an exclusive right or privilege is granted upon the property or premises of the grantor.

DEPARTMENTAL NEWS

The managers of the respective Departments have assigned to the persons whose names are here given the duty of sending to *The Texaco Star*, so as to be received by it before the 25th day of each month, departmental news, photographs, and other items of general interest. Material for this purpose should be sent to *them* before the 20th of the month. All are invited to coöperate.

Refining Dept.	C. K. Longaker, Houston
Natural Gas Dept.	W. H. McMorries, Jr., Fort Worth
Ry. Traffic & Sales Dept.	J. A. Brownell, New York
Marine Dept.	H. Hassell, Port Arthur
	H. Norris, New York
Legal Dept.	H. Tomfohrde, Houston
Treasury Dept.	H. G. Symms, Houston
	R. Fisher, New York
Comptroller's Dept.	B. E. Emerson, Houston
	P. A. Masterson, New York
Insurance Dept.	C. M. Hayward, New York
Governmental Reports	L. C. Oakley, New York
Sales Dept. S. Territory	R. C. Galbraith, Houston
Sales Dept. N. Territory	Geo. W. Vos, New York
Asphalt Sales Dept.	J. J. Smith, New York
Export Dept.	J. B. Nielsen, New York
Purchasing Dept.	J. A. Wall, New York
	J. E. McHale, Houston
	J. T. Rankin, Denver
Producing Dept.	Otto Hartung, Houston
Pipe Lines	Fred Carroll, Houston
T. T. Co. of Mexico S. A.	C. W. Pardo, Tampico

REFINING DEPARTMENT

WATER SHIPMENTS BY THE TEXAS COMPANY FROM PORT ARTHUR, TEXAS, MONTH OF MARCH, 1926

Refined—Coastwise	1,372,494	bbls.
Refined—Foreign	280,612	bbls.
	1,653,106	bbls.
Crude—Coastwise	211,893	bbls.
Total	1,864,999	bbls.

Gate House, Port Arthur Terminal

Do your best because you owe it to your self-respect. Merit your own esteem; and do your own faultfinding.

You cannot respect yourself unless you are doing your best.

The Shift Man

Who is it works both night and day,
While other guys are out at play,
Nor dares to stay one hour away?
The Shift Man!

Who goes to work with cheerful smile,
Who's steady, steady, all the while,
Who will let naught his temper rile?
The Shift Man!

Who has no time to call his own,
Who sleeps with one ear on the phone,
Lest he should miss the summons, "Come"?
The Shift Man!

Who shows that he is full of grit,
Who's not afraid the pace to hit,
Who is not scared of work one bit?
The Shift Man!

And when he's hustled into glory,
He'll tell the saints a touching story
Of how, while working in this world,
Into the next one he was hurled
By stills whose pressure was unfurled
On the Shift Man!

And angels loafing round the throne
Will rise and bid him welcome home,
And offer him a robe and crown
And a golden harp to play upon.
Oh, Shift Man!

I'd take that harp and hold it high
And tiptoe softly 'cross the sky,
With might and main I'd then let fly,
And swiftly, fiercely, hurl it down
On some one's head—and thus I'd crown
That guy of infamous renown,
Who first invented Shift Men!

—*Ethel Osborn Hill*,
Port Arthur, Texas.

SALES DEPT. S. TERRITORY

Houston District.—Assistant Chief Accountant L. A. Millican was recently appointed Representative, Zone 12, *vice* A. B. Fields transferred to Florida District. W. E. Oakes, formerly of Dallas District has been appointed to succeed Mr. Millican. We welcome Mr. Oakes.

Vinc Rehmet was appointed Agent at Moulton Station on March 1 *vice* H. A. Menefee transferred to Beaumont Station as Assistant Agent. We wish them both good success.

Dallas District.—A letter from L. E. Ruffin, who is connected with Albuquerque, N. M. Station, tells that he has a fine boy, who arrived February 12, and whose name is Louie Ezra, Jr. Mr. Ruffin says: "He arrived on a big man's birthday and I do not think there is any doubt but what he will make a great man." We offer our best wishes.

Prize Winner

This float built by Mr. Bollin to represent his Texaco station, was the prize winner at the Old Settlers 28th Annual Reunion at Alvarado, Texas.

The sign on the side of the float reads:

You've Tried the Rest, Now Try the Best.

This garage and The Texas Company A. F. S. No. 1 (seen at the left) at Lawton, Oklahoma, are operated by Wm. Hutchins, an old Texaco standby who keeps the people of Lawton well aware of our products. We are looking for unusual activities at this station during the coming summer.

Oklahoma District.—The D. O. is undergoing its annual audit, Messrs. Davis and Jenkins in charge. Auditor Davis is one of our old friends, having worked in this District several years, and all were glad to welcome him and his good wife back among us. Mr. Jenkins is making his first visit to our District but we hope to have him back again. Creditman Shirley is very optomistic over the outcome of the audit.

We have opened a new station at Tonkawa, Okla., with J. L. Tearney as commission agent, and things are opening up with a bang. Mr. Tearney is going to put Texaco on the map in the Tonkawa field and keep it there, eh J. L.?

Our new Agent at Enid, Okla., G. F. Dusbabek, is completing three new drive-in filling stations at that point and Representative Crane has informed us that Enid station is going to be a top-notcher—50,000 gallons is the mark set. With such a pusher and backer as George Dusbabek at the helm, we're bound to make it. Go to it, boys, the business is there and you can get it.

Our District has been circularized lately that all stations, equipment, and facilities must be put and kept in first class condition. After making their rounds the last thirty or sixty days Messrs. Daniel, Faerber, and Dougherty voted which stations looked the best to them: District Manager Daniel votes for Woodward and Altus; Superintendent Faerber votes for Hobart; Superintendent Dougherty votes for Cherokee. Get busy boys, put your stations,

Erick Sales & Investment Co.—Wholesale and Retail Texaco Gasoline and Oils, Erick, Oklahoma

These buildings are facing the east. In the north wing of the filling station is The Texas Company Office. The brick garage and storage, facing east on Main Street, extends back, and north to Fourth Street. This one building has a floor space of 9,500 feet, and in it many cars are repaired and filled with Clean, Clear, Golden Motor Oils, and greased with Texaco Motor Cup and Thuban greases. The three tank wagons are in front of the north section of the brick building. This filling station all through the year 1925 ran in the local picture show 100 feet of reel pertaining to Texaco oils, greases, and gasoline. Every piece of advertising they have printed shows Texaco products.

trucks, and all other facilities in first class shape. All have you under observation.

The D. O. boys have organized a baseball team and have been taken in the City League known as the Bankers and Oilers League. The boys are practising every evening and play their first game on April 8. Assistant Creditman Dewey is Manager and Assistant Chief Accountant Mounts is Captain. The team is whipping into shape under Mr. Dewey's management, he being an ex-professional baseball player, having played with the Oklahoma City team in years past.

We regret to announce the death of Representative R. J. Crane's father at Lexington, Okla., on March 5.

New Orleans District.—Superintendent of Sales Bentley was confined to his home for nearly two weeks by a very determined attack of influenza. He is now back at the wheel, and everyone rejoices at his return.

In his journeys over the District the Stork has hovered long enough to make the last thirty days a special event for newcomers of the frailer sex. His first stop was at the home of Agent and Mrs. G. K. Walker, Homer, La., where he deposited on February 27 an 8-lb. girl. On March 15 Mrs. Capella presented Agent B. J. Capella, New Orleans, with an 8-lb. girl baby, their second. And on March 25 glad tidings were broadcast from the home of Marine Salesman and Mrs. T. W. Jones, New Orleans, of the arrival of a daughter.

Being frequently asked as to the secret of being able to dispense such a large gallonage each month, Agent J. B. Gibbs of Anguilla, Miss. Station passes out the information that

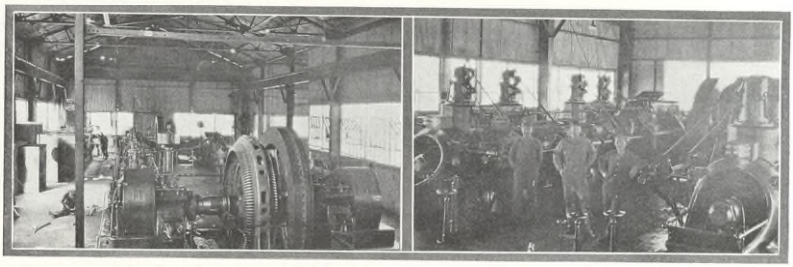
Owned and operated by W. L. Bernard, Plaquemine, La.

Mr. Bernard (standing by the sign) is enthusiastic for Texaco and his station has a lucrative gallonage.

he educates his trade on Texaco Products from the cradle up. Every year, he explains, the schools in his section devote one day to teaching the pupils the history of petroleum and its products, and Mr. Gibbs makes it a special point to supply the schools with pictures and literature pertinent to the subject. Witness a letter from one of the teachers, from which we quote: "The children were already acquainted with Texaco. In fact, I found upon inquiry that one hundred per cent of their fathers used Texaco gasoline and motor oil in their cars." Anguilla's gallonage attests the success of Agent Gibbs' plan.

Atlanta District.—We had the pleasure of having with us on March 1 Assistant Manager W. H. Wagner of Houston.

We have recently opened commission stations as follows:



Engine room of Bastrop Pulp and Paper Company, Bastrop, La.

Two views of the same units: Two N. N. Strait Manufacturing Company's twin tandem horizontal Monarch gas engines running on natural gas. These units are each 600 h. p., four cylinders 18″x36″, operating at 150 r.p.m., direct connected to electrical generator. This plant is properly lubricated with Texaco lubricants exclusively, and lubricating engineers J. T. Downs and T. L. Morris are on the job with Texaco quality and service.

Fort Lauderdale, Florida, Station holds the record

This station put out in one month more than a half-million gallons in a city of about 5,000 population. The photograph shows a portion of the station and its equipment of twelve auto tank trucks required to distribute its record-breaking gallonage. Agent M. C. Trammell is responsible for putting Texaco over in this manner.

Barnesville, Ga.	Feb. 22	Agt. Mrs. D. H. Garrett
Linden, Ala.	Mar. 1	Agent D. F. Jacob
Haleyville, Ala.	Mar. 5	Agent C. L. Hicks
Blackville, S. C.	Mar. 13	Agent G. P. Martin
Reform, Ala.	Mar. 15	Agent J. S. Kilpatrick

Born to Representative J. W. Dowdle and wife, of Augusta, Ga., Jack, Jr. on March 8. The stork also visited the home of Agent U. U. Hudson and wife of Clinton, S. C., on March 13, and left with them an eight-pound girl, Geraldine.

We extend our deepest sympathy to Mrs. B. W. Wright, switchboard operator, account of the loss of her mother, Mrs. J. R. Simmons, on March 18.

Florida District.—Motor Inn Service Station at Pensacola, Fla., owned by D. H. Tart, a photograph of which and description of its gala opening appeared in the January issue of *The Texaco Star*, commanded an entire page of photographs and description in the January 27 issue of *National Petroleum News*. This unexcelled service station, dispensing Texaco products in one of the residential districts of West Florida's chief city, is peculiarly attractive in its style of architecture which is in keeping with the Spanish tradition of Pensacola.

The District joins Jacksonville Station in extending sympathy to the wife and four children of Tank Motorman Dock Arnold, who died at his home on February 19. Mr. Arnold had been a conscientious member of our organization since 1918, and the fine work done by him will long be remembered.

We welcome to our sales force A. B. Field and W. J. May, City Salesmen, Miami, H. N. Agey, City Salesman, Orlando, and M. E. Ligon, Jacksonville. Mr. Agey has proved his ability as Assistant Agent at Orlando, and Mr. Ligon—well he hails from the Lone Star State.

Dink Webb, recently appointed City Salesman, Daytona, assures the D. O. that Daytona's future Inventories of Stock, Form S-29, would not be of great concern, inasmuch as the notation "Nothing to Report—All Stock Sold" will take care of this report.

"Lady Harberson"

This photograph, taken in Pensacola Bay, shows the "Lady Harberson," built by Marchall Boat Works of Pensacola, Florida, and owned by W. B. Harberson of Harberson Lumber Company, all believers in Texaco. She has an enviable collection of trophies in winning which Texaco Golden Lubricants played their part.

Give me the man who can hold on when others let go; who pushes ahead when others turn back; who stiffens up when others weaken; who advances when others retreat; and I will show you a man who will win in the end, no matter who opposes him, no matter what obstacles confront him.—*O. S. Marden.*

SALES DEPT.
N. TERRITORY

New York District.—The Coatesville Oil Company, of Coatesville, Pa., Distributors of Texaco Petroleum Products, have a bowling team entered in the Eastern League under the team name *Texaco*.

This team has led the league for several weeks. In a game played on March 12 they broke three standing records of the league, which shows they have, as they say, "a pretty good bunch of maple knockers."

While we mention the fine free publicity obtained from the fact that this team is bowling under the name Texaco, that is only half the story. The other is that the members of this team, having decided to venture forth under the name of Texaco, have bent every resolve and effort toward being a worthy representative of Texaco Quality and the true Texaco Spirit. That they have succeeded is indicated by the scores of the record breaking game played March 12, which follow:

TEXACO

Pugh	131	189	132	452
Lyons	158	151	125	434
Landis	182	172	129	483
Gebhard	134	178	189	501
Bricker	145	113	166	424
Rice	182	222	191	595
	932	1025	932	2889

HORSEMEN

Roberson	117	152	138	407
McCarraher	149	118	123	390
Schnader	135	135	96	366
Koehler	145	181	91	417
Laurence	94	152	171	417
Garrett	168	153	149	470
	808	891	768	2467

Boston District.—We are very glad to welcome to our Texaco family J. H. Lindall, Electric Street Railway Engineer.

Salesman W. C. Marden, in Zone 5, working under Representative W. F. Murdy, has succeeded in closing contract with the Heywood-Wakefield Company, at Gardner, Massachusetts. This is a national account and has plants located as follows:

Gardner, Massachusetts, Main Plant

Wakefield, Mass.	New York City
Kansas City, Mo.	Philadelphia, Pa.
Baltimore, Md.	Buffalo, N. Y.
Portland, Ore.	Irving, Mass.
Chicago, Ill.	Winter Hill, Mass.
St. Louis, Mo.	Menomenee, Mich.

This concern is one of the largest manufacturers of furniture in the United States, and they make all of the products which go into finished furniture. They have some secret processes used in making cane bottom chairs and other articles. Formerly they would not buy any lubricating products except on their specifications; but our Mr. Marden was able to convince their chemist that the specifications did not determine what an oil would do in actual operation. We all feel proud of what Mr. Marden was able to accomplish here, and extend our congratulations to him.

Baseball team of A. C. McLoon and Company, our commission agents at Rockland, Maine. The score board at the ball park, shown above, is 24x10 feet.

Norfolk District.—We extend to Salesman-Chauffeur A. W. Thompson, of Princeton, W. Va. Station, our sympathies in his recent bereavement caused by the death of his daughter Martha Pauline on March 10.

Our congratulations are extended to Roland A. Williams, Motor Equipment Inspector, for his promotion to Representative of Zone 8 *vice* L. G. Katz resigned.

We also congratulate Harry J. Dunstan, Clerk, Motor Equipment Division, for his promotion to Motor Equipment Inspector.

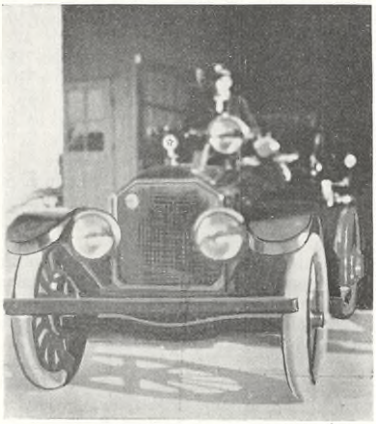
If someone had taken the writer up on his offered bet of a "Brown Derby" that the Texaco Basketball Team would be the Champions of Tidewater Virginia by the time the April issue went to press, they would now be the possessor of a nice "Brown Derby." Yes,

Washington Fire Department, Washington, North Carolina

The Washington Fire Department of Washington, North Carolina, was organized about 1840. It consisted at that time of a bucket brigade, and the method used to get the fighters together was the ringing of dinner bells and shouting. But in 1855 the ladies of Washington held festivals and lawn parties to purchase a fire bell, which is still in service and rung every day. In 1887 the Town of Washington purchased a Selsby Fire Engine, which is still in service in first class condition, being tested every thirty days.

In February 1914 they purchased a type No. 12 American LaFrance Pumper, which they started off with Texaco products. To this they have added one type No. 75 American LaFrance Pumper, and a type No. 14 American LaFrance Hook and Ladder. These, also, were started off with Texaco Motor Oil Medium, Texaco Thuban Compound, and Texaco Cup Grease, and a change has never been made due to the excellent results obtained from them. The Washington Fire Department has always found Texaco products very satisfactory.

and "I don't mean maybe." Our boys were eliminated in the second game of the Hampton Roads Basketball Tournament in the first part of March. However, they are to be praised for the showing they made during the season, winning the pennant of the Industrial Basketball League and a total of sixteen games out of twenty-one played.



D. L. Hampton, Assistant Chief and Chief Engineer. Washington Fire Department, Washington, N. C.

If you will look closely you will see the Texaco trade-mark on the radiator cap. The other pieces of equipment also carry the Texaco mark. Mr. Hampton is very proud of his equipment. He has been a member of the Washington Fire Department for twenty years, and is one of the greatest praisers of Texaco to be found anywhere.

Chicago District.—Chicago District hereby sends greetings and congratulations to the new President.

Four out of ten bulk stations will be completed by March 31, two by April 15, four held in abeyance on account of legal delays.

Out of 31 filling stations for which we have appropriations, four are in operation, twelve under construction. Work has been somewhat delayed owing to adverse weather conditions.

We have taken over and changed to conform with Texaco methods the stations at DeKalb, Morrison, and Rochelle, Illinois, formerly operated by a distributor.

Thomas D. Foose, employed at Archer Pitney Station since July 1917, recently passed away after a long illness. During his service at Archer Pitney Station Mr. Foose was employed as yard man, warehouse helper, warehouseman, and yard foreman in charge of tank truck loading, and successfully performed all of the duties assigned to him. He was interested in athletics and particularly enjoyed bowling. He was instrumental in the organization of the noon time horseshoe games at this station and his old cry, "We've got 'em trailing," will be sadly missed this year. The employes of Archer Pitney Station and the District Office extend to Mrs. Foose and to his brother and sisters our deepest sympathy.

Creditman Kadlec reports that he was able to collect some "bad debts" on his recent trip to St. Louis.

Superintendent Turner and Representatives Westcott and Jernegan report a wonderful time on the recent jaunt to Port Arthur, *etc.*

We bid farewell and good luck to Ass't Chief Accountant R. W. Ross, who has been transferred to Minneapolis District—new title, Chief Accountant. Ask Miss Stark who is coming to take Roy's place, who sings as she works and says, "Now I won't have to be homesick for Chicago and Park Ridge."

We have just learned that a certain name on the D. O. payroll will be changed from Miss Isabelle J. McIlvoy to Mrs. J. E. Betz. Congratulations.

A certain gentleman (name censored) of the credit department is doing a lot of shopping for kitchen utensils—entirely too much for a single man, but he won't need any knives and forks. Mighty pleased to meet you, Mrs. K.

Lost: One large lot of Lub. Oil Sales orders —finders (plural) please report to Superintendent Turner without further delay—now—at once—immediately—by return mail.

Minneapolis District.—District Manager G. H. Seawell has resigned as of March 15 to embark in the oil business in the South in partnership with his brother. This terminates thirteen years service with The Texas Company. It is with extreme regret and a deep feeling of loss that we bid Mr. Seawell good-by and God speed. We hope and feel sure he will be most successful in his new venture. He leaves many friends and well wishers behind.

We were glad to have with us on March 10-12 Sales Manager H. W. Dodge and Department Agent G. M. Worthington.

M. E. A. McManus will be with us for a few weeks. We welcome Mac back in our midst.

T. W. Morris and C. E. Kinser have returned from their trip to the Port Arthur refinery. We did not have the opportunity to interview Mr. Morris, but Mr. Kinser reported in part as follows:

> The outstanding features which were indelibly impressed on all of us were not only the magnitude of the different plants we visited but the highly efficient system under which they are operated. It clearly showed to each and every one of us what efficiency means, and will undoubtedly help us and those with whom we come in contact to become more efficient in all ways. We were further impressed with the spirit of good fellowship which was so prevalent at all points and conclusively proved that no matter where on the face of the earth you find a man of The Texas Company you will find a member of one great family.

Our old friend Matt Munn of Spokane District dropped off at Minneapolis on his way to Port Arthur. This Scotchman is well known to those of us who were formerly at the Billings District D. O. We are told that Matt appointed himself special guard over the rest of the boys, his object being to keep down their expenses. If it hadn't been for Matt some would have had a hard time to get home; but

Agent L. F. Henry's Service Station, Jamestown, N. D.

Agent Henry is one of the most enterprising agents in North Dakota, and evidently he believes "It pays to advertise."

Motor Sled of Pinedale Buick Garage, Pinedale, Wyoming

It is gratifying to learn that Texaco functions as well in this unique vehicle as in all others, and we think this fact so interesting that we are asking our Editor of The Texaco Star to reproduce the pictures and the following letter:

Pinedale, Wyoming, March 19, 1926.

The Texas Company, Denver, Colorado.

Gentlemen: Herewith are photos of our Motor Sled that we built this past winter. This outfit will make 80 miles per hour and faster with Texaco gas and motor oil. These pictures were taken in February; we were getting everything ready for our first trial trip. Yours truly is seen in photo No. 1 at the right, the other fellow is pouring in Texaco Motor Oil.

Yours very truly,

Pinedale Buick Garage,

(Signed by) D. F. Mocroft.

it was too bad the way he howled about the price of postal cards in New Orleans.

Superintendent of Operations J. O. Yelverton has returned from an inspection tour of North and South Dakota stations. He reports the completion of new storage tanks at Aberdeen, S. D., and an addition to our warehouse at Fargo, N. D. New storage tanks are to be installed in the near future at Huron and Watertown, S. D., and at Valley City and Lisbon, N. D. These facilities will be a great asset to our agents at those points in taking care of their rapidly growing business.

Superintendent Yelverton reports that Representative F. G. Wilkinson of Zone 4 now has his new teeth and is ready to eat things up in his territory.

Agent R. A. McComb of Watertown, S. D., has a bowling team which has been making them all sit up and take notice. His team is entered in the I. B. A. tournament at St. Paul.

Representative Jack Rea of Zone 5 sends a pleasing report on the advertising activities of Agent S. M. Adams at Sioux Falls. Mr. Adams is running an animated advertising picture in two leading theatres in that city. He is also one of twenty dealers showing slides on an immense screen on one of the main streets of Sioux Falls.

A contract has been closed with the Sterling Oil Company, of Minneapolis, which includes eight stations in North and South Dakota: Eureka, Hosmer, Selby, Herreid, Glenham, S. D., and Zeeland, Strasburg, Linton, N. D.

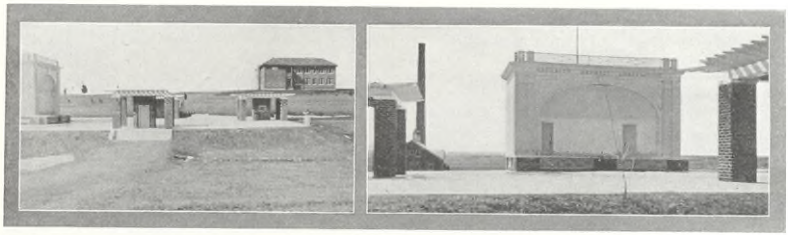
Denver District.—Representative A. R. Dunphy, Zone 16, State of Utah, has been promoted to Lubrication Engineer.

C. D. Matthews, Representative Zone 8, headquarters Colorado Springs, transferred to Zone 16, State of Utah. We now anticipate even greater things from Utah.

Walter Brown, our efficient Cash Sales Clerk, left us on March 5 to join the Denver Club of the Western League in spring training at Tyler, Texas. We understand he was the sensation of the first day's work-out and promises to make good as a portside pitcher.

Spokane District.—All representatives and agents are taking a keen interest in the Spring Order Contest now being conducted in Spokane District. Orders are piling up and we have secured a number of new accounts.

Agent Jimmie Teipner, Lewiston, Idaho, says his son Bill, who arrived February 9, is ready to take on all comers for six fast rounds. Weight 8 pounds. Both Jimmie and Bill have our congratulations.



Outdoor pavilion, with band stand pergolas and asphalt paved dancing floor, constructed for its members by the Security Benefit Association of Topeka, Kansas.

ASPHALT SALES DEPT.

During the World War, when "block parties" were in vogue, one frequently saw asphalt streets roped off and turned into public dance floors. The satisfactory manner in which the asphalt surface performed this new function was evident on the faces of the dancers as they glided by to the strains of a waltz or the

Where Heavy Traffic is Concentrated

Sycamore Street, Cincinnati, Ohio

Its heavy traffic has been carried by Texaco asphalt since 1911. When this picture was taken (March 1923) there had been no expense for maintenance.

Second Avenue, Pittsburgh, Pa.

The heavy truck traffic to which this street is subjected makes it a striking example of the serviceability of Texaco asphalt under severe conditions.

Sixth Street, Louisville, Kentucky

Texaco asphalt between the tracks and the curbs carries its heavy traffic

Elm Street, Dallas, Texas

This is one of the main streets of the country—paved with Texaco asphalt.

quicker notes of a fox-trot. Now an asphalt surface has been constructed the sole duty of which is to support gliding tapping feet.

The Security Benefit Association of Topeka, Kansas, has constructed an institution for its members three miles west of Topeka. The institution, which occupies a considerable tract of land, was designed for the benefit of members of the Association needing homes as well as those needing medical attention. Entertainments are provided for resident and other members. In order to provide dancing, concerts, and other amusements, an outdoor pavilion, consisting of bandstand pergolas and a dance floor, was built.

The novel feature of this pavilion is the dance floor, which is a surface 100 by 120 feet constructed of a hot-mix asphaltic concrete mixture. To bring the site to proper grade fills were made and allowed to settle. Then a sub-base of broken stone was applied and thoroughly rolled. On this a two-inch surface of asphaltic concrete, closely approaching a sheet asphalt mixture, was laid. The material was mixed in the municipal plant at Topeka and was hauled by truck to the pavilion site where it was carefully raked to grade and compressed with hand and power rollers. Texaco No. 45 Paving Cement was used in this mixture, and because the surface was to be used only as a floor for dancing and other entertainments a softer mixture than is used on street pavements was laid. The Association is much pleased with the floor. The work was done under the personal supervision of J. F. Snyder, Sup't of Streets of Topeka.

Where Quiet and Beauty are Essential

Norwood Avenue, Long Branch, N. J., a splendid example of how Texaco asphalt paving harmonizes with the most luxurious surroundings.

Green Bay Road, Lake Forest, Illinois, a beautiful Texaco asphalt pavement which has now been under traffic for more than twelve years.

Lincoln Highway passing through Kearney, Neb., paved with Texaco Asphaltic Concrete in 1915.

Ward Parkway, Jackson County, Missouri, which was paved with Texaco Asphalt Macadam in 1916.

The radio audience of Station W D A F, Kansas City, Mo., listened in on the evening of February 27 to a discourse on Highway Engineering delivered by A. R. Young, Chief Engineer of the Asphalt Sales Department and Superintendent of our Western Division. Station W D A F is operated by the *Kansas City Star*, and the series of talks in which Mr. Young's was included is known as the "School of the Air."

Doubtless many readers of *The Texaco Star* were among the listeners-in when Mr. Young made his debut in the air, but his talk is printed in this issue for the benefit of readers who did not hear it, as it offers interesting information on a subject of much importance to the general public.

During the month of March, two members of the Asphalt Sales Department experienced the great sorrow of losing their mothers. To Miss Luetta Laudeman of our Chicago office, this misfortune occurred on the 5th of the month. On the 18th, Representative M. W. Fisher of our Boston office felt the same blow.

One of the greatest of recent street paving contracts was awarded for work in Temple Terrace, a residential subdivision of Tampa, Florida. Between 4,000 and 5,000 tons of Texaco asphalt will be used in this unusual project. Representative A. R. Chisolm, Jacksonville, who secured this business for Texaco, writes: "To give you some idea of how much asphalt is being used, the contractors have a storage tank measuring 24 feet wide, 84 feet long and 11 feet deep. It seems impossible for us ever to fill it."

When a pavement completes sixteen years of service without requiring a cent's worth of repairs, undoubtedly it is reliable and a good investment. This, says Representative Charles Pratt of Kansas City, is the record of the Texaco asphalt pavement on Huston Street, Manhattan, Kansas, which was laid in the spring of 1910. Its condition at this stage of its life is perfect. Sixteen years old streets which have required no maintenance are scarcer than hen's teeth, we can assure you.

Following the death of E. D. Rankin, our Representative in the State of Ohio, D. H. Hill, who had promoted Texaco with Mr. Rankin for the last ten years, has been appointed to fill Mr. Rankin's place. Those acquainted with the new Representative learn of his promotion with the greatest confidence in his ability to discharge his new duties most satisfactorily.

EXPORT DEPT.

The following letter from Wellington, New Zealand, illustrates the far flung Texaco spirit:

Mr. C. S. Dennison, The Texas Company,
Advertising Department,
17 Battery Place, New York.

Dear Dinny:

Regardless of the fact that we see a lot of brag in "Motor Oil Medium" about what the Home-side salesmen are doing, we think that we have some real salesmen in New Zealand. Their market is not as large and their returns are not big, but they are just as enthusiastic and equally hard fighters.

Recently Salesman J. Davies of the North Auckland Sales District was absent on sick leave. I am attaching some copies of his daily bulletin received from Mrs. Davies. Aside from taking care of the house and two or three kiddies, Mrs. Davies made the time to keep up the sales work so that the territory showed no appreciable falling off during his absence.

I think it would be a good idea to publish these in *The Texaco Star*.

With best regards,

Yours sincerely,

E. C. Battersby.

Continued from page nine

and service, regardless of his age. We should only grow physically old and remain mentally young when we apply our full knowledge and wisdom in one line.

When we know our line of endeavor and act with wisdom and discretion we have no excuses to offer. The results of labor will be self-satisfying and pleasing to those whom we serve. The developing of the graces of conscientious spiritual growth by refusing to excuse our weaknesses, admitting them, strengthens us mentally, making it possible for friends and acquaintances to know that truthfulnes controls rather than excuses.

Many overlook the fact that they are individual characters and should plan how to be most efficient in their own work, whether working for a stipulated wage, commission, or division of profits. It is up to our employer to say what he wants done, and our business to plan how and do it. There is no room for excuses. There may be failures; if so, admit it, explain why, but do not offer an excuse. —*Adapted from a circular by M. E. Layne, President Layne & Bowler Corporation.*

The Texas Company's warehouse property at Manila, Philippine Islands

A view of the entrance showing a portion of the new cyclone fence around the property. At right: Warehouseman's cottage in the warehouse yard. (December 29, 1925.)

Friday

Dear Texas,

Behold me a full blown traveler. I got you 51 cases yesterday and today have promises of 30 which I am now going to book. Also Smith and Woodman want oil next week and Mr. Frood is sending for some. All your agents are fully stocked up north and I am doing the grocers today. Got 10 out of Beale, Hikurangi, yesterday and 10 from Damen.

All the best,

Mrs. Texas.

Saturday

Dear Texas,

I have had the loveliest two days for orders, about 75 cases in the two days and 50 promised for next week. Are you glad? There is no need for you to worry about your returns going down much. Mum and Mick leave today and I am in a hurry now to go to the train. Cheerio Honey, all the best.

Texas, Jr.

Monday

Dear Texas,

Landed two barrels Altair from Donaldson—to be delivered at once. Also Doug. H. is going down to Hokianga tomorrow and will get some. 10 cases Power to Subritzby Bros., Te Kopuru, and will ring Reg. Scott tomorrow. Dr. Buckly says on *no* account must you return under a month so stick it out. All the best.

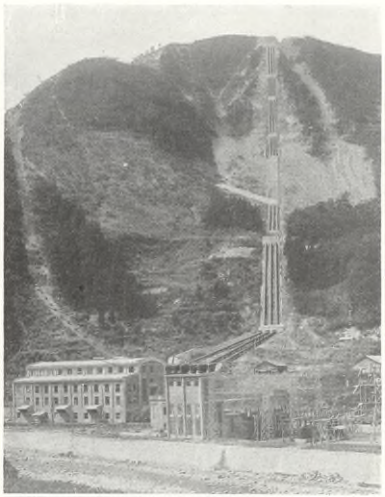
Pal.

Awarded First Prize

Display of Wise and Company, Iloilo, at the Carnival in Capiz, Panay Province, Philippine Islands (December 1925.)

Sr. Rafael Ruiz, Manager for E. Diaz & Cia., Tabaco, Albay Province, Philippine Islands, and Sr. Benito Rodriguez of E. Diaz & Cia., agents for Texaco Products for Legaspi District, P. I. (Dec. 1925.)

Shop and salesroom of M. G. Azaola, an active and successful 100% Texaco dealer at Iloilo, P. I.



Nakatsugawa No. 1 Generating Station of the Shinyetsu Hydro-Electric Power Company. This station operates under the highest head of any hydro-electric plant in Japan.

The following details are of interest: Quantity of water, 423 sec. ft.; effective head, 1,366 ft.; station capacity, 39,000 K.W.; three 13,000 K.W. Allis Chalmers S. E. Generators. The generator bearings and governors have been lubricated with Texaco oils to the entire satisfaction of the engineers ever since the station has been in operation.

The man who has time to keep a private diary has never understood the immensity of the universe.—*Renan.*

Aeroplane view of the factory of Societa Commerciale Bossi, of Cameri, near Turin, Italy, which uses Texaco lubricants throughout. This factory enjoys a high reputation on account of its specialized process for weaving silk and wool.

Texaco Thuban Compound in Shanghai

Say. Chauffeur, ust now you drive motor-car how long?
Maybe two hours, I savy you car-driver no b'long;
When motor-car walkee back-side got noise—
Makee more sound can eat rice ten boys;
I think so rear-end him grease have got.
Grease must puttee plenty more—whole lot—
When car, he walkee, grease must go round,
Grease stay outside—gears no got—must make sound.

You proper use Texaco Thuban Compound;
Noise he finish, have got no sound.
You savy before must use proper Motor Oil,
Thuban Compound also machine no can spoil.
S'pose you look see. I talkee you true,
Must have on tin Red Star look see you,
Inside this Star have gottee one piecee green T,
Then any time can savy this proper must be.

—*Texaco Tom* (T J. Engstrom).

PIPE LINES

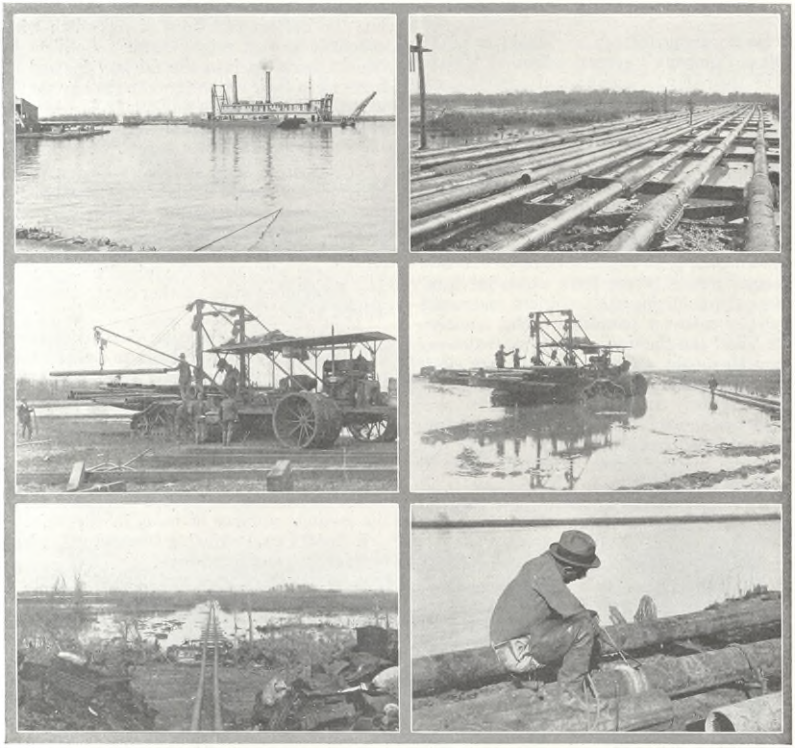
Superintendent H. Fowle, of our Southwest Texas Division, was married on March 9 to Mrs. Bessie Fox. After the ceremony, which was performed in Houston, Mr. and Mrs. Fowle made a two weeks trip to Florida and Cuba and are now at home to their friends in Houston. The best wishes of all are extended.

E. F. Horrigan, Chief Clerk in our Fort Worth Office, has been transferred to the Producing Department and is now located at Cisco. J. W. Gilchriest of the Houston Office has succeeded Mr. Horrigan.

F. A. Hale has been transferred from Houston to Boling, as Assistant District Foreman.

Colonel Williams, accused of drinking by General Smedley Butler, says he will plead guilty to save his guests from the necessity of testifying. The colonel may be dropped several numbers, but we fancy that General Butler is going to be dropped from many invitation lists in marine circles.—*Houston Post-Dispatch, George M. Bailey.*

The Texas Pipe Line Company's Camp No. 52 on edge of Neches River swamp, Orange County, Texas.



Pipe Line River Crossings of The Texas Pipe Line Company, Port Neches, Texas

1. Dredge Pensacola at work digging ditch, or trench, in bottom of Neches River, 50 feet wide on its bottom and its depth 48 feet below mean low tide. At this point the river is 800 feet wide.

2. Four 10-inch lines, four 8-inch lines, and one 3-inch line, each 900 feet long, welded, clamped, and doped ready to be pulled in and across Neches River.

3. Traction ditcher being loaded with 8-inch pipe for stringing in Neches River swamp, Orange County, Texas.

4. Buckeye traction ditcher entering Neches River swamp with load of 8-inch pipe.

5. Showing where pipe lines enter south edge of the swamp—Neches River in the distance. This swamp is 4½ miles wide and these pipe lines are supported on skids, or timbers, all the way across.

6. Welding 10-inch pipe for river crossing.

CRUDE OIL PRICES AT WELL

March 31, 1926

Penna., Bradford	$3.65	Eldorado	$1.75 to 1.85
Other Penna.	3.55	Smackover	1.00 to 1.40
Indiana	2.00	Haynesville	1.75 to 1.85
Canada	2.63	Homer	1.60 to 1.95
Ragland, Ky.	1.15	Caddo	1.85 to 2.20
California	.85 to 2.74	DeSoto	2.05
Okla. & Kas.	1.40 to 3.32	Bull Bayou	1.70 to 2.00
N.,NC.,C.Tx	1.40 to 3.32	Crichton	1.85
Luling	1.20	Wyoming	1.35 to 2.15
Gulf Coast	1.25 to 1.50	Colorado	1.25 to 1.60

"Is your husband fond of home cooking?"

"Oh, yes, we always dine at a restaurant that makes a specialty of it."

—*Passing Show (London).*

Camp Beaty Golf Tournament

On Saturday, March 27, employes of The Texas Company's general offices at Houston held their First Semi-Annual 1926 Interdepartmental Golf Tournament at Camp Beaty. Teams from seven departments were out in full force to battle for the laurels which have rested with the Producing Department since last summer. A large gallery of employes and friends were assembled around the starting tee encouraging and lauding their favorites. Enthusiasm reigned and the players wielded their war clubs in grim defiance to those two ever-present terrors of the links which inevitably sweep into oblivion the ambitions and aspirations of many a promising 'dub,' namely—the 'slice' and the 'hook.' And, alas! although they all fought gallantly in desperate efforts to subdue those monstrous demons (the direct cause of many a nightmare), many were overcome by the ferocious beasts and limped away from the eighteenth hole badly mangled and, to make matters worse, none the *wiser* for their experience.

We could give the names of those who thus fought and fell, but refrain from doing so in order to keep our good standing in the Club. Suffice to say that J. C. McCue won the prize for the highest gross score—176 (for 18 holes).

This little summary would be incomplete without reference to a certain big ditch a few yards in front of the starting tee. Occasionally it seemed as if a 'topping' contest were going on, the little white pellets merely sauntering off the tee and meandering down the slope until they came to their haven of eternal rest in the said hazard. Personally, we are inclined to recommend to President Ballard that he line the bottom and sides of this ditch with concrete, as that might cause the pellets to bounce back up into the fairway instead of reposing in their watery graves. In any event, we would be certain to find our ball. (Anyone wishing to learn the art of 'topping' a ball off the first tee, see D. J. Moran or C. W. Redman.)

The Comptroller's and Sales Departments tied for the beautiful silver cup donated by the different departments of the Houston offices. These two departments will play off the tie in the near future and in the offices of the winner will repose the prized trophy until next September when another cup tournament will be held.

The A. J. Reach Sporting Goods Company donated one dozen golf balls to be given as prizes. The balls were awarded as follows:

F. W. Herbert, Purchasing Department, 3 balls for low gross score—94.

W. C. Samuels, Sales Department, 2 balls for low net score—65.

A. Alessandra, Texaco Star office, playing with Pipe Line Department, 2 balls for making the greatest number of holes in par—6.

J. C. McCue, Producing Department, 1 ball for highest gross score—176.

F. W. Herbert, Purchasing Department, 1 ball for making greatest number of fives—8. This was a secret number drawn after the tournament was completed.

One golf ball each for low gross scores on holes 1, 6, and 9 yet to be awarded. Each of these holes had two or more players whose gross scores were the same.

—*Anthony Alessandra.*

A SYMBOL

I watch the smoke rise slowly from my fire
And twist in slender tendrils through the air,
Ever it mounts as if made to aspire
And to reach heights above the embers' share;
Seeing it thus I dream of realms more fair
Wherein no mind nor spirit can be broke
Upon the wheel of things or under yoke
Of circumstance, but may forever there
Know freedom and perfection, and not end in
—smoke!

—*J. C. Tolman.*

What I must do is all that concerns me, not what people think.—*Emerson.*

Draining Her Crankcase.—Little Johnny, a city boy in the country for the first time, saw the milking of a cow.

"Now you know where the milk comes from, don't you?" he was asked.

"Sure!" replied Johnny. "You give her some breakfast food and water and then drain her crankcase."—*Pure Oil News.*

The class yell of the School of Experience is "Ouch!"—*Kenosha News.*

Another reason the Riffs can go to war so easily is because they never heard of national bond issues or pensions.—*Dallas News.*

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EXECUTIVE. Plenty to Do in Petroleum Research. J. B. Rathbun.—*Petroleum Age*, March 1, 1926.

REFINING. Holmes-Manley Process Gives Long Cycle, Little Coke, Good Gasoline. R. C. Holmes. Before Petroleum Division, A. I. M. E., February 15, 1926.—*National Petroleum News*, March 10, 1926.

Things to Remember about a Belt. Roye Munsell.—*The Refiner and Natural Gasoline Manufacturer*, March 1926.

LABORATORIES. Methanol and Synthol from Carbon Monixide and Their Uses as Motor Spirit. Franz Fischer.—*Brennstoffchemie*, 6, 233, 1925.

Deterioration and Reclamation of Used Automobile Crankcase Oil. A. E. Flowers.—*J. Ind. & Eng. Chem.*, 17, 481.

Analysis of Oil Wax Mixtures. L. D. Wyant and L. G. Marsh.—*Oil & Gas J.*, 1924, 23, No. 31, 116-118.

RAILWAY TRAFFIC. The Traffic Department and Its Place in the Oil Industry. H. C. Mulroy. —*National Petroleum News*, March 3, 1926.

SALES. Oil Salesman Tells How He Doubled Sales. H. C. Wilkinson.—*Petroleum Age*, March 1, 1926.

LUBRICATING. Points Oil Distributors Should Know about Tractor Lubrication. Jack Nourse. —*National Petroleum News*, March 17, 1926.

SAFETY. Industrial Safety. (Forty-two signed articles by responsible specialists)—*The Annals*, American Academy of Political and Social Science, January 1926.

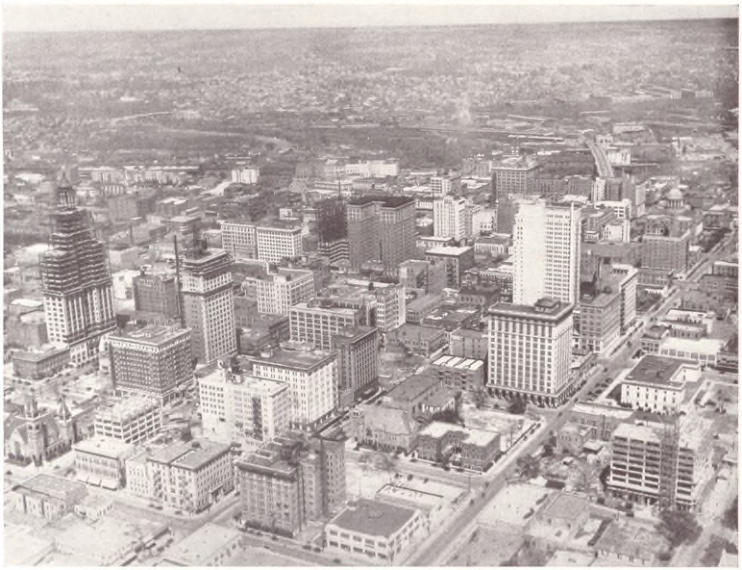
How to Ward Off Static Menace. J. A. Watterson. Before A. P. I. meeting in Los Angeles.—*Petroleum Age*, March 1, 1926.

GENERAL. Why I Sent My Children Away to School. Emily Newell Blair.—*Harper's Magazine*, March 1926.

The Dangers of Modernism. Harry Emerson Fosdick.—*Harper's Magazine*, March 1926.

The Road We Have Come. John W. O'Leary, President U. S. Chamber of Commerce.—*Nation's Business*, March 1926.

Dispelling Myths About Patents. George H. Cushing.—*Nation's Business*, March 1926.



Houston, Texas, March 7, 1926—*Airplane view taken by Capt. R. W. Mackie*

The Texas Company Building is the only large building in full view—showing its thirteen stories and arcades over sidewalks.

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IS SECURITY

—*Junius*