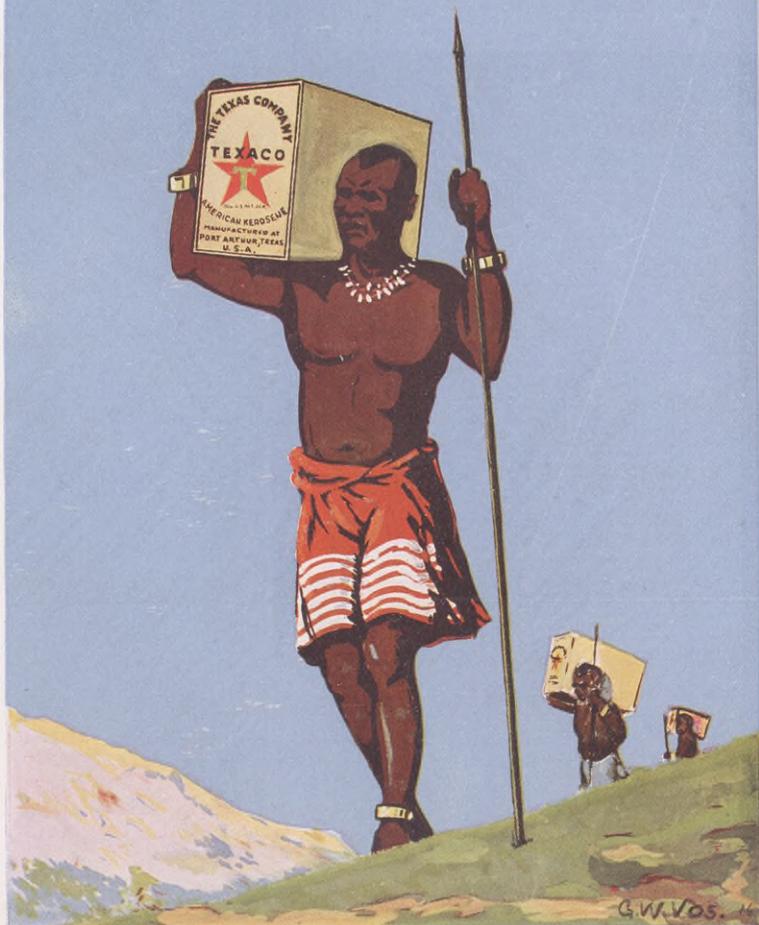
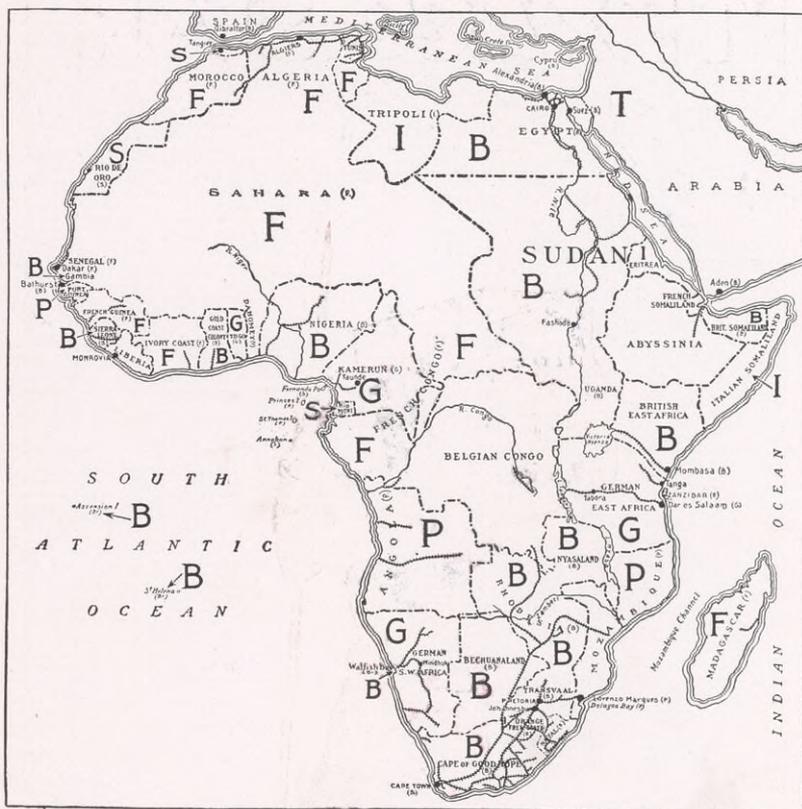


TEXACO STAR





THE PARTITION OF AFRICA

At the outbreak of the war the African continent was divided up among the European powers as indicated in the sketch map here reproduced by permission of *The Independent*. Abyssinia and Liberia were nominally independent. B stands for British possession; F for French; G for German; P for Portuguese; S for Spanish; I for Italian. Since the war began Great Britain has formally declared a protectorate over Egypt and the Soudan; the South Africans have conquered German Southwest Africa; the French and British have conquered Togoland and Kamerun; and the British are now undertaking the conquest of German East Africa.

THE secret of success is not a secret. Nor is it something new. Nor is it something hard to secure.

To become more successful, become more efficient. Do the little things better. So work that you will require less supervision. The least supervision is needed by the person who makes the fewest mistakes.

Do what you can do and what you should do for the institution for which you are working, and do it in the right way, and the size of your income will take care of itself.

Let your aim ever be to better the work you are doing. But remember always that you cannot better the work you are doing without bettering yourself. The thoughts that you think, the words that you speak, and the deeds you perform are making you either better or worse. You are the master of your fate and the captain of your soul.

Forget yourself in rendering service. If an employe, strive to make yourself of greater value to your employer. Look upon yourself as a manufacturer. Think of yourself as a maker and seller of service, and ever bend your thought and your energies toward the improvement of your product.

The wise manufacturer never injures his machinery willfully. Your body, your mind, your soul serve as your plant. Eat and drink only that which will nourish your body, entertain only those thoughts that will enrich your mind. If you feed your body with the best physical food and your mind with the best mental food you will build up a Service Factory that will find its products in constant demand.

The world is hungry for Quality Service. It wants to pay for it. It is paying for all it can get. The market is not crowded. There is a chance for you right now. There is a chance for you right where you are. The time to start is Now. Your reward will take care of itself.

—Thomas Dreier.

“Nothing in the world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men of talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent.”

TEXACO STAR

Vol. III

MAY 1916

No. 7

PRINTED MONTHLY FOR DISTRIBUTION TO EMPLOYEES OF
THE TEXAS COMPANY

"ALL FOR EACH—EACH FOR ALL"

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ADDRESS: TEXACO STAR, 311 THE TEXAS COMPANY BUILDING, HOUSTON, TEXAS

EXECUTIVE NOTICE—The Texas Company desires to encourage employees in the performance of their duties as citizens, and to that end employees are informed that should they desire to join the National Guard or any similar military organization they may do so with the assurance that it will be the policy of this Company in case such employees are required to perform military service conflicting with their employment to again employ them in as good or better positions at the end of their military service.

Time of attendance at annual summer encampment to the extent of two weeks will apply on the usual vacation where the employe is entitled to vacation under the rules of the Company.

The Texas Company,
Houston, Texas, E. C. Lufkin,
April 1916. President.

* *

As corporations and as individuals the industrial business of this country is rendering in the present crisis, at its own expense, a signal service to the whole nation. The engineers of scientific industry, individually and jointly with their employing corporations, are making this immense contribution to the common welfare. It is a prime necessity that the Government should have precise and systematic information of the industrial capacities of the country, yet such knowledge has been lacking. The need was for a sweeping, minute inventory of all the data which business men must know in order to determine the capacity of plants and their fitness and reliability for specific classes of output. All this is to be provided within the current month by the industrial concerns and the labor of thousands of engineers.

The enormous work is organized under a committee of the Naval Consulting Board, the War Department being thoroughly in touch. Under the direction of this Committee (Howard E. Coffin, Chairman), the procedure is in charge of the Chief Statistician (W. S. Gifford) of the American Telephone and Telegraph Company, whose entire time is given free by his company. The field work is in charge of five directors for each State, making 49 working boards, including Alaska. These Directors were chosen by the five great engineering associations,—American Society of Civil Engineers, American Institute of Mining Engineers, American Society of Mechanical Engineers, American Institute of Electrical Engineers, American Chemical Society,—one member of each association for each State. The State Directors are Associate Members of the Naval Consulting Board. Each State has been districted and the survey and inventory is being made by Field Aids, members of the engineering associations, appointed by the State Directors.

No government funds were available for either salaries or expenses, and the entire cost is being borne by the individuals and corporations who are doing the work.

Dr. Geo. W. Gray, Chairman of the Refining Committee of The Texas Company is one of the State Directors for Texas, and Associate Member of the Naval Consulting Board. Dr. Gray's personal distinction in the honor and in the patriotic service is shared by The Texas Company.

* *

In view of various abuses in the past, the assurance by the President and the Naval Board of the strictly confidential nature of this industrial inventory was very

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appropriate. On April 21 President Wilson gave the needed pledge:

To the business men of America: I bespeak your cordial co-operation in the patriotic service undertaken by the engineers and chemists of this country under the direction of the industrial preparedness commission of the naval consulting board of the United States.

The confidential industrial inventory you are asked to supply is intended for the exclusive benefit of the war and navy departments.

And instructions by the Board to the field organizations direct them to keep the inventory confidential and to retain no copies for their own use, and admonish:

The field *aide* should use every precaution against "leaks." No information obtained from a manufacturer shall be given out under any circumstances. The manufacturer should be assured that the report will be so handled as to prevent the disclosure of any information hurtful to his business.

* *

It will be up to the Government to make advantageous immediate use of the industrial inventory thus furnished by private citizens, and to maintain and utilize similar knowledge for the future. There would be no lack of funds to do all that is needed, if vast expenditures for worse than useless purposes be avoided. An editorial in *The Independent* declares that this country cannot formulate and maintain great policies and command the respect of the world unless we "have done with spasms and fads."

Let us look at our task like reasoning men, and handle it in a businesslike way. . . . We have a way of doing things "when we think of them," and our thinking is spasmodic. . . . It offers a sharp contrast to those well-considered, planned-ahead programs and day-by-day ploddings according to schedule which we associate with the word "efficiency." Naturally, our habit of thinking about things when something excites us, and then working at them furiously until we get interested in something else, has been made more absurd by the dangers and responsibilities let loose by the upheaval in Europe. We ought to have been busy with a rational scheme of preparedness twenty years ago. . . . That we shall do the thing in the wrong way, in the most wasteful way, and get a minimum result, is a safe bet. . . . We shall commit all the excesses of virtue unrestrained by common sense.

Is it not possible, even at this late hour, that we do better than *The Independent* forebodes?

* *

President Wilson recently told the National Chamber of Commerce of the United States that the business men of this country must "get a move on." The admonition was timely, and if the Federal and State governments would cooperate rationally with business we may believe

business men would move forward quickly to the advantage of the whole people. Even as things are, there is a move afoot among business men to induce the Chamber of Commerce of the U. S. to investigate wasteful methods and obstructive measures of the Government. A leading journal comments:

The Federal Government investigates and regulates and restricts business, industry, and finance without knowing very much about these activities. Business men are now urging the U. S. Chamber of Commerce to study the loose methods of the Government. The Chamber of Commerce could undertake no more important work than to study overlapping, duplication, and cost of redtape and recommend changes which would install skillful methods of private corporations in the Government departments.

The National Chamber of Commerce appears to be well qualified to give good counsel. Among various indications of its ability to form calm and wise judgments may be cited its decision upon five specific proposals submitted to it for recommendation to an international conference. The proposals were for

1. A more comprehensive and better-defined Sea Law.
2. An International Court.
3. An International Council of Conciliation.
4. International conferences for the better establishment and progressive amendment of international law.
5. The organization of a system of commercial non-intercourse to be followed by military force if necessary, to be applied to nations entering into the arrangement and then going to war without first submitting their differences to an agreed-upon tribunal.

The Chamber approved the first four and disapproved the fifth. The last was rejected because it would surely "have within itself elements of separate combinations based upon distinct interests and aims," and for other cogent reasons, all leading to the conclusion that the fifth proposal would be "more apt to increase than to decrease disorder—not unlike so many of our more modern legislative enactments."

Ability to discriminate the good and the bad elements in a complex proposal is essential for wise leadership, and it is the crying need of the excited discussions of the present time. The new president of the Chamber of Commerce of the U. S., R. C. Rhett of Charleston, S. C., was an influential member of the Committee that made this statesmanly report to the Chamber.

"Great men have many friends—and many more enemies."

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The Sixth Annual Texaco Picnic will be held on Saturday, June 10, 1916, at Sylvan Beach Park. Sylvan Beach Park is on Galveston Bay, about 20 miles southeast of Houston. It is on the Southern Pacific Railroad and on good automobile roads to Houston. Some extensive improvements are being made in the park, including a three-story pavilion, 120 feet square, whose first floor is assigned to bath rooms, the second to an excellent dancing floor, while the third is a roof garden. A 1,500 ft. pier stretches from the pavilion into the bay.

The grounds cover a large area and afford ample room for baseball and other sports. Prizes will be awarded the victors in the various contests.

The Texas Company's launch *Virginia* will be available for short trips on the bay.

All amusements are gratis. A good band will furnish music during the day, and a large orchestra will play for the dancers.

Most of those who attend will doubtless bring lunches, and plenty of tables and benches will be available for their use. Meals, however, are served at restaurants on the ground at popular prices.

Special excursion trains will be run, with minimum rates, from Port Arthur, Port Neches, Beaumont, Sour Lake, and Houston. A total attendance of over 3,000 is fully expected.

The various committees will make every effort to insure an enjoyable day for all present. Communications with the committees on matters relating to their respective assignments are invited. The Committees are as follows:

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★ ★

A property is worth what its owners make it worth. . . . A lucky strike in an oil field or in a mining district or in a real estate transaction may make a man rich, but to build up a business to a signal success is the patient and often heroic achievement of brains.—*Leslie's*.

★ ★

"You can't trust anybody any more." How often that remark is heard, and how untrue! We constantly trust many persons with our money, with our life, with our honor. Have a care with the man who will not trust others.

The Chinese have the proverb: If you suspect a man, don't employ him; if you employ him, don't suspect him.

★ ★

"If a man is a low class thinker, he can't be a high class worker."

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Some psychological laboratories have made experiments to determine by definite measurements the working power and mental alertness of men and women at different times of the day. The method and the experiments were similar to those measuring effects of alcohol described in the *Safety and Sanitation* section of this issue. In both cases some of the results have been popularly described as very surprising, although truly in accordance with common-sense observation through the ages. Common sense, however, is not common in the sense of being universally exercised, and all men should know the facts in such matters, and ought to heed them rationally—that is, understanding that a fact is the truth in the mind of any one only when it is comprehended in its true relations.

Some of the experiments referred to measured muscular and mental "efficiency" after rising from sleep. A popular report of the results of one experimenter tells that the scientist found himself driven to the conclusion: "Sleep imposes an inertness whose influence gradually passes away from adults on arising." Now, any good observer would know in advance that the muscles of his forefinger would not work with maximum endurance, or that memory and association of ideas would not be keyed up to maximum quickness, etc. immediately on awakening from prolonged slumber. The same results following a dose of alcohol (as everyone should know) make it literally like "going to sleep on his job" to take an alcoholic drink at any time when body and mind need to be keyed up to full alertness and accurate control.

A lesson drawn by the popular writer from the measurements of the effects of sleep is worth heeding. He advises:

Dress Briskly. If you are a "dawdling dresser" you are handicapping your power to do your day's work well. For you thereby retard the "tuning up" process. . . . He [Dr. H. D. Marsh] discovered that a low state of efficiency prevails for some time after rising, as compared with an hour or two before noon. . . . It is desirable to shorten the period of inefficiency. Brisk dressing is a means to this end. Its rapidity of movement involves healthful stimulation of bodily processes and has the effect of habituating the mind to work energetically from the start of the day. This second effect can be gained more fully if while dressing the thoughts are turned on the day's work. . . . The trouble with most of us—certainly with all who are dawdling dressers—is that while dressing we think of nothing or of things remote from our work. Thus we actually hinder the necessary mental tuning up."

* *

Science now knows that every man is his own Borgia. Excesses and indulgences, rage and pas-

sion, create deadly poisons. There comes a time when the secretions gradually set up in our organs by hate and anger, excitement, fear, gluttony, and overwork find a weak spot and produce serious ailments. . . . All intemperate persons, especially folk who live at high tension, are liable to auto-intoxication, which simply means self-poisoning. Good health is mainly a matter of moderation.

—Herbert Kaufman.

* *

Miss Uplifter.—"I feel an intense longing to do something for others."

Friend.—"Just whom do you mean by 'others'?"
Miss Uplifter.—"Well, I suppose almost anybody except my immediate family."—*Life*.

* *

A country's export trade is the back log that keeps the factory fire burning. This maxim is very true. The main warmth and cheer of a fireplace comes from the forward blaze, but that would fluctuate too much and too often die down without the steady-effect and constant reinforcement from the back log.

Critics differ about some of the difficulties this country confronts in attempts to establish foreign trade, but all competent judges agree on these: (1) We lack sufficient men who are well educated and disciplined for the purpose. (2) The financing of foreign trade, including the mechanism of exchange and the investment of capital in foreign countries. (3) Real, threatened, or doubtful legal restrictions or interference.

SOME CONGO NATIVE PROVERBS

One tree does not make a forest.

(One swallow does not make a summer.)

I nearly killed the bird. No man can nearly eat a stew.

(First catch your hare.)

Full belly child says to hungry belly child: Keep good cheer.

(We can all endure the misfortunes of others.)

Distant firewood is good firewood.

(Distance lends enchantment to the view.)

Ashes fly into the face of him who throws them.

(Curses come home to roost.)

If the boy says he wants to tie the water with a string, ask him whether he means the water in the pot or the water in the lagoon.

(Answer a fool according to his folly.)

A ground pig said: I do not feel so angry with the men who killed me as with the man who dashed me to the ground afterward.

(Adding insult to injury.)

Quick loving a woman means quick not loving a woman.

(Marry in haste, repent at leisure.)

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ADVERTISING—GENERAL AND PERSONAL

R. C. GALBRAITH
General Lubricating Assistant

Advertising, to be profitable, must be effectively designed to reach the general public, or groups or classes of buyers when special products or those for limited distribution are considered.

At the same time, there exist many opportunities for special or what might be called personal advertising, and this statement will be readily demonstrated by the following:

Agent O. L. Wilson, at Jacksonville, Fla., having a keen appreciation of the possibilities of advertising in a very special way, conceived the idea of using the invoices covering the sales of our products to customers as a means of carrying to such customers suggestions about the purchase of other products, and the proper application of such as had been purchased and billed.

A batch of such invoices carrying these homemade ads bear evidence of careful thought and application of pertinent ideas, in a way that cannot fail to make a strong impression.

On an invoice for gasoline he writes: "Do you lose compression? Try Texaco Motor Oils." On another gasoline invoice: "Have you travel troubles? Try Texaco Motor Oils along with the Gasoline."

An invoice to the City Trustees bears the following: "A trial order proved to you the worth of Texaco Thuban Compound, and you like it. Try Crater Compound for your wire rope and gears."

An invoice for a 25-pound case of Thuban Compound carries: "You are wise to the value of Thuban Compound. You will find Crater Compound fine for your wire rope and cable."

The following remark is contributed by Arthur Lefevre, Jr., Houston Representative of the Advertising Division. It is a good example of how it is sometimes possible to say much in a few words:

Many manufacturers do not realize that the writing of an advertisement is worth as much money as the advertising space. You waste the money for the space if the copy is not right.

An invoice for Aleph Oil to a manufacturing plant carries the following bid for the extension of Texaco lubricants throughout: "Texaco Lubricants are mobilized for preparedness against your worst enemy, Friction—Phone us."

An invoice for staple products calls the customer's attention to specialties: "Texaco Liquid Wax Dressing for your Auto Body Polish. Easy to apply—and it will stay put."

To a manufacturing plant buying gasoline, the following definite offer to take care of bearing troubles: "Try our Star Grease for that extra hot bearing."

A large hardware company on their invoice for Gas Engine Oil gets the following timely suggestion along the specialty line: "Do you believe in preparedness? Give that salesman a sample of Texwax on his next trip in time for canning season orders."

The foregoing is simply a recital of what one man has done while thinking about what he was doing, and carries very valuable suggestions for scores of others who are in position to do likewise and use this idea in a manner suitable for local trade.

Although such advertising is not listed with the large agencies and therefore is not to be bought, it is distinctly in line with the regular solicitation work of agents and salesmen, being but one step removed from personal contact with customers. Such a method of presenting ideas and suggestions about our products to the trade is so intensely personal that every buyer receiving an invoice thus embellished must take notice and appreciate the attention thus given to him, and be mentally prepared to accept these suggestions when he again needs supplies.

Aphorisms composed by the author of the main article in this issue:

A man of eighty, afire with enthusiasm, is young, but a young man of eighteen who is devoid of ideals is old indeed.

What you think—you are; therefore let your thoughts be pure and noble.

The human mind is like a cup, and there is infinite ocean of knowledge. Man can only take in as much knowledge as the cup can hold.

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Opening of the Central African Exhibition at Elizabethville, in 1913. At the center, His Excellency Monsieur Wangermee, Governor General of Katanga; in line with third upright support from right, Mr. H. C. Pennrich, Vice-President of the Exhibition.

THE BELGIAN CONGO STATE*

H. C. PENNRICH

Formerly Vice-President Chamber of Commerce of Katanga, Belgian Congo; now in Charge of Terminal Division of Export Department of The Texas Company

"Through seas that never before had been circumnavigated,
Have I come to Thee, beloved Mother Country!"

FIRST WHITE EXPEDITIONS The Portuguese poet Camoens puts these words of his deathless *Lusid Lay* in the mouth of the discoverer Vasco de Gama, the great circumnavigator who landed at Calicut on the western coast of East India in 1498. That nautical feat broke the spell which had enchained that part of the dark continent whose shores were washed by the southern Ocean. It was one of Vasco de Gama's crew, Diego Cam, who discovered the mouth of the Congo River. The Kingdom of Ekongo lay near that mouth, and the royal standard—a golden star on blue ground—has been adopted by the present Congo State as its territorial flag. In 1491 the Portuguese founded here two trading stations: San Salvador, the ruins of which

are still extant, and San Antonio. For centuries the Portuguese Colony remained unimportant. It was not until the middle of the last century that the Congo came to the front again.

LIVINGSTONE AND STANLEY In 1850 Africa was yet a "dark continent." It was not opened up until 1858, when Tanganyika was discovered. A few years later Speke and Grant found the sources of the Nile and Victoria Lake. Much earlier David Livingstone had explored the Zambesi Country and had preached Christianity to the negroes, but only in 1866 that great and good man reached the Congo Country discovering Moero and Bangwelo Lakes. Livingstone had intended to round Lake Nyassa to ascertain its connection with Tanganyika. Nothing had been heard of him for years. Young's expedition was the first that brought positive news that

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Sunset on Lake Tanganyika

Livingstone was still alive, but could not give any information as to his whereabouts. It was then that the proprietor of the *New York Herald*, Gordon Bennett, sent Stanley, a newspaper reporter, to Africa.

Stanley found Livingstone at Ujidi, on Lake Tanganyika, in the year 1871. Today Ujidi is the terminal of the railroad that runs from Dar-es-Salaam to Tanganyika. Cold and wet weather, exhausting marches through evil-smelling swamps, the unhealthy climate, and terrible hardships had completely wrecked Livingstone's health; in 1873 he died at Cochitambo on the southern shore of Lake Bangwelo. For thirty years, almost without interruption, he had wandered through the vast territories of Central Africa. Such single-minded devotion to a great purpose will insure him "*monumentum aere perennius*"—the position of being the first successful pioneer in the interior of the dark continent—a monument that will always keep his unique merits before the eyes of admiring successors.

Stanley was so filled with the grandeur and fascinating life of the African continent, that he made its exploration his life work. In 1873 he returned to London and made known his plans for a great exploring tour through the interior of Equatorial Africa. Again it was the *New York Herald* which, together with the *London Daily Telegraph*, provided the necessary financial aid. Stanley first went to Zanzibar, where he arrived in September 1874. Thence he started his journey through unknown domains. After 999 days of adventure he reached Boma, at the mouth of the Congo. His companions had numbered 356 at Zanzibar; but only 115 remained, the rest having succumbed to disease and death.

The distance covered by Stanley amounted to 11,663 kilometers, twice the distance from New York to San Francisco. After an absence of four years Stanley returned to England in 1878.

LEOPOLD II AND THE CONGO

Leopold the Second, Belgium's foremost King, had followed the journeyings of Livingstone and Stanley with intense interest. As early as 1860, when still Duke of Brabant, Leopold uttered at a session of the Belgian Senate the memorable words:

"The possession of coasts and good harbors is a preliminary condition for the prosperity of a nation, and I claim for Belgium a place in the sun."

In the summer of 1878 Leopold convened an international conference at Brussels. The scientific debates led to the foundation of an "International Society for the Exploration and Civilization of Central Africa." Nominally that Society was international, but its management and influence were altogether Belgian. In the same year Stanley returned to Europe, and Leopold succeeded in winning him over to his cause in 1879. Stanley hastened back to the Congo as the King's plenipotentiary, authorized to conclude commercial treaties with the natives. It was the King's intention to establish a large Negro State at the Congo and to render the country accessible to European influences.

But large means were needed. The sums at the disposal of the King and the Committee were inadequate. Leopold, however, soon succeeded in enlisting the sympathies of the Powers, and a conference was summoned to Berlin to discuss the trading questions of the Congo. The conference opened under Bismarck's presidency Nov. 15, 1884, and the outcome was the declaration of the Congo as an independent state, with Leopold as the first ruler of the "Congo Free State." His aim was to gradually convert that state to a strong Belgian Colony, and he began by refunding from the Belgian Government all foreign loans; for example, the Congo Loan in 1887 amounted to \$30,000,000. Officials of foreign nationalities employed in the administration were gradually replaced by Belgian officials, and Belgian influence became predominant.

SITUATION

The Congo State is bounded on the north by the French Soudan and Bahr-el-Ghazal; on the south by Rhodesia and Portuguese Angola; on

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Natives working in the copper mine of the Union Miniere du Haut Katanga, at Etoile du Congo

the west by the Atlantic Ocean and the French Congo Dominion; and on the east by British and German East Africa. The state is divided into twelve provinces. The most southeastern province is Katanga, with which I propose to deal in particular.

CLIMATE The climate is tropical, or rather equatorial. The amount of rain, as a rule, increases from the coast in an easterly direction towards the interior. In the rainy season, on an average, every second day is wet; but the rain, which mostly takes the form of violent thunderstorms, lasts only a few hours every day. On account of the abundant rainfall the basin of the Congo can claim, more than any other, vast primeval forests, and produces a luxuriant growth of all kinds of vegetation. The profusion of tropical growth offers food to innumerable animals, and opens to our view an immense fauna the like of which is not found anywhere else on the face of the earth. Here is the habitat of the jungle beasts: lions, leopards, and elephants; rhinoceroses and hippopotami; unicorns, buffaloes, hyenas, ostriches, giraffes, and antelopes; gorillas and chimpanzees; and an infinitude of all kinds of animal life.

KATANGA Coming to the Province of Katanga, the first thing that strikes the student is the etymology of the name. Katanga means "Copperland." By

the way, our word "copper" (Latin *aes cyprium*) is derived from the Isle of Cyprus. In antiquity Phoenician traders worked the Cyprian copper mines, just as their Semitic kinsmen, the Arabs, with the aid of natives, worked those of Katanga. Traces of them can be found unto this day.

The first European expedition which reached Katanga was commanded by Charles Grey, a near relative of the present British Foreign Secretary, Sir Edward Grey. Katanga was to be his grave. One day his body was found; lions had torn it to pieces. Reports of his Katanga enterprise reached Cape Town, and determined Cecil Rhodes to enter with great zeal into the plan of building a railroad from Bulawayo to Katanga. Rhodes was one of the ablest directors of the Central African Company which the English had founded in South Africa. His undertaking aroused the suspicion of Leopold II, who in haste dispatched a Belgian rival company to Katanga in order to retain that Province. After a few months another expedition followed, which reported so favorably that, on April 15, 1891, a special Company was formed at Brussels for the purpose of opening up Katanga.

ADMINISTRATION In order to assist the "Compagnie du Katanga," the Government of the Congo State granted it one-third of the land of the Province. Like

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A first class hostelry according to native standards

a chessboard, the Province was divided up into 4,000 square pieces of land, the Company receiving one allotment to every two of the State. The Company pushed on actively the exploration of Katanga. Consequently Cecil Rhodes gave up his plans with regard to Katanga, and the British Government agreed to settle the southern boundary of Katanga by a treaty with the Congo State.

A committee of four took charge of the Government of Katanga, two being appointed by the State and two by the Company. The State advanced to that committee the necessary money at 4%. Two-thirds of all earnings, or losses, are assigned to the State and one-third to the Company.

In order to begin as soon as possible with the exploitation of the copper mines the Committee, which at the time lacked competent officials, entered into an agreement with Robert Williams, the founder and Head Manager of the English Tanganyika Company which carried on mining on a large scale near Tanganyika Lake in the northeastern part of the country. The Company undertook to have the copper mines of Katanga examined by their prospectors. The first expedition left Bulawayo in April 1901. Within three

years 135 copper strata were discovered, the average contents amounting to 15%. This is an unusually high percentage, the copper ore in the United States containing from 2% to 7%. Besides copper, substantial layers of tin, gold, platinum, and iron were found. The exploration tour of that army of prospectors led, in 1906, to the foundation of the great Central African mining company, the *Union Miniere du Haut Katanga*, in which the Belgians have an interest of 55% and the English 45%.

The Company procured the right to exploit all copper and tin mines within a strictly limited precinct, as well as the gold



Victoria Falls Bridge on the way to the Belgian Congo State by rail

TEXACO STAR



A private residence in Elizabethville in the early days of the settlement

mines in Ruve and various lime and iron strata. It also obtained the privilege of using the necessary water power for the working of those minerals. All those far-reaching privileges were granted free of cost for a period of 15 years. Arable land was added sufficient for feeding the black laborers employed.

RAILWAYS To render Katanga more accessible, the Company began to build a railroad from Rhodesia to Katanga in December 1908. Almost at the same time a Belgian railway company began to construct a line from the Congo River southward.

Yet Katanga remained unknown to the outside world. Only travelers in Africa, a few enterprising traders, and Belgian officials knew of the country, but rumors of its enormous mineral wealth began to spread over the civilized world. Reporters began visiting Katanga, prospectors put in their appearance, and vast tracts of cultivation and industrial life developed where a primeval forest and virgin soil had sullenly barred the way.

COPPER SMELTING At the Lubumbashi River, which a side road about six kilometers long unites with the main railway line, the copper smelting works of the great mining company are situated. An

enormous chimney, beautiful though massive, rises in the air, capped with the indented gilt crown of a lightning rod. The top, 160 feet high, commands a magnificent view of endless jungle never trodden by human foot. Here and there the jungle is broken by gently rising hills, the waving trees surging like the billows of a wind-swept sea.

ELIZABETHVILLE About a mile and a half from the copper smelting furnaces is the capital of Katanga, Elizabethville—named after the Belgian Queen. The town has sprung up within the last few years. The geographical position of Elizabethville is not altogether favorable, nor are the sanitary arrangements quite satisfactory; malaria, typhoid, black water, and other contagious diseases claim numerous victims. It could hardly be expected to be otherwise in a new town which has sprung up so quickly and developed so wonderfully, thanks to the practical intelligence of the Belgian Government.

The offices of the agents of The Texas Company are on *Avenue du Sankuru*.

In May 1914, when I left Elizabethville, the population consisted of about 1,000 white men and 5,000 blackskins. At first, in 1910 and 1911, we white folks lived in bamboo huts, which later on were re-

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H. C. Pennrich

placed by pretty houses constructed of timber and corrugated iron. The streets are laid out wide, but in the rainy season the clay that sticks to one's boots renders traffic rather difficult. In order to improve the streets and to procure good drinking water large sums will have to be expended. The lazy negroes fetch water for the white people from the nearest pool, where perhaps other negroes have been washing



A glimpse from the writer's farm near Lakabinda, Belgian Congo—The fowl coop was made from Texaco Kerosene cans.

their dirty clothes. Briefly, the life of Europeans includes motoring, picture shows, exhibitions, and such amusements.

Katanga, on the whole, is fertile and well irrigated; farming is very remunerative. Several large farms extend to the north of Elizabethville not far from Kambove; the soil seems to be cut out for European settlements. No doubt, in the near future, Katanga will become a prominent agricultural country. The mines, with their numerous employes, are an excellent market for farm products.

The notorious tsetse-fly, the scourge of Central Africa, is a serious obstacle to the development of the country. Dense clouds of that deadly mosquito, which is not much larger than our common house-fly, swarm around the neighborhood of Elizabethville. The Bantu word for fly is *nsi*; the primitive reduplication *nsi-nsi* signifies the tiny but formidable insect which claims our attention. Nature has marked its back with a double Z; hence Europeans call the *nsi-nsi* fly zee-zee or generally tsetse.

The geographical distribution of the tsetse is far more limited in the dry season than during the rainy period. There are two species of the tsetse: the *glossina palpalis* and the *glossina morsitans*. The former likes to feed on human blood, whilst the latter prefers to settle on animal bodies, more particularly big animals such as buffaloes and antelopes. The poison injected by the tsetse sting produces sleeping sickness. Amongst the animals most susceptible to trypanosomiasis (the disease due to infection by the animalcule, trypanosoma, found in the blood of the tsetse-fly) are cattle, horses, dogs, mules, and asses. On that account I had to give up many a pleasant ride on horse-back, many a delightful country walk with my faithful hound by my side, and many a foaming cup of fresh cow's milk.

The biology of the tsetse-fly has not been as thoroughly investigated as its importance deserves. The colonial development of Central Africa is largely at the mercy of this little creature which works such sad havoc on the health of men and beasts. Our schools for tropical diseases apply a powerful remedy for malarian fever in the quinine drug, but science still battles unsuccessfully against a worse demon of disease—the "sleeping sickness" produced

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A street scene in Elizabethville—Avenue de l'Etoile du Congo

by the tsetse sting. I have seen prosperous districts devastated by that horrible plague. In recent years Prof. Ehrlich's 606 (salvarsan) together with atoxyl has been used against sleeping sickness, but scientific opinions are divided on the results.

LABOR QUESTION

The labor question of Katanga is of great interest. The mines are worked by negroes belonging to the Balamba, Balala, Bamemba, and Basanga tribes.

A number of able laborers, especially adapted to agricultural employment, are the Zulus and also the Mestizos who are the off-spring of Europeans and negresses. They are fit to be servants and drivers of ox-teams, their wages varying from \$30 to \$40 (150 to 200 Frs.) a month.

The negroes from Nyassaland are most intelligent and particularly well disciplined. Most of them can read and write English. They are familiar with bookkeeping and can even manage stores without supervision. Nyassa negroes are in demand and are paid on an average \$20 a month. In their new position they assume the grand name "Capita" from the Portuguese word *Capitao*, i. e. captain.

Now and then Barotse negroes may be seen in Katanga, where they act as slaughtermen and butchers; they know cattle so well and are, therefore, most useful. A Barotse negro loves his cow better than his wife, whom he would rather sell than the beast.

Matabeles and Betchuanas who occasionally visit Katanga, are good servants and earn \$30 to \$40 a month.

THE NATIVE AND HIS HABITS

The negro population principally dwell in the hot lowlands where the soil is black and fertile. They avoid the table-land with its bracing climate and cool nights. They also shun white men, railways, and roads of transport because noise is apt to drive deer and game away.

The obligation of paying annual taxes, and the increasing desire to wear European clothes, induces many negroes to go to the city and take service. As a rule a negro feels quite at home in the city. He sacrifices his former freedom, but, on the other hand, he enjoys pleasures that are unknown in his village. Even if he must do regular work, which is always unpleasant to him, he has his daily food provided and can well afford, with the money he earns, all sorts of purchases with which he makes a great show at his return to his village after the completion of his city contract. He arrives with all manner of things—pearls, crockery, pots, blankets, hats, and clothes in general.

It is astonishing with what ease the negroes leave one grade of civilization for another either higher or lower. Chief Litia, of Barotse, lives near Victoria Falls at present. He is a baptized Christian and, until a short time ago, was prominent among the white inhabitants as a progressive man who first cultivated the Zambesi soil with a plough, which until then, was unknown in the Zambesi Valley. Litia wrote his letters on an Underwood typewriter and had a banking account at Bulawayo. A few years since that model negro cast off his Christian wife, for fear of

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Religious procession of natives at Elizabethville

the increasing estrangement between himself and his people, became again addicted to polygamy, danced once more nude at the religious native festivals that are solemnized at night, and resumed all the old habits and customs of his tribe. "*On revient toujours a ses premiers amours.*" The natives of Africa in their intercourse with Europeans quickly take on the outward forms of civilization, but fall back as speedily into their old ways.

The daily occupation of man and woman varies to a large extent, woman playing a subordinate part. She gets married at the age of nine or ten years. Matrimony is merely a business transaction between the fathers of the contracting parties. The ideal of one of the many Congo tribes is to own wives too fat to walk upright, and, by reason of their weight, forced to crawl on all fours. It is interesting to observe that when a wife dies childless the husband has the right to re-demand the purchase money (varying from \$20 to \$60) from her parents, or take the equivalent in cows. The birth of twins denotes good luck and is celebrated with good cheer. Misshapen children are usually killed. The babes of Central Africa cry just as ours: mam-ma, mam-ma! I heard the same infantile utterance expressing the desire for the mother's breast from babes in Madagascar, India, China, and the South Sea Isles. The

mother seems to be nearer to a child's instinctive needs than the father and "m" is an indrawn sound, whilst "p" and "d," the consonants contained in papa and daddie, are explosive letters. They are uttered abruptly, whereas "m" glides over the tongue like a mild murmur. The most internal mystic and sacred Indian syllable, symbolic of Brahman or the Deity, is "Om" which holy yogis whisper almost inaudibly during their soul-awakening trance and meditation. The prayer wheels of the Tibetan Buddhists contain the Sanskrit words *Om mani padme hum*, which signifies "Thou, my jewel in the lotus." "M"



Native women preparing food



Wadshagga Girls—Central East Africa

is an occult breath which travels inward from the lips.

The natives of Central Africa use a wireless telegraphy of a primitive kind. They dig out the trunk of a tree and stretch a snake's skin over either end of the wooden tube. At night they beat the "tam tam" according to a pre-arranged tune and system, somewhat like a Morse telegraphic code. Thus wireless messages circulate from village to village. If, for example, a white man is about to proceed a long distance the natives of each kral which he is about to pass know long beforehand when the traveler will arrive and for what purpose he journeys.

SLAVE TRADERS The Balubas, living west of Moero Lake, have made a name for themselves as slave dealers. They have a fair conception of what is right and wrong, which they express in the following rhymes: "Right before night;" "Health before wealth." Yet, they regard the sale of wives and children as perfectly justifiable. I once remarked to a Baluba Chief-tain how wrong it was to sell one's wife. He quietly listened to my arguments and then observed drily: "The matter is really not so bad as you make out, because we retain our good wives and only sell those that are obstreperous and shrewish."

Generally speaking, slaves are exchanged

for ivory, clothing, beads, salt, and other articles of value. Woman, in the interior of the Congo, still represents an intrinsic market value and may be sold at any time.

A strange case occurred some time ago at Mukenglio. An old man, chief of a Baluba sub-tribe, was offered for sale. During his reign he had been very martial, and had fought many a feud with neighboring clans. Numbers of his subjects had been slain in battle and the secret resentment of the tribesmen gradually grew into open revolt and the whole community decided to sell the unpopular chief into slavery. He was deposed and exchanged for ten goats which were killed at once, the meat being distributed among the relatives of the fallen warriors.

CANNIBALISM It is a fact that cannibalism in many parts of the Congo State still flourishes. To justify their preference for human flesh the Congo negroes give two reasons: (1) They believe that the consumption of a powerfully built warrior gives the partaker of his flesh fresh courage and strength. (2) They look upon human flesh as a special delicacy. In some parts of the country only prisoners of war are eaten; in other places the dead are devoured, provided they are free from skin diseases. If, for instance, a chief dies, slaves are bought, made drunk, and roasted for the funeral feast. Such bouts are attended with solemn religious rites at which wild erotic dances at a furious speed are performed.

An organized traffic in human flesh is carried on in the Loami District. In places threatened with famine slaves are killed and their flesh is sold in the market-place as if it were meat of slaughtered cattle. Prisoners that are lank and lean and bony are fattened up and sold at particularly high prices. One of the most revolting customs still surviving among a few tribes is this: the unhappy victim is dragged to the blazing fire, and each customer takes his choice of whatever part of the body he likes best, whereupon the poor slave is dismembered alive. As a rule more men than women are slaughtered and eaten, because the latter are needed for domestic service. The cannibals along the Aruwimi River, however, prefer woman's flesh. Even today the sign posts that mark the Belgo-Portuguese border often consist of slaves' bones; the gruesome remnant of cannibal dinners.

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CONGO DIALECTS

The Congo tribes are without traditions and memories of the past and hence without historical records. They have not evolved a written language. Nearly all their dialects are built up on the same grammatical foundation. One of the most extensive linguistic groups of Africa are the affiliated Bantu tongues in the Congo. Bantu speech, far from being rude and harsh, is highly plastic and musical, combining the grace of French and Italian sweetness and melody. A Bantu song rings out like a sweet symphony in miniature, the harmonious words being richly stocked with vowels. The letter "F" is much in evidence in Bantu. By way of contrast we may mention that the same "labial lisp" is altogether absent from Sanskrit, the oldest language of the Aryan Hindus in India. Congo-Bantu displays a rich variety of dialects, all of them showing the same family likeness, yet differing sufficiently to be independent and distinct. The difference is like that between Spanish and Portuguese, but sometimes no more than between Castilian and Mexican Spanish. If it is apposite to compare wild flowers of the wood and field with cultivated garden growth, we may liken original Bantu from which the modern Bantu idioms in the Congo are derived, to the stately Latin tongue, the common mother of the lovely Romance sisters, French, Spanish, and the rest.

Bantu numerals are of interest. The natives count with their fingers. When they want to say ten they hold up their two fists, and the plural or rather dual of *fist* actually signifies 10 in Bantu. Our prehistoric forebears in their barter and exchange transactions also spread out their fingers before an intending purchaser with whom they were driving a bargain, and showing the fist was understood to mean 5. Our words *fist* and *five* are etymologically akin.

The Bantus are fond of pithy sayings, which are ironical and often wise. Let me quote a few which I gathered from their own lips:—Death has no fatherland—Europe may be beautiful, but I prefer my little mud hut—A bit of meat is better than a variety of vegetables—One rotten fruit may destroy all the good—Beautiful songsters in the fragrant woods often lack a gaudy plumage and have ugly nests—Bird and crocodile both crawl out of an egg, yet how different they are.

The Bantus, like all primitive tribes, have their bone-setters and medicine men, their magic charms, and simple folk-songs. They beat drums while the leech murmurs his spell or incantation:

Depart from the sick man,
Ye snakes and worms,
Go to Kalembe, Kabemba,
Enter torrents and hill-peaks.

Behold Nature in her most imposing garb, in her wildest state. Behold the superb beauty of the cloud-kissed mountains. Below nestles the endless jungle where the majestic lion is king, and spotted leopards leap, and glistening reptiles crawl over the damp verdure. The aged jungle trees, forest lords, hundreds, aye, thousands of years old, stretch far and wide their gnarled branches on which screeching monkeys and parrots swing. They creep up the cliffs and with a gigantic embrace encircle the mighty mountain ranges. Ridge upon ridge, chain upon chain, deep cut ravines, thundering mountain springs, inaccessible rubbish deposits; and above it all glares the dazzling light of the pure snow fields, shimmers the never-melting primeval ice, and, between the peaks, the glaciers, long, silvery, glinting, glide down to the glorious glens. When you see the sun rise in that mountainous tract you will be overcome by the magnificence of the sight and uplifted by the grandeur of nature; filled with wild joy because you are privileged to gaze on such precious gems of the gods.

When I fully and slowly absorbed the gold gleaming landscape and the azure sky, the words came to my mind which are inscribed in golden letters outside the royal castle of Delhi in India:

Where is an Eden of bliss on earth,
It is here that the charmed soul takes rebirth.

What charm to travel in such parts where previously no white man has trodden and been welcomed as a guest. To be where nature and men are one, away from the madding crowd, in the midst of the primeval forest, free from all imaginary necessities of our bustling cities, in the virgin woods, under the deep blue vault of the sun-flooded sky, within hearing of the hyena's cry and the lion's roar; to be alone with Nature feeling one with her:

"Whoever feels the joy of that life,
Whoever learns the worth of that life,
Will be glad to go back to it."

EFFICIENCY

P. C. SCULLIN

Chairman Refining Dept. Efficiency Committee

HAVE I THE CORRECT VIEWPOINT?

As Mr. Waldo P. Warren says: "Who can measure the value of an idea? Starting as the bud of an acorn, it becomes at last a forest of mighty oaks; or beginning as a spark, it consumes the rubbish of centuries."

"Ideas are as essential to progress as a hub to a wheel, for they form the center around which all things revolve. Ideas begin great enterprises, and the workers of all lands do their bidding. Ideas govern the governors, rule the rulers, and manage the managers of all nations and industries. Ideas are the motive power which turns the tireless wheels of toil. Ideas raise the plowboy to president, and constitute the primal element of the success of men and nations. Ideas form the fire that lights the torch of progress, leading on the centuries. Ideas are the keys which open the storehouses of possibility. Ideas are the passports to the realms of great achievement. Ideas are the touch buttons which connect the currents of energy with the wheels of history. Ideas determine the bounds, break the limits, move on the goal, and waken latent capacity to successive sunrises of better days."

You know that whenever a man makes up his mind that he is beaten in some fight, his very thinking so helps on the fatal outcome.

The truth is, it takes just as much brain work to accomplish a failure as it does to win success—just as much effort to build up a depressive mental attitude as an energizing one.

Take for granted that you have the courage, the energy, the self-confidence, and the enthusiasm to do what you want to do, and you will find yourself in possession of these splendid qualities when the need arises.

At the outset of every undertaking you are confronted with two ways of attacking it. One is with *Doubt and Uncertainty*; the other is with *Courage and Confidence*.

The first of these mental attitudes is negative. It is inhibitory. It is made up of mental pictures of yourself in direful situations, and these mental pictures bring with them depressing emotions and *Muscular Inhibitions*.

The second attitude is positive. It is inspiring. It is made up of mental pictures of yourself bringing the affair to a triumphant issue, and these mental pictures bring with them stimulating emotions and the impulses to those bodily activities that will *Realize Your Aims*.

You have only to start the thing off with the right mental attitude and hold to it. All the rest is automatic. Think this over.

Put this same idea into your business. Analyze your business with reference to its *Mental Attitude*. Of course, you know all about its organization, its various departments, its machinery and equipment, its methods, its cost system, its organized efficiency. But what about its mental attitude? Every store, every industrial establishment has an air of its own, an indefinite something that distinguishes it from every other. This is why you buy your cigars at one place instead of at another.

Look behind the methods and the systems and all the wooden machinery of your business, and you come to its throbbing life. There you find the characteristic quality that governs its future. There you find the attitude, the mental attitude, that pulls the strings determining the conduct of clerks and salesmen, managers and superintendents; and this attitude is in the last analysis a reflection of the mental attitude of the executive head himself—not necessarily the nominal executive head, but the real executive head, however he be called.

Does the truckman whistle at his work? Is the salesman proud of his line and his house? Does he approach his "prospect" with the confident enthusiasm that brings orders? Does the shipping clerk take a delighted interest in getting out his deliveries? They must have this mental attitude, or you will never win. Are you yourself "making good" in this respect? Remember that, whether you know it or not, your inmost thoughts are reflected in your voice and manner, your every act. And all your subordinates, whether they know it or not, see these things and reflect your attitude.

Therefore, in all you do, and in all you think, do it and think it with courage and with unwavering faith, fearing nothing.
—From "Driving Power of Thought"—
Society of Applied Psychology.

SAFETY AND SANITATION

ST. C. B. BYRNE

Chairman Central Committee of Safety

WHEN IS A MAN DRUNK?

BY EDWIN F. BOWERS, M. D.

AUTHOR OF "SIDESTEPPING ILL HEALTH"

By Permission of American Magazine

It is too much to expect a man who has taken only one or two familiar drinks to realize that he is drunk—to a definite, measurable, and analyzable extent. But those little clocks, intricate wheels, and serene mechanical devices of the laboratory will know it. . . .

An excellent index of a man's capability for work is the weight he can continue to lift with the index finger. So scientists requisitioned the ergograph. . . . In manipulating this testing machine the fingers are clenched around a wooden peg, all but the index finger, and the arm held immovable by being clamped to the arm of a chair. A weight of several kilograms (a kilogram equals 2.2046 pounds) suspended by a small rope that passes over a pulley is raised and lowered by this finger, until the subjects are forced to desist from exhaustion. . . . The scientists had their subjects repeat this process twelve times, with intervening rests of a minute. Each pull was recorded automatically on a strip of paper, registered by a line. The sum of the lengths of all the lines was translated into "meter kilograms," which meant the work accomplished by the index finger in raising 1 kilogram 1 meter (39.37 inches) against the pull of gravity.

These experiments were made ten times daily, and the total average for each man calculated for a number of days, under conditions of absolute abstinence from drink. Then the men were given a "good glass" of Bordeaux wine, or its alcoholic equivalent,—about $\frac{1}{8}$ ounce of alcohol freely diluted with water,—after each meal, and the experiments repeated. The consequences were a diminution in the ability to withstand the fatigue of weight lifting amounting to 7.6% to 8%. These experiments were duplicated hundreds of times in various parts of Europe. In every instance a definite measurable loss in muscular efficiency was shown.

Learned professors next advanced to the consideration of combined muscular and

mental processes. They used the "writing balance," invented by Doctor Kraepelin of the University of Munich, probably the most eminent living authority on mental and nervous diseases. This contrivance had attached to it a fifth-second chronometer which automatically registered time on a rotating drum covered with carbon paper. On the record obtained in this manner the time required in writing a set of characters can be computed with an error of less than one two-hundredth of a second.

The daily exercises began at 8 a. m. The subject's scientifically sober hand was connected with the apparatus and the figures 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 were written twice with pencil at top speed. Then the sequence reversed—10, 9, 8, 7, etc. was twice written; then the German letters *imm*, also twice. These were repeated ten times, and the total average time consumed by each man was measured. Then he received his allotment of wine, as with the ergograph experiments.

After 5 minutes the subjects resumed their writing, with instructions to carry out their appointed task in scribbling as before. Every man had slowed up measurably. The degree of retardation, after writing 1 to 10 under the influence of a small amount of alcohol (what the ordinary drinker might take with his dinner) amounted to 5.6%. In writing 10 to 1 the retardation was greater, amounting to 7%. This was accounted for by the increasing complexity of the "stunt," it being a more unusual combination than the straight progression of numbers. With the "*imm*" the deviation from normal was even more apparent, averaging 7.3%.

Similar results followed in the coordination tests, in which the subject was required to "snap down" a telegraph switch at an unexpected flash of light or the sound of a gong, the time elapsing between flashing the light or striking the gong and closing the switch being measured by the chronometer. In every case the rapidity of the coordinating responses was decreased from 6% to 8.3%. . . .

For the next experiment a number of accountants were selected, and their average ability to add one-figure columns was estimated for one week. They were then given daily, in divided doses, the alcoholic equivalent of a pint of light beer. A marked and progressive diminution in their

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output was noticed, beginning with 3.1% the first day. After two weeks of this moderate alcoholic allowance the percentage increased to 15.3% . . .

Similar experiments were tried on typesetters. These were required to set type from uniformly printed pages, the total numbers of "ems" a day being computed for a week. Then, with daily drinks, the kind that millions of moderate drinkers take every day, the typesetters, in one week, lost an average of 9.6% in efficiency. . .

As they gradually worked up to more complex mental processes the decrease in efficiency became more noticeable. This was particularly marked in the "memory tests," which demanded committing to memory for a half-hour every morning as many 12-place figures as was possible for each subject to remember. The students would curl their legs round the chairs, chew the ends of their pencils, look up at the ceiling, and mumble "one six nine, eight seven three, two one eight, one six two," or some other group of 12 numbers, until they could say them without effort. They would then tackle the next group, committing as many 12-number sets to memory as was possible in the course of a half-hour, repeating each set in a whisper to a mentor seated beside them. This was practiced for a fortnight, after which their average was computed. Then the subjects were given each morning just about what would be considered a good "eye-opener" by the average drinker. The next two weeks showed an average reduction of 6.2% in the number of 12-place figures committed to memory. . .

The beginnings of memory crumbling have been demonstrated experimentally by Doctor R. Vogt, of the University of Christiania. During 7 months alternating experiments in memorizing 25 lines of Homer were made with and without alcohol. The time required for repetition without mistake averaged 18% longer during the alcohol periods than during the abstinent days. The amount of alcohol given corresponded to that in slightly more than 1/2-pint of 4% beer. When the system had accustomed itself to alcohol it took between 5% and 7% more time to perform these memory tests.

In these trials the alcohol was taken after breakfast, but when the drink was taken before breakfast—"on an empty stomach"

—the lengthening of the required memory period went up to 60% . . .

One of the most remarkable features connected with these studies was developed when 38 of these daily memorizations were repeated after 107 and 108 days. This repetition brought out the fact that the time required to recall the memorized lines was uniformly and invariably greater in the case of those stanzas learned on alcohol days. In other words, not only does it take a longer time to fix impressions when alcohol is used, but the impression itself, made while the system is entertaining a drink, is not so permanent.

Perhaps the most convincing observations were concerned in the free "association of ideas." To illustrate: If the name of an object is spoken, immediately one thinks of something in connection with that object. Kraepelin's subjects were requested to note these, enumerating as many associated objects as occurred to them in the space of 5 minutes. Two words were given out at each session. This was repeated at intervals during the day for 10 days, and the average number of suggested things reckoned up. Then each evening preceding the next 10 days a generous "nightcap" was given, and the results of the following 10 days' "association" computed. A loss in coordinating power in this series amounted to as high as 27% . . .

Doctor J. J. Ridge, an English physiologist, made a series of experiments of tremendous importance to railroad men. He selected a group of ten medical students, nurses, and porters. Placing a row of letters at the end of a corridor, he had each member of the group walk slowly from the other end until the letters could be read, changing the sequence of the letters in each case. A chalk mark was drawn upon the floor to indicate the spot from which the farthest degree of vision in each person's case was possible, and each individual's initial was marked beside it. He then supplied his subjects with beer in quantities ranging from half a pint to one-sixteenth of a pint. On repeating the test, it was found that in no single instance could any of the victims read the letters from the spot where they had originally stood. All had to move closer.

Professor Kraepelin found that, on an average, a man who had taken the alcoholic equivalent of a pint of beer, or one and one-

BY THE WAY

An interesting letter to Manager W. E. O'Neill, Roofing Division, from one of his salesmen enlisted in the U. S. Army:

OFFICE OF THE QUARTERMASTER

Camp Furlong, Columbus, N. M., April 2, 1916.

Dear Mr. O'Neill: You will doubtless be surprised to hear from me in this far-away place, but when I got a chance to get a six-months appointment in this Department of the Army, I took it, as much for the experience as anything else, although the pay is not negligible as I receive \$100.00 per month and "rations and lodging" such as it is.

You might be interested in hearing a little about camp life, so I will tell you about some of my experiences and impressions in the ten days that I have been here. I landed here from El Paso close to 12 o'clock at night supposing that I could get accommodations at a hotel. I got off the train amid much confusion, as a troop train had just preceded us and they were unloading both men and equipment. The camp is on one side of the railroad and the village on the other, so I started out on the other side to find a hotel but was unsuccessful after walking around for quite awhile. I finally found out that all the houses caring for visitors were full, and it was not possible to get fixed up at the camp at that time of night. Another train of troops had just arrived and the soldiers were building camp fires to keep warm by, so I visited around at their fires for the rest of the night.

In the morning I reported for duty and was issued a tent, cot, cot sack (for straw or hay), folding chair, bucket, lantern, and a pair of army blankets. I forgot to mention that it is very cold here at nights. The altitude is over 4,000 ft. which accounts for this. I found out the first night that the blankets I had were not enough, so bought some more and a feather pillow and have since been fairly comfortable. We get our meals at the Quartermaster's Mess; and get plenty of food but not a large variety. The thing about the mess that I dislike most is that each person has to wash his own pans, etc. It is not so much the washing, but the fact that maybe someone does not wash his gear clean has a bad effect on the appetite.

We have band concerts every evening by one of the regimental bands and this serves to break the monotony. Also a picture show has recently been opened and we can go to that. The population of the village proper is 200 souls, so you can appreciate this was not much of a town before the camp was established. They are opening new restaurants and stores to get the soldiers' trade, and some of the fruit stands are in tents.

There are many evidences here of the Villa raid. Hardly a building in camp or in town escaped the hail of bullets. I saw a clock in the depot which received a bullet and it had stopped at exactly 4:10. There were about 25 bullet holes in the depot walls and window panes. Most all the window panes in town have holes in them made by flying bullets, and the store windows are broken out altogether. There were four or five store buildings burned including the hotel where several persons were killed. There is a little foot-hill close to the camp and from the top of it you can see numerous buzzards to the South; some claim that there are a lot of dead Mexicans out on the plains or desert, but I do not know how true this is.

third ounces of whisky, a half hour afterward had to approach to 20 feet in order to read letters he had previously read at 30 feet. The effect in diminished vision, he found, lasted for from 4 to 5 hours after drinking.

Another experiment of especial interest to railroad men concerned the rapidity with which visual images could be perceived, and the "time reaction" (quickness and accuracy) of the response thereto. Doctor Kraepelin stationed in turn each member of a group of men a little distance from a screen, from behind which a colored flag was suddenly raised. The raising of the flag started a split-second stop-watch. They were directed to press a button which stopped the watch, and so recorded the length of time needed to perceive the flag, decide its color, and press the proper button to designate that color. Each man's average under abstinent conditions was thus estimated. He was then given a glass of wine of approximately the alcoholic content of $\frac{1}{2}$ -pint of beer. After a short interval, to permit the absorption of the alcohol, the experiments were repeated. The results showed that in every case the men tested were from 6% to 13% slower in responding. Also, errors in determining the proper color of the flags were materially increased.

Also, tests were made in which subjects were required to decide which of two motions to make at a given signal, as an engineer, when a red light flashes out on the track before him, must decide in the fraction of a second the action which will guide his train and passengers to safety. If a green flag showed, the subject was to press an electric button at his right; if a red flag, the button to the left. For a short time after taking the small amount of alcohol contained in a bottle of claret, he pressed the button more quickly, but he was much more likely to press the wrong one. Increasing the amount of alcohol slowed up the time of response, and markedly increased the number of errors.

This shows the peril a drinking man may bring to any business requiring rapid giving, receiving, and answering of signals; for alcohol slows the correct reading of signals, and invariably increases the liability to make mistakes. It is for this reason that many American railroads demand alcoholic abstinence from all men who operate their trains.

TEXACO STAR

This camp is some busy place. From the activities going on, one would not think that they expected to capture Pancho Villa very soon, although there are rumors at present flying around that he may be already captured. It is a fact that Dodd's Cavalry is right on his trail. They are working here steadily on numerous new buildings of semi-permanent construction. A machine shop is being erected of corrugated iron close to the Commissary where I am; they are working a large force today (Sunday), so must be in a rush to get it finished. Most of the warehouses and other buildings are covered with corrugated iron, however, I see Texaco Roofing being put on some of them. That is the only brand of ready roofing that I have noticed here. The Army is building quite a number of adobe buildings besides those already erected. These buildings are just the thing for this climate, as they are very warm in winter and cool in summer; besides the material costs nothing and only Mexican labor is needed for their construction. I suppose you know how they make the adobe buildings. Here they make bricks or large slabs out of mud and straw and let them dry for several weeks. When they are ready they lay the slabs one on another like brick, using mud mortar, leaving openings for doors and windows. The Mexicans make sod roofs, but here they use ready roofing.

This is a windy place. The wind usually arises in the middle of the afternoon and blows until late at night. The dust is something fierce in dry weather. Most everyone having business outdoors wears goggles and the dust covers everything in the office. We have to roll up our bedding in the daytime to keep the dust off the covers. It is no place for a fastidious person.

I am working in the Commissary where all the food supplies for the troops are handled. This expedition is certainly costing Uncle Sam a vast amount of money, as we handle several carloads of stuff each day. They unload one or two carloads of Hard Bread (hard tack) every day, besides cans goods, etc. The Commissary has four warehouses and they are not enough to take care of the stuff that comes in. Night before last a solid train-load of Jeffrey trucks came in and were promptly put in service. There were two trucks on a flat car and I think there were about thirty cars. The trucks make the trip in 36 hours that takes a wagon train 4 days, and each wagon is drawn by four mules. The Aeroplanes make this same trip in two hours, but they only carry the official mail.

In the short time I have been here I have seen many a troop and company of soldiers come in and depart over the line. The other day a regiment of colored infantry left at early morn. They were singing Tipperary which was not very appropriate, but showed that they were not downhearted. The truck drivers and guards who come back from the trip to Casas Grandes are covered from head to foot with alkali dust which is extremely hard to wash off. The trucks are driven both by civilian and soldier chauffeurs, as there are not enough soldier drivers to handle all the trucks in service. Lately they have armed the civilian chauffeurs and have 17 guards to every truck, so there must have been some cause for alarm as formerly only one guard accompanied a truck. The trucks travel in trains of 35 or 50.

Well I guess this is enough for one time. I would like to hear from you if you have time to drop me a line. I do not have anything to do after hours

but read letters, as it is not convenient to read literature by lantern light and of course I can not be reading while on duty.

Sincerely yours,
W. P. Banks.

* *

Happening to see and read the last three issues of the *Texaco Star*, Mr. J. C. Tolman, President of Tolman Engineering Company, Houston, Texas, sends the following facile verses. Though heartily grateful for kind appreciation modesty shrinks from publishing praise, but it would be discourteous not to carry out the intention of the generous author of this graceful contribution:

"TEXACO STAR"

There are some things in Business past believing—
For Business is not Pleasure and not Art!
But, sometimes, we take pleasure from receiving
Some Art-full book that is Art's counterpart.
Not many are there—and the more's the pity!
For, were they common, we would reach a plane
Of culture 'most as high as Boston City
And still increase our business and our gain.

But now and then some great, big-hearted fellow
Sees deeper than the dust before his nose,
And finds the heart and mind of him grow mellow
In showing to the world how business grows;
Some Major General of work surpassing
The Little Things that Little Men must do,
Who shows his vision in some manner passing
The things that fall to me or fall to you.

So Someone, Somewhere had the wit to sprinkle,
O'er Business and o'er Pleasure as they are
A Texas Advertisement that will twinkle
As bright as any literary Star.

—Jack Tolman.

* *

Agent J. J. Manis, Vernon, Tex. Station, sends the following clipping:

A Salesman's Creed.—I believe in the goods I am selling, in the concern I am working for, and in my ability to get results.

I believe that honest goods can be sold to honest men by honest methods.

I believe in working, not waiting, in laughing, not weeping, in boosting, not knocking, and in the pleasure of selling goods.

I believe that a man gets what he goes after, that one order today is worth two orders tomorrow, and that no man is down and out until he has lost faith in himself.

I believe in today and the work I am doing, in tomorrow and the work I hope to do, and in the sure reward which the future holds.

I believe in courtesy, in kindness, in generosity, in good cheer, in friendship, and in honest competition.

I believe I am ready and ready right now.

* *

We bespeak kindly attention to the following appeal, received through Superintendent Williar Thompson of our Norfolk District:

TEXACO STAR

Wanted, by their niece, information as to the latest place of residence of either Joel Broxton or Council Broxton, who left North Carolina soon after the Civil War and went to South Carolina, Georgia, or Florida and have not since been heard from by the present inquirers. Any information will be most thankfully received by their niece Martha Grady and by H. F. Keel, R. F. D. No. 4, Greenville, N. C.



Caught in the Act

This photograph was received by Mr. Geo. W. Vos from an anonymous source, with the legend: "A camera man happening in the New York Offices came away with this picture. It appears that Mr. J. T. Groves, 'The Salesmen's Friend,' and Mr. E. Nielsen, the Engineer Adonis, were caught enacting a *tableau vivant* entitled 'Putting it Over,' evidently for the April cover of the *Texaco Star*."

The following "Lubricating Efficiency Story" was received some time ago from Superintendent A. R. McCarthy, of our Philadelphia District. We regret that we could not make space for it more promptly:

A young man came into the Philadelphia District Office and asked to be shown our line of lubricants. It developed that he was the son of an independent iron manufacturer having important blast furnaces, coal mines, coke works, limestone quarries, etc. located in central Pennsylvania. He stated that he had undertaken the management of his father's properties and intended making some changes with a view of systematizing operation. His visit to the city, he explained, was for the purpose of laying his case before suppliers of materials required in the operation of the properties, so that each could figure on supplying under contract all materials in his line. Other oil concerns had been invited to figure on the lubricants.

We outlined the plan on which we would figure on taking his lubricating business, and he was impressed with our preliminary plant-inspection idea, agreeing that we would thereby be enabled to select proper brands and grades of lubricants and to cover different conditions with a minimum number of brands and grades.

The matter was not gone into further at that time as some of the properties would not be in operation for several months, but we were requested to re-open the matter by correspondence in about a month to arrange for a plant inspection. Such correspondence resulted in an appointment for the plant inspection.

Knowing that the competition had made very attractive price-per-gallon offers we decided to submit a 10% saving proposition, our inspection assuring us that we could successfully handle the business on that basis. A proposition was drawn up to cover a period of 1 year and laid before this prospective customer. It was under consideration for sometime, and an interview was arranged for final action. The proposition was gone over in detail and it was decided that we could have the business for a period of 6 months to enable us to qualify for the same kind of contract to cover a period of 2 years. The contract was re-written for a period of 6 months, and signed. An order for the initial supply of lubricants was made up and shipped, and our Salesman Engineer H. J. Wilson was assigned to install them systematically. He was given a free hand and soon had storage tanks installed, allowance schedules arranged, forms drawn up and printed for their maintenance, and everything arranged for successful performance. From the start we made a good showing and averaged well above a 50% saving for the 6 months.

The young manager recently came to our Office and expressed himself as highly pleased with our lubricants and service, and signed a 2 years-contract for lubricants.

He also made arrangements to be supplied with other petroleum products during the term of this contract, and we now have the entire business and a customer to whom Texaco products and service have been a revelation in efficiency and economy.

APHORISMS OF THE TEXACROW

LOVE IS A CONTEST BETWEEN
A FELLER AN' A GIRL TO SEE
WHO KIN BE TH' DURNDDEST
FOOL - AN' TH' FELLER
GENERALLY WINS!



TEXACO STAR

DEPARTMENTAL NEWS

The Managers of the respective Departments have assigned to the gentlemen whose names and addresses are here given the duty of sending to the *Texaco Star*, on or before the twenty-fifth day of each month, reports of new appointments, transfers, removals, resignations, promotions, and other items of departmental news of general interest. Suggestions and information for this purpose should be sent to them before the twentieth day of the month. All are invited to co-operate.

Pipe Line Dept.	A. M. Donoghue, Houston.
Natural Gas Dept.	D. P. Harrington, Fort Worth.
Fuel Oil Dept.	E. B. Joyner, Houston.
Refining Dept.	C. K. Longaker, Houston.
Marine Dept.	E. C. Macmillan, Port Arthur.
Legal Dept.	A. R. Weber, New York.
Treasury Dept.	J. S. Ballard, Houston.
Comptrollers' Dept.	Lee Dawson, Houston.
Sales Dept., S. Territory	B. E. Emerson, Houston.
Sales Dept., N. Territory	P. A. Masterson, New York.
Export Dept.	M. G. Jones, Houston.
Purchasing Dept.	S. Slattery, New York.
Railway Traffic Dept.	J. B. Nielsen, New York.
Producers	J. E. Byrne, Chicago.
	J. W. Painter, Houston.
	P. C. Harvey, Houston.

PIPE LINE DEPT. A fire occurred at our Electra Loading Rack on April 20 in which three T. T. Co. cars and several railroad cars were destroyed. The rack with equipment is practically a total loss.

Ralph McLaughlin of the Houston Office, while cranking an automobile (name of car unknown) broke his right arm near the wrist. This accident incapacitates him from following his regular office duties for several weeks.

H. Fowle was taken to a local hospital on May 1 for an operation for intestinal trouble. The operation was successful and we wish him a speedy recovery.

Ben Davis who has been on pipe line repair work between Shreveport and Beaumont for several months is now back in Houston on his old work. Ben's skin is very much tanned and you might mistake him for one of Villa's bandits.

C. S. Weiss, formerly with the Peden Iron & Steel Co., has accepted a position in our Sour Lake Warehouse.

C. J. McKerran, formerly with the Wolverine Oil Company at Tulsa, has a position in our Pipe Line Office at Tulsa. R. L. Dunkle, Chief Clerk to Sup't J. C. Coligan at Dallas, succeeds Mr. McKerran.

REFINING DEPT. Supt. Mullin of the Lockport Works has returned from Houston where he attended a meeting of the Efficiency Committee.

Wm. Edwards, son of M. Edwards of Providence, R. I., has entered the service at Lockport Works.

A. E. Wiggins, formerly with Chicago & Joliet Ry. Co., has been employed as clerk at Lockport Works.

L. R. Holmes, Gen'l Sup't Northern Terminals, attended the Efficiency Committee meeting at Houston.

F. V. Snyder and O. W. Ryder have entered the service as stock clerks in New York Office of Northern Terminals.

V. J. Romeo has been appointed stenographer in the New York Office.

George De Marteau, Chemist at Bayonne Laboratory, resigned and sailed for France. The boys are sorry to lose his companionship.



While Connection Foreman Will Rinkard, at Kiefer, Okla., was recently directing work on a pipe line which ran past his home, Mrs. Rinkard thinking it a good opportunity to get both their home and her husband while "on the job," had this picture taken without his being aware of her intention. Mr. Rinkard is standing nearest the tree. The scene is typical of the surroundings near Kiefer.

TEXACO STAR

Roger Franklin Decrow, Tester at Bayonne Laboratory, has been transferred to Port Neches Works.

W. T. Bruce of Bayonne Laboratory has been transferred to Norfolk Terminal.

W. E. Hutchins has been appointed fifth member of the First Aid Corps at Bayonne Terminal.

Paul G. Teschner, formerly with Lehigh

Valley Railroad at Jersey City, has been added to the stenographic force at the Bayonne Terminal.

The offices on fourth floor of the new can factory building at Port Arthur Casing Plant were occupied April 1.

Power for the Casing Plant is being supplied from a new 1,000 h. p. generator recently installed in the new Power House.



Hanks: "Pull, Greer, never mind the skeeters—altogether now—her neck is coming."

Ducks: "See the guys from New York! Come—the season is closed."



"I wonder what's the matter with my neck. They sure pulled."



"Normal again, by Heck!"

Delegation of natives from Sabine to thank Hanks and Greer for saving the cow

AN EPIC OF SPRING.—We of Port Arthur had the pleasure of a visit from two wide awake New Yorkers during the month of March, M. D. Greer of the Export Department and F. L. Hanks of the Marine Department, these discerning gentlemen having very sensibly decided in favor of Port Arthur as an ideal spot in which to spend an early spring vacation. The vivid pen of the late and lamented Richard Harding Davis would be required to describe fittingly the adventures of Captain "Macklin" D. Greer and Sir "Free Lance" Hanks while in our midst, and none of our humble staff feels equal to the occasion.

One of their many chivalrous acts of unselfish bravery stands above and outshines all others. We described this heroic escapade, as best we could, to our staff artist at Bath, Maine. That gentleman has been training down his artistic temperament by communing with nature in the great Maine woods and shipyards, and he was able to submit the above works of art right off the bat (without apologies to Frederic Remington) to commemorate this deed of our worthy friends. Messrs. Hanks and Greer, we must say, are very modest in their version of What Happened on the Peaceful Waters of the Port Arthur Canal One Day in Spring. They are not quite sure whether the cow's name was Jake or Maud; but, by persistent application to 17 Battery Place, our readers can no doubt learn more particulars of how the honor of Texaco was upheld by saving of her or his sweet and valuable life and, incidentally, his or her body from the cruel clutches of Davy Jones.

TEXACO STAR

The concrete roadway between the Case and Package Buildings has been completed, which in addition to making a dry walk in wet weather adds much to the attractiveness of the plant.

The Carpenter, Electric, and Pipe Repair Shops at Port Arthur Terminal have been moved into a new building.

Captain Ed Merren left for Rochester, Minn., April 8 to undergo a surgical operation. His many friends wish for an early recovery and return.

L. R. Holmes, Gen'l Sup't Northern Terminals, was a Port Arthur visitor in April.

Sup't W. K. Holmes of Tulsa, Sup't T. Mullin of Lockport, and Manager A. F. Colling, Purchasing Dep't, Chicago, visited Port Arthur in April.

The Texaco Island Stars met their first defeat at the hands of the Fullerton team at Fullerton, La., on April 16. The Fullerton team is considered semi-professional and had a number of ex-league players in their lineup. The Island Stars have played five games this season and this is their first defeat. They trimmed the Texas Refinery team by a score of 8 to 2 in a good swift game at the Lakeshore Diamond on April 9.

On Saturday evening, April 15, Irving C. Tarler, of the Export Department, was the guest of honor of the Texaco Athletic Club at their clubrooms on Fourth Street

to witness the first badger contest of the season. This was Mr. Tarler's first experience in participating in such a contest and he pronounced it a very bloody affair. This ancient sport has survived in parts of Texas and is the source of genuine entertainment to the true native. A visitor is fortunate if he happens to be in the locality when one of these contests is staged.

Water Shipments by The Texas Company from Port Arthur, Texas, Month of April 1916:

DATE	VESSEL	BARRELS	DESTINATION
		Refined.	
2nd	S.S. Georgia	27,004	Delaware River
5th	S.S. Texas	73,782	Bayonne, N. J.
6th	Brg. Tulsa	8,264	Amesville, La.
7th	S.S. Tascalusa	67,377	Dartm'th, Eng.
7th	S.S. Bloomfield	43,762	Dartm'th, Eng.
7th	Brg. Magnolia	7,212	Mobile, Ala.
8th	S.V. D. H. Rivers	7,701	Montevideo
8th	S.S. Turbinia	25,541	South Africa
9th	S.S. Dan	28,328	Messina, Italy
12th	S.S. Florida	11,615	Providence, R. I.
12th	Brg. Dallas	17,497	Providence, R. I.
13th	S.S. Northwestern	22,804	Delaware River
17th	Brg. Tulsa	8,090	Mobile, Ala.
17th	Brg. Magnolia	7,124	Mobile, Ala.
19th	S.S. Socony	2,602	Bayonne, N. J.
20th	S.V. Henry Crosby	3,382	West Indies
20th	S.S. Towa Maru	19,892	Philippines
21st	S.S. Illinois	58,554	Bayonne, N. J.
22nd	S.S. Texas	71,243	Providence, R. I.
24th	S.S. Caloric	67,879	Dartm'th, Eng.
24th	S.S. Georgia	14,429	Providence, R. I.
25th	S.V. Mannie Swan	5,631	South Africa
27th	S.S. Comet	1,634	Bayonne, N. J.
27th	S.S. Prometeo	39,853	Messina, Italy
27th	S.V. Georgia Gilkey	5,108	West Indies
28th	S.S. Arciduca Stefano	23,620	Italy
28th	Brg. Tulsa	8,038	Amesville, La.
28th	Brg. Magnolia	6,929	Amesville, La.
29th	S.S. Alabama	28,952	Norfolk, Va.
	Miscellaneous	2,837	
		716,684	
		Crude.	
2nd	S.S. Georgia	25,708	Delaware River
19th	S.S. Socony	35,402	Bayonne, N. J.
23rd	S.S. Comet	22,570	Bayonne, N. J.
		83,680	

Total: 800,364 barrels.

MARINE DEPT. Joseph F. Carvill, formerly with the Marine Dep't at Port Arthur, is now at the Company's shipyard, Bath, Maine.

Thomas Spence, who has assisted in looking after the construction of several of our vessels, is now located in Bath, Maine, where he has charge of the hull construction of our new ships in our own yard. Mr. Spence is at home in Bath. He is the same Spence who used to build the steel sailing ships in the Arthur Sewall yard.

Carl Kistler will leave New York shortly



Helen Hofman Dalton (22 months), daughter of Mr. and Mrs. Frank Dalton, Pt. Arthur Works

TEXACO STAR

to install and take charge of the Accounting Office of the Company's Shipyard at Bath, Maine. William J. Gaynor will accompany Mr. Kistler as his assistant.

J. E. B. Stuart was cordially welcomed on his return from South Africa. Mr. Stuart is again associated with the Marine Department's Accounting Office.

Lewis S. Vossler and J. G. W. Medley have been added to the staff of the Accounting Office.

H. N. Foster and A. E. Thompson have been employed as stenographers.

The S. S. *New York* completed a successful trial trip and will soon leave New York in regular service.

First Ass't Engineer Leslie M. Brooks, of S. S. *Alabama*, will be united in marriage with Miss Hetty Talbot, of Algiers, La., June 14, 1916.

Mr. W. A. Green is visiting the various District Offices in the South in connection with credit and collection matters.

Raymond Schneider of General Creditman Symms's office, recently wrenched his knee-cap in gymnastic exercises at the local Y. M. C. A. He was laid up for several days, but is now at work again.

Joe Collins, file clerk in Mr. Symms's office, has resigned, and Paul Ford has been employed in his stead.

Mr. Harry Tipper, our genial Advertising Manager, was a pleasant visitor recently. Coincidentally the golf bug worked overtime; if rumors are dependable, he is a hard one to discourage at that pastime.

Dallas District.—Howard Freeman, former wire chief at Gates, Texas, is now fuel oil dispatcher out of Dallas, having succeeded Oscar Smith, deceased.

T. L. (Luke) Robertson, salesman in Atlanta Dist., was a very pleasant visitor to the Dallas office in April.

C. N. Turner, special roofing salesman, was operated on at St. Paul's Sanitarium, April 18; by last reports he is doing nicely.

B. H. Cole, formerly book-keeper in Dallas and Birmingham District Offices, is reported as being very low at Woodlawn Sanitarium, Dallas.

Oklahoma District.—In January the Oklahoma District opened Camden, Ark. Station with C. E. McAllister in charge. We welcome him to the District family and are glad to see that he is putting Camden Station on the map.

In January Pine Bluff, Ark. Station was opened with T. E. Meece, formerly of Houston District, in charge. We are looking for good results among the saw mill trade as Mr. Meece comes to us with an excellent reputation.

A station at Rogers, Ark. has been completed, with H. H. Hoffman in charge. We expect this Station to come to the front.

We welcome W. E. Finch, new City Salesman, Oklahoma City, and from showing made in March we feel we have reason to be proud of this new addition.

El Paso District.—Charles Kash has taken charge of El Paso Station as agent. We welcome Mr. Kash to the District and wish him every success.

B. T. Link and J. B. Wyatt are our recently appointed agents at Los Cruces, N. M., and Clayton, N. M., respectively, and we extend to them a hearty welcome.

With the arrival of Specialty Salesman S. E. Monroe, the Mexican situation is running a bad second in the popularity race. Mr. Monroe's method of demonstrating with samples is without parallel and the results prove the effectiveness of actual demonstration.

Y. D. Grimes, Sales Sheet Desk, left for Marshall, Texas, on a "vacation." We now learn that he was united in marriage with Miss Jessie Marsh on April 19. Congratulations and all good wishes are extended to the happy couple.

The motion picture "Chicago Motor Boat Races," in which Texaco products play a star part, has been shown at most of the agencies in this District. It received a flattering reception in each town and proved to be a very popular picture.

New Orleans District.—R. S. Charles, of the District Office, has resigned.

B. J. Capella was recently employed as Stock Clerk.

R. M. Frellsen has been added to the District Office force as stenographer.

The District Office enjoyed a visit from Mr. C. E. Woodbridge *en route* to New York, and Mr. Harry Tipper also remained over between trains and went into advertising matters in this district with us. Modesty prevents Sup't Cook from stating just how badly he "beat" both these gentlemen at golf—"Ask the man."

On Friday afternoon, April 14, the District Office employes attended the opening game of the Southern League *en masse*. The boys are all rooters for the home team

TEXACO STAR



Uncle (at right) and Niece

Chester Charles Collins, 5 months old, son of Martin J. Collins, Foreman Cooper, New Orleans Station, and Catherine Woods Collins his wife.

Pauline Rosie Collins, 7 months old, daughter of John T. Collins (son of Martin Collins), Shipping Clerk New Orleans Station, and Pauline Elwell Collins his wife.

and were jubilant over the "red hot" victory scored over Birmingham.

R. L. Allison, Agent at Morgan City, has resigned.

Post cards received from P. H. Wilson, Agent at Columbia, S. C., formerly Agent at Jackson, Miss., indicate that he is well pleased with his new territory. Paul was very popular in this District and we wish him every success.

Chas. L. Melaucon recently entered the service as Clerk at Donaldsonville Station.

J. W. Tirado, Agent at Jennings, has resumed his duties after two weeks of severe illness.

Birmingham District.—Our new Birmingham Station is nearly completed, and we expect to move in about June 1.

Newell Brothers, who are users of Texaco products exclusively, are successful bidders for constructing the largest speedway in the south for the Birmingham Motor and Country Club.

Atlanta District.—Manager C. P. Dodge recently favored our District with a visit.

Henry G. Dunn has been added to District Office as Sales Revenue Clerk.

Salesman O. F. Taylor, Anderson, S. C.,

and Agent W. S. Brock, Seneca, S. C., were visitors at District Office recently. Mr. Brock purchased a new truck while here and says he is going to make the people in his territory talk Texaco, dream Texaco, and, "gosh darn it," use Texaco. He will do it too.

Agent P. W. Hudson, Athens, Ga. Station, recently visited Atlanta and also purchased a new truck. He says that with this new equipment he is in position to take care of Athens, Augusta, Macon, and a few other towns. This Hudson party is one confident person.

H. I. Kahn, Lubricating Record Clerk in Birmingham District Office, was a recent visitor to our city. We may be "talking out of turn," but would advise the Birmingham Office to begin saving their loose change; for wedding presents will no doubt soon be in order.

"Uncle Bill" Reynolds is on the war-path in Florida, and when Uncle Bill goes on the war-path there is something doing in the way of contracts, for he will miss a meal to show a prospect that he has the best petroleum products in the world, and when he begins on a prospect my money goes down on Uncle Bill.

O. M. White has been appointed agent at the new Bartow, Fla., Station. We welcome Mr. White into the Texaco family.



Five Point Circle, 2005 Magnolia Ave., Birmingham, Ala.—R. E. Murdy, Clerk and Cashier

TEXACO STAR

W. T. Proctor is another addition to the "Family," having been made agent at new Tallahassee, Fla. Station.

S. B. Perkins, formerly with Orlando, Fla. Station, has been placed in charge of Kissimmee, Fla. Station. Kissimmee can be counted on to make the other new stations look sharp.

L. O. Litchfield, Agent at our new Lakeland, Fla. Station, made an enviable record his first month. We knew "Litch" was *there*, and unless he loses an arm or a leg he is going to be heard from when the votes are counted.

SALES DEPT. BOSTON DISTRICT.—The Lawrence-North Andover Station opened March 10, 1916. J. L. Rolley is Agent, Dugald Campbell, Clerk and Warehouseman, R. C. Hinchliffe and J. J. Haphey, tankwagon drivers. Agent Rolley, who was formerly manager of the Lawrence Baseball Team, put in some strenuous work in getting this Station started. All indications are that it will do a large business, two tank wagons starting out the first day. The night before the opening many prominent business men of Lawrence tendered Mr. Rolley a banquet. Inspector J. W. Riley attended the banquet, which was enjoyed by all.



Pittsfield, Mass. Station, March 17, 1916—14 degrees below zero; 4 feet of snow in yard



Pittsfield, Mass. Station—"Danger" painted in red

Agent J. A. White at Lowell, Mass. has increased his kerosene business 50%. A great part of this increase is due to the fine qualities of our Crystallite for incubator purposes. Many poultry raisers in the vicinity will use no other oil but Texaco Crystallite and are telling their friends about it, thereby creating a big demand.

New York District.—Appointments and changes made since the last issue:

H. D. Eccleston has been transferred from Chicago District to New York District as Chief Accountant to succeed P. A. Philbert, who is now with Department Agent W. R. Ellwood.

L. V. Hoagland, transferred from Operating Inspector Albany Territory to same position Youngstown territory.

H. S. Gruet, transferred from Special Routeman Albany territory to Operating Inspector for same.

E. Neilsen, transferred from Salesman, Youngstown, Ohio, to the District Office as Chief Lubricating Engineer. He will handle technical questions which come up to salesmen in District.

W. S. Chamberlin, transferred from Lubricating Clerk in District Office to Lubricating Salesman, headquarters Schenectady, N. Y., in place of E. C. Fielder, resigned.

W. F. Woodill, Lubricating Salesman in Long Island Territory, has resigned.

W. E. Wesson, transferred from Special Routeman New York Territory to Agent Mount Kisco, N. Y. Station, in place of W. F. Amies, resigned.

Miss H. Schoenberg, stenographer in Mr. W. B. Troy's Office has been assigned to similar position in the District Office.

On April 11 the bowling team representing Brooklyn, Clinton Street Station defeated the New York District Accounting Offices team in total pins for five games. A return match is expected.

Norfolk District.—F. D. Gatchell, C. H. Parker, and D. B. Tobey visited the Norfolk District Office in April. All were glad to see them.

L. C. Oakley, Land Agent of Legal Department, has been spending several weeks in Norfolk Territory. He visited many of

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the Stations accompanied by Sup't Thompson. We understand that Mr. Oakley has acquired the "corn-beef and cabbage" habit. We don't know whether Mr. Clifton got him into this habit or he picked it up himself.

We had a very pleasant visit from J. P. Rooney of New York and Captain Jonassen and Chief Engineer La Price of the new S. S. *Texas*. Several officials in the Norfolk Office visited the new steamship and all are of the opinion that it is a wonderful vessel.

Chief Accountant Price of the Philadelphia District Office visited us in the latter part of March. He was entertained during his stay by Chief Accountant Haden.

We are glad to report the complete recovery of R. H. Royster of Barge *Reid* who recently underwent an operation for appendicitis.

The entire Norfolk District extend deepest sympathy to J. W. Brushwood and his family, who recently lost their father.

R. T. Burnette has been appointed Agent at Farmville, N. C., sub-station to Greenville, N. C.

R. S. Jones has been appointed Agent at Franklin, Va., sub-station to Emporia, Va.

H. H. Waters, Acting Agent at Concord, N. C., *vice* George V. Wakeman transferred to Norfolk Station.

"Jimmie" Hunter, head office boy in District Office, has been promoted to Coupon Clerk. Harold Sydnor has been appointed head office boy. Robert Wilson has been assigned to the work formerly handled by Harold. We hope to see Harold and Robert keep up the good *team work* that was started by Jimmie and Harold.

Manager Haden of the Norfolk Texaco Baseball Team reports that his team is open for games with teams representing Commercial Organizations of this city, or any Company team. The team is composed of District Office men with the exception of short stop Brennan, who hails from the Norfolk Refined Station. His sensational fielding routed out a District Office boy for this position.

If Jesse V. Reed, outfielder on the team, can hit the ball like he can the bull's eye, he will soon be playing with Benny Kauff's team. Jesse, who is a member of Company G, Fourth Regiment of Infantry, Virginia Volunteers, recently made 40 bull's eyes out of 40 shots a perfect score of 200. Just to convince us that this was no accident, the following week he again came out with the honor of being the dead-shot of his Company.

Chicago District—Recent appointments and changes in this District:

S. J. Hunt, appointed Lubricating Salesman, St. Louis, Mo.

H. B. Longshore, of the New York Office, appointed Lubricating Salesman, St. Paul, Minn.

C. H. Bierman, Wm. N. Morrison, Thomas J. Prosser, appointed Motor Oil Campaign Salesmen, St. Louis, Mo.

J. C. Richardson and W. J. Faller, appointed Motor Products Salesmen, Chicago, Ill.

D. S. Heffron, Order Clerk, resigned to accept a position in the Railway Traffic Department. He has been succeeded by D. G. Drummond, formerly Tank Wagon Clerk.

G. W. Anderson entered the service as Tank Wagon Clerk.

It was necessary for our Bonus and Commission Clerk, H. M. Johnson, to undergo an operation at Englewood Hospital April 4. He is now convalescent and will be back at work April 24.



Marian Lucile (18 mos., 35 lbs.), daughter of Mr. and Mrs. C. H. Le Roy—Accounting Office, Chicago District.

EXPORT ST. Blackwell has joined the DEPT. staff of the Export Department.

J. P. Dick has been transferred from Port Arthur Works to the Export Department.

A. H. Hampton sailed from San Juan, Porto Rico, April 14 for St. Thomas, St. Croix, and other islands of the West Indies.

P. Van Wagner sailed from New York April 12 for Rio de Janeiro, Brazil.

V. R. Currie arrived in New York April 7.

F. H. Schlesinger recently arrived in New York after an extensive trip to Scandinavia and other European countries.

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In Dordrecht, Cape Colony, South Africa—Exhibit of Texaco products in the store of Messrs. Knight & Co., one of the customers of The Texas Company (South Africa) Ltd., Cape Town. [The photograph from which this cut was made was so dark that it could not be reproduced satisfactorily by the half-tone process.]



These two pictures were taken at an Auto Polo Exhibition in the Philippine Islands at which Texaco Gasoline and Motor Oils did their bit and received well deserved praise from the players:

Manila, P. I., Feb. 3, 1916.

The Texas Company,
Wise & Co., Ltd.,
Manila, P. I.

Gentlemen:—

As Philippine Agents of The Texas Company, you will no doubt be interested to know that we have used Texaco products in the United States exclusively for the past three years in our Auto Polo Cars. This we consider is the most severe test possible to subject a lubricant or gasoline to, and we are convinced that your Auto Gasoline and Motor Lubricants ensure us of greater speed and power with a minimum consumption, which we were not able to obtain before we used Texaco products.

As you no doubt know, Auto Polo is very strenuous and our cars have to operate under the most severe conditions which any automobile has ever been called on to perform, and we have no hesitation in stating that your Motor Oils and Gasoline have assisted us most materially in the past, and it afforded us great pleasure to find that Texaco Products were obtainable in Manila. . . for our requirements of Motor Oils, Gasoline, and Grease for the 17 Auto Polo Games which we are to play during the coming Philippine Carnival.

Yours very truly,

R. K. Hankinson,
Manager Hankinson's Original Auto Polo.



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SUGGESTIVE INDEX OF CURRENT ARTICLES

THE MAIN INTEREST IS INDICATED BY CLASSIFICATION OR BRIEF COMMENT

Journals cited are gladly loaned, if in our library, to persons connected with the Company. The journal or journals called for will be sent by return mail, unless in the hands of some one who has made a previous request—and in the latter case, as promptly as possible. Please give full and exact mailing address.

- REFINING** Oil Refining, by Dr. F. E. Knoch, Sup't Florence Refinery of United Oil Company—*Oildom*, Feb. 1916.
European Refining Methods, by Leopold Seelenfried—*Oildom*, Feb. 1916.
English Views on Benzol, by W. A. Hall—*National Petroleum News*, Apr. 1916.
Handling Materials in Manufacturing Plants. VI. Trucks and Industrial Cars, by R. L. Streeter—*Engineering Magazine*, Apr. 1916.
- SALES** Sales versus Operating Department, by Dwight T. Farnham—*Engineering Magazine*, Mar. 1916.
"No matter how good the product, or how cheaply it may be sold, if there is not perfect understanding and cooperation between the manufacturing and sales departments, the result will be unsatisfactory."
Make a Real Salesman out of Your Tank Truck Driver—*National Petroleum News*, Mar. 1916.
Daily Care Cuts Truck's Cost of Upkeep—*National Petroleum News*, Mar. 1916.
Big repair bills and time out of service due to driver's lack of watchfulness.
Oil Truck Trailers are not an Economy—*National Petroleum News*, Apr. 1916.
The Diesel Engine and its Applications in Southern California, by W. H. Adams;—The Heavy Oil Engine, Its Present Status and Future Development, by A. H. Goldingham—*Journal of American Society of Mechanical Engineers*, Vol. 37, No. 11, Nov. 1915.
How Big Traction Company Buys Its Oils—*National Petroleum News*, Apr. 1916.
Viscosity and Its Relation to Lubricating Value, by Prof. Alan E. Flowers, *Oildom*, Feb. 1916.
Action of Lubricants in Steam Cylinders, by E. H. Hilpp—*National Petroleum News*, Apr. 1916.
Would Test Viscosity at Temperature Oil is Used, by L. E. Thorp—*National Petroleum News*, Apr. 1916.
Practical Lubrication, by Lieut. G. S. Bryan, U. S. N.—*Oildom*, Mar. 1916.
Reprint from *Journal of American Society of Naval Engineers*.
- EXPORT** Training An Export Manager, by Frederick Sanger—*System*, Mar. 1916.
- SAFETY** Good Policy to Equip Tanks for Protection Against Fire—*Fuel Oil Journal*, Apr. 1916.
Instructions on Handling Gasoline, by George A. Burrell, U. S. Bureau of Mines—*Oildom*, Feb. 1916.
Also in *Automobile Topics*, Jan 15, 1916.
- GENERAL** The Future of the Country's Gasoline Output, by Alexander E. Outerbridge, Jr.—*The Iron Age*, Jan. 27, 1916.
Criticism of sensational exaggerations of availability of Rittman process; description of Hall process.
Fuel Oil from Shale, by Arthur Selwyn-Brown—*Engineering Magazine*, Mar. 1916.
The Importance of Leadership, by H. L. Gantt—*Engineering Magazine*, Apr. 1916.
Finding Who Makes the Mistakes, by Robert P. Wilcox—*System*, Apr. 1916.
What is Service? by M. L. Wilkinson—*System*, Apr. 1916.
Capital Supply After the War, by Prof. Allyn A. Young—*The Annalist*, Mar. 27, 1916.
"Waste much less than popularly supposed. . . . In some measure the wastes of war have merely replaced the wastes of private expenditure."

Time Savers Used by Business Men, by Carroll D. Murphy—*System*, May 1916.

Industrial Research in America, by Raymond F. Bacon—*Scientific Monthly*, Mar. 1916.

Engineering Schools and Industrial Methods, by H. L. Gantt—*Engineering Magazine*, May 1916.

The Engineer as an Economist, by R. Towne—An historic paper read before the American Society of Mechanical Engineers 30 years ago, with an introductory letter from the author—*Engineering Magazine*, Apr. 1916.

Why We Are Not Yet the World's Commercial Center—*The Americas*, April 1916. (The leading article last month in the monthly journal published by The National City Bank of New York.)

Books.—Industrial Leadership, by H. L. Gantt; pp. 128; \$1.00—Yale University Press, New Haven, Conn.

Public administration and Partisan Politics—*Annals of American Academy of Political and Social Science*, Vol. LXIV, Whole Number 153, March 1916.

The Dread of Responsibility, by Emile Faguet, of the French Academy; pp. 212; \$1.25—G. P. Putnam's Sons, New York.



Havana, Cuba—Office and Warehouse
Local Manager Wilson Fisher at right without hat

THE TOUGHEST PROPOSITION AROUND THE PLANT

"All right," said the Superintendent of a Steel Mill in St. Louis, "I'll let you test out your gear dressing, but I'm giving you fair warning. I picked out the toughest proposition around the plant".

You may be sure he did, for the place selected was a set of gears and pinions out in the foundry on the sand mill, running at 100 R. P. M. These gears were SEVERELY EXPOSED. The men transferring sand from the cars did not make any great effort to keep the sand from going on the gears.

The longest life of these gears was six weeks.

Accordingly, the gears were cleaned and

TEXACO CRATER COMPOUND

was applied.

This was on Sept. 27, 1914. Since then there have been only two renewals, bringing the average life of the gear up to six months, an average increase of 300%.

There has been but one renewal of the pinion. This was on Nov. 1, 1915, after a run of one year, one month, and four days. We know that this is an unusual instance, but on April 19th of this year we made another call and found the second pinion in excellent condition after more than 5½ months' service.

These people have saved a small fortune on gear replacement. Furthermore, they have been able to secure

a material increase in service from their equipment.

And the whole cost of the CRATER used in one year was about equal to the cost of one gear and its pinion. We want to be absolutely fair in this matter, and so we'll admit that perhaps there was more attention given to the gears after it was found that these gears COULD be lubricated. But even so, the tremendous increase of gear life points out to you a desirable saving in your plant, particularly now when gears cost so much.

Tell us about your conditions—we'll tell you how CRATER helps.



THE TEXAS COMPANY
Houston - New York



The first intimation of this remarkable performance was obtained from a story sent in by Salesman D. A. Hughes. A follow up served to elaborate and authenticate the details. Perhaps you know of a good record of CRATER. Send it in. We'll use it.

THE ADVERTISING DIVISION



THE LONGEST ROAD IN THE WORLD

FROM CAPE TOWN TO CAIRO

For years the engineers have been pushing through desert, jungle, and forest, over rivers and across lakes—through the heart of the mighty African Continent to construct the longest railroad in the world. This railroad—the dream of the late Cecil Rhodes—is by this time about two-thirds completed. Not long ago the road was pushed from Cape Town northwards 2,250 miles into the Belgian Congo.

At that time the terminus was Kambove, the little African village shown in the illustration.

The first train arriving at Kambove was illuminated with

TEXACO ILLUMINATING OIL

the Red-Star-Green-T brand, made by The Texas Company and known all over the world for its quality.

Even in distant Africa the clear bright light of TEXACO ILLUMINATING OIL is known and favored.

You can procure this excellent burning oil as well as the best oils for any purpose, from any Texaco Agent.

There is one near you.

TEXACO



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