



UNION
OIL
BULLETIN

SEPTEMBER 1931

Awaiting the Engine

Filled to capacity, this long line of tank cars at the loading rack of the Los Angeles refinery, shown at the left, was awaiting the arrival of an engine when the photograph was taken. The company owns 784 tank cars, approximately 400 of which are used for bulk deliveries of refined oils. One hundred and fifty-five insulated cars are used for the transportation of asphalt and 14 for natural gasoline. Most of the remaining cars are used for fuel oil, while a few carry lubricating oils and special products.

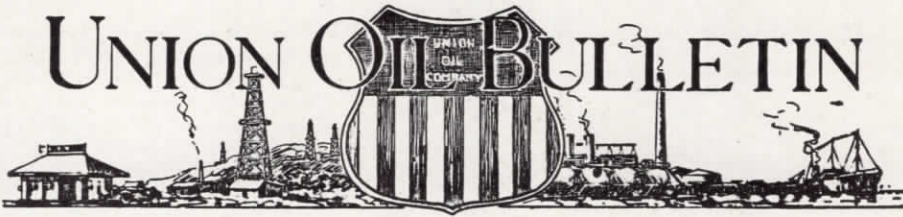


The Bar Swings Up

You are being admitted to the Los Angeles refinery. The bar which blocks the road leading into the plant is being raised to permit your car to pass. The shrub-encircled structure in the background, looking more like a school than an industrial building, houses the refinery administrative offices and the research laboratories. Whether you be president or office boy it takes a pass to get into any of the company's refineries, and you, of course, always park your matches and cigarette lighters with the watchman at the gate.



UNION OIL BULLETIN



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VOLUME XII

SEPTEMBER

BULLETIN No. 9

Group Insurance Benefits Increased

THROUGH recent arrangements made by the Union Oil Company with the Equitable Life Assurance Society of the United States benefits accruing to employees under the Employees' Benefit Fund and Insurance Plan have been materially increased. Employees are now permitted to subscribe to Contributory Group Insurance on a more liberal scale than has heretofore been possible. Approximately 4700 employees are affected by the amended plan which will add \$6,000,000 to the group life insurance carried by the company and bring the total coverage up to \$26,500,000. This amount is divided between Contributory and Non-Contributory Group Insurance; the total of the former being approximately \$17,500,000, and the latter \$9,000,000. In all, 6,000 employees are protected by the two forms of insurance.

The group insurance plan for employees was first entered into in 1915 by the company when it negotiated a contract with the Equitable for Non-contributory Group Insurance totaling \$1,676,000 for 1676 em-

ployees. Policies ranging from \$500 to \$2,000, dependent upon the length of service, were taken out for employees without cost to themselves. This Non-contributory insurance is still in effect and on June 1, of this year, policies totaling \$9,000,000 had been taken out for 5958 employees.

Under the Contributory Group Life Insurance plan put into effect in June, 1925, all employees were made eligible for insurance at the end of the first year of service in amounts ranging from \$1000 to \$8000, depending on their monthly salaries. On June 1, of this year, 5027 employees were insured under this arrangement for \$11,518,750. It is this plan that has been amended and employees with one year's service are now permitted to subscribe to insurance in amounts from \$1000 to \$18,000, depending on their monthly salaries. The premium remains the same as was in effect before, i.e., \$.60 per \$1,000 per month.

The new schedule of Contributory Group Insurance follows:

(See Page 2)

Los Angeles Takes a Look at the Past



In the lower photograph is a view of Broadway and portion of downtown Los Angeles, taken in 1901, when the company moved its head office from Santa Paula to the Tajo building (indicated by arrow) on N. W. corner of First and Broadway. On the left, looking south, is view of Broadway decorated in honor of the city's 150th anniversary. The Tajo building, unchanged in 30 years, is in the right foreground.



LOS ANGELES, celebrating with a ten-day fiesta, (September 4 to 13), the 150th anniversary of its founding, paused to recount the colorful and romantic days of early California and to contemplate the growth of the city from a pueblo of eleven families to the fifth metropolis of the United States with a population of 1,250,000. At the same time the Union Oil Company turning back the pages of its history discovered that its growth in the past three decades has closely paralleled that of Los Angeles.

For instance, in 1901, when the company moved its headquarters from Santa Paula to Los Angeles to start forth on a new era in its development, it was capitalized for \$10,000,000. Today its cap-

italization stands at \$125,000,000, slightly more than twelve times the capitalization of thirty years ago.

The city's population in 1901 was approximately 124,000, less than 10 per cent its present population.

The company's sales considerably less than \$10,000,000 for 1901, attained a total of \$88,000,000 for 1930. Its production of crude oil, which in 1901 was approximately 240,000 barrels for the year, was more than 18,000,000 barrels in 1930.

The bank clearings of Los Angeles, which in 1930 stood at \$8,539,162,067 for the year, represented an advance of more than 1000 per cent for the thirty years, with manufacturing and shipping showing even greater gains.

(Insurance—Continued)

Monthly Salary Class	Amount of Monthly Insurance Premium	350.00 to 399.99	7,000.00	4.20
Under . . \$100.00	\$1,000.00	400.00 to 449.99	9,000.00	5.40
\$100.00 to 149.99	2,000.00	450.00 to 499.99	12,000.00	7.20
150.00 to 199.99	3,000.00	500.00 to 549.99	15,000.00	9.00
200.00 to 249.99	4,000.00	550.00 and over	18,000.00	10.80
250.00 to 299.99	5,000.00			
300.00 to 349.99	6,000.00			

The amount of Contributory Group Insurance carried by employees was automatically increased as of September 1 to correspond with the above schedule.

S. S. Cathwood Calls at Nome

NOME, ALASKA, jutting into the turbulent waters of the Bering Strait—which separates the Americas from Continental Asia, still carries on its quest for gold, a quest which during the bonanza days immediately preceding and following the turn of the current century, filled the pages of its history with a romance and color that has never before or since been equaled.

But, the present day methods of mining gold are a far cry from those which obtained in the years when the gold rush was at its peak. Machinery, shipped in by boat, and modern fuels and lubricants have displaced the pick and shovel and "elbow grease." Gold mining in the vicinity of Nome is today done on a scientific, methodical basis, quite different from that which marked the discovery of the precious ore.

Many boats during the course of a year call at Nome with domestic and industrial supplies. It has taken on new significance in recent months as it has been the refueling point for three of the outstanding aerial ventures of the year: the Post and Gatty, globe-girdling flight (the actual stop was made at Solomon, but the plane flew over Nome); the attempt of the Spirit of Fort Worth to fly from Seattle to Japan,

and the Lindberghs' leisurely trip to the Nipponese kingdom.

The Union Oil Company regularly ships supplies to Nome, last month dispatching more than 13,000 barrels of fuel oil, some 20,000 barrels of Union Diesol, and 1579 packages containing lubricants, greases, gasolines, and kerosene, etc., aboard the Union tanker S.S. Cathwood, under command of Capt. O. Phillipson. Consigned to the United States Stores Company, the supplies are used in power plants maintained for dredging gold in the vicinity of Nome.

Bringing in fuel and lubricants is a tedious enterprise. It is necessary to anchor the tanker more than a mile off-shore and convey cargoes to shore storage by means of barges, the gradual sloping bottom in the bay making it impossible to bring a ship, which draws more than a few feet of water, to the unloading dock.

The editor of the BULLETIN is indebted to William H. Groundwater, son of William Groundwater, director of transportation of the Union Oil Company for the pictures and facts contained in this story. Guests of Capt. Phillipson on the trip to Alaska, young Groundwater, accompanied by his mother and sister, departed from Los Angeles harbor on the S.S. Cathwood June 23, going via the Outside Passage and arriving in Nome July 4.



A summer view of Nome from the air.



When winter comes to Nome.

The barges, which are virtually hollowed rafts having a capacity of approximately 500 barrels, are moved by tugs. They are tied along side the tanker, a supply line from the ship's hold dropped, and the discharging pumps set in operation. When loaded, the barge is moved to shore and another tied up to the tanker. The process is repeated until all cargoes are ashore. The barges discharge at an improvised dock which is equipped with an electric pump for conveying bulk cargoes to storage tanks. The pilings of the dock are joined together by a cable so that when the ice forms and raises the piles, they can be pulled ashore and retained for future use.

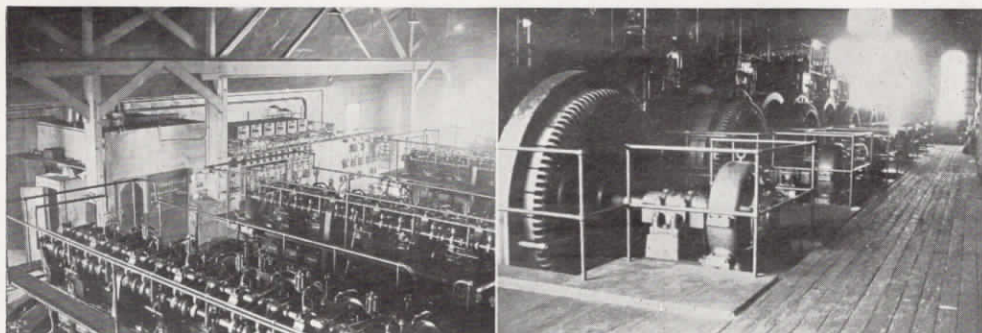
The oil is stored in old tanks, the fuel

going to wooden storages, and the Diesel into a 55,000-barrel steel tank near the power plant. Package goods are stored in warehouses and drawn upon as needed.

The giant dredgers which mine for gold are a sharp contrast to former methods, and have been adopted only after exhaustive tests of different types of similar equipment. Each dredger represents an investment of approximately \$500,000, and is built on the location where the dredging is to be done. It is put together in a large, deep excavation, and when ready for operation, is floated in water. Scooping into the ground around it, the dredger, the operation of which is controlled by one man located in a central control-room,



At the left, above, is the loading wharf at Nome (the tanker in the distance is the S.S. Cathwood), where bulk oils are pumped from barge to shore storage tanks, shown on the right.



Interior view of Diesel plant which supplies power for the dredgers. Union Diesel fuel and lubricants are used extensively in this plant.

takes up the mud and rock in a conveyor. From the conveyor, the rock and muck are dumped into a revolving drum which is liberally punctured with holes through which four streams of water wash the finer particles onto tables. On the tables, the gold is separated from the muck and water. The rock is thrown off

from \$20,000 to \$80,000. Power is supplied the dredgers from a centrally located plant which has six 525 horsepower Diesel engines in constant operation.

The most interesting feature of the entire mining operation is the preparation of the ground for dredging. So solidly frozen is the soil during the winter that it must be thoroughly thawed before it can be worked. The thawing operation consists of driving long pointed pipes down into the ground, and then forcing warm water from a central distribution system through the pipes. The number of pipes used in a given area is dependent upon the degree to which the ground is frozen and the consistency of the soil. Where the ground has been frozen for a long time more pipes are required. The thawing process must be carried out for two or three summers before it is possible for the dredger to work the ground. Gold was first discovered at Nome in 1898.



One of the gold dredgers in operation near Nome.

into a dump and the water returns to the basin in which the dredger is working. At four-week intervals the dredgers are stopped and the gold collected, each dredger yielding gold varying in value



Injecting warm water in the ground to thaw it for dredging.

This Month's Cover

The front cover of this issue of the BULLETIN is a study in photographic composition. The sweeping curves of the massive pipe give a sense of movement to the picture which was taken at the viscosity reduction plant in the company's Los Angeles refinery. Residuum from the crude stills and fuel oil topping plant are treated in the viscosity reduction unit.

The back cover is a photograph of the conservation plant, shown in the foreground, and the newly constructed stabilization plant, in the background. Between 500 and 1000 barrels of gasoline a day is salvaged by the conservation plant from gasoline vapors collected from storage tanks throughout the refinery. Prior to the installation of this plant the vapors from the tanks were vented into the atmosphere. After the gasoline is extracted from the vapors the dry gas is used for fuel within the refinery.

Hawaii's Sugar Industry

By SHEPPARD O. HALLS

Treasurer of Hawaiian Sugar Planters' Association, Honolulu, T. H.

THE Chinese are given credit for being early manufacturers of sugar; they claim to be the first, but there seems to be considerable doubt of this. In some of their ancient works, in the second century, sugar is spoken of as "Kanche," (Kan—sweet and che—bamboo). "It grows in Cochin-China. It is many inches in diameter and resembles bamboo. The stalk broken into fragments, is eatable and very sweet. The juice which is drawn from it is dried in the sun. After some days it becomes sugar."

At the time of their discovery by the white man, sugar cane was found in many islands of the Pacific and this gave rise to the idea that the plant was indigenous, but it has been indisputably proved that this is not the case, that it was carried by the Maoris in their migrations and that this race originally obtained it in India.

Editor's Note—Since 1903 when the Union Oil Company opened its first marketing station in Hawaii, and incidentally the second to be established by the company, it has enjoyed a substantial business among the sugar plantations.

There is a great gap, however, between the discovery of the sugar cane and the present state of the Hawaiian sugar industry. Prior to 1882, when the Planters Labor and Supply Company was formed, there was no organization of the various plantations then in operation in the Territory and comparatively little is available in the way of authentic statistical information for these back years.

The first commercial planting of cane in this Territory was about 1825, when a hundred acres were planted to sugar cane in Manoa Valley. This initial venture lapsed, however, and it was not until 1835 that the industry was placed on a somewhat firm basis with the establishment of a small plantation at Koloa, Kauai, by Ladd and Company, of Boston, Mass. In 1837, 4,286 pounds of sugar were exported from the Islands and this beginning has grown to a production last year of 924,463 tons. In 1882, the year mentioned as the formation of the Planters Labor and Supply Company, which later became the Hawaiian Sugar Planters' Association, the production was 57,089 tons. Today's increase in tonnage



Load of Sugar Cane Arriving at the Mill.



Sub-soiler, used to prepare field for planting, is shown on the left, while on the right, a field is being leveled preparatory to making furrows in which the cane is to be planted.

has not come about without a great amount of scientific cultivation and research. With its limited area and its necessarily high costs under U. S. standards, Hawaii has found it absolutely necessary to employ all the skill at its command to increase production and to obtain the highest extraction possible of sugar from the cane. Fertilizers had to be resorted to, irrigation was a problem to overcome and insect pests were cane enemies to be contended with. It is rather a strange fact that the intense cultivation and other human aids have not in any way exhausted the soil, but, on the contrary, have made it more productive. From 1835 up to about 1855 an average yield of one ton of sugar per acre was considered very satisfactory with the methods of cultivation and the mill machinery then in use. Now the average yield per acre is about 8.18 tons on

irrigated plantations and 5.29 for unirrigated, or an average for both irrigated and unirrigated of 6.88 tons of sugar per acre.

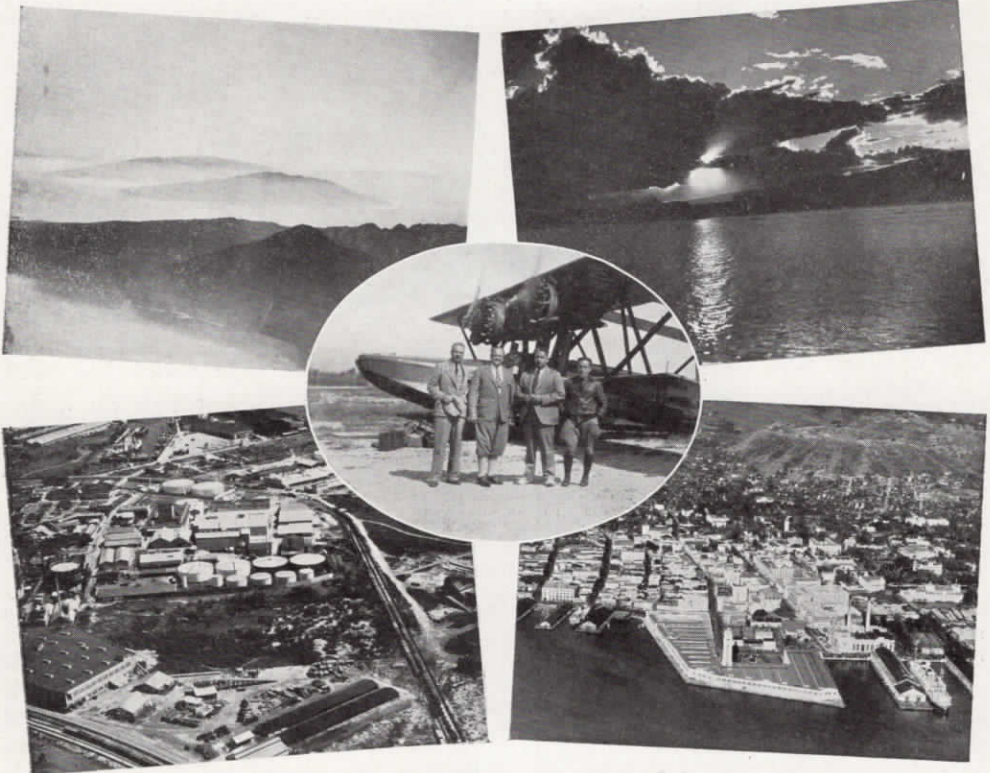
It was estimated in 1883 by a most reliable source that in the whole of the Territory there were but 100,000 acres that might be termed sugar lands and that even the whole of this area could not be utilized, owing to scanty water supply and also on account of location. Today there are close to 243,000 acres under cultivation. To overcome water supply, tunnels have been bored through mountains and artesian wells have been drilled and we have instances of single plantations using daily approximately the same quantity of water as is consumed by a city the size of San Francisco. This development of sugar in Hawaii was principally by American pioneers and the industry is still carried on by their descendants.

The following table shows the sugar manufactured, in short tons, for each plantation for the twelve months ending September 30, 1930:



A new experiment is being made by the Hawaiian Sugar Planters' Experiment Association in the use of a mixture of emulsified asphalt and baggass (the residue left from cane stocks) with certain other ingredients, known only to the Experiment Association, in lining irrigation ditches. The mixture is applied with a spray with the results shown in the above photograph.

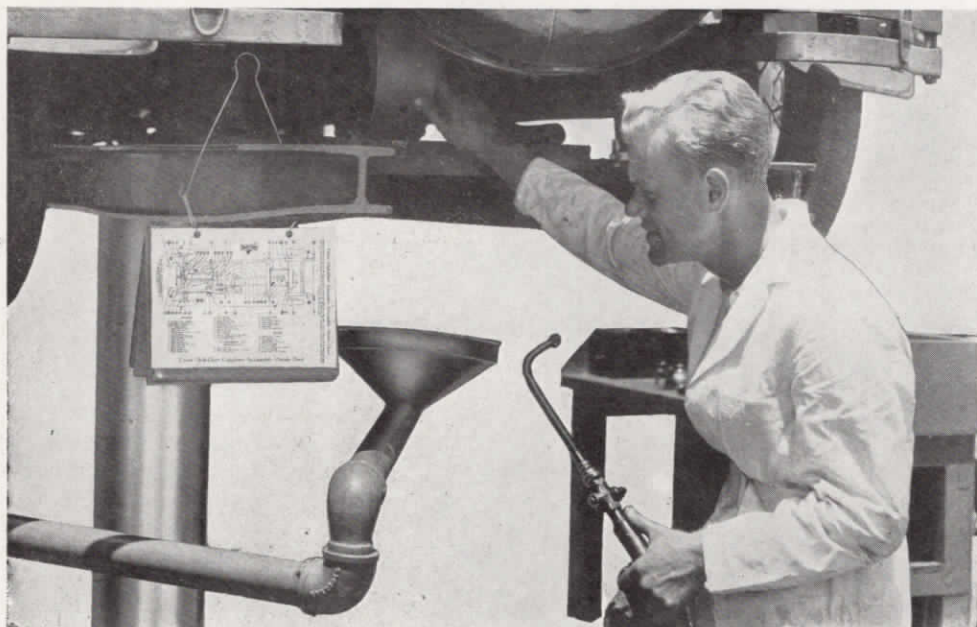
Islands		Total Tons
HAWAII	Tons	
Olaea Sugar Co., Ltd.....	39,850	
Waiakea Mill Co.....	14,280	
Hilo Sugar Co.....	26,487	
Onomea Sugar Co.....	25,146	
Pepeekeo Sugar Co.....	13,988	
Honomu Sugar Co.....	10,146	
Hakalau Plantation Co.....	18,576	
Laupahoehoe Sugar Co.....	16,533	
Kaiwili Sugar Co., Ltd.....	8,395	
Hamakua Mill Co.....	8,933	
Paauihau Sugar Plantation Co.....	11,197	
Honokaa Sugar Co.....	19,826	
Niulii Mill and Plantation.....	3,602	
Kohala Sugar Co.....	9,793	
Union Mill Co.....	4,363	
Hawi Sugar Co., Ltd.....	8,458	
Hutchinson Sugar Plantation Co..	13,199	
Hawaiian Agricultural Co.....	29,630	



Photos by 11th Photo Section, A.C., Luke Field, T.H.

The Island of Oahu, Territory of Hawaii, and Honolulu, as seen from the air by Army fliers from Luke Field. The plant of Union Oil Company is shown in the center of the lower left photograph. In the lower right photograph can be seen the main business section of Honolulu, the principal steamship dock and Aloha tower appearing in the foreground. In the inset, standing in front of one of the Army Sikorsky amphibians, left to right, are Capt. Burte, one of the famous Army aces during the war; Lieut. Col. Gerald Brant, commander of the Air Section in the Islands; Roy Parker, assistant manager Union Oil Company, Honolulu, and Lieut. Tommy Boyd, one of the four pilots who recently jumped to safety during maneuvers when the controls of a bomber became jammed. The quartet landed in the water and floated all afternoon before being picked up.

Islands	Tons	Total Tons	Islands	Tons	Total Tons
Wailea Milling Co.....	4,467		Kahuku Plantation Co.....	14,925	
Homestead Plantation Co., Ltd....	2,121		Laie Plantation.....	4,788	
Puakea Plantation Co., Ltd.....	1,281		Waimanalo Sugar Co.....	8,817	
		290,331			248,152
MAUI			KAUAI		
Pioneer Mill Co., Ltd.....	46,393		Lihue Plantation Co., Ltd.....	36,507	
Olowalu Co.....	2,967		Grove Farm Co., Ltd.....	7,645	
Wailuku Sugar Co.....	18,247		Koloa Sugar Co., The.....	16,913	
Hawaiian Commerc'l & Sugar Co..	72,500		McBryde Sugar Co., Ltd.....	22,192	
Maui Agricultural Co.....	46,015		Hawaiian Sugar Co.....	31,819	
Kaeleku Plantation Co., Ltd.....	5,352		Gay & Robinson.....	5,240	
		191,474	Waimea Sugar Mill Co., The.....	3,172	
OAHU			Kekaha Sugar Co., Ltd.....	35,757	
Honolulu Plantation Co.....	33,241		Kilauea Sugar Plantation Co.....	7,430	
Oahu Sugar Co., Ltd.....	72,879		Makee Sugar Co.....	25,207	
Ewa Plantation Co.....	52,158		Kipu Plantation.....	2,624	
Apokaa Sugar Co., Ltd.....	1,018				194,506
Waianae Co.....	7,209				
Waialua Agricultural Co., Ltd.....	53,117				
			GRAND TOTAL.....		924,463



Thorough, accurate lubrication is assured by the dealer who has a Union Chek-Chart at hand for ready reference. The chart contains a description of each lubrication point on every model and make of car.

Better Automobile Lubrication

IN order to bring the lubrication service of Union Oil stations up to the highest point of efficiency possible, the company is supplying its dealers throughout the Coast, at a minimum cost, a Chek-Chart Service. This provides the dealer with a chart of every make of car, which, in addition to showing every lubrication point on each make of car, also carries the recommendation of the factory and Union research engineers as to the lubricants to be used.

In other words, the Union Chek-Chart turns the spotlight on hidden lubrication fittings that are frequently overlooked and are certain sources of trouble when neglected. It eliminates guesswork. With a chart to guide him, the service station attendant knows whether

he has reached every lubrication fitting and he knows whether he has used the correct oils and greases.

With the steady change in automobile models, it is impossible for the service station operator to remember the lubrication system of each car and the recommended lubricants for each model. Automobile service men declare that the life and efficiency of an automobile is doubled by correct lubrication and the use of proper lubricants.

The dealers who are installing the Chek-Chart are being provided with advertising matter to mail out to the automobile owners in the vicinity of their stations telling of the "Protected Lubrication" service that is now available to them.



Service Emblem Awards



During August three more employees were added to the growing ranks of those who have completed twenty-five years' service with the Union Oil Company when J. M. Rust, treasurer of the company; T. M. Bolton, superintendent

of Port Moody, B. C., refinery, and Alice M. O'Dea, Export Sales Department, San Francisco, were each awarded a third ruby for their service pins. Miss O'Dea is the first woman employee to round out a quarter century of service with the company.

In addition to the three employees completing twenty-five years of service, seven were added to the 20-year list, seven to the 15-year and eleven to the 10-year group.

The San Francisco district office had been established only two years, in August, 1906, when Miss O'Dea, just out of school, went to work at the company's old headquarters at Seventeenth and Illinois streets. John Baker, Jr., was in charge of the sales activities at the time. Following a year in the Sales Department, Miss O'Dea was transferred to the Purchasing Department, returning to the former in 1913. When the Export Department was formed two years later she was assigned to that department and has been with it since that time.

"I have thoroughly enjoyed being a part of such an organization for a quarter of a century," she wrote the other day, "and while it may sound like an eternity to those just starting in; looking back the time seems unbelievably short."

Mr. Rust had completed fifteen years of service with the Santa Fe railroad when he took a position in the Union Oil Company's Accounting Department. His first major promotion came in 1911 when he was elevated to the post of credit manager. Five years later when the Credit division was made a unit of the Treasury Department he was promoted to general credit manager. In 1923, he was elected to the office of assistant treasurer, and on the retirement of R. J. Keown as treasurer in February, 1931, was elected to succeed him.

August 1, 1906, T. M. Bolton obtained his first employment with the company, going to work as production clerk at the Oleum refinery. For the next decade Mr. Bolton worked as gauger, canning house foreman, compound house foreman and refinery foreman at Oleum. In 1918, he was transferred to Los Angeles as su-

perintendent of the Los Angeles lubricating department. The following year he was placed in charge of the Maltha refinery at Bakersfield, Calif. In 1926, he became superintendent of the Vancouver refinery at Port Moody, which position he still fills.

Edward Olsen

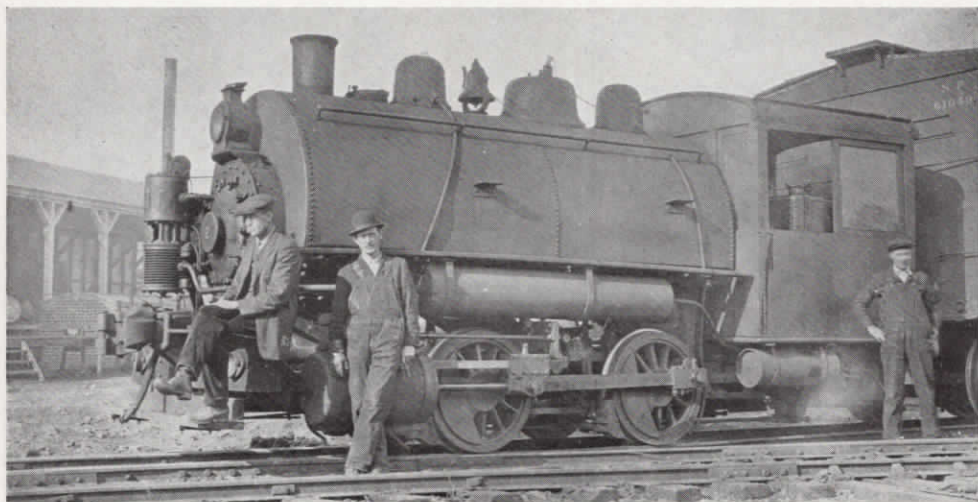
A break of one year in his service deprives Edward Olsen of a record of twenty-eight years of continuous service. He was originally employed as a laborer in 1903 during the construction of the tanks on Refinery Hill at Oleum. He later worked as a fireman on the crude stills for four years at the end of which time he was assigned to the machine shop. He worked there three years before leaving the company for a period of a year, returning in 1911. Fifteen years ago when the refinery obtained its first locomotive he was made switchman for the plant and has served in that capacity since then.

S. A. Allcot

S. A. Allcot was first temporarily employed by the company at Cat Canyon in 1908. Following an absence of two years he returned to Cat Canyon in August, 1911, to work for the Pinal Dome Oil Company, later being transferred as head well puller to the Pinal lease in the Santa Maria field. Following the acquisition of the Pinal Dome properties by Union in 1917 he became lease foreman. Since 1925 he has been stationed in the Lompoc field where gas storage operations are now in progress.

P. J. Collins

When P. J. Collins first went to work for the Union Oil Company at Orcutt he was assigned to the pipe line gang. In the years imme-



Oleum refinery's first locomotive is shown above. In the photograph from left to right are C. Ambrosier, Edward Olsen and J. Rollitt, all of whom are still employed by the company, the first two men at Oleum and Mr. Rollitt at Bakersfield. Mr. Olsen completed twenty years' service with the company last month.

diately following he worked at Summitt, Orcutt and Purissima stations on the Lompoc line. During the past ten years he has been engineer at Junction, Antelope and Middlewater stations.

—○—
G. W. Gosline

Some of the wells which are still being pumped under the jurisdiction of George W. Gosline, district superintendent of Ventura County, were drilled before the Union Oil Company was incorporated and while Gosline was still in the kindergarten stage. The offices he now occupies are in the building used as the first headquarters for the Union Oil Company. The entire 20 years of his service has been in the Ventura district.

—○—
F. H. Hamlin

For the past twenty years F. H. Hamlin has been identified with the Sales Department of the company at San Francisco. Since December, 1929, he has served in the capacity of assistant district manager in San Francisco area, having direct charge of fuel oil, diesel, and asphalt sales.

—○—
A. H. Hand

The youngest twenty-year employee in the company, A. H. Hand, during his service has risen from utility man in the Los Angeles district office to the post of assistant to the controller. From 1915 until last March he served in the refined oil and general accounts division, advancing to the position of auditor of general accounts prior to his most recent promotion.

J. E. Hanna

During his twenty years' employment, J. E. Hanna has seen the Portland district grow from a central plant and one substation to a district comprising 72 substations which embrace the whole of Oregon and a section of Washington. Past and present methods of operation furnish him much food for speculation. Seventy-one his last birthday, he is to retire the first of this month.

—○—
Fifteen Years

Hyde, Luther W.....	So. Div.—Shops
Linden, Royal.....	Spokane Sales
McGurn, Alexis J.....	Purchasing Dept.
Ness, Barney.....	Los Angeles Refinery
Ring, Wm. B.....	San Francisco Sales
Rowlison, Edward W.....	No. Div.—Pipe Line
Tennyson, Frank.....	No. Div.—Field

Ten Years

Augusto, G. M.....	Oakland Sales
Blankinship, Leroy.....	So. Div.—Pipe Line
Fallan, Harry E.....	Los Angeles Sales
Israel, Bergina (Miss).....	Seattle Sales
McMullan, Arthur J.....	Sales Dept.
Nielsen, George.....	So. Div.—Field
Parkinson, R. H.....	Fresno Sales
Schmid, Olga K.....	Gas Dept.
Sutherland, Audley G.....	Los Angeles Refinery
Talbott, Willis.....	Portland Sales
Van Ness, Wm. H. Jr.....	Fresno Sales

When It Rains in Australia



When it rains in Australia the weather man take a yard stick to measure the fall. The above picture was taken at Yenda in Griffith territory after one of the recent downpours. A merchant, who also operates two Atlantic Union pumps, can be seen standing in the doorway with his trousers rolled above his knees waiting to serve any of the motorists who might brave a flooded carburetor or dampened electrical system to get gasoline.

Just Before 59 Derby Flyers Hopped for Cleveland



Scenes at Santa Monica Municipal Airport Sunday afternoon, August 23, at start of annual transcontinental air derby of the National Air Races in which fifteen women and forty-four men pilots participated. The two upper photographs show planes on the line "gassing up" from Union trucks.

Flying every conceivable size and shape of airplane, with speeds ranging from eighty to one hundred and seventy miles per hour, fifteen women and forty-four men took off at one minute intervals from the Santa Monica Municipal Airport Sunday afternoon, August 23, on a 2000-mile handicap derby to Cleveland, Ohio, in one of the feature events of the National Air Races. In addition to glory, the participants in the derby had as an incentive \$25,000 in prizes. While the women were not in direct competition with the men they were eligible for the grand prize which was won by Phoebe Omlie of Mem-

phis, Tenn. Being a handicap race the pilot with a slow ship had the same chance of winning as the pilot in the fastest planes.

C. F. Lienesch, special representative of the Union Oil Company, who has directed the women's transcontinental air derbies from the West Coast since their inauguration in 1929, was in charge of the women's flight again this year.

A majority of the men and women entrants fueled their planes from the Union pit or Union truck at the Santa Monica Municipal Airport prior to taking off.

Union Fly Spray Finds Ready Market

Union Fly Spray, a scented insecticide, which has all the lethal properties essential for the successful dispatching of flies, and all forms of insect life that commonly harass the householder, but none of the disagreeable characteristics inherent in products of this nature previously sold, has won high favor in the few weeks that it has been on the market. Present indications point to its establishment as one of the most popular specialty products so far marketed by the company. Its distribution is now coastwide.

The spray is put up in pint, quart and gallon containers and comes scented in two odors—mint and floral. While costing considerably less per volumetric measure than other insecticides, it is being marketed on a quality and not a price basis. It sells for 50 cents a pint, 85 cents a quart and \$2.55 a gallon. An excellent spray gun is being sold with the spray.

Union Fly Spray is not injurious to human life, but is fatal to flies, mosquitoes, moths, ants, bedbugs, roaches and most other insects. When properly atomized, as is possible in the Union spray gun, it does not harm or stain fabrics, rugs, tapestries, or wearing apparel. Its particular appeal lies in the fact that no disagreeable odor permeates the room in which it has been used.

While non-inflammable under ordinary conditions, it should not be used near an open flame.



Window displays advertise new fly spray.

Union Gas and Oils Used for Heavy Duty Work



Supplying mixed concrete is one of the principal enterprises of the Melrose Building Materials Company and Makin & Kennedy, Inc., of Oakland, whose fleet of Mack trucks is shown above. A capacity load of mixed concrete not only taxes the power of the heavy duty trucks, but is a real test of the stamina of the gasoline and lubricants as well. In the above photograph Mr. Makin of the firm of Makin & Kennedy, is pointing out the trucks to J. E. Schmidt, assistant district manager of Union Oil Company in charge of sales in the Oakland district. The others in the photograph, from right to left, are John Maguire, special representative, Oakland; R. V. Martin, salesman of Union Oil Company, and a representative of the Quality Concrete Company. Union products are used one hundred per cent.

Sold in One Day by Five Fresno District Employees



Above is a display of Union Oil products sold in one day by five members of the Fresno District office during a sales campaign in which employees, not regularly on the sales force, participated. The super salesmen from left to right are: L. L. Lorimer, V. E. Browne, E. C. Smallin, E. J. Luly and Mrs. L. Francinou.

Lake Chelan Outing



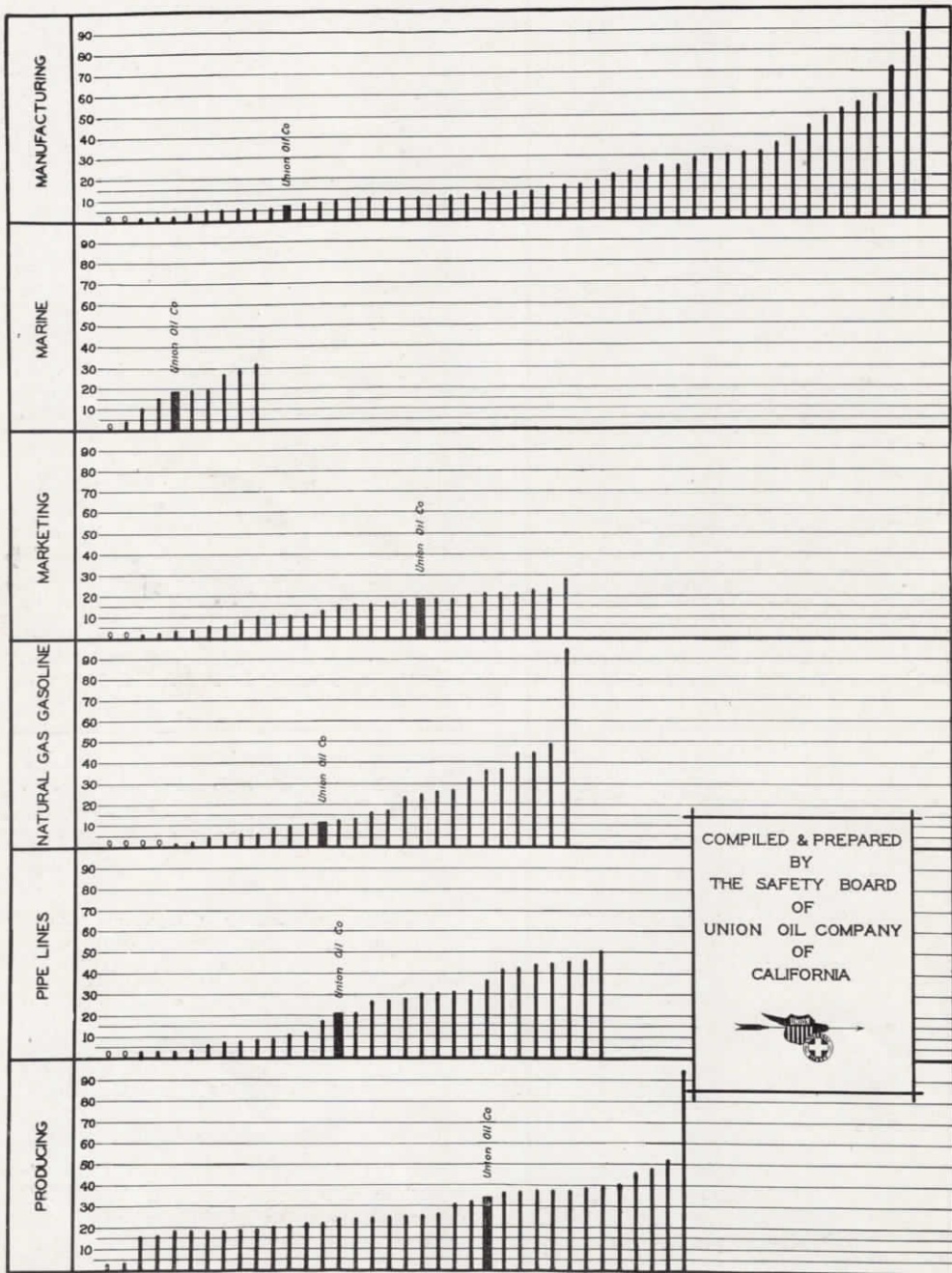
Culminating a successful general lubricating oil campaign in the Wenatchee Special Agency of the Spokane District, a picnic of the employees of the Special Agency was held August 9th, 1931, on Lake Chelan at the Lake Chelan Chateau.

Seventy employees and their families enjoyed swimming and boating on picturesque Lake Chelan which is considered the Lucerne of America.

Provident Fund Statements

In future, the individual statements of accounts of the Provident Fund will be forwarded to each member once a year, as provided in Section 21 of the Provident Fund Booklet, instead of semi-annually. These statements, which will be sent out in January, will show the status of each member's account as of December 31st of the preceding year. Statements for any other period may be procured upon request to the offices of the Fund.

COMPARISON OF ACCIDENT FREQUENCIES* FOR 1930
 PREPARED FROM STATISTICS COMPILED BY NATIONAL SAFETY COUNCIL



*Frequency is the number of lost time accidents per million man-hours worked

Each line on the chart represents the accident frequency of some oil company reporting its statistics to the National Safety Council. For the purpose of comparison, Union Oil Company's position in each of the operating groups is shown by a heavy line.

REFINED AND CRUDE



By RICHARD SNEDDON

It has just come to our notice that inhabitants of the Polar regions live entirely on whale oil, and blubber. We Americans subsist on a much more diversified diet and do the same thing.

* * *

And, regarding these Polar expeditions, we have often wondered why anyone should go off searching for new continents, when we are having so much trouble with the old ones.

* * *

Two steps forward and six backwards is the feature movement of a new fox trot that is to be introduced this winter. Plumbers will have no trouble with that one.

* * *

After all, the difference between learning to drive a car and learning to play golf, is simply that when you are learning to play golf you don't hit anything.

* * *

And although, in a general way, it is no sin to play golf on Sunday, the way some people play it is a crime any day in the week.

* * *

Incidentally, it is said that on Sunday many jazz musicians play classical music for their own enjoyment. So far as we are concerned they play jazz music on week days for the same reason.

* * *

At the hour of birth, says an authority, human intelligence stands at the zero mark. Which proves that some adults weren't always as dumb as they are now.

* * *

Also, according to medical theory, dark patches under the eyes may be due to defective teeth, but in domestic circles they are usually due to a faulty alibi.

* * *

A six hundred pound swordfish was recently caught off Newport Beach, and we understand it took three fishermen standing in a row to tell the size of it.

That's where the golfer has it on the fisherman. He doesn't have to produce a thing to prove his story.

* * *

And by simply observing the energy with which he spades, you can always tell whether a man is gardening or digging for worms.

* * *

"Yes, sir," said the bald-headed barber to his Scotch customer, "Here is a preparation I can recommend. It makes the hair grow in twenty-four hours." "Aweel," said the Scot, "ye can gi'e the top o' your head a wee rub, and I'll be back in the morning to see if you're tellin' the truth."

* * *

We have often wondered if it wouldn't be a good idea to inoculate these wildcat promotors with bumble-bee serum. You know, after he stings you once, the bumble bee dies.

* * *

An automobile engineer claims the car of the future will have 150 inch wheelbase. The width, however, will remain about the same as that of a prostrate pedestrian.

* * *

A government pamphlet tells us that there are five billion birds in America. If we ever catch the bird who stole the nozzle off the garden hose, there will only be 4,999,999,999.

* * *

"Tommy," said the teacher, "what is one-fifth of three-sevenths?" "I don't know exactly," replied Tommy, "but it isn't enough to worry about." —Orcadian.

* * *

Perhaps the laziest man we know is the fellow who bought a model T Ford so that he wouldn't have to shake the ashes off his cigarette.

* * *

And strange as it may seem, some of the most pleasant automobile salesmen give you the Willys.

* * *

In conclusion, if you have tried your hand at something and failed, try using your head. It may make a difference.

