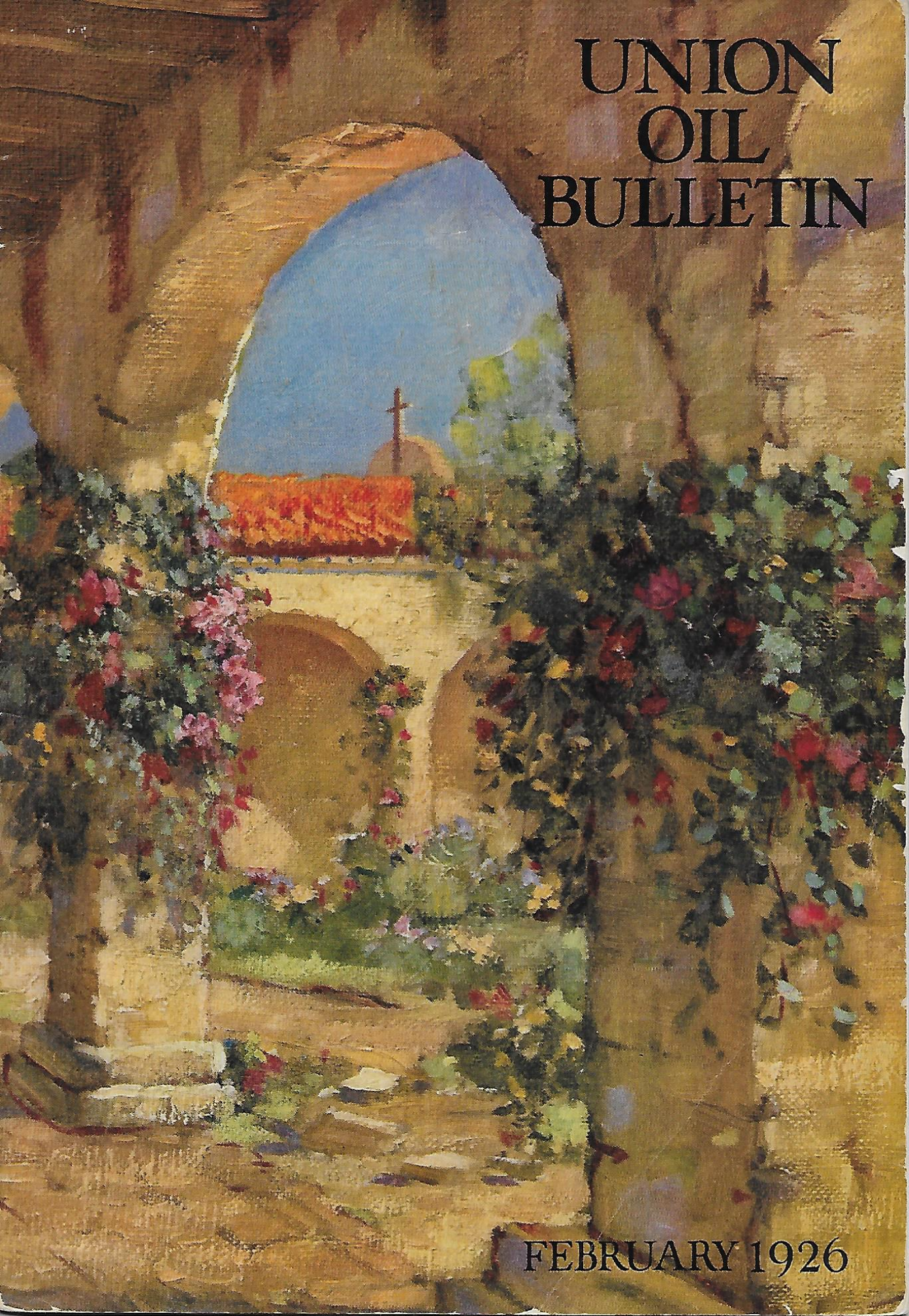

UNION OIL BULLETIN

FEBRUARY 1926

Thousands of *Years ago*

Nature started what our scientists have today transmuted into a powerful, smooth, clean motor-fuel.

Union Gasoline is non-detonating—an inherent quality that has been an eastern laboratory problem since motoring began.

That's why the Union Oil sign marks the preferred service stations with tens of thousands of motorists today.

"BE CAREFUL"
. . . Your attention is directed to the Union Oil Company's great outdoor campaign on behalf of the National Safety Council.
Watch the Posters!

UNION OIL COMPANY

At
Union Oil Service Stations
and *Independent Dealers*
of the First Class
Everywhere

Union
Non-Detonating
Gasoline

Union Oil Company
of California
Also Producers of *Aristo Motor Oil*

UNION OIL BULLETIN

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*E. W. CLARK . . . . . *Executive Vice-President*
*W. W. ORCUTT . . . . . *Vice-President*
*L. P. ST. CLAIR . . . . . *Vice-President*
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PAUL M. GREGG . . . . . *General Counsel*

Published Monthly by the Union Oil Company of California for the information of employees.

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VOLUME V. FEBRUARY, 1926 BULLETIN NO. 12

The Provident Fund

ON July 1, 1923, the Provident Fund was adopted by the Board of Directors, and by that act, men and women of Union Oil Company of California were provided with the most favorable savings plan that had ever been formulated for their benefit. Conceived in the spirit that full enjoyment of the benefits of the Fund would reward employees who give long and faithful service to the company, its success was assured from the outset. Participation in the Fund was not compulsory. The employees, with the promise of the company that it would contribute dollar for dollar with the employee member, were glad of the opportunity to participate in a project which would enable them to acquire greater comforts in old age than would be possible under ordinary saving methods.

The balance sheet as of December 31, 1925, which appears in this issue, tells the story in figures. Under the heading of securities owned there is shown that members of the Fund have indirectly become stockholders through investment of a portion of the combined subscriptions in capital stock of the company. The reserve account shows an accumulation of $111,-349.31 for the year, composed of appreciation on securities held during this period of $31,141.07, credits from members' withdrawals of $55,840.66, and net income for the year of $24,367.58. This net income is derived from interest and dividends amounting to $84,252.94, from which is deducted the interest credited to members' accounts for the year in amount of $53,-480.60, and administering expenses of $6,404.76.

The Fund has provided and is providing an excellent schooling in thrift. Habits easily formed are often hard to lose, and so it is with saving. The monthly contribution which the employee makes to the Fund and which at first probably necessitated certain adjustments in the family budget, soon loses itself in the scheme of things. It is found that what at first seemed impossible of accomplishment can be done, and in that knowledge the employee is stimulated to further thrift efforts.

Since the Fund has been in operation, its total assets have grown to over two million dollars. At December 31, 1925, 3,817 employees were members of the Fund, representing 67% of those eligible, as compared with 52% on December 31, 1924. Employees who wish to join the Fund and pay up back contributions may do so up to February 28, 1926.

Provident Fund

BALANCE SHEET—DECEMBER 31, 1925

ASSETS

Cash with Union Oil Company of California at 6% and in bank		$ 274,750.17
Securities Owned:		
Union Oil Company of California Capital Stock, 13,948 Shares at $38.00	$530,024.00	
Union Oil Associates Capital Stock, 7,506 Shares at $36.27	272,210.76	
	$802,234.76	
Preferred Stocks	370,080.50	
Bonds	516,431.14	
Mortgages	90,742.65	1,779,489.05
Loans to Members		4,231.86
Income Accrued		17,928.94
Accounts Receivable		327.56
		$2,076,727.58

LIABILITIES

Members' Credits:		
Members' Contributions:		
Less Withdrawals and Death Benefits $78,437.07	$902,508.89	
Company's Contributions:		
Less Death Benefits and Transfers to Reserve $78,437.07	902,508.89	$1,805,017.78
Reserve		271,709.80
		$2,076,727.58

INCOME ACCOUNT FOR THE YEAR ENDED DECEMBER 31, 1925

Income from Interest and Dividends		$ 84,252.94
Deduct:		
Expenses of Administering Fund	$ 6,404.76	
Interest at 5% credited to Members' Accounts	53,480.60	59,885.36
Income for the year carried to Reserve		$ 24,367.58

RESERVE ACCOUNT

Credits to Reserve on Members' Withdrawals		$ 73,957.50
Difference between Cost and Market Value of Securities:		
To December 31, 1924	$140,365.62	
Year ended December 31, 1925	31,141.07	171,506.69
Income Account:		
Balance December 31, 1924	$ 1,878.03	
Add Net Income for year as shown above	24,367.58	* 26,245.61
Balance carried to Balance Sheet		$ 271,709.80

**Note:*

Net Income from July 1, 1923 (date of commencement of Fund) to December 31, 1925	$ 97,866.95
Less Interest at 5% credited to Members' Accounts	71,621.34
Total Net Income to December 31, 1925	$ 26,245.61

"Be Careful!"

By L. P. St. Clair

THE increase in vehicular traffic, largely motor-driven, which congests the streets of our cities and crowds the roads of the entire country, is significant of a new era, the "Age of Motion." All branches of industry and society are affected by this great phase of our national development. The benefits of these millions of flexible units of transportation are well known and well demonstrated. They have become an important factor in the improvement of living conditions, permitting the man of limited means and his family to enjoy fresh air and sunshine and a certain sense of independence. The man whose employment in the city formerly compelled him to live in crowded tenements is now able, with the aid of his flivver, to take up his abode in the suburbs or in the country, where life is really worth living.

Industrial plants, because of motor trucks, can now be erected away from congested centers and in many instances are no longer dependent upon the use of railway transportation. Schools, which heretofore had to be built in the centers of population, can now be constructed in larger units and located in more favorable sections, because the children have the advantage of motor bus transportation.

On the other hand, the tremendous increase in the number of machines on the highways has had its dire effect. The number of accidents and fatalities that have occurred as a result of traffic density is truly alarming. Nearly 24,000 persons were killed and probably 500,000 hurt by street and highway accidents during the past year alone. Not all of these accidents are due to carelessness of motorist or pedestrian, and some are not avoidable. The rapid "vertical" growth of cities has made necessary the use by pedestrian and motorist of streets inadequately designed for such huge traffic, with the resultant congestion. Children are inclined to rush into

the streets, their minds intent only upon their play. Pedestrians persist in crossing streets against traffic signals. People will saunter onto the highways oblivious of honking horns and screeching brakes.

Much has been done to minimize the number of accidents on the highways and it is encouraging to learn that, although more accidental deaths occur each year, the ratio of accidents to the number of vehicles is gradually diminishing. Roads are being widened; dangerous curves are being removed, and treacherous highways, through the courtesy of automobile associations, have been posted with danger signals. Traffic intersections are being built wider and plainly marked. Traffic signals have been installed and better regulation of traffic is generally enforced. Ordinances intended to curb reckless driving have been enacted and the enforcement of these ordinances is proceeding regularly and constantly. But with all these things there is much that is yet to be done and many dangers to overcome.

Although every means is taken to prevent accidents and additional laws are passed to curb reckless driving, a sympathetic and agreeable compliance with traffic rules can only be had by educating the motorist.

Motorists do not really mean to be careless but are rather possessed of that characteristic, inherent in the majority of people, which urges them to *take a chance* for the sake of convenience or facility of movement. They must be taught to repress that urge to an extent necessary to safe driving. Once awakened to the lurking dangers of chance taking, and aroused to a sense of fairness for the pedestrian, their fellow-autoist, and to themselves, safe driving practices will prevail.

In discussing preventive and corrective measures in connection with this exigency, it must be borne in mind that there are some drivers whose reaction to all arguments and appeals for safety is unfavorable. Although this class of motorist is fortunately far in the minority, they should not be precluded in the analysis of the traffic problem, otherwise a true perspective cannot be had and a permanent solution reached.

Knowledge of this situation has been the stimulus for countless suggestions by which relief may be attained. There appear to be two angles of approach. One is to punish the driver more effectively when arrested for reckless driving. The second is to impress upon his mind a respect for regulation and the traffic rules that are laid down. The adoption of heavier fines, longer jail sentences, confiscation of machines, and revocation of licenses would probably result in marked improvement. No laws can be completely enforced unless the people in whose interest the laws were passed are respectful of them and willing to observe them.

Traffic experts and students of traffic problems believe the best results can only be attained when an appeal is made to the intelligence of the motorist, his sense of right and wrong, and the conviction that chance taking is hazardous and unnecessary. The education of public opinion to this end has started in every state in the Union. The movement started by Hon. Herbert Hoover at the First National Conference on Street and Highway Safety has been fostered in California by a number of state-wide organizations. Among those to enroll in this worthy cause are the California Development Association, Parent-Teachers Associations, various State Automobile Associations, State Division of Motor Vehicles and the California State Safety Council. These organizations are co-ordinating every effort to further the means of saving lives and preventing accidents, and are endeavoring to make travel on streets and highways safe for both pedestrian and motorist. Their purpose is admirably presented in their safety pledge which is being distributed among drivers of automobiles, and reads as follows:

"I hereby solemnly pledge that I will at all times, to the best of my ability, studiously cultivate, carefully observe, and actively practice all safety precautions to the end that the appalling sacrifice of human life and unnecessary suffering caused by carelessness may be stopped—and the streets of California made safe."

Signed.....

In this humanitarian movement, Union Oil Company of California became an active partner some months ago. Motivated by a sincere desire to help decrease the alarming number of automobile accidents and educate the motorist to safe driving, a decision was reached whereby all of its outdoor advertising space, consisting of some fifteen hundred billboards, would be released to the cause of safety. These locations are scattered all over the company's marketing system and extend from British Columbia to the Mexican boundary.

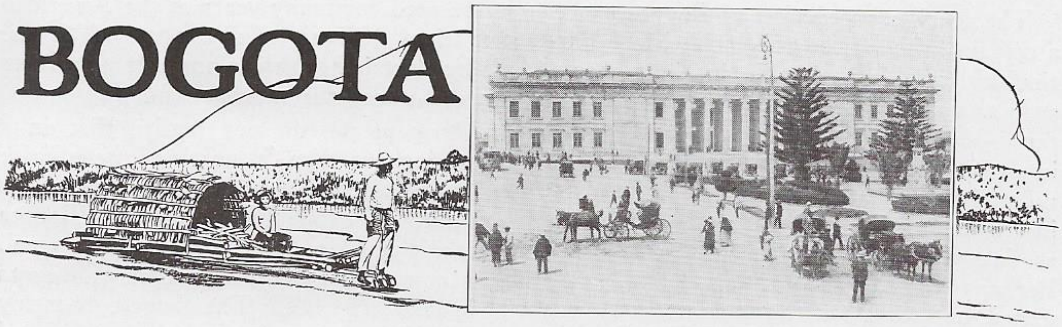
Convincing pictorial arguments, each one treating an important phase of motoring, which has so often been found to result in disaster when carelessly considered, are displayed on these billboards. The appeals are arranged in series. A battery of posters fires its broadside for one whole month, only to be succeeded by more graphic weapons flashing another glaring message the following month. Each fusillade represents just one more attempt to awaken the owners of automobiles to the necessity for greater caution in driving.

The appeal is direct and positive. It strikes at the root of the trouble—the causes of accidents. In none of the posters displayed has any suggestion been made as to what punitive measures should or might be taken with those motorists who, through carelessness, cause untold suffering and death. Rather is the appeal to the finer senses of man; an effort to lead rather than to drive motorists to think and act "Safety." Each poster carries the words "Be Careful" in addition to the particular appeal which is being displayed, the object being to impress on the motorist the absolute necessity for careful thinking, the natural reaction to which will be safe driving.

From the foregoing, it is evident that the consummate aim of these organizations who are shouting the dangers of imprudent motoring is to establish a sort of mythical Brotherhood of Automobile Drivers whose roster will include the complete rank and file of drivers—unselfish persons who really obey all traffic regulations and courtesies, and have for their motto, not "Take a Chance," but instead,

"Be Careful!"

BOGOTA



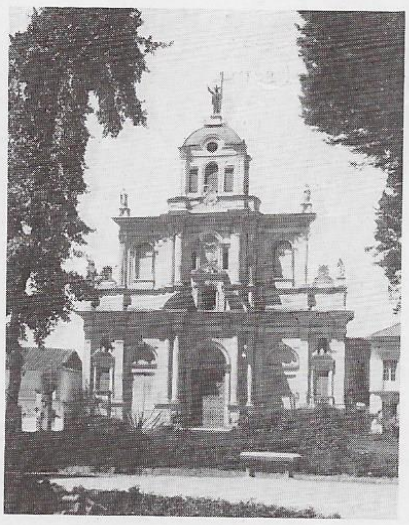
By F. O. MARTIN

The city of Bogota, of which Mr. Martin so interestingly writes in the accompanying article, is the capital of Colombia, a country rich in mineral wealth.

The production of petroleum in Colombia has increased greatly in the last few years, and with promising oil deposits being explored and developed, the petroleum future of Colombia is bright.

Union Oil Company of California owns in fee, large acreage in Colombia, and Mr. Martin has been engaged for some time in reconnaissance work on the property.—EDITOR.

BOGOTA has the unique distinction of being the only capital of any of the South American countries to lack a railroad connection with the ocean. Some other South American capitals lie even farther inland, or have a higher altitude than Bogota, but all have managed for quite a number of years past to build a railroad, which makes them easily accessible from the sea. It would lead too far to go into details why Bogota is the exception, but the two principal reasons for Bogota's isolation are the existence of the Magdalena river and the sectionalism of the Colombian politicians and law makers. The Magdalena river passes west of Bogota within a day's railroad ride, or three days on mule back. The mode of travel on the river has somewhat changed since Quezada in the early part of the sixteenth century first ascended as the Rio Carrare, and then went overland, but the Magdalena river itself has not been improved. As a matter of fact, travel on the upper river is still carried on as it was hundreds of years ago by canoes, champans and balsas. On the lower river, travel is carried on by unsanitary, mostly overcrowded, and comparatively small river boats, but at the same time, one can travel luxuriously in hydroplanes, making the trip from Barranquilla to Girardot in eight hours, including stopping time, which on the river boats takes at least nine days, and sometimes one month. Of course baggage must always go by river, as it would be too expensive to carry much baggage in a hydroplane, and trunks are excluded altogether.



Church in Bogota

In view of the difficulties of getting there, the average traveler is pleased when he finally reaches Bogota, and can settle for a time in one of its hotels. None there can be compared with modern American hotels, and boarding houses would be a better name for them. But the fare is excellent, plentiful, and as far as fruits are concerned, of great variety. The great drawback is lack of running water and scarcity of bathing facilities. It must always be remembered that sanitary conditions in Colombia, and particularly in Bogota, are based on European standards as they existed before the war. The same applies to social conditions. No young lady of Bogota is expected to go anywhere alone, and much less with a sole male escort. This holds good for the poor whites as well as the rich ones.

The foreign population of Bogota exerts a certain influence on the social life. Particularly is this noticeable in light sports, such as tennis and golf, in which the Bogotanos—both male and female—are greatly interested, and have become adepts. I have no statistics about the number of foreigners in Bogota, but I am sure that they range as follows: German, English, American. Perhaps all European nations are represented, but outside of the three nations mentioned, only in small numbers. The English and German are more influential in social and business life, not only because they are more numerous, but because their residence is more permanent. Americans come and go continuously, while English and German business interests have men who specialize in foreign work and therefore very commonly devote their entire life to it, and in many cases marry into prominent families. This applies particularly to the German, and on this account it is easily seen that they acquire quite an influential position socially and in business affairs. Also quite a number of Bogota families have English names.

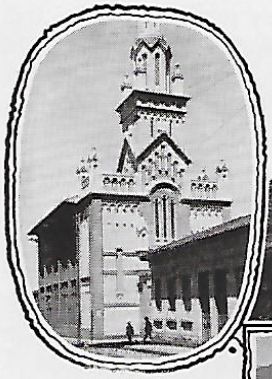
The population of Bogota is estimated to be about 150,000 inhabitants. How many of this number are pure whites is difficult to say; some estimate it at 50 per cent of the total, and some at much less. However, the entire population speaks Spanish. The original Chibcha language of the Indians has long since disappeared. Only the Indians who live entirely separate from the whites, in the llanos and adjoining jungles still have languages of their own, and some of them cannot speak Spanish at all. In Bogota itself the negro is a curiosity, while in the western part of Colombia along the Pacific littoral, and to some extent also on the Caribbean littoral, the negro race predominates in numbers.

The appearance of Bogota reminds one of any other Spanish or South American city. The architecture is the same. The houses do not differ much in their arrangement of rooms and patios from the houses in the hot climates. So in order to keep out the cold and rain, some of the better houses have covered their patios with glass roofs, changing them by this arrangement into conservatories. Very few houses have any heating arrangements, in fact, I only know of one fireplace in Bogota, which the present American Minister has put into the house used for many years as the American Legation. Those who can afford it use either electric heaters or portable petroleum stoves to keep the rooms warm.

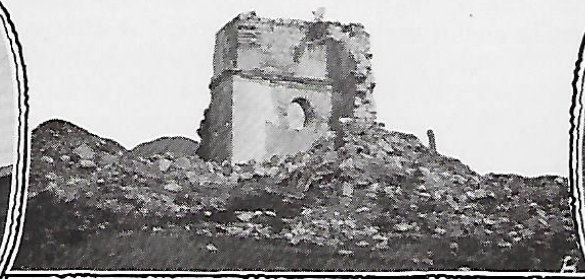
Many people do not realize that in a city lying less than 5° north of the equator one very often freezes. This of course is accounted for by the altitude of Bogota which is 2640 meters above the sea level. The annual middle temperature of Bogota is around 15° C. The lowest monthly middle temperature is about 13½° C., and the highest monthly middle temperature is about 16° C. So it can be seen that there are but small differences in monthly middle temperatures. The greatest changes in temperatures are daily ones, amounting sometimes to 8° C. Extreme temperatures are 23½° C. and 6½° C. These extremes occur in the dry season from January to March, because then the sun's irradiation and nightly radiation are greatest. The annual rainfall ranges between 100 and 200 centimeters, and the average amounts to perhaps 130 centimeters. It rains fairly steadily from March to June and from September to December. From June to August it happens quite often that the rain clouds from the east side of the Cordillera surmount the latter and are precipitated as so-called paramitos, a very cold and disagreeable misty rain.

Bogota was founded on August 6, 1538, by Gonzalo Jimenez de Quezada. An old chronicle describes the founding as follows: "On August 6, 1538, the day on which Catholics celebrate the feast of the transfiguration of the Redeemer, Quezada assembled together all his soldiers in the same place which is now the Plaza de Bolivar. There took place the formalities of the ceremony. Quezada dismounted his horse, pulled some blades of grass, and proclaimed in a loud voice that he was taking formal possession of these lands for the dominion of Emperor Carlos V. and in whose name he found the settlement of Santa Fe de Bogota. Right after, he unsheathed his sword, and struck the ground with it three tmes, mounted his horse and challenged any one who would oppose this act of founding the new settlement, which he would defend even with his life; he then ordered a public writ to be made before the Military Court."

Of the many conquistadores which Spain produced during the first hundred



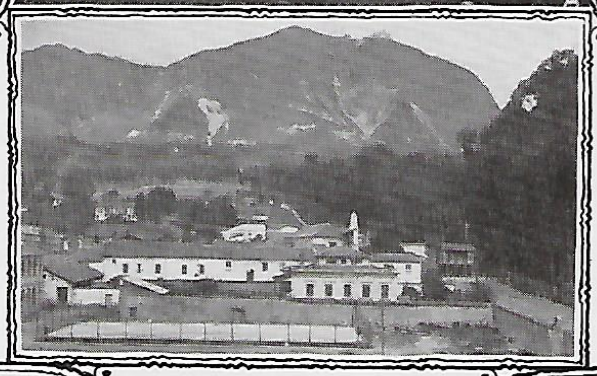
Typical Architecture, Bogota

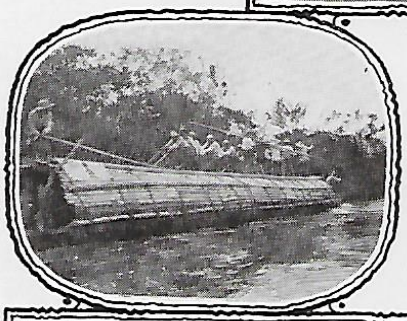


Top Center: Guadalupe Church After Earthquake

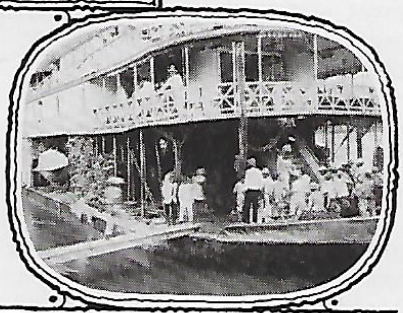
Luna Park, Bogota

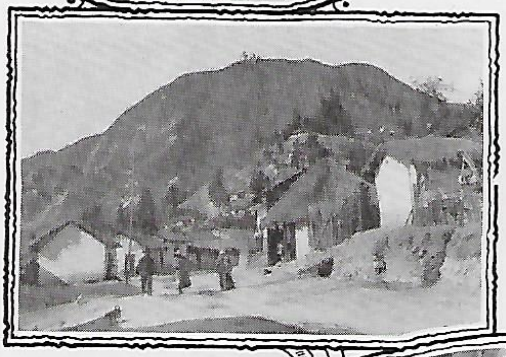
Left: Military Academy, Bogota





Two Modes of River Travel



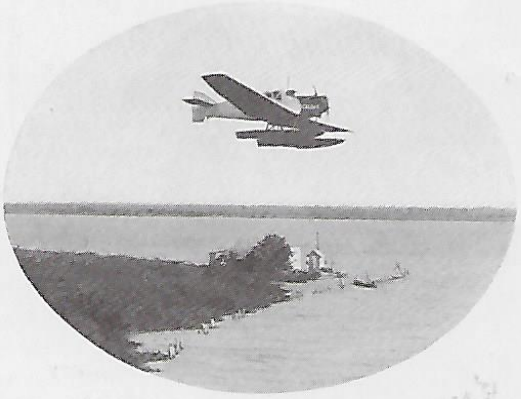


Quaint Huts in Native Quarters, Bogota

Procession of Bogota Soldiers

Patio of Modern Home, Bogota

years after Columbus' discovery of the West Indies and Central and South America, Quezada was no doubt one of the most



"Bogota to the Sea"—Modern

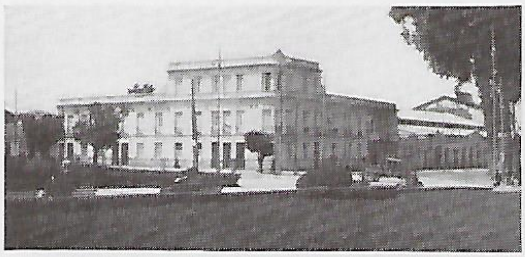
remarkable ones. He was not only an intrepid explorer and warrior, but also a great diplomat. Shortly after Quezada had reached the Bogota plateau he heard that the German explorer, Federman, had crossed the East Cordillera from the llanos somewhat south of Bogota, and that an officer of Pizarro, named Sebastian de Benalcazar, the conqueror of Quito, had penetrated from Ecuador into the Cauca valley towards Cartago. From there he had crossed the Central Cordillera, reached the Magdalena river and ascended from a place near Ambalean towards the Bogota plateau. Quezada had a meeting with Federman and Benalcazar and persuaded both of them to leave him in charge and Federman and Benalcazar returned the way they had come. It has always appeared most wonderful to me how these early explorers succeeded in penetrating into unknown lands, populated at that time with hostile tribes of Indians. Particularly the crossing of the East Cordillera by Federman has interested me, as he must have crossed somewhere near one of the places where I crossed, and I can imagine how difficult it must have been for him with horses and a large crew of men. To keep horses and men supplied with food in the jungle is a more difficult problem than most people realize, and often results in hardships for both man and beast. In fact, the trip of Federman from Lake Maracaibo across the Cordillera of Merida and thence along the foot of the East Cordillera to the river Papamene has, I believe, never been repeated in its entirety. Accidentally, I found on one of my trips to the river Papamene, one of the triangular heavy stirrups made entirely of copper bronze which were used by the Spaniards in the sixteenth century, and perhaps it is one used during said remarkable expedition.

It would lead too far to describe the many interesting historical occurrences of Bogota during the Spanish regime, during the war of Independence, and since. Suffice it to say that Bogota has remained as the

Older Method of Linking Bogota with the Ocean

capital during all the political changes that the present Republic of Colombia has undergone.

Colombians as a rule are very hospitable and particularly so after they become closer acquainted with foreigners. The Colombian



Building in Bogota in which is located Headquarters of Union Oil Company of California

Clubs in Bogota which take the greater part in social activities are the Jockey Club, Gun Club, Polo Club and Country Club. The English and Americans congregate in the Anglo-American Club, and the Germans in the Club Aleman. Most of the large social affairs are held in said clubs, or in hotels, although the different legations also do much entertaining in their own houses, as well as some Colombian families who occupy large and splendidly furnished residences. There is no such club life for women in Bogota as exists in Los Angeles, and other American cities. The women of Bogota spend more time in church than any other place outside of their homes. At the dances one sees mostly only the younger unmarried element of the female sex dancing, while there exists no such restrictions for the male sex.

Nearly each year an Italian Grand Opera Company comes to Bogota to sing in the splendid opera house, which is owned by the Federal Government and supported to some extent, I believe $15,000 per year, by it. In 1924 the Opera Company brought Titta Ruffo along, but I must say that the company went broke, although on Ruffo nights the seats in the pit were sold at $10. However, perhaps the bankruptcy was caused on account of the (for Bogota) high charges. Bogota also supports a conservatory of music and a real good symphony orchestra. It is a pity that the latter only gives one concert a year for the public. However, at special religious occasions, such as a commemoration mass for a rich dead person, the symphony orchestra will play in church. I remember one of the best concerts, instrumental and vocal, I ever heard was at one of such masses, for which the dead party had set aside $3,000 to be spent one year after his death.

The Colombians are more formal in dress than Americans. In this matter, as well as in most other cases, they follow European customs. One often sees in Bogota high hats and afternoon coats, and Americans who have not been in Europe will also be astonished to see the Colombian wear formal full dress on formal state occasions, even during the forenoon and afternoon.

The band of the Republic, which is a very good one, plays Monday evening in the Capitol, and Friday evenings in Santander Park and Sunday forenoons in Independence Park. During two or more other nights during the week, either the Police band or a military band plays concerts in one of the plazas. It is curious that while the Colombians do not hold back at all with applause at the opera or theatre, they do not applaud at all, or at least very seldom at any of the concerts given in an outdoor place. The daylight concerts in the Independence Park are much spoiled by the eternal cries of "bolo" (shine) of the bootblacks and of candy sellers, and of crippled beggars. It is impossible to sit down and listen to the music, as the pestering of these urchins is continuous, even if one takes one shoe shine after the other.

In one way the living conditions in Bogota are better for families than in the United States, and that is the ease and small cost with which a family can secure good and fairly efficient servants. A good cook can be had for $5 to $10 per month, and the house servants can be had for $3 to $6 per month. It is curious that there is no family in Bogota so poor that it cannot keep a still poorer servant. Most of the servants come from outside of Bogota where living is still cheaper than the capital. However, even in Bogota living is much cheaper than in the United States, if one is satisfied with the products of the country. All imported products are about 100 per cent more costly than in the United States, but Colombia itself grows so much and in such a great variety, that an average man does not need importations.

There are not many rich people in Bogota, using the term rich in the American sense.

(Continued on Page 19)

Oil Burning on the Pacific Coast

By J. B. ARTHUR,* Manager Fuel Oil and Asphalt Sales

IN NO place is the question of oil fuel as vital as in California, for here oil is "coal" to a greater degree than obtains in any other American region. Without oil California would be in utter economic dependence on imported coal, so it is but natural that the use of oil fuel should have been pioneered on a commercial scale in this state. Although commercial crude oil production on the Atlantic seaboard ante-dated the discovery of the product here, the use of fuel oil for industrial and domestic purposes there, has yet to attain the universality that attends the product on the Pacific Coast. Not only is this because of the predominance of the oil here and at the same time the lack of coal reserves within the state, but to a large degree the reason lies in the character of the California crudes which produce a larger yield of fuel oil than those obtained elsewhere in the United States.

The necessity of creating a market for the heavier grades of crude produced in California, combined with the almost prohibitive cost of coal, became the mother of invention, and experiments were first undertaken in the oil fields for its utilization as fuel under drilling boilers. On the strength of these experiments, an effort was then made to extend the use of oil fuel to the Marine trade, where its tremendous advantage over other fuels is now fully appreciated.

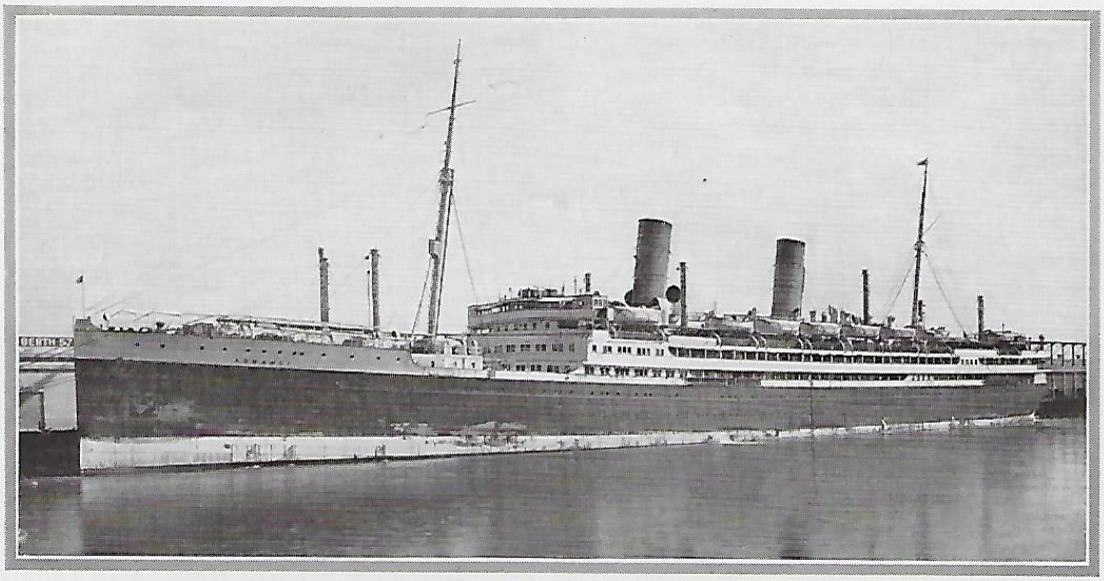
We are informed that the first commercial use of fuel oil as a marine motive power on the Pacific Coast was in the late eighties, when the tug Water Witch attempted to operate with a very crude installation. This, however, did not prove successful, and the experiment was finally abandoned, those who were sponsoring the trial becoming discouraged by the frequency of serious accidents.

A few years later, the S.S. Pasadena renewed the experiment, and so far as we know this was the first sea-going vessel to use oil exclusively as fuel on the Pacific Coast. At about that time, however, an oil-burning ferry boat plying on San Francisco Bay, had an explosion under her boilers, which resulted in several fatalities. This caused such a clamor on the part of the public that the Pasadena was compelled to revert to the use of coal, and later a governmental ruling was made that prohibited the use of oil fuel on passenger-carrying vessels. In 1900, this was countermanded, and by the following year, 23 Pacific Coast vessels were given permission to burn oil, so that we may date back to about 1901 when thinking of the first consistent use of fuel oil by the marine trade.

Concurrently with marine experiments, there was no lack of activity by those engaged in the oil industry, in developing the use of fuel oil for burning under locomotive and stationary boilers. Practically the same difficulties were encountered, with the attendant ridicule that is always in store for the pioneers in such projects, but perseverance won the day, and even before oil was recognized as a satisfactory marine fuel, there were many locomotives as well as many stationary plants operating successfully with oil fuel.

The recorded production of petroleum in this state dates from 1876, when approximately 12,000 barrels were produced. Contrast this with last year's output of crude, estimated at about 230,000,000 barrels, and you get some idea of the tremendous strides that have been made by the industry in California. It is estimated that of our current production about 70 per cent finds its way into the market as fuel oil in some form. Under this general heading, I am considering heavy crudes that are not refined, the regular run of residuum fuel oil, as well as gas oil, diesel oil, smudge oil and stove oil, or as it is sometimes called, stove distillate or furnace oil. Some of the heavier oils produced are utilized as fuel in their crude state, but the quantity of crude so marketed is negligible compared to the bulk of the output, which consists of refinery residuum. In fact, I am informed that in 1924, not more than 10 per cent of the petroleum produced in California was consumed in its natural state. This in itself shows distinct progress in the economies of the industry, as reference to the report of the Committee on Petroleum, California State Council of Defense, published in

*Presented at sixth annual meeting of American Petroleum Institute.



An Oil-Burner in Los Angeles Harbor

1917, states that 60 per cent of the petroleum produced at that time was put through refineries before marketing, leaving 40 per cent to be marketed in its crude or natural state.

At the time this is being written, I understand that the Bureau of Mines is engaged in making an analysis of the distribution of fuel oil on the Pacific Coast as between industries. Pending the issuance of this data, I do not want to make a lot of guesses, but will try and give a general idea of the distribution during 1924. In that year, the total consumption of fuel oil, including that exported, and shipments to the Atlantic, is estimated at 122,000,000 barrels, and this is about the way I would divide it:

	Barrels
Bunker	35,000,000
Railroads	32,000,000
Power plants, including street railways	7,000,000
Exports	18,000,000
Alaska and Hawaii	3,000,000
Atlantic and Gulf Ports	1,000,000
Company operations	5,500,000
Gas-making plants	5,000,000
Cement plants	3,000,000
Shipbuilding plants and steel mills	1,500,000
Sugar mills	1,300,000
Smelters and mines	1,200,000
Logging and lumber	1,000,000
Packing, canning and refrigerating plants	500.000
Other uses	7,000,000
TOTAL	122,000,000

The use of fuel oil in power plants is determined largely by the amount of water available for hydro-electric plants, as the consumption of fuel oil fluctuates widely. For the five Pacific Coast states: in 1920 it was 6,000,000 barrels; 1921, 3,700,000 barrels; 1922, 3,000,000 barrels; 1923, 3,900,000 barrels, and 1924, a little better than 7,000,000 barrels. From the figures for the first ten months of 1925, it looks as if the 1925 consumption would be about 3,000,000 barrels.

The amount of fuel oil used for gas-making purposes is of course determined by weather conditions, though in Southern California we also have another factor, *i.e.*, the amount of natural gas that may be available.

Approximately one-half of all the fuel oil exported from the United States in 1924 (excluding bunker oil on ships engaged in foreign trade) was California fuel oil. Approximately 18,000,000 barrels of fuel oil were exported, which supplied almost the total requirements of Japan, China, western Mexico, the western coast of Canada, Chile and the Philippine Islands. By "total requirements," I mean total imports of fuel oil into these countries, which is a better description, as some of these countries have some production of their own.

Fuel oil, as marketed on this Coast, varies in gravity from 13½ to about 22 Baume, and for the most part falls between 15 and 18. It has always been the object of the company which I represent to educate the consumer to handle the heaviest grade of

fuel oil that might be available, and I think it is important that the industry in general should have the same object in view. It is well known that the buyer gets more for his money if he is properly equipped to burn heavy gravity oil than is the case if his facilities are so constructed that lighter oil

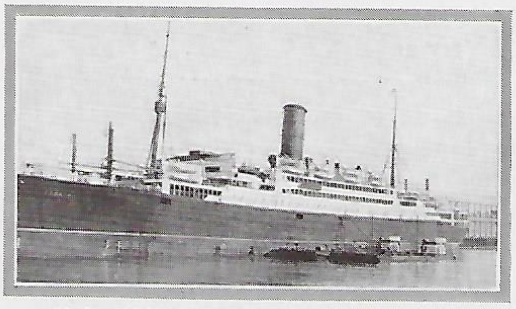
A Fuel-Oil Consumer with a Voracious Appetite

is demanded. Fuel oil is sold by volume and not by weight, and reference to a chart of relative B.T.U. values will show that while the heat units per pound are greater in the lighter oils, the situation is reversed on a per barrel basis. This is not merely theory, but is demonstrated in actual practice. You remember the old story of the youngster who had a big cat and a little cat, and cut a large opening and a small opening in the fence, so that they could both go through. The big hole would have been enough for both. So it is with the user of fuel oil: if he is equipped to handle 14 gravity fuel oil, he will have no difficulty in case he receives oil of 20 gravity.

In emphasizing this at the present time, I have especially in mind the increasing popularity of the diesel engine, and the demand for gas oil for use in cracking operations. Both of these demands will call for increasing quantities of the lighter fuel oil cuts, and furthermore, as cracking becomes more general on this coast, the residuum that is available as fuel oil is bound to be lower in gravity than in the past. While on the subject, I might call attention to the fact that, although Pacific Coast stocks of all products have increased at the average rate of over 2,000,000 barrels per month during the past year, the total increase in stocks of refinable crude for the first eleven months of 1925 (December statistics not having been published as yet) amounted to only 3,500,000 barrels, while during the same period stocks of crude under 20 gravity were increased by nearly 25,000,000 barrels. If this condition continues, there is no question but that fuel oil consumers will have to use heavier oil than has been furnished in the past, and we should be paving the way now by educating the consuming public.

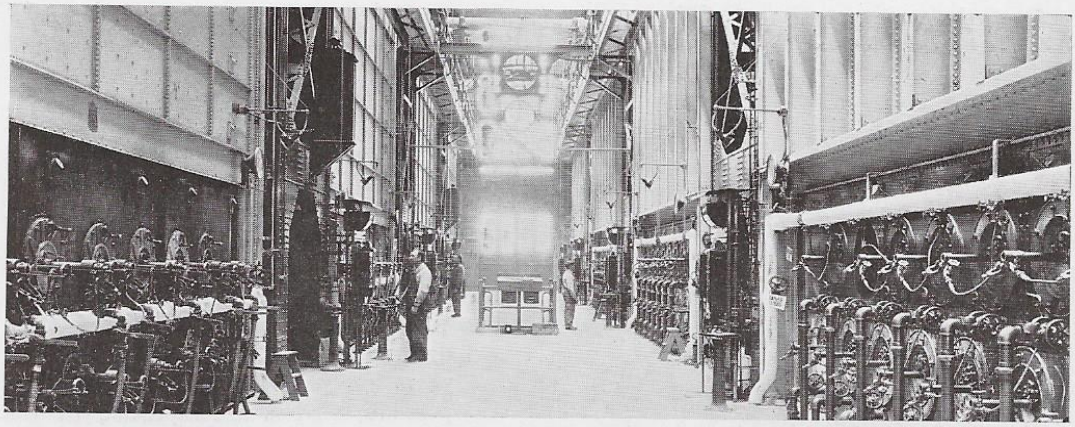
Practically all fuel oil contracts merely specify a minimum gravity of 13½ or 14 Baume, though some marketers make it a practice to raise the minimum gravity specification, and others give written or verbal assurance that they will deliver oil of a higher gravity. This is bad practice, as the consumer who cannot handle the ordinary run of fuel oil, and must have a special product to meet certain conditions, should not be classed as a fuel oil consumer, but should be sold a lighter product to meet his particular requirements. For instance, there are some types of domestic burners, adapted for use in residences and other small buildings, and these are not designed to handle heavy fuel oil which requires heating to make it flow readily, and steam for atomization. The cost of such an installation is prohibitive for the heating of a small building or residence. For such apparatus, an oil similar to that developed for use in diesel engines, or the still lighter product variously known as stove oil, stove distillate or furnace distillate, is more adaptable.

The Diesel engine derives its name from its inventor, Dr. Rudolph Diesel, who, in 1897, after years of difficult experimental work, completed the construction of the first commercially successful motor at Augsburg, Germany. It was nearly fifteen years later, however, before it was considered practical to use this type of power for the



Union Oil Company Barge Serving an Important Customer

propulsion of large ships. The first Diesel-engined ship to arrive on this coast was the M. S. Siam, of the East Asiatic Company, in 1914. When it is considered that in that year Lloyd's Register listed 27 ocean-going ships equipped with Diesel engines, whereas at present there are over 800 vessels, ex-



Battery of oil-fuelled boilers in a stationary plant

clusive of small craft, aggregating about 1,500,000 S.H.P., it will be seen that the Diesel engine has served its probationary period. While we have not made a complete survey, it is estimated that the annual use of Diesel oil on this coast, afloat and ashore, amounts to about 1,500,000 barrels.

Perhaps you have all heard the story of the Los Angeles man who attended a funeral in the East. The deceased was not very well known, and the minister was at a loss for proper words of eulogy, but he knew that some friends of the departed were in the room, and asked if anyone present would like to make a few remarks. After a dead silence, the Los Angeles man could not contain himself any longer, and rising to his feet, said, "If no one else has anything to say, I'd like to say a few words about Los Angeles." So we never lose an opportunity to boost our climate.

In Southern California, we boast of our climate, and rightly so, but there are times when in some localities we must supply artificial heat to save our fruit crops, and the same procedure is followed to some extent at other points along the coast. Smudge pots or heaters are spaced throughout the groves and orchards, the capacity of each pot being between five and ten gallons, and these are filled with an oil similar in character to that marketed as diesel oil. It is sometimes unnecessary to light these heaters during an entire season, but there are sometimes as many as three or four cold snaps during the winter, and the orchard or grove that is properly equipped is insured against the loss of a crop, as the heat engendered by the lighting of these pots is very quickly disseminated and the atmospheric temperature raised to the point of safety. While the volume of oil used for orchard heating is not very large, averaging about 200,000 barrels per season, I thought it worth mentioning because of its general interest; also the fact that it gives me a chance to mention our California climate, without which no speech would be complete, even when addressed to a serious group of oil men.

Fuel oil produced in California is normally distributed from Alaska in the North to Chile on the South, and westward to the Hawaiian Islands and the Orient. On account of freight differentials, very little is railed farther east than Arizona and Nevada. Distributing facilities throughout this territory are very complete, as storage is maintained by the oil companies at all principal centers of distribution, and the consumer can be quickly supplied with his requirements, either by pipe line, steamer, barge, tank car or tank truck, as desired.

Incessant change is the order with oil. The industry is reared on the hazard of output and a study of its history will show that there has been alternate under-production or over-production—the proverbial feast or famine. The problem of correlation of supply and demand has ever been present and is perhaps the most acute of the many that loom ahead. The distribution of fuel oil has become a super-industry, touching every individual, no matter what his station, in some way; directly or remotely. A thorough knowledge of its history and its utilization, and a unified effort to standardize the product and encourage economy in its use and distribution, is the moral and patriotic duty of the leaders of this truly distinctive American industry.

Milestones of Progress — The Rotary Drill

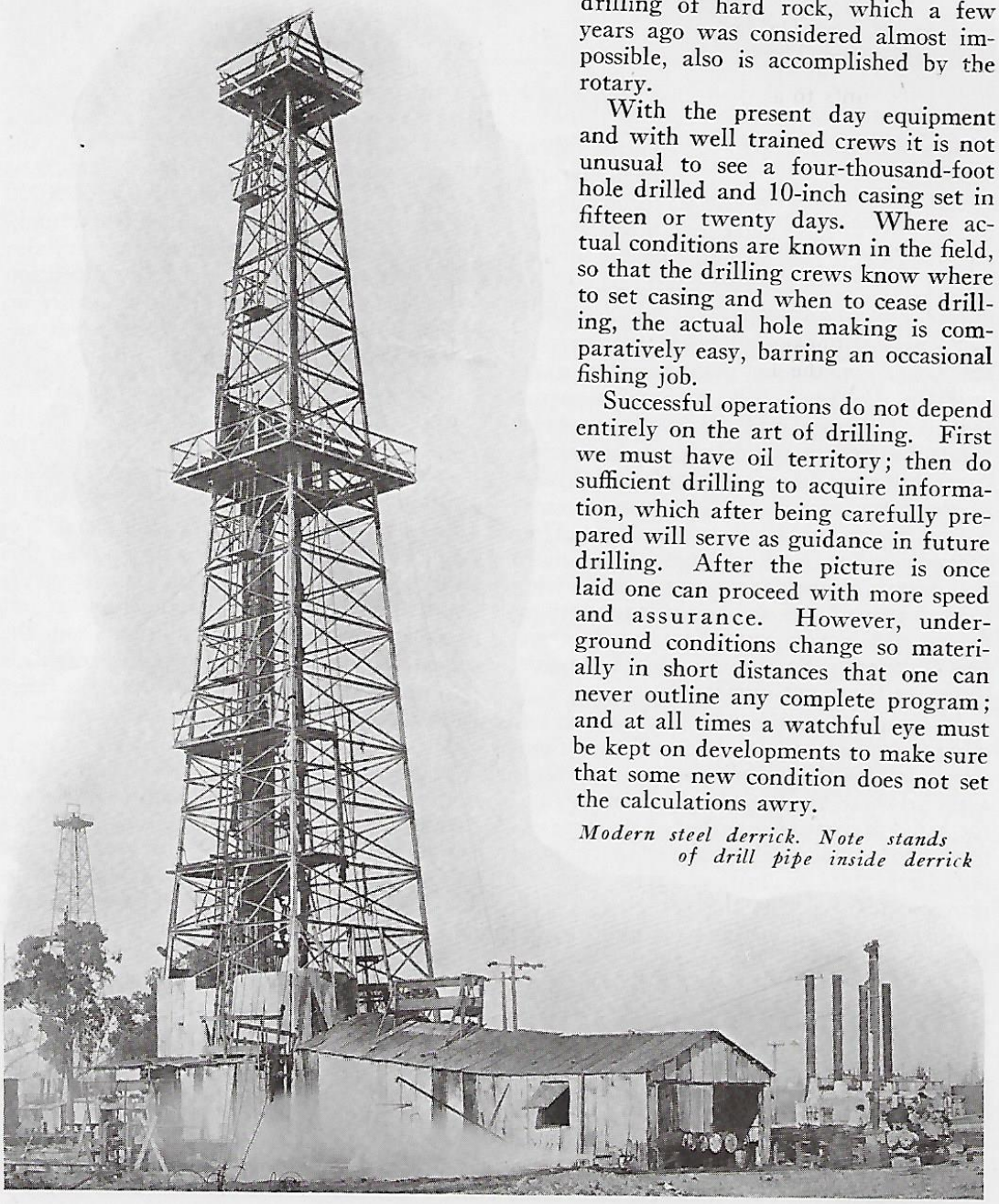
By F. F. HILL, Manager of Field Operations

In previous articles Mr. Hill discussed quite fully the methods of standard tool drilling, and also the early development of drilling wells for oil and other purposes. In this instalment, which concludes the series, Mr. Hill tells of the introduction and development of rotary drilling.—EDITOR.

THE greatest and fastest development in the oil country equipment and in drilling methods has come since the introduction of the rotary about the year 1900, the greatest stride coming in the last four or five years, and proving that not only could great speed be attained in rotary drilling but that casing requirements could be reduced. The drilling of hard rock, which a few years ago was considered almost impossible, also is accomplished by the rotary.

With the present day equipment and with well trained crews it is not unusual to see a four-thousand-foot hole drilled and 10-inch casing set in fifteen or twenty days. Where actual conditions are known in the field, so that the drilling crews know where to set casing and when to cease drilling, the actual hole making is comparatively easy, barring an occasional fishing job.

Successful operations do not depend entirely on the art of drilling. First we must have oil territory; then do sufficient drilling to acquire information, which after being carefully prepared will serve as guidance in future drilling. After the picture is once laid one can proceed with more speed and assurance. However, underground conditions change so materially in short distances that one can never outline any complete program; and at all times a watchful eye must be kept on developments to make sure that some new condition does not set the calculations awry.



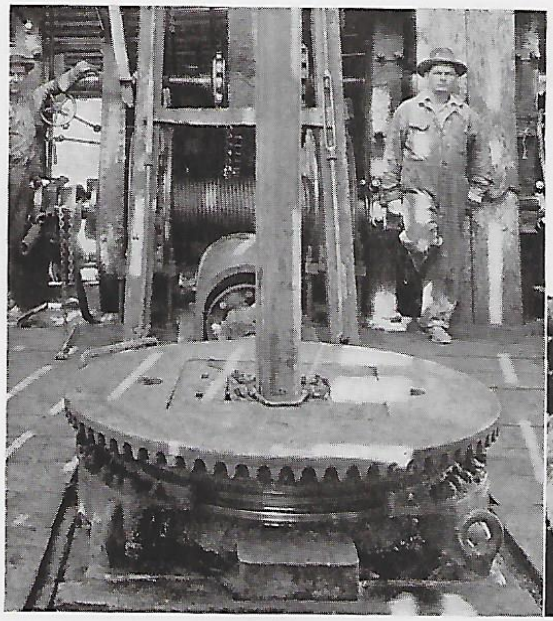
Modern steel derrick. Note stands of drill pipe inside derrick

We have it on pretty good authority that rotary drilling and mudding up the wall of the well first suggested itself through the study of holes burrowed by cray fish. While going through soft formations they use their tail for hammering the walls to make them firm enough to prevent caving and to keep the hole open. This is largely what we do in rotary drilling. The drilling bits are placed on the bottom of a hollow drill stem through which circulates the mud-laden fluid for mudding up the hole and circulating the cuttings. The drill stem is made up in forty-foot sections, each section having a tapered tool joint which provides a means for speedy breaking apart and screwing together and also eliminates the necessity for unscrewing the pipe threads after the drill pipe is once made up. These forty-foot sections are composed of two joints of rotary pipe, and two of the sections, ordinarily referred to as doubles, make what is called a fourble or "stand of drill pipe." They are stood back in the derrick by the drilling crew when it is necessary to pull the pipe out of the hole to change bits or for other reasons.

While drilling, the drill pipe or drill stem is rotated to the right at as rapid a speed as depth, size of pipe, size of hole and other conditions will permit. The hole being full of heavy mud-laden fluid, the centrifugal force of the bit and drill pipe together with the pump pressure tend to force the mud into all cavities.

The slapping and warping of the drill pipe running at considerable speed and constantly hammering against the walls packs the mud and formation firmly about the wall of the well. It is surprising to know how little caving goes on in a deep well, even without casing, where it has been properly drilled and with mud used of the proper consistency.

The average rotary mud in use will weigh approximately seventy pounds to the cubic foot, which is much heavier than an equal amount of water. It is very important to have good mud in rotary drilling, and it is just as important, after having used the mud-laden fluid for circulating purposes, to bring out the cuttings and heavy particles from the bottom of the hole that have been torn loose by the drilling bits. This mud is run through sluice boxes and settling boxes in order that the heavy particles of shale, sand, gravel, etc., might settle out of the slimes which may be again used for continuous circulation down through the drill pipe and up on the outside. If the rotary mud slimes are not thoroughly separated from the heavier and abrasive materials, the carrying back of such materials through the pumps, rotary drilling hose, swivel, bits, etc., will soon cause this equipment to become badly worn, and the maintenance and replacement costs will run into large figures. It will be seen, therefore, that great care must be exercised in eliminating the troublesome material.



On the left is shown rotary table and on right, mud used in rotary drilling

Romance of Gasoline

California's Black Gold

This is the ninth of a series of twelve articles on the history and romance of gasoline proposed by Union Oil Bulletin

SHORTLY after the discovery of gold at Sutter's mill on the American River an occurrence took place in Southern California that meant more to the future of the world than the glittering particles that Marshall found in the tailrace at Sutter's mill.

There was no "rush" to the "diggings", nor was the news sent round the world. Its significance was not realized then, nor for many years after, but it was the precursor of untold wealth to come and the beginning of a California industry that was to give employment to tens of thousands of its citizens.

General Andreas Pico, brother of California's Mexican Governor of that name, had made his peace with Uncle Sam and had settled down to the more prosaic business of ranching at San Fernando, where he had leased the buildings and grounds once held by the Franciscan padres at San Fernando Mission.

Some time before, seepages of "rock oil" had been found in the mountains near Newhall, not far north from San Fernando. They had even reached the importance of "springs" in a few cases, and General Pico determined to see what could be done with this oil. Whether he knew of the developments toward distillation in the East is not known, but he must have had some knowledge of the possibilities, for some of the oil was secured and distilled in a crude still constructed in one of the outbuildings then belonging to the mission plant.

Apparently the results were unsatifactory, for we hear little or nothing of petroleum again in California history until twenty-five years later, when crude petroleum was shipped to the San Jose gas works in 1877, where the oil was used in manufacturing gas under the system patented by L. P. Lowe, son of the late Prof. T. S. C. Lowe, who invented the water-gas process, and built the Mt. Lowe incline railway.

From this field in Moody Gulch, near Santa Clara, oil was later shipped to San Francisco, but this field declined rapidly.

About 1880 Newhall entered the market, and the Pico Canyon district, approximately the same location as furnished General Pico with his crude petroleum in the early fifties, soon reached a production of about 600 barrels a day. These wells were all small producers, but have lasted well, some of them having been commercial producers for upward of forty years.

The Puente Hills district next came to the fore, furnishing oil to the Los Angeles Gas and Electric Company among other consumers. The Kern River, Taft, Midway, Sunset and McKittrick fields were then opened up in the San Joaquin Valley. About this time—around 1890—the seepages just west of Los Angeles were investigated. It was said that these showings were merely surface indications and that there was no oil in any quantity present.

However, a few years later wells were drilled out near Sherman, and in the later nineties derricks multiplied in the shallow field north of Second or Third Street in Los Angeles City and west from North Broadway to the then city limits. These wells became shallower to the east and at North Broadway a small quantity of oil may still be found at depths as shallow as forty or fifty feet. The slope drops off from there very rapidly to the east and no oil has been found as deep as 1800 feet at Mission Road, although indications at that depth have been fair.

A few captains of industry stand out as the pioneers in California's oil development; among these are D. G. Scofield, one of the original promoters of the Pacific Coast Oil Company formed in 1879, who later became President of the Standard Oil Company; Lyman Stewart, founder of Union Oil, referred to by Isaac F. Marcosson, in his "The Black Golconda," as the "grand old man of western oil," Stewart came to California in 1882 and by 1890 had such a grasp of the situation and of its possibilities that he had combined three small companies into the Union Oil Company, which has grown until today it is one of the great producing and marketing organizations in the West.

Santa Fe Springs—a World Wonder in Oil Production. Discovered by Union Oil Company of California

Like Stewart, Edward L. Doheny entered the oil industry without capital. He prospected for years through the West for yellow gold before looking for "black gold." When he did strike oil, however, in Los Angeles in 1893, with his partner, Canfield, it began a development that ended in Pan-American and its affiliated companies. Capt. John Barneson, a former sea captain, fathered General Petroleum and was the first to promote the use of fuel oil for steamships. Thomas O'Donnell began as a day laborer in the San Joaquin fields and worked his way to the head of the California Petroleum Company.

In 1876 the annual production figures for all California reached only 12,000 barrels of crude petroleum. On June 13, 1925, the average daily production for California was 637,000 barrels, and this was by no means the peak. Of this production Southern California, or more particularly the Los Angeles basin, is credited with more than 55 per cent, all of which, except the Torrance and Inglewood fields, is comparatively light oil, high in gasoline content.

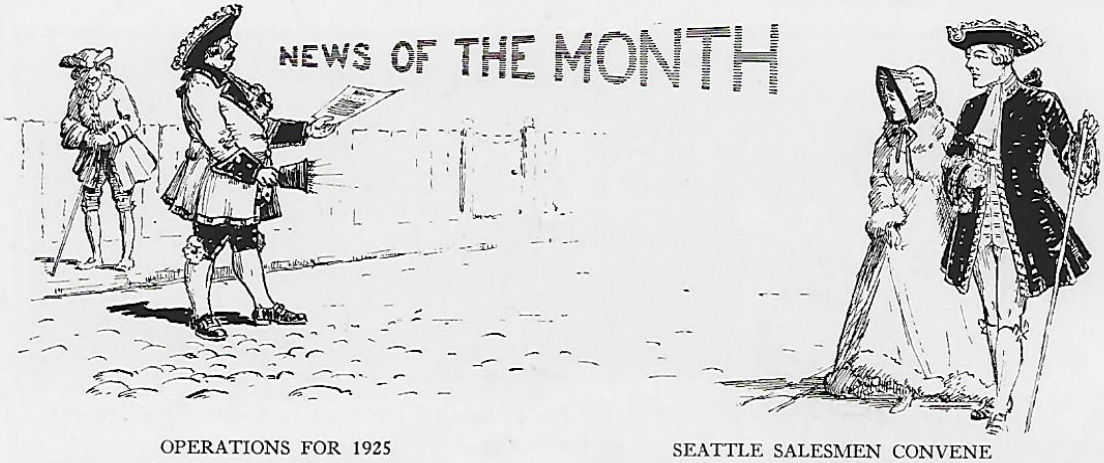
California's present producing fields are as follows: Los Angeles Basin—Santa Fe Springs, Signal Hill, Huntington Beach, Whittier, Fullerton, Coyote Hills, Montebello, Richfield, Compton, Torrance, Salt Lake, Dominguez, Rosecrans-Athens and Inglewood; San Joaquin district—Kern River, McKittrick, Midway-Sunset, Lost Hills-Belridge, Coalinga, Elk Hills and Wheeler Ridge; Coastal Fields—Watsonville, Santa Maria, Ventura, Newhall and Summerland. Of all these fields Inglewood has shown the only material increase in recent weeks, the remaining fields apparently being on the decline, although every effort is being made to develop new production from old fields and from undeveloped districts.

California probably has contributed more toward the scientific production and refining of oils and gasoline than any other part of the world. Whether new developments will keep up with the decline in production of the present fields is a question still to be answered, but the last few years have indicated that they will, although the consumption of gasoline is increasing more rapidly still with an estimated truck and passenger car registration for 1925 of more than 1,500,000.

(NOTE: The tenth article of this series, entitled "Drilling for Oil," will appear next month.)

(Continued from Page 9)

One of the reasons is that the interest rate for mortgages has been 18 per cent annual, and the best government papers pay 10 per cent annual interest. The savings banks pay now 6 per cent annual, and paid 9 per cent only a few years back. I have been reliably informed that even now loans on private property are often made at 24 to 36 per cent annual interest. I do know that the latter rates prevail in small communities distant from Bogota. It can easily be seen that such high rates keep one part of the people forever paying interest, and many of those receiving interest lack the incentive to enlarge their business enterprises, because even a comparatively small capital brings in enough interest to comfortably support a family. These conditions have much improved during the last two years, after Congress had adopted the recommendations of an American expert finance commission, which has tended to reduce interest rates, as stated above.



OPERATIONS FOR 1925

Gross profits from operations of the company for 1925 before deducting depreciation and depletion, etc., were $27,082,278.88, equivalent to 23¼ per cent on the capital stock outstanding. Net profits amounted to $10,513,206.26.

Sales for the year amounted to $74,378,772.20, an increase of $8,428,553.86 over 1924. The total quantity of products sold during the year amounted to 26,863,475 barrels, and in addition, 2,188,912 barrels of fuel oil were delivered against receipts of refining crude.

Production of crude oil totalled 14,574,408 barrels, excluding 387,057 barrels by controlled companies. The average daily gross production at the present time amounts to about 41,000 barrels from 617 producing wells. In addition, 157 wells are shut-in, which are capable of producing 13,000 barrels per day. The company is also purchasing about 51,000 barrels of crude oil per day.

CHURCH LEAVES FOR COLOMBIA

John L. Church, Assistant Manager of Lands, left for Colombia, S. A., early this month on business for the company. He expects to be away from head office for about two months.

NEW PRODUCTION

A total daily yield approximating 2600 barrels of oil was added to the company's production during the month of January through the completion of seven wells.

Jergins No. 3 on the Federal No. 2 lease in the Maricopa-Midway field came in with an initial daily average of 500 barrels.

Colorado contributed 750 barrels daily from the Dumont-Cook No. 1 on the Wellington dome and 125 barrels per day from Water Supply No. 1 on the Fort Collins structure.

Lake Creek No. 1 penetrated the oil sands of the Lake Creek anticline in Wyoming for a daily yield of 250 barrels.

Deepening jobs were completed in the Rosecrans field on Howard Park No. 12 with 600 barrels daily flow, and Howard Park No. 1 with 375 barrels.

AWARD STATE CONTRACT

State-owned automobiles will use Union Non-Detonating gasoline and Aristo motor oil during 1926, the contract for the supply of these commodities having been awarded the company by W. G. McMillin, State Purchasing Agent.

SEATTLE SALESMEN CONVENE

The recent banquet and sales meeting in the Seattle district proved to be one of the most earnest and enthusiastic functions of its kind ever held in that territory. Over two hundred employees were in attendance, representing every sub-station and service station in the Seattle district. Two days were devoted to business sessions. Problems in sales promotion and competitive conditions were discussed with the rank and file of the personnel taking part.

H. F. Warner, District Sales Manager, presided over the business meetings, and was a genial host at the banquet.

KEEN COMPETITION IN BOWLING LEAGUE

The Union Oil Bowling Tournament enters the home stretch with the race a close one. The Lubricating Department, Engineering "Lions" and the Sales and Transportation teams are bunched for first place, with the other teams crowding them closely. Members of all teams are heaving the hefty pellet on its slippery road of destruction with considerable accuracy, and a "battle royal" is predicted during the balance of the schedule.

Fans who exhilarate in the crash of falling timbers and splintering wood should by all means drop in at the Davenport Recreation Center, Pico and Main Streets, Los Angeles, some Tuesday night and cheer for their favorites.

SHERMAN VISITS LOS ANGELES

C. H. Sherman, manager of field operations in the Colorado, Wyoming and New Mexico districts, was a visitor to Los Angeles during the recent convention of the American Petroleum Institute in that city. Mr. Sherman was accompanied by his wife, and James Douglas, the company geologist.

JANUARY U. S. PRODUCTION

Following is the gross estimated production of crude oil in the United States for the month of January:

California	19,223,100
Oklahoma	13,446,855
Texas	10,784,250
Arkansas	5,877,600
Mountain States	3,216,590
Eastern States	3,116,500
Kansas	3,115,090
Louisiana	1,706,550
	60,486,335

OIL CRAFT FROM KRAUTLAND

The new German tank motorship Lumen, the first oil carrier under the German colors to be routed to this port, loaded at the company's docks last month for the return trip to Hamburg. The Lumen is a British built vessel recently launched from the yards of John Brown & Co., Ltd., of Clydebank. The capacity of the boat is approximately 75,000 barrels of oil, and is capable of developing a speed of 11 knots. It is said to be the first of a large fleet of new German Diesel tankers that will be sent here to be loaded by the company.

FEDERSPIEL HEADS 100 PER CENT CLUB

James Federspiel, assistant district sales manager at Seattle, was elected president of the Hundred Per Cent Club of that city at the recent annual election of officers. Mr. Federspiel has long been a popular member of this booster organization, and is contemplating a program for the ensuing year that will convince the citizens of the northern city that the club was well named.

WILDCAT NEAR LA MIRADA

The company's latest wildcat venture was spudded in last month on the McNally Ranch in the La Mirada district, southeast of Santa Fe Springs. George Kammerer, superintendent of the company's operations in that district, is in charge of the work.

NEW PIPE LINE FRANCHISE

The company was recently granted a franchise to lay two pipelines along Telegraph Road from the easterly limits of Santa Paula to Atmore Road by the board of supervisors of Ventura County.

DECEMBER CRUDE PRODUCTION

The total production of crude oil in California for December amounted to 19,249,711 barrels, an average of 620,958 barrels per day. This is a decrease of 15,572 barrels per day under November production.

Total stocks of crude and all products in Pacific Coast territory increased during the month 1,434,952 barrels. The total stocks at the end of the month were 153,795,682 barrels. The total stock increase for 1925 was 28,773,718 barrels.

Fifty-five wells were completed during the month with an initial daily production of 22,761 barrels, compared with 85 wells completed during November with an initial production of 28,404 barrels.

Complete details of production and development by fields for December will be found on page 23.

ACCOUNTING CLASSES

Continuing the program of instruction instituted two years ago, the bookkeeping and accounting classes, open to all employees of the company, which have been so successful in the past will be conducted again this season, the first class having been held February 17th. These classes are maintained for the benefit of employees and all who can are urged to attend. A. H. Hand will conduct the classes on elementary bookkeeping and accounting. The basic principles of accounting, particularly as they apply to the system of accounting used by the company, will be taught in the class conducted by H. H. Hannah.

E. W. CLARK RETAINS OFFICE IN A.P.I.

The choice of helmsmen to guide the destiny of the American Petroleum Institute for the year 1926, which took place at the recent annual meeting in Los Angeles, resulted in the re-election of E. W. Clark, executive vice-president of Union Oil Company of California, as one of the three vice-presidents of the Institute.

The Institute was an outgrowth of the National Petroleum War Service Committee, of which Mr. Clark was a Pacific Coast member. The success of the organization has always been of great interest to him as demonstrated by his activities in its behalf.

A VISITOR FROM JAPAN

T. E. Lake, Far Eastern Manager Union Oil Company of California, accompanied by Mrs. Lake, visited head office in Los Angeles early this month. They expect to return to Japan early in March. Mr. Lake was extremely optimistic over business conditions in the Far East, particularly as they affect Union Oil products, the market for which is continually expanding.

E. G. Martin, Export Manager with headquarters at San Francisco, spent a few days in Los Angeles in company with Mr. Lake.

DISTRIBUTION PLANT IN HOOD RIVER

A new distributing plant for the company is in process of construction at Hood River, Oregon, and will be completed within the next thirty days. This will be the forty-third plant of its kind operated by Union Oil Company of California in the state of Oregon.

Hood River, owing to its location on the Columbia River Highway and the Loop Highway, is ideal as a center for oil and gasoline distribution.

UNION CUSTOMER WINS AT PHOENIX

Arizona speed fans present at the automobile races held in January at the State Fair Grounds, Phoenix, were privileged to witness the shattering of all local track records. Their appreciation was evidenced by the lusty cheers that greeted the winner, Charlie Goldtrap, as he crossed the finish line having covered the fifty miles in the remarkable time of 41 minutes, 42 2-5 seconds.

The knowledge that Goldtrap, as well as the other drivers who participated in the big event, used Union Non-detonating Gasoline in this race with such gratifying success, is significant of the quality of our company's products.

ELECTED DIRECTOR STEAMSHIP BODY

At the annual meeting of the Pacific American Steamship Association held in San Francisco January 28th, William Groundwater, Manager of Transportation, was unanimously elected a director of that association for the ensuing year.

LECTURES ON STATIC MENACE

The agents and special agents of the Los Angeles sales district were given a talk on the subject of "Static Electricity and Its Relation to Marketing Station Fires," by the Secretary of the Safety Board in the early part of January. Meetings were held at Burbank, Wilmington, Riverside, Ventura and Pasadena.

District Sales Manager W. L. Matlock was one of the first to experience a fire at a marketing station due to static electricity. This was at Sanger, California, a good many years ago, but as a result Mr. Matlock has preached the gospel of caution against this ever-present hazard until it has become a hobby with him. Unfortunately, since it has been discovered that static electricity is responsible for some petroleum fires, the general public and some petroleum company employees have gotten the impression that all fires not otherwise explained are due to this phenomenon. The result has been that many fires are classed as static fires when more careful investigation would reveal the fact that matches, open fires around repair shops or even carelessly discarded cigarets are at fault.

It was in order to clear up any misunderstanding that might exist among our own men on this subject that the Safety Board sent Mr. Prussing into the Los Angeles Sales District with Mr. Matlock. The same address on the subject of static and other fires will be given in the other sales districts during 1926.

WANTED: MORE NOISE

The Petroleum Athletic Association basketball league in the Los Angeles district has now been under way several weeks, and the organization representing the Union Oil Company have played six games, winning three and losing three.

The boys have outplayed their opponents in every encounter, but are handicapped by the lack of support from the sidelines so necessary to instill the winning punch in all games requiring speed and endurance. The following schedule is published in the hope that the leather-lunged fans in Los Angeles district will turn out for future games and help the boys administer more and severer spankings to their rivals:

Thursday, Feb. 18, 7:00 P.M.—Union vs. General Petroleum, Lincoln High School.

Friday, Feb. 26, 8:00 P.M.—Union vs. Shell Company, Hollywood High School.

Thursday, March 4, 8:00 P.M.—Union vs. Gilmore Oil Company, Lincoln High School.

Thursday, March 11, 7:00 P.M.—Union vs. Standard Oil Co., Lincoln High School.

Friday, March 19, 8:00 P.M.—Union vs. California Petroleum Co., Hollywood High School.

Friday, March 26, 7:00 P.M.—Union vs. Pan American Petroleum, Hollywood High School.

Friday, April 9, 8:00 P.M.—Union vs. General Petroleum, Hollywood High School.

FIRE HAZARDS LESSENED

A complete Foamite system has been installed at the Los Angeles Shiploading Plant for additional fire protection. Additional fire protection for the Los Angeles Refinery has also been afforded by the extension of its Foamite facilities.

NEW GAS LINES

The company recently completed the laying of new gas gathering lines linking the Snyder and Crane leases in the Ventura district with the Santa Paula Refinery.

S.S. "COALINGA"

The company's tanker "Coalinga" is now in drydock in San Pedro undergoing a complete reconditioning. Decks are being renewed, boilers rebuilt, engines overhauled and the ship made new again.

Twenty-four years ago the tanker was launched in England as the "Pectan." For nearly a quarter of a century she has steamed the shiplanes supplying oil to all the world. In 1909 she was purchased by the Union Oil Company, rechristened the "Coalinga," and was operated for six years under the British flag before she became "Americanized." During her long career she has tasted her share of glory and misfortune, each weathered in the way one would expect of a true "sea-going" craft.

THIS MONTH'S COVER

Perhaps the most colorful of all the landmarks reminiscent of the Spanish dominion in this state that stand out amid the glamour of early Californian history is the famous mission of San Juan Capistrano, often affectionately referred to as "The Queen of Missions," which Artist T. H. McKay has used for the subject of this month's cover.

The dignity, simplicity and picturesque beauty of this time-worn pile of adobe and stone with its profuse setting of flowers and shrubs imbues the visitor with a feeling of reverence for those venerable old brown-robed "padres" who sacrificed so much that their gospel might spread in the new land.

PUMPING SPEED IN PANAMA

Word was received last month from R. C. Worsley, District Sales Manager at Balboa, Canal Zone, that what is thought to be a record both for speed and quantity of oil bunkered on a ship at the Canal was established at Balboa, placing 23,206 barrels of oil, equivalent to 3,450 tons, on board the steamship Oropesa from the company's tank in five and one-quarter hours. This is at the rate of 4,420 barrels per hour, and is believed to be the fastest bunkering rate the Canal oil pumping plants have yet accomplished. Two pumps were used in making the delivery, and still better time could have been made had the ship been able to receive the oil faster. Apparently the sweltering sun-baked tropics have no dilatory effect on Union pumps and personnel.

A. P. I. GOLF TOURNAMENT

A golf tournament was held at the Los Angeles Country Club as a part of the program of the American Petroleum Institute Convention in Los Angeles last month. Those who participated from our company were W. L. Stewart, John McPeak, Paul M. Gregg, G. G. Blue, W. L. Standard, J. B. Arthur, H. C. Ferry, M. F. Robertson, R. W. Martin, Stanley Clark and W. L. Stewart, Jr.

No records were broken by the above, but they all gave a good account of themselves and showed some of the Eastern enthusiasts how the game is played out here. Lunch was served at the Club and after the tournament, the participants were placed in automobiles and joined in a parade with proper police escort through Hollywood to Warner Brothers Studio where an entertainment during the evening took place.

California Oil Statistics, December, 1925

(Figures of Production and Stocks are in Barrels of 42 Gallons)

PRODUCTION

District—	Barrels Per Month	DAILY AVERAGE Dec. 1925	Nov. 1925	Dec. 1924
Kern River	366,916	11,836	12,458	17,856
McKittrick	172,892	5,577	5,718	5,742
Midway-Sunset	2,861,055	92,292	96,208	106,161
Elk Hills	904,651	29,182	30,104	37,710
Lost Hills-Belridge	130,316	4,204	4,559	4,911
Coalinga	578,018	18,646	19,037	24,994
Wheeler Ridge	31,144	1,005	905	885
Watsonville	1,782	57	58	57
Santa Maria	174,029	5,614	5,637	7,478
Summerland	3,983	128	129	146
Ventura-Newhall	1,139,026	36,743	36,823	11,637
Los Angeles-Salt Lake	59,335	1,914	1,992	2,122
Whittier	62,242	2,008	2,058	1,957
Fullerton	432,712	13,958	13,314	11,511
Coyote	528,008	17,033	17,447	20,306
Sante Fe Springs	1,548,441	49,950	51,707	50,641
Montebello	561,151	18,102	18,536	17,485
Richfield	414,081	13,357	14,014	11,512
Huntington Beach	1,436,597	46,342	45,464	41,966
Long Beach	3,378,567	108,986	107,621	125,600
Torrance	976,965	31,515	32,231	44,942
Dominguez	773,487	24,951	26,984	52,937
Rosecrans	762,055	24,582	22,832	7,638
Inglewood	1,950,010	62,904	70,621	101
Newport	2,248	73	70	.....
TOTAL	19,249,711	620,958	636,530	606,294
November	19,095,907	636,530	.....	.....
Decrease	* 153,804	15,572	.....	.....

* Increase.

STOCKS

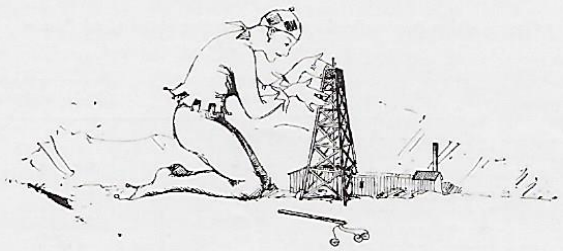
	Dec. 31, 1925	Nov. 30, 1925	Dec. Stock Increases	Dec. 31, 1924
Heavy Crude, heavier than 20° A.P.I., including all grades of fuel	82,849,057	82,149,489	699,568	57,254,796
Refinable Crude, 20° A.P.I., and lighter	44,345,837	44,057,343	288,494	40,574,578
Gasoline	10,172,562	10,015,112	157,450	10,957,487
Naphtha Distillates	6,548,483	6,373,852	174,631	9,396,613
All other stocks	9,879,743	9,764,934	114,809	6,838,490
Total All Stocks	153,795,682	152,360,730	1,434,952	125,021,964

DEVELOPMENT

DISTRICT—	New Rigs Up	Active Drilling	Completed	Daily Initial Output	Active Producing	Abandoned Drillers	Wells Producers
Kern River	3	4	1	5	1,599	..	..
McKittrick	2	6	..	..	302	..	..
Midway-Sunset	13	48	7	1,424	2,906	2	..
Elk Hills	1	7	1	300	240	..	..
Lost Hills-Belridge	..	3	..	..	291	..	..
Coalinga	4	7	..	..	929	..	..
Wheeler Ridge	..	..	2	150	22	2	..
Watsonville	..	..	..	..	6	..	..
Santa Maria	..	8	..	..	251	..	..
Summerland	..	..	..	..	135	..	..
Ventura-Newhall	8	43	1	3,762	591	2	..
Los Angeles-Salt Lake	..	..	..	..	387	..	2
Whittier	1	3	..	..	189	1	..
Fullerton	1	8	..	..	401	..	..
Coyote	1	3	..	..	209	..	1
Sante Fe Springs	1	3	1	350	350	..	3
Montebello	..	8	1	145	163	..	..
Richfield	1	5	..	..	185	..	..
Huntington Beach	4	14	2	274	335	1	..
Long Beach	97	123	27	8,140	620	3	..
Torrance	3	7	3	263	603	1	6
Dominguez	..	2	..	..	62	..	1
Rosecrans	1	23	3	5,098	113	1	..
Inglewood	6	16	5	2,835	171	1	..
Newport	3	4	1	15	9	3	..
Miscellaneous Drilling	22	103	..	..	..	17	..
December	172	448	55	22,761	11,069	34	13
November	102	363	85	28,404	11,029	39	14
Decrease	70 *	85 *	30	5,643	40 *	5	1
Average for Year 1924	103	510	103	42,412	10,903	28	21
Average for Year 1923	111	759	82	114,690	8,928	..	24
Average for Year 1922	115	605	67	43,700	9,410	..	17
Average for Year 1921	90	536	57	15,631	9,425	..	14
Average for Year 1920	77	403	49	14,125	9,299	..	13

* Increase.

Refined and Crude



She: "This little place always had fresh flowers—now I notice you have artificial."

Waiter: "We had to change, Miss; the place got crowded out with vegetarians."

* * *

She: "I'm sorry, but I can't return your ring."

He: "Well, then, just give me the ticket."

* * *

"What did he do when the doctor told him he would have to give up smoking?"

"Began smoking the cigars his wife gave him for Christmas."

* * *

Guide: "Quick! There's a full-grown leopard. Shoot him on the spot!'

Lord Dumbleigh: "Which spot? I say, be specific, my man."

* * *

A suppression of the truth is the suggestion of a falsehood.

* * *

A telegraph pole will never hit your car except in self-defense.

* * *

Him: "You look like a sensible girl. Let's get married."

Her: "Nothing doing. I'm just as sensible as I look."

* * *

All men are born equal. It's what they're born equal to that makes the difference.

* * *

Easy street has a blind end.

* * *

Hot air and cold feet are usually pals.

* * *

"Getting by" is a poor way to get on.

* * *

Diner: "My bill, waiter."
Waiter: "What did you have?"
Diner: "I don't know."
Waiter: "Hash is forty cents."

Use your muscles more and they won't trouble you. You never had the tongue ache.

* * *

Telegram to Friend: "Washout on line, cannot come."

Reply: "Come anyway; borrow a shirt."

* * *

She (demurely): "It's very good of you to ask me to dance."

He: "Don't mention it; it's a charity ball."

* * *

Economy is excellent but not when applied to truth.

* * *

Molly: "Mummy, may I go to the circus this afternoon?"

Mother: "My dear child, what an idea! Fancy going to the circus when your Aunt Emily is here!"

* * *

Mrs. Cassidy: "I wonder why you ever married me?"

Cassidy: "It would take a smarter woman than you are to figure it out."

* * *

Clerk: "My salary is not what it should be."

Employer: "But do you think you could live on it if it were?"

* * *

"Mr. Skaggs," said the landlady firmly, "when are you going to pay your bill?"

"Madam," responded Mr. Skaggs, in a tone of surprise as he struggled manfully to cut the piece of steak on his plate, "I didn't know I had to. I thought I was working it out."

* * *

"Do you find that advertising brings quick results?"

"I should say it does. Why, only the other day we advertised for a night watchman, and that night the safe was robbed."

KINDNESS

By EDGAR A. GUEST

One never knows
How far a word of kindness goes;
One never sees
How far a smile of friendship flees.
Down through the years
The deed forgotten reappears.

One kindly word
The souls of many here has stirred.
Man goes his way
And tells with every passing day,
Until life's end:
"Once unto me he played the friend."

We cannot say
What lips are praising us today.
We cannot tell
Whose prayers ask God to guard us well.
But kindness lives
Beyond the memory of him who gives.

YOUNG & McCALLISTER, INC., L. A.