\* UNION OIL BULLETIN

October 1936



# UNION OIL BULLETIN



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# Seattle's City Light Skagit Project

ABOUT 100 miles from the City of Seattle, on the beautiful Skagit River, at a point where the stream flows between towering cliffs thousands of feet high, is situated the Gorge Plant, the first unit in Seattle's justlyfamous Skagit power project. This plant consists of a large reinforced concrete building containing three large hydro-electric generators, designed to operate under a head of 375 feet, but temporarily functioning under a 270-feet head, pending completion of a high dam at the Gorge intake. The first two units in this plant were completed in 1924, along with complete foundations and penstock for the third, which was finished, and began delivering current in May, 1929. The Gorge Plant has a total capacity of 55,000 kilowatts at the present reduced head.

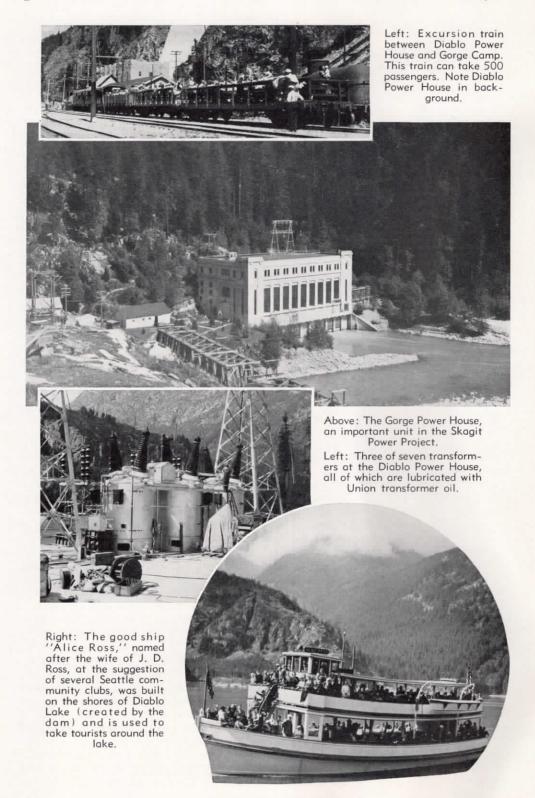
Water is diverted from the Skagit for this plant by a rock-filled timber crib-dam approximately thirty feet high, and is carried by a temporary intake into a concrete-lined pressure tunnel 20 feet 6 inches in diameter and 11,000 feet long, carved through a mountain of solid granite. Thence it is deliv-

ered through three large steel-lined penstock tunnels to the water wheels, which motivate the generators.

During the building of this particular unit, power for air compressors and construction machinery was furnished by a hydro-electric generating unit, using the water of Newhalem Creek, which enters the Skagit just below Gorge power house, and which was dammed by temporary timber cribbing for the purpose.

The whole Gorge Plant, with transmission lines, sub-station, railroad, and other incidentals had cost up to the end of 1935, \$14,611,766.58.

Visitors throng to the Gorge Plant on visiting days, via an excursion train over the City Light Skagit Railroad, and are given an opportunity to inspect the huge water wheels and generators in the power house, and to visit the adjacent rock gardens. Nearby also are the lovely illuminated cascades of Ladder Falls, formed by Ladder Creek, a small stream that rises in a glacier on the shoulder of Pyramid Creek, and eventually tumbles



downward in a series of gorgeous waterfalls, over Granite Cliffs into the Granite Pool four thousand feet below. At night the spray of the falls, with its background of moss-covered boulders, is illumined in a dazzling change of colors that produces an indescribably beautiful effect.

A comfortable hostelry is available for the guests, who may in the evening visit the theatre building, or dance, or do both, as they choose. After spending the night at the Gorge, the morning may be profitably devoted to a walk up the canyon, before boarding the electric car for the trip to Diablo Dam. This trip involves a thrilling climb along the cliffs high above the roaring Skagit, for a distance of seven and a half miles, ending at Reflector Bar, a flat in the bend of the river on which is the site of the Diablo power house, recently completed.

From Reflector Bar an inclined railway, designed to lift the heaviest loaded freight car, carries the visitors from the flat to a landing 313 feet above on the mountain side, and adjacent to a lookout point, from which the full panorama of Diablo Canyon, Diablo Dam, and the reservoir beyond is spread out in full view.

On September 23, 1936, President Roosevelt, in his Hyde Park home, pressed a button that started the water pouring through the penstocks of the Diablo power house, and materialized a dream that had long been cherished by Mr. J. D. Ross, Seattle's city light superintendent. Present to witness the formal opening were the members of the third World Power Conference, many leading federal, state and civic officials, and engineers from all parts of the country.

The Diablo Dam situated in Diablo Canyon, about seven miles from the Gorge power house, is a concrete structure of the arch type. It is 389 feet high, 1,180 feet along the crest, 140 feet through at the base, and contains 350,000 cubic yards of concrete. The Diablo reservoir, extending six miles up stream to the Ruby Dam site, contains 90,000 acre-feet storage capacity. The power house at Diablo is the second unit in the Skagit development, and the building and tail races were completed in the year 1935, five years after the completion of the dam.

Water is carried from the dam to the power house through granite, with differential type surge tank, and two steel penstocks 15 feet in diameter and 500 feet long. The power house has two generating units, with wheels having a maximum capacity of 95,000 horse-power each—believed to be the largest capacity wheels ever made. This plant approximately doubles the power output of the Skagit development, and has cost, including dam and transmission line, approximately \$12,000,000.

After inspecting Diablo Dam and its surroundings the tourist embarks on a boat for a trip across Diablo Lake; six miles through the Skagit Canyon to the Ruby Dam site. On this trip is presented an entrancing view of snow-capped peaks, and glaciers of unbelievable grandeur, surpassing in beauty, according to many world travelers, the Norwegian fjords, or even the Swiss Alps.

The site for Ruby Dam is marked out by clearing, and by surveyors' flags and markers on the granite cliffs. This huge projected structure will be 635 feet high, higher indeed than Grand Coulee, and just a hundred feet lower than Boulder. When completed it will back up the Skagit to form a lake 50 miles long. It will cost in the neighborhood of \$7,000,000, about half of which has already been pledged by the Federal Government. The proposed dam is to be of the heavy gravity arched-in type, will be 1,200 feet along the crest, and will require with its appurtenances 2,250,000 cubic yards of concrete. By conservation of the flood waters behind the dam, the power output of the Gorge and Diablo plants can be increased to 320,000 h.p. each, and 480,000 h.p. may be developed at the Ruby power house. The dam will also serve to control the flood waters at the lower end of the valley, which contains about 200 square miles of very rich farming land.

The City of Seattle now has four municipally owned water power plants, aggregating 98,000 kilowatts, and a steam plant of 30,000 kilowatts, and is interconnected with the City of Tacoma's system, which comprises



J. D. ROSS Superintendent Seattle City Light Department

three more water plants and two steam plants.

The third of the Seattle water power stations is located at Cedar Falls, 37 miles southeast of Seattle, where power was made available by raising the waters of Cedar Lake. This, incidentally, was the first source of the city's power. The plant has a rated capacity of 40,000 kilowatts, but is now operated at comparatively low load, in order to save its full output for use under peak conditions.

The fourth water power plant, situated on the east shore of Lake Union, is the smallest one of the group, being rated at 1,500 kilowatts. It was placed in service in 1912, as an auxiliary source of power, to boost the Cedar Lake output, which was then much smaller than it is now. It uses the overflow from Volunteer Reservoir in the city's domestic water system.

The steam plant is also located on the east shore of Lake Union at the foot of Nelson Place—very near the geographical center of the city. Here, in a reinforced concrete building, are contained three steam turbo-generators, supplied with steam by fourteen boilers, and with a combined rating of 30,000 kilowatts. This plant was also designed primarily as a stand-by or peak load station.

Altogether the City of Seattle is in a very favorable position in regard to its light and power development. Present interest, of course, is largely centered in the Skagit project, but it must not be forgotten that the whole development has been one of orderly progress, due in a large part to the foresight of the pioneers who translated dreams into actions. In this connection special mention might be made of the long sustained interest of J. D. Ross, Superintendent of Seattle's light department, who first went to work for the city in 1902 as electrical engineer in charge of the Cedar Falls project, and whose active efforts in behalf of the entire development have been largely instrumental in bringing the venture to its present highly successful status.



# Gooderidge—Asst. Director of Sales

J. E. GOODERIDGE, for the past six years special sales representative, Union Oil Company, has been appointed assistant to Director of Sales, V. H. Kelly, according to a recent announcement.

Gooderidge was first employed as special sales representative July 1, 1930, and has since devoted his time to the sale and service of company products to contractors on major construction projects throughout the West-



J. E. GOODERIDGE

ern portion of the United States. In his new position he will continue the supervision of this and other work in furthering the sale of both refined and lubricating oils.

A native of England, Gooderidge came to the United States in 1920, and after a unique tour which took him into practically every state in the Union, during which he regained the health which had been shattered in five years of service with the Royal Air Force, established himself in the automobile insurance business in Los Angeles in 1922. He was identified as sales executive in one of the largest automobile insurance enterprises in the United States, and it was while affiliated with insurance and incidental interests that he first became acquainted with Union Oil Company. His work with the company has taken him actively into such jobs as Boulder Dam, Colorado River Aqueduct, All-American Canal, Bonneville Dam, San Francisco Bridges, and other projects of major importance.

# **Disability Benefit Insurance**

IN A BULLETIN just issued by W. K. Hopkins, Manager of Industrial Relations and Personnel, announcement is made of the adoption of the new Disability Benefit Insurance Plan recently offered to employees of Union Oil Company.

The Plan becomes effective at 12:01 a.m., November 1, 1936, and all employees who have signified their acceptance will be insured from that date in accordance with the provisions of the policy. Detailed instructions governing the procedure on presenting claims will be issued in the near future.

Disability Benefit Insurance was first taken under consideration at the express request of a number of employees and employee groups, and is now an important feature in the general plan effected by Union Oil Company for the protection and security of its employees.

With this addition to the former plan we now have the Provident Fund to provide security after retirement; Group Insurance to provide for the dependents of employees in case of death or complete disability of the insured; The Employees Benefit Plan to discharge the bills for hospitalization in the event of sickness or temporary disability of the wage earner; and Disability Benefit Insurance to furnish protection against curtailment or cessation of earning capacity through off-duty accident or sickness.

The income insurance afforded by the latest addition to the General benefit and insurance plan helps materially to complete the entire protection program, by providing to employees and their families a still greater security against loss of income resulting from illness and off-duty accidents. It is rather interesting to note that most accidents actually take place in off-duty hours.

Employees who have signed and returned their application cards but who are not working on the effective date because of any sickness or injury, will upon their return to work become eligible for participation, and will be insured, in the Plan, from the first of the month succeeding their return.

Eligible employees, who have not already signified their acceptance, should do so immediately if they wish their insurance to go into effect on November 1, 1936.



# Credit Union Movement in the Union Oil Company

During the early part of 1935, Mr. Lowell Johnson of the Credit Union Division of the Farm Credit Bureau, contacted various groups of Union Oil Company employees for the purpose of promoting the Credit Union movement. By September 26 of the same year his efforts were so successful that the Union Oil Orcutt Employees Federal Credit Union and the Union Oil Dominguez Employees Federal Credit Union were both granted charters by the Federal Government, and by early in November these two groups had perfected their organizations, set up books, and made their first loans. In the five

succeeding months, eleven more credit unions, located in territories all the way from Seattle to Los Angeles, were granted charters and started to do business. In May of 1936 our youngest union was started at San Luis Obispo, and to date the baby of the group has established itself as one of the strongest Union Oil Company units, having 130 members out of a total available employee roster of 175.

The charters of these credit unions, all of which are under Federal jurisdiction, with the exception of the Unoco Employees of Seattle, the latter having been organized under a state charter, have a total potential membership of about four thousand. This means then, that approximately one-half of the eligible employees still have the opportunity to join the thrifty group, now numbering 2,152, which has accumulated the total savings of \$34,795 in nine months of operation. By the end of July the membership of the fourteen unions had increased from 492 in November to 2,152 persons. Eight hundred and eighty-two loans had been

made throughout the period, for a total of \$49,892. Of this amount, \$20,319 had been paid back, leaving loans outstanding in amount of \$29,573.

The average loan which in November was \$41.25, has gradually increased with the accumulation of available funds to \$56.57 in July of this year, and that this money has been loaned for provident purposes will readily be seen from the analysis of the loans made to date by the largest unit of the fourteen.

	% of
Purpose of Loans	Total Loans
Consolidation of miscellaneous small bills	24.92
Dentists, doctors, undertakers	17.71
-1	10.23
Home improvement and tax bills	8.86
Automobile purchase and repairs	
Household furnishings (including radio and refrigerator)	6.41
Assistance to parents	5.18
Cash purchase vs. time purchase of clothing	3.64
Education (Tuition)	2.01
Life Insurance	1.57
Maternity	.65
Miscellaneous	11.62
	100.00

In order to demonstrate more clearly the steady growth of this movement and to make possible a comparison of the activities of the various units, two tabulations are included, the first showing a consolidated progress report of all unions, the second showing the status of each union as of July, 1936.

A very interesting item in the reports of all fourteen units is the fact that to date no loans have been written off as losses, and that the four or five loans reported as possible losses amount to less than 1/25 of one per cent of the total amount that has been loaned to date.

#### Comparative Standing of Fourteen Union Oil Company Employees Credit Unions—End of July, 1936

		Number of Members	Average Savings		Shares Account Amount		Loans Outstanding Amount	Total Loans Made Since Organization	Total Loans Made Since Organization Amount	Average Loan Amount	
1.	Union Oil Building Employees F. C. U	449	\$19.75	\$	8,866.00	\$	8,008.00	258	\$15,707.00	\$60.88	
	Union Oil Los Angeles Refinery F. C. U		14.36		5,498.00		5,369.00	122	7,442.00	61.00	
3.	Union Oil Orcutt Employees F. C. U	175	16.86		2,950.00		2,421.00	69	4,261.00	61.75	
4.	Oakland Union Service Stations F. C. U	72	6.89		496.00		313.00	18	550.00	30.56	
5.	San Francisco Union Service Stations F. C. U.	136	15.46		2,102.00		1,648.00	54	2,760.00	51.11	
6.	Union Oil Santa Fe Springs F. C. U	160	12.76		2,041.00		1,845.00	63	2,534.00	40.22	
7.	Union Oil Los Angeles Main Station F. C. U.	89	16.03		1,427.00		1,158.00	37	1,821.00	49.22	
8.	Union Oil Bakersfield F. C. U.	103	22.70		2,339.00		1,635.00	45	2,645.00	58.78	
9.	Union Oil Brea Employees F. C. U.	80	21.42		1,714.00		1,178.00	28	1,840.00	65.71	
10.	Union Oil Coalinga Kettleman Emp. F. C. U.	46	13.52		622.00		390.00	12	565.00	47.08	
11.	Union Oil Dominguez Employees F. C. U	148	12.26		1,815.00		1,496.00	43	2,325.00	54.07	
12.	Union Oil San Luis Obispo Emp. F. C. U	130	12.83		1,668.00		1,278.00	29	1,665.00	57.41	
13.	Unoco Employees of Seattle Credit Union	133	18.02		2,397.00		2,389.00	84	4,922.00	58.60	
14.	Union Oil Company Portland Dist. F. C. U	48	17.91		860.00		445.00	20	855.00	42.75	
	TOTAL	2,152	\$16.17	\$3	4,795.00	\$2	9,573.00	882	\$49,892.00	\$56.57	

# Progress Report Fourteen Union Oil Company Employees Credit Unions

End of Month	Number of	Average	Shares	Loans		oans Made ganization	Average
1935-1936	Members	Savings	Account	Outstanding	Number	Amount	Loan
November	492	\$ 4.06	\$ 1,999.00	\$ 1,090.00	24	\$ 990.00	\$41.25
December	668	6.71	4,481.00	3,551.00	81	3,672.00	45.33
January	_1,104	7.27	8,027.00	5,941.00	142	6,760.00	47.61
February	1,450	8.28	12,010.00	9,874.00	239	11,956.00	50.03
March	_1,683	9.87	16,609.00	13,702.00	360	17,702.00	49.17
April	1,910	11.59	20,983.00	18,330.00	485	24,949.00	51.44
May	_1,892	13.06	24,716.00	21,875.00	601	32,094.00	53.40
June	2,096	14.37	30,124.00	24,814.00	738	40,336.00	54.66
July	2,152	16.17	34,795.00	29,573.00	882	49,892.00	56.57

NOTE: Potential membership covered by fourteen charters is approximately four thousand employees.

In conclusion, the officials of the credit unions are highly satisfied with the progress of the movement to date, and are unanimously grateful to Union Oil Company for the means that enabled employees to meet, discuss, and finally adopt the Credit Union plans. There is no question that this has been found of great advantage in encouraging saving, and relieving financial worries, and the benefits already derived by the members are the finest augury of future growth and success.

Fred M. Gedder
Treasurer, Brea Unit

A. Roland Wood Atielding
Treasurer, Oakland Unit

Treasurer, Oakland Unit

Treasurer, Portland Unit

Treasurer, Portland Unit

Treasurer, Coalinga-Kettleman Unit

Treasurer, Dominguez Unit

Treasurer, Santa Fe Springs Unit

Treasurer, Santa Fe Springs Unit

Treasurer, Bakersfield Unit

Treasurer, Bakersfield Unit

Treasurer, San Luis Obispo Unit

Treasurer, San Francisco Unit

Treasurer, San Francisco Unit

### **Grand Coulee Dam**

HERE in the southwest we have been so indelibly impressed by the immensity of Boulder Dam, that we find it hard to imagine any constructive effort that might surpass dimensionally this gigantic enterprise, and yet Grand Coulee Dam, now under construction in the Columbia River Basin of Central Washington, almost dwarfs the famous Colorado River project. Below is a tabulation of comparisons, compiled by the U. S. Reclamation Service, that will give some idea of the relative proportions.

provide homes and employment for 40,000 families, which, because of the certain growth of incidental industries and interests, is only a part of the potential development.

The Grand Coulee Dam is located in North Central Washington, 92 miles from the city of Spokane, its immediate site being at the north end of the weirdly beautiful Grand Coulee—a gigantic gash, fifty miles long and hundreds of feet deep, gouged out of the earth in some prehistoric age by the mighty Columbia. The river later turned

#### Grand Coulee and Boulder Dams Compared

	Grand Coulee Dam	Boulder Dam
Height (feet)	550	730
Length of crest (feet)	4,300	1,180
Width at base (feet)	500	650
Width at top (feet)	36	45
Excavation (cu. yds.)	17,000,000	7,000,000
Mass concrete in dam (cu. yds.)	11,200,000	3,200,000
Total rated capacity (h.p.)	2,520,000	1,835,000
Firm power developed (KWH)	8,320,000,000	4,330,000,000
Secondary power developed (KWH) both per year	4,170,000,000	1,550,000,000
Length of main reservoir (miles)	1.51	115
Average width (miles)	0.8	2
Average annual run-off (ac. ft.)	79,000,000	15,700,000
Maximum flow of river (sec. ft.)	725,000	300,000
Minimum flow of river (sec. ft.)	17,000	2,300
Spillway capacity (sec. ft.)	1,000,000	400,000

The Columbia River rises in the Canadian Rockies, crosses into the State of Washington, flows for 750 miles down through the state, and along its southern border and eventually finds its way to the Pacific Ocean. It is believed to offer a means of developing more hydro-electric power for industrial enterprise than any other river in this country. Perhaps more important, however, is the fact that adjacent to the river is a tract of 1,200,-000 acres of what has frequently been termed the finest body of undeveloped arid land in the West. Entirely unproductive in its present state, this land, when irrigated, will be opened up to agriculture in many of its phases, and it has been estimated that, if subdivided into 10 to 80-acre farms, it will

away from this channel, but it is where the waters originally broke through to form the Coulee, that the United States Government is now building one of the world's greatest dams.

At the present time the waters of the Columbia rush on, unused, to the sea, while bordering its canyon-like banks is the vast stretch of arid land to which we have already referred. "To let this immense, dependable water supply run unused," says D. Elwood Mead, United States Commissioner of Reclamation, "is an economic waste, the extent of which is only realized by those who know that country."

Ultimately the deep gorge of Grand Coulee will be used as a storage reservoir, and the



Above: West view of Grand Coulee showing upstream portion of dam extending to west abutment.



Above: Detail of concrete work extending east. Structural steel stubs projecting from concrete blocks in foreground are used to mount frames for penstock tunnels.

Left: View looking north across the dam.



Above: R. J. Kugleman, former Union Oil Co. employee, now an engineer on Coulee Dam project. Right: The west concrete mixing tower and substructure, showing unusual length of supporting concrete columns.



dam will raise the Columbia waters into this natural container, so that they can be pumped thence out over the thirsty land adjoining. It will in addition back up the waters to form the largest artificial lake in the world, extending 150 miles to the Canadian border, and beyond, and opening up to hunters and vacationists an immense new territory for exploration and recreation.

The dam is a major project in the federal government's comprehensive program for the development of the natural resources of the nation. It is being built by the United States Bureau of Reclamation, Department of Interior, for the National Public Works Administration, and the plans provide for two progressive stages of construction-first, the present development, consisting of the main excavations, the construction of a lower dam, a permanent downstream cofferdam and power plant. This will cost approximately \$63,000,000. The second stage involves the completion of the high dam, five hundred feet in height and four thousand feet long at the crest. This latter will cost \$179,000,000, will take six years to build, and will have a power capacity of 2,646,000 installed horsepower. It will feature a spillway 325 feet high, and 1,800 feet long, which when in use will present one of the world's most remarkable water spectacles.

The cost of the combined high dam and Columbia Basin Reclamation projects will be \$393,000,000, but it is believed that the entire proposition will be self-liquidating, through power revenues, and payments by settlers.

At the present time three principal construction operations are under way as follows: (1) Pouring of concrete for the dam, and for the power house on the west side. (2) Excavation for a channel, and construction of cross river cofferdams preliminary to diversion of the river through the west cofferdam area. (3) Preparations for the laying of the east side foundations, and operation of the east mixing plant. (The eastside cofferdam has just been pumped out, and pouring of concrete will be started soon.)

There are now 5,300 men employed on the project, and the average quantity of concrete produced and poured daily is 8,000 cubic yards, with the record standing at 8,400 cubic yards for 24 hours. Approximately 500,000 cubic yards have been excavated in the river diversion channels, and diversion

will actually take place within a very short time. The cross river cofferdams are under construction, and at the moment of writing are about 20 per cent complete. These involve the use of about 8,000,000 feet of lumber, which will be framed into cribs in order to create a complete enclosure. This cribbing will divert the stream through the area that was formerly used for the west cofferdam, and when the enclosure is pumped dry will permit the start of the foundation for the east side of the dam.

A frozen earth barrier (one of the largest ever attempted) is now successfully holding back slides, which formerly threatened to move many thousand yards of earth into the dam area, and a vista house has been erected on each side of the river, from which visitors are afforded an excellent view of the entire project.

So far 17,500,000 cubic yards of earth have been excavated, about 11,000,000 of which have been transported by belt conveyors. Over 750,000 cubic yards of rock have been removed to clear the way for man's most prodigious edifice, and 1,300,000 cubic yards of concrete have already been poured, representing 11 per cent of the total quantity required for the completed dam and power house. To date the cement used is in excess of 1,330,000 barrels, or 5,530 car-loads, and it is still being delivered to the dam at an average rate of 35 car-loads per day.

The Grand Coulee Dam, when completed, will be the largest power development in North America—a monument to the engineering genius of the twentieth century. In size it will dwarf the pyramids of Egypt. The gigantic Sphinx would merely be a decoration for the top of the power house, and nothing ever made by man can compare with the massive bulk of the projected construction.



The petroleum industry is one of the largest industrial purchasers of lawnmowers and brooms, buying annually 3,000 lawnmowers and 170,000 brooms for maintenance of bulk plants and service stations alone.

The annual purchase of lawnmowers would be still higher if it weren't for the fact that many of the Eastern Washington operators keep a sheep to do the mowing job.

### Cover Designs

THE cover designs this month are from photographs taken by employees. The front and back covers carry an excellent view of Diablo Dam and spillway taken by Ralph R. Abee of the Northern Division Sales Department, Seattle. The inside front cover, by H. E. Cattermole of the Marine Department,

shows a picturesque spot on the Oregon Coast Highway and carries its own caption, while the air view of Grand Coulee Dam on the inside back cover is the work of Warren E. Carey, Union Oil Company's aviation sales representative, who has taken many fine air photographs on his flying trips around the country.

Winter in



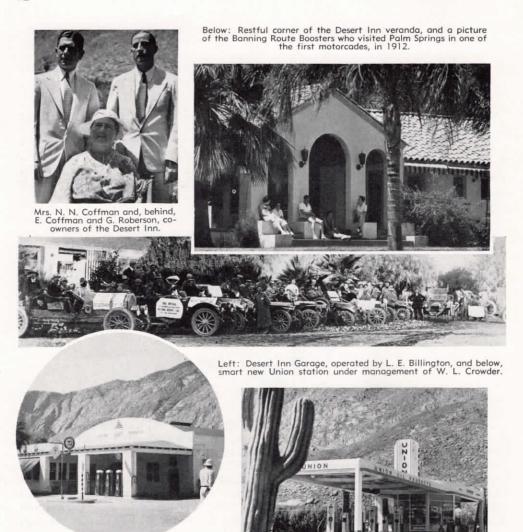
the Desert

SANCTUARY of rest and relaxation, haven of the artist and poet, Palm Springs, California, has within the past eight years become the outstanding desert resort city of the United States and ranks at the top among international retreats.

Modern to the last degree, Palm Springs nevertheless has remained unaffected by the artificial methods that have brought quick success and sudden decline to so many American recreational centers. Here are tranquility and peace; here is surcease from the workaday world; here health-giving sun and crisp, clear sleep-impelling nights. From its imperturbable and inscrutable moods one may find in the desert a new appreciation of intrinsic values, achieve a new inspiration. And, from the curious tricks which nature has played in its unfolding of this area, one may read in the rocks and the sands and the elements why great religions and mighty civilizations have sprung since the beginning of time from the desert; why man's capabilities find fullest expression amidst the pleasant peace of stately palms, resolute mountains, slowly shifting sands, and vistas that defy transcription.

Palm Springs had an inauspicious beginning. Imperial Valley, which lies south and east of the present springs, was opened to the world when the Southern Pacific railroad became truly transcontinental in 1879. Irrigation immediately developed and since 1909 the valley has flourished as an agricultural center. Located at the north end of the great Colorado desert and the Imperial Valley, in the shadows of towering Mt. San Jacinto and Mt. San Gorgonio, the area around Palm Springs nurtured a tribe of Indians whose origin even today remains a secret to the white man.

In 1909 Mrs. Nellie N. Coffman pioneered the Colorado desert at Palm Springs and established the first Desert Inn, a modest frame building, from which has evolved the present spacious and complete hostelry. Hark back to the famous Los Angeles to Phoenix road races and recall that Palm Springs was the first control station out of Los Angeles. The first three years the race was held, the route skirted Mt. San Jacinto and drivers usually checked in at the Springs about 3:40 in the morning. Mrs. Coffman and her entourage were active in that day maintaining



accommodations for both drivers and cars.

There was agitation even in those early days for an ocean-to-ocean highway, and in 1912 an automobile caravan, styled the "Banning Route Boosters," visited Palm Springs in one of the many promotional activities staged to stir enthusiasm for the Springs and the route through the Colorado desert. The small group of 10 cars which called at the Inn in 1912 proved the forerunner of the current infiltration, which now exceeds 12,000 on week-ends and holidays. When Mrs. Coffman and her son, George B. Roberson, began business in Palm Springs there were five white people and many Indians living there. The permanent white

population between Oct. 1 and May 1 now exceeds 2,500 and, on many occasions, the guest list runs to more than 5,000. The aborigines still maintain their reservations and live their placid, philosophical span, pitying the white man who "goes inside" for the summer.

There are many attractive and comfortable hotels and apartment houses in Palm Springs. Smart shops line the single thoroughfare. Automobile service includes the Desert Inn Garage, operated by L. E. Billington, where a complete line of Union Oil products are dispensed; and an up-to-the-minute Union service station, which was opened during the 1935-1936 season by W. L. Crowder.

# Building Automobiles—The New Way

THE assembly of an automobile from the heterogeneous miscellany of parts that go into its construction, is one of the most interesting sights we have experienced in a long time. It is one that should be enjoyed by every individual who owns an automobile, for here in the assembly plant the entire structure is built up step by step, in chronological and orderly sequence, and in full view, and we can conceive of no better way in which one may secure a real understanding of the functions of the individual parts, and their relation to the completed whole.

It was recently our good fortune, and it may be yours if you so desire, to take a trip through the thoroughly modern assembly plant of the Studebaker Pacific Corporation, on Loma Vista Street, in the central manufacturing district of Los Angeles, where under the able guidance of F. J. Kirk we were duly initiated into the entertaining mysteries of this whole assembly business. The word "mysteries" is perhaps wrongly used here, for there is nothing mysterious about the proceedings. There are lots of tricks, of course, highly interesting and educational, too, but they are exposed and expounded by the guide with an abandon that would simply ruin the conjuring profession.

The sightseeing tour was begun at the unloading platform, where the constituent parts shipped from the factory at South Bend, Indiana, are carefully removed from the freight cars in a manner that is so simple it is really amusing. The bodies, for instance, which used to be bolted to specially constructed platforms, are now attached perpendicularly to guide rails on the floor and roof of the car, and on these rails, when the affixing bolts are removed, the body is slid easily to the door. When in the correct position, a pair of supports are inserted under two swingbolts on its side and become the fulcrum of a teeter totter. With this assistance it is simple to raise the body to a horizontal position, slide the carriage underneath, and conduct it to the proper location. In this system of packing, sixteen bodies are contained in each car, where formerly the limit was ten, and this conservation of space and energy is the real basis of economic and efficient automobile assembly. The packing and unpacking of motors, radiators, fenders, batteries, and all the diversified pieces of apparatus that go into the finished machines, have been studied and planned, and the methods finally adopted are a complete revelation in modernized industrial practice.

Along the unloading platform, where one man handles a motor weighing four or five hundred pounds with consummate ease, we wend our way around the end of the building, passing by huge stacks of frames standing on their ends, and causing us to gasp with amazement at their height. It is difficult to appreciate the horizontal length of the smallest car made by Studebaker, until you see them reaching fifteen feet up into the air in this manner.

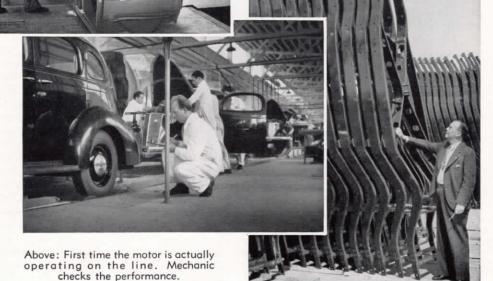
But now we have arrived at the beginning of the assembly line, and the really interesting phase of the visit. Traversing the south side of the building, the line begins at the rear door, where the frame is slung upside down into the grasp of the waiting mechanics. With a few deft motions the rear axle, planar suspension for front axle, and brake drums are affixed, then passing along to the next group of workmen, the frame and its attachments are turned over by an ingenious pulley arrangement, and placed on a slowly moving platform. Thence with the workmen busily engaged in their respective tasks it moves gradually forward as the gasoline tank, fuel lines, brake rods, etc., are added. Next it passes through an enclosed compartment in which it is sprayed with a quick-drying paint coat to take care of abrasions that may have been suffered in shipment, after which the motor is placed, securely bolted, and connected to the drive shaft. It is astonishing the rapidity with which all the various operations are contrived. Electric wrenches are used to turn nuts to a definite tension. Each man has just a few particular things to do, and in some places as many as six men may be grouped closely around the motor, each

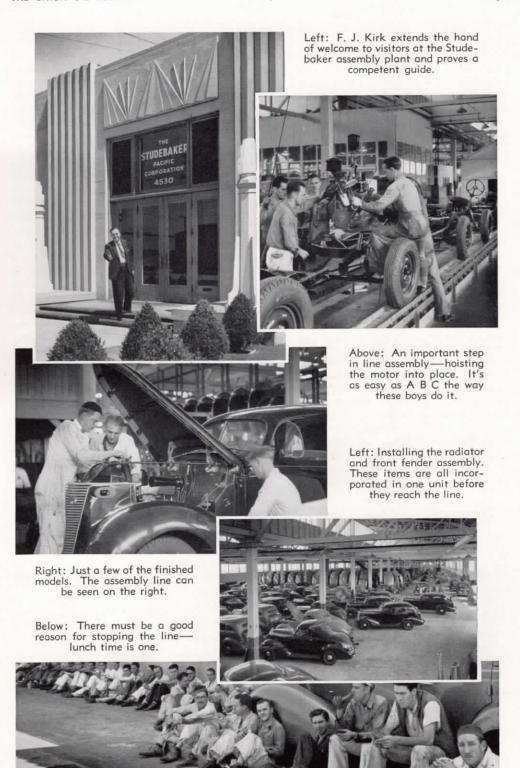
Right: President C. K. Whittaker of the Studebaker Pacific Corporation discusses a business problem with his assistant, Jim Fernald.



Left: Unloading Studebaker bodies at the Assembly Plant. Note guide rails on floor and roof of the car, and body resting on carriage.

Below, right: Would you believe that these are the frames for the smallest Studebaker bodies? F. J. Kirk poses alongside to give an idea how high fifteen feet really is.





performing his specific assignment, and none in any way interfering with the others.

As the assembly moves along, the wheels are affixed, and the men on the floor keep building above the frame, while in the pits other groups are attaching the various equipment that belongs underneath. By the time the chassis with its motor assembly is pretty well complete, the whole apparatus has passed about half way up the line. At this point the body is hoisted gently overhead by a crane with well-upholstered grab hooks, and is dropped neatly into place. Then the thing you have been watching begins to take on the semblance of an automobile. Deftly and speedily the body is bolted to the frame. Now one man is busily engaged on the installation of the battery, while his fellows insert wiring, connect the leads to the instrument board, and perform a multitude of other operations.

Further along the radiator assembly, which includes the front fenders, is installed in a single unit; lamps, and other accessories simply appear to grow out in their respective positions; and then the new automobile is complete. After the last nut has been tightened, the last gadget has been added, and the gas tank has been partly filled, the car is pushed on to test rollers, where the engine for the first time is turned. It is an interesting fact that of the thousands of cars that have been brought to this stage, not a single one has failed to function at the first trial.

On the test rack the car is operated under varying speeds and loads, and an inspection of all equipment is made. Brakes are then tested, headlights are adjusted in conformity with State requirements, and the car is turned over to a driver mechanic for a final road test.

It takes approximately two hours from the time the bare frame is brought into the line until the completed auto is turned over for the road test, and one new car comes off the end of the assembly line every seven minutes. At the present time the plant is turning out about eighty 1937 Studebakers every eighthour day. One hundred and thirty men are employed on the line, although the plant in

toto employs over three hundred.

According to C. K. Whittaker, president, the entry of Studebaker into Pacific Coast manufacturing circles was more or less of an experiment initially, but the experiment has proved entirely successful, so successful in fact that an addition is now being made to the plant which, when completed, will bring it to more than twice its present dimensions and practically double the payroll. Mr. Whittaker also points out that due to the variety of chassis and body designs the problem of line assembling Studebaker automobiles presented more than the usual difficulty, and that the present system is really custom building rather than ordinary line assembly, something that has never before been tried on the west coast. The success of the venture, however, is amply illustrated by the fact that for the first six months of 1936, Studebaker sales on the west coast were more than double the total yearly sales for the same period in 1935.



### Treble Clef Club Resumes Refinery Girls' Club Dance Rehearsals

THE Union Oil Girls' Treble Clef Club began rehearsals for the coming season on October 5, and A. C. Marshall, director, with a new repertoire of numbers, particularly suitable for female voices, is again in charge. It is expected that the Club will have an active season of public appearances, and Mr. Marshall is determined this year to have the group ready to participate in the forthcoming Allied Art Festival. The Club had a very successful initial year, and with the prospect of many new members being added to last season's chorus, there is every indication of even greater success in the future.

THE Los Angeles Refinery Girls' Club is making elaborate preparation for one of the biggest affairs in the Club's history—an informal dance to be staged at the Hollywood Riviera Beach Club on the beautiful Palos Verdes Estates at Redondo, Saturday night, November 7. The festivities will begin at 8:30, and nobody knows yet just when they will end. Mary Ayres, president, announces that the dance is not confined to refinery employees, but that all Union Oil Company employees and their friends are cordially invited.

# Random Air Race Shots by Bob Byrne



Above: Latest type of Douglas sleeper transport plane.

Below: Focke-Wulf monoplane used by Gerd Achelis, German acrobatic ace.



Above: R. A. Kling escaped from this with a few scratches, and is hopeful of rebuilding the ship.

Left: Display of latest fall fashions for camera men, created during a fracas among rival photographers.

# The Last of the Clipper Ships

To the sailor nothing is quite so intriguing as the history of the old sailing-ship days, when the great fleet of fast, tall vessels spread their enormous wings to the winds of every sea, and carried the glory and romance of the merchant marine into the remotest seaports of the world. It is a glamorous and thrilling story, and there is no more exciting chapter than that final one surrounding the era of the clipper ships, the fastest sailing vessels of them all. It is a closed chapter, however, in maritime history, closed by the ever-insistent demand for speed. These fine vessels in their day were the ultimate in this respect. They depended for their progress on the wind, and they were developed in many cases to a point at which they actually moved faster than the air currents by which they were propelled, but it wasn't fast enough, and the clipper ships finally passed to make way for the still speedier mechanical ships.

In her final haven, alongside the government locks in Seattle, lies the last of these picturesque vessels, the good ship St. Paul, rescued from the wrecking bars of the ship breakers by C. Arthur Foss, and magnanimously presented by him to the Puget Sound Academy of Science, to be maintained as a marine museum, and a monument to the day when she and her sisters were writing a stirring chapter into maritime history.

All of the old clipper ships with this one exception have vanished from the seas. Some have been burned or destroyed by the ship breakers, others have been left to rot on the mud banks in forgotten places, but the old St. Paul sits serenely in Seattle, still seaworthy, but like many more of us, antiquated by the inexorable advance of science.

The St. Paul was launched in the year 1874 from the yard of Chapman and Flint in Bath, Maine, a firm famous not only as builders of fine ships, but also as merchants and owners.

She measures 228 feet in length, 42 feet in width, and 27.5 feet in depth, and when fully rigged in her hey-day, she carried almost an acre of canvas, supported by some 15 miles of cordage.

Although the heavy oak ribs, and knees,

were undoubtedly shaped in the Maryland and New England woods prior to the beginning of construction, it took almost a year to complete the vessel. In these days ship yards didn't have all the mechanical aids they have now and all the work was done by hand even to the hewing of the heavy beams, and boring of holes for copper and iron fastenings. As a matter of interest it has been estimated that there are some thirty miles of such holes in the ship. Of the original superstructure, nothing now remains but the stump of the main mast, but the hull has only required slight repairs and is still hard and sound. Her measured tonnage is 1,924, although she often carried as many as 2,800 tons of grain or coal.

The St. Paul was operated in trade by her builders for many years, and when the firm of Chapman and Flint dissolved, she passed to the ownership of Isaac F. Chapman, with whose fleet she remained until 1901, when she was sold to the Pacific Packing and Navigation Company of Seattle. She has also been owned by Northwestern Fisheries Company and Booth Fisheries Company.

After 23 years in the cannery service between Puget Sound and Alaska she was sold in 1927 to the Pacific Cement Company for conversion to a limestone barge, but plans were changed, and she finally became the property of the Pacific Coast Engineering Company, ship breakers, who were about to burn her on the beach to recover her copper, when C. Arthur Foss of the Foss Tug and Barge Company stepped into the breach, and saved her from an ignominious fate.

Until 1895, with the exception of one round trip between Philadelphia and Liverpool, all her voyages were between New York and San Francisco. Her best passage westbound around Cape Horn was 115 days, but her average for 14 voyages was 141 days. Eastbound, her records were 103 days to New York and 107 days to Liverpool, with an average of 120 days from San Francisco to New York. That sounds pretty slow in these days, but it was fast time then. Fourteen knots was her maximum speed, and once in



Left:
Last of
the old
clipper
ships, the
St. Paul,
as she
looked
when she
sailed
into the
Far East
and to
European
ports fifty
years ago.

Above: A picturesque view of the Foss Pier at Seattle.

Right: A fine silhouette of the St. Paul rigging. Rescued from the ship-breakers by C. Arthur Foss, and presented to the City of Seattle, this fine old vessel now lies alongside of the government locks in that city.

a gale off Cape Horn the log records that she made twelve knots under bare poles, that is, without any sails.

Back in 1891, with Captain Ford in command, the St. Paul sailed from Liverpool and, with salt in ballast, a fair breeze and studding sails, logged better than 300 miles per day for three days. She stopped at Queenstown, then made her best Atlantic passage from Queenstown to New York in sixteen days.

From 1895 until sold in 1901 she was operated in the Far East trade, and on one notable voyage in September, 1898, was caught in a typhoon off Formosa, and hove down for twelve days. The storm was so violent in fact that her rudder head was twisted off, and over 500 sheets of copper were literally torn from her sides by the wind and waves.

In 1901, loading coal at Newcastle, she sailed to Manila, whence she returned to Seattle in ballast to retire forever from world trade, and spend the remainder of her active career as a cannery ship.

Although often damaged in heavy weather, only twice in her long career was she ever put into port for repairs, once, as indicated, at Hong Kong, and once, when she sprung a leak, and was forced into Callao.

The old vessel is now converted into a marine museum and aquarium, the latter devoted to an exposition of the marine life of Puget Sound, and the former to a series of exhibits that tell the history of marine navigation, a dramatic chain of developments in which the St. Paul herself is one of the most important links.



### **Rector Receives Promotion**



J. C. RECTOR

IN ACCORDANCE with a bulletin issued by R. D. Gibbs, manager of gas operations, J. C. Rector, formerly superintendent of gas operations, southern division, was appointed superintendent of gas operations, with jurisdiction over Valley, Coast, and Southern divisions. The appointment was effective September 15, 1936.

J. C. Rector was first employed by Union Oil Company at Orcutt in October, 1907, as an electrician, but left in September, 1911. He accepted a position with Pinal Dome Oil Company in 1912, and, of course, when Union took over the Pinal holdings in 1917, he again found himself a member of the staff. At this time he was foreman of gas lines and distribution for Pinal, and when the transfer was completed he was moved to Orcutt ab-

sorption plant as foreman of gas operations there. In June, 1918, he was appointed superintendent in the same district, and in the latter part of 1924 was moved to Santa Fe Springs as southern division superintendent of gas operations, which position he held until he received this latest promotion.



### McGoey Lectures at U. S. C. Evening School



RALPH McGOEY

RALPH McGOEY, assistant district engineer, field department, Santa Fe Springs, is conducting a class in University College, the evening division of the University of Southern California, on "The Petroleum Industry."



# They're Off!

The most beautiful race track in Northern California—Tanforan—was officially opened on October 8, and the season is now in full swing. The owner of this celebrated track, J. W. Marchbank, is not only a noted sportsman and judge of horseflesh, but is also a purveyor of oil and lubricants to the San

Francisco motoring public. He has planned the construction of a group of super-service stations, to cost in excess of \$10,000 each, and the first, just completed, is now doing an enviable business in the sale of Union Oil Company products.

# Hallowe'en Party at Paso Robles

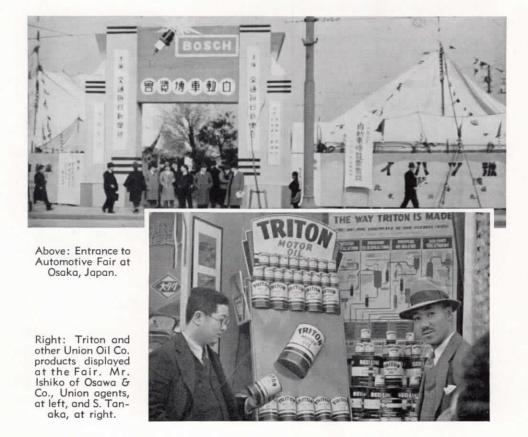
AT Paso Robles American Legion Hall on Saturday, October 31, employees of the Coast and Valley Divisions will cavort in an old-time Hallowe'en Barn Dance to the music of Larry Frazier's orchestra. Advance reports are that work is already under way on the weirdest aggregation of costumes ever conceived by mortal man, and there is no question that as a spectacle if nothing else, this fandango will be a success. Refreshments will be served, and prizes will be donated for outstanding accomplishment and lack of accomplishment, so that between contests and carrying on, guests are assured of some real entertainment. The committee is anxious

to have a representative delegation from the suburban areas, and extends a hearty invitation to employees of San Francisco and Los Angeles to join in the frolic.

# Time to Spare

It is again open season on pin boys, and Union Oil Company bowlers in three leagues are busy in the usual scramble for places in the big annual telegraphic play-off for the Burnham trophy. The head office is rolling at Jensen's Recreation Alleys Monday nights, with twelve teams competing. Santa Fe Springs has six teams doing battle at McNee's in Whittier every Wednesday, and the Dominguez League has also six teams in action at the Compton Alleys on Thursday nights.

# Union Oil Company in Japan





F. C. BOYD



W. H. WATKINS

Field

Organization



TED MILES



W. S. EGGLESTON



G. W. GOSLINE

IN ACCORDANCE with a bulletin issued by Edmund Jussen, Jr., manager of field operations, the following changes in field organization became effective August 15, 1936.

F. C. Boyd, formerly drilling superintendent, was appointed general superintendent of drilling, with headquarters at Santa Fe Springs. In this capacity he is now responsible for, and will have charge of, all drilling operations conducted by the field department in the State of California, and all personnel engaged in such operations.

Ted Miles, formerly assistant general superintendent, Northern Division, was appointed superintendent of production, Valley Division, with headquarters at Bakersfield. He is now responsible for, and has charge of, all production operations in the Valley Division, and all personnel engaged in such operations.

W. H. Watkins, formerly production foreman, was promoted to superintendent of production, Coast Division, with headquarters at Orcutt. He is now responsible for, and has charge of, all production operations in the Coast Division, and all personnel engaged in such operations.

W. S. Eggleston, formerly chief development engineer, was appointed chief petroleum engineer, with headquarters at Los Angeles. He is now responsible for, and has charge of, all petroleum engineering work, embracing both drilling and production, conducted by the field department in the State of California, and of all personnel directly engaged in such work.

All of the above report to the manager of field operations.

In a supplementary bulletin issued jointly by Edmund Jussen, manager of field operations, and W. W. Hay, manager of pipe-line operations, George W. Gosline was designated as superintendent of production and pipe-line operations, Ventura Division, with headquarters at Santa Paula, in which capacity he is directly responsible for all production and pipe-line operations in the Ventura Division, and for the personnel engaged in such operations. He will report to each manager on the matters with which they are concerned.



It has been estimated that heat of combustion of a gallon of gasoline is equivalent to more than 98,000,000 foot-pounds of work, which, at 100 per cent efficiency, is sufficient to lift a 3,100-pound motor vehicle six miles.



### A Historic Battle

DURING the month of June, the Bellingham district had a bang-up Triton campaign, and in order to promote some real rivalry, the personnel was divided into two baseball teams. The team from the south end of the district was called the Skagit White Sox, and C. A. Johnson, Mt. Vernon agent, was elected captain. The north end team was known as the Whatcom Braves, and was captained by R. A. McMurtrie, Bellingham agent.

Each team was assigned a quota, and when 25 per cent of this quota was made, it counted one run, 50 per cent counted two runs, and so on. After the full quota was made each additional ten gallon sale was good for another run, and it was agreed that the losing team should buy a dinner for the winners.

To demonstrate just how good these boys are, and how well matched the teams were, the final score was Whatcom Braves, 14.4 runs; Skagit White Sox, 14.1 runs. That was too close to be called a victory and it was consequently decided to determine the issue in a real baseball game. Accordingly, on

July 26th, the two teams met at the Umbrella, Mayhew Grove, six miles west of Bellingham, at a picnic especially arranged to settle the argument.

The teams were apparently just as well matched on the diamond as they were in the selling field for, believe it or not, they were all even at the end of the ninth inning, and had to go one extra round before the game was decided in favor of the Skagit White Sox by a score of 24 to 23.

An additional feature of the picnic was a ball game between the Skagit and Whatcom ladies, but the score-keeper developed writers' cramp, so the result remains a deep and dark secret.

Games and amusements of infinite variety were arranged for the kiddies and the grownups, and those who hadn't crippled themselves during the day wound up the evening in the dance hall. The whole affair was such a big success, and so thoroughly enjoyed, that there is every possibility of this north versus south battle becoming an annual event.



# Heigh Ho for Hi-Hiume!

Aspirants to membership in the Izaak Walton League have a lesson in piscatology to learn from the L. M. Bridgman party which last month trekked to Lake Hi-Hiume in northern British Columbia to snare one of the largest trout catches ever reported.

Lake Hi-Hiume, which in Indian means "Big, Big Fish," developed into a finny haven, the like of which no one in the party had ever before witnessed.

To establish proof of the tremendous catch made, Bridgman, who is a Leica camera addict, got pictorial evidence. On a single morning the limit was obtained in two hours with fly and spinner. The average length was 20 inches. Proof? Look at the pictures. So many fish were caught in the short time the party remained at the lake that it was necessary to build a smokehouse and preserve part of the catch.



Fuelling up at the Union 'Diesol' pump.

Two of the California Motor Express Co.'s streamlined Diesel trucks.

of a place well in the forefront of a highly competitive field.

The California Motor Express, Limited, has been an extensive user of Union Oil Company products for a number of years, and during the regularly scheduled runs from San Francisco to Los Angeles the transportation units are fueled from a Union Diesol pump that is a prominent feature of the up-to-date equipment at the Brannan Street headquarters.



# Monarchs of the Highway

ONE of the most complete and most modern transportation systems on the Pacific Coast is that controlled by the California Motor Express, Limited, whose headquarters are located on Brannan Street, San Francisco. Operating a continuous freight transportation line between the Bay City and Los Angeles, this organization has a fleet of eight streamlined diesel trucks that are the final word in automotive equipment. All units are powered with 6-cylinder Cummins diesel engines, and each is capable of carrying a 17-ton freight load. Four of the trucks are Whites, and four are Autocars, and the bodies are finished in an extremely serviceable and attractive design. At the present time, when diesel-powered trucks are recognized as an important factor in long-haul freighting, and in the general express business, this efficient, speedy, and completely modern fleet is assured

# Trexpuensa Club Picnic

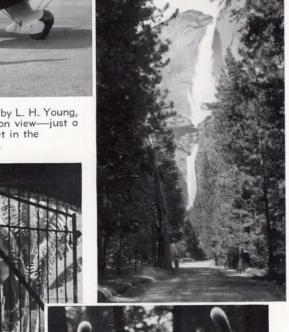
On August 22, the Trexpuensa Club of San Francisco staged its annual picnic on the beautiful Morshead Estate at Woodside, California. A large gathering took part in the excellent program of games and sports that had been arranged by Louise Vitt, the club's capable president, and her corps of energetic and enthusiastic assistants. The weather man was on his best behavior, and after a grand bus ride down to the estate, engineered by W. A. Newhoff, the party indulged in swimming, hiking, and eating to the seven signs of the zodiac. This was one of the most enjoyable outings so far sponsored by Trexpuensa, for which thanks are especially due to Mr. S. W. Morshead, who not only opened his lovely grounds to the club, but added many thoughtful little features to assure the success of the party.

Left: Last of famous "Gee Bee" racing planes. Photographed with a 2A Brownie by Bob Byrne, Advertising Department.

Below: Yosemite Falls, a fine shot by J. R. Humphreys, Comptroller's Department.



Below: This beautiful composition is by L. H. Young, Lease Department. It is not a mission view—just a typical scene on Olvera Street in the heart of Los Angeles.





Right: The rare study of a deer was taken at Sequoia National Park by P. F. Michels of the Comptroller's Department.



T. M. BOLTON



C. F. PEDROTTA



J. M. RUST

# Thirty Years



J. D. REARDEN



A. V. SILVA



P. MILLER, JR.



DURING the months of August and September, six employees completed thirty-year spans of valuable association with the company. This little group actually became affiliated with our organization when it was just a mere sixteen years of age. Despite its youth, however, Union Oil Company was even then a robust institution. It had just emerged from the vicissitudes of industrial childhood, and although now a fine strong boy, still had to weather that stabilization period which lies between youth and manhood. These six employees may feel very proud of the fact that they played their

distinctive parts, and played them well, in carrying Union Oil Company safely through this trying interval, and planting it solidly and firmly on its foundation.

It is an interesting fact that three persons qualified for their thirty-year pins in the month of August and all three started their employment on the same day—August 1, 1906.

The first of this group is T. M. Bolton, manager of the Port Moody refinery of the Union Oil Company of Canada, Ltd., in British Columbia. Tom, as he prefers to be known, was born in the same state as the



F. H. HAMLIN

# Twenty-five Years



G. W. GOSLINE



A. H. HAND



S. A. ALLCOT



P. J. COLLINS, JR.



S. HANNA



R. E. PIERCE



V. LOPEZ



F. C. OWEN



K. A. HOXIE

oil industry-Pennsylvania, and it is only natural, therefore, that he should inherit the inclinations of his forbears and finally find his way into some phase of the petroleum business. He first attached himself to Union Oil Company in 1906 as a member of the refinery staff at Oleum, where he remained until 1918, when he was transferred to the lubrication department at Los Angeles. A year later he was moved to Bakersfield as superintendent of the Maltha refinery in which capacity he continued until 1926, when he was adopted by the Canadian division to take charge of the Port Moody plant. He is now an enthusiastic booster for the scenic beauties of Vancouver and its environs, and is particularly familiar with the

views obtainable from the various golf courses of the vicinity. Golf is his premier pastime, and when sand trap excavations become too strenuous, he seeks diversion in the building and operation of snipe boats, in which occupation he is ably assisted by his son, Tommy, who is also no mean designer of these diminutive but entertaining craft.

Following Mr. Bolton on the thirty-year roster is C. F. Pedrotta, of the manufacturing department staff at head office, who is well and favorably known to every employee whose duties require contact with this department. Mr. Pedrotta began his employment on August 1, 1906, at the Potrero Plant in San Francisco, and in 1907, when the Oleum refinery began to develop growing

# Twenty Years



W. B. RING



F. TENNYSON



R. LINDEN



A. J. McGURN



M. E. SIMS



B. NESS



E. F. FALK



F. DUFFY



G. L. PARSONS

pains, he was delegated to this plant to organize the office force. Here he was privileged to witness the installation of the refinery's first crude stills, ten of them, which had been manufactured in Titusville, Pa., and shipped to Oleum. As a matter of more than passing interest, it might be mentioned that these original stills are just now being dismantled after practically thirty years of continuous service. Remaining in the office until 1909, Mr. Pedrotta later spent two years in the drum and barrel, and shipping departments, after which he was assigned to manufacturing headquarters at San Francisco. In February, 1917, the department office was moved to Los Angeles, and since that time he has remained a valuable member of the

manufacturing force, being particularly concerned with the statistical phases of the diversified refinery operations of the company. In his leisure moments he is an ardent disciple of the great outdoors, and is never happier than when camped on the banks of a well-stocked trout stream, unless it may be when he is engaged in the capacity of adviser and mentor to a family of which he is inordinately proud.

Also attaining his thirtieth year of association with Union Oil Company in the month of August was J. M. Rust, treasurer, who first entered the employ of the company as an accountant, assigned particularly to the cost accounting of new wells. He had previously been engaged by the Santa Fe

Railroad as a passenger rate and division clerk in Los Angeles, and had been so successful in this capacity that he was appointed to a post in the Santa Fe's head office at Topeka, Kansas. By this time, however, he had become so attached to California that he had no desire to leave, so to obviate the necessity, secured the position, already mentioned, with Union Oil Company. Mr. Rust's rise in the company was a rapid one. First, on account of his prior experience, he was assigned to freight claims and general traffic problems, and in this capacity attended to all claims and rate adjustments for the Southern division. Not long after his initial appointment, he was placed in charge of the Southern division credit department, and a short time later was again promoted to the important post of general credit manager. This all took place in days when there was practically no organized credit departments among business institutions, and Union Oil Company's present credit system is the culmination of the effort begun by Mr. Rust at that time. On June 1, 1923, he was appointed assistant treasurer, and upon the retirement of R. J. Keown, on February 9, 1931, he was elevated to complete charge, and has remained treasurer of Union Oil Company up to the present time. Evidence of Mr. Rust's profound influence in credit matters and business methods generally, may be found in his continuous and active affiliation with various business men's and credit men's associations, local and national, in which he has held and still holds many high offices. In addition to these interests he also finds time to devote to such civic institutions as the Board of Trade, and the Chamber of Commerce, and is a prominent figure in many phases of Christian endeavor. He is particularly proud of the fact that he played an active part in the founding of Immanuel Presbyterian Church, and has decided reason to take additional pride in his long and worthy service to Union Oil Company.

Leading the September thirty-year contingent is J. D. Rearden, traffic manager, who came to Union Oil Company as a rate clerk on September 1, 1906, and from that time played an important part in the organization and operation of the traffic department. It is rather a unique circumstance in the history of events, that it was his boyhood friend, Jack Geary, now manager of refined oil sales, who originally persuaded him to accept a position

with Union Oil Company, and in a reversal of the procedure, was himself induced to become a member of the Red Line family by Jack Rearden just one year later. On January 12, 1910, Mr. Rearden was made traffic manager of the northern division, and October 1, 1913, was appointed general traffic manager. The traffic headquarters were moved to Los Angeles in the following year, and since that time until the present he has remained as manager of the department. Mr. Rearden is an active member of many traffic and transportation organizations, and has always taken a lively interest in the problems that are incidental to commodity shipments. His spare moments are devoted to the cultivation of a fine garden at his home in Hollywood, that is, when they are not given to the affairs of the Federal Grand Jury, of which he has been a member since the beginning of the year. The business of a traffic manager involves frequent diplomatic excursions and contacts, and Mr. Rearden's general geniality and affability have been potent factors in his successful conduct of the company's traffic affairs.

In the year of the great San Francisco fire, 1906, a tall willowy young man, August V. Silva, applied for a position in the sales department of the Union Oil Company at that point. Despite the chaotic condition of the streets, and the difficulty of negotiating a vehicle, much less locating a customer, he went blithely and whole-heartedly about his business, to such good effect that he was very soon recognized as a real salesman.

When, in 1907, Union Oil Company found the need of a branch in Oakland, and the further need of tried and tested salesmen, "Gus" Silva was drafted into the new territory. Oakland was a rapidly growing community, and "Gus" was a man who could adapt himself to the occasion. Here he gave additional evidence of the qualities essential to salesmanship, and here he has remained, building for himself and for Union Oil Company a reputation of which both might well be proud. In the Oakland district "Gasoline Gus," as they call him, is a man who commands the greatest respect, not only among his fellow workers and customers, but even among his competitors. His immediate associates in Union Oil Company are warm in their praise of "Gus," whose ready advice and material aid have helped many a youngster over the tough spots. A well-regulated temperate life

has kept him in fine physical trim to continue his good work, and an occasional bass fishing trip provides him with the sort of relaxation he likes best.

Ending the parade of thirty-year men for this period is Pete Miller, Jr., brick-mason foreman at the Oleum refinery, who started in to learn his trade at the early age of thirteen. His father was instructor, and for four years taught Pete all the wiles of the business so successfully that at the age of seventeen he was a fully qualified journeyman. Before he came to Union Oil Company he had built brick furnaces for steel mills, glass factories, oil refineries, etc., and had really become a master of his trade. For the past thirty years he has had direct control of all the brickwork done at Oleum, which has been plenty, and has proven thoroughly equal to his charge. He has two hobbies-safety and health-and he is justly proud of the fine record he holds in the promotion of safety at the Oleum refinery. For many years he has maintained an intense interest in all branches of athletics, and not so long ago was one of the foremost competitors in the various district and national contests sponsored by the Turnverein. of which he was an active member for sixteen years. He is a firm believer in the fact that a healthy, agile body and an alert mind are the greatest insurance against accident, and his own record is a fine proof of his contention. He has now abandoned the more strenuous exercises and devotes his leisure moments to pitching horse shoes and raising luscious blackberries. Most important of all is the fact that Pete Miller, Jr., rates high in the regard of his fellow-workers. That, in the end, is the most convincing measure of any man's character.

Ten men became eligible for twenty-five year service emblems during the August-September period. In the lead of this group is Frank H. Hamlin, central division fuel oil supervisor, who, with his horse and buggy, at one time constituted the entire San Francisco sales department. He is credited, and rightly, with the organization and direction of the first real sales force in the Bay city, and to his twenty-years of supervision may also be ascribed, in a large way, the building up of asphalt, marine, and industrial fuel oil sales to their present proportions. He was delegated to the position which he now occupies when the central division was established in November, 1933. Mr. Hamlin is a popular citizen of San Francisco, with a lively interest

in civic and community affairs, and his pleasing manner and fine qualities have not only made him many friends, but have been decided assets to Union Oil Company.

George W. Gosline, superintendent of production and pipe line operations, Ventura division, makes his headquarters in Santa Paula, in an environment that simply reeks historical interest. His office, with its quaint open fireplace, and unusually high ceiling, was the scene of many important meetings held by the first officers of Union Oil Company, and the Santa Paula district, of course, was the locale of the company's earliest explorations. In this environment Mr. Gosline has spent his entire twenty-five years, and has long capably conducted the field and pipe line operations of his division. From personal observation, we would say that his hobby is mechanics, and the nature of his duties assures him ample opportunity to indulge this flair. He has lately been in somewhat poor health, and it is the earnest hope of Union Oil Company that he may soon enjoy his former vigor and heartiness.

A. H. Hand is one of the youngest longservice men in Union Oil Company, having started as office boy in the sales department at Los Angeles when he was just thirteen years of age. After serving the sales and manufacturing departments in various capacities until 1915, he entered the refined oil division of the comptroller's department, and there seemed to find his place in the sun. Through a series of meteoric rises he skipped from one important post to another, until upon the retirement of J. M. Hannay in January, 1934, he was appointed assistant comptroller, which title he still holds. Mr. Hand is an aggressive, energetic individual whose rise in the ranks of Union Oil Company is the result of persistent hard work, and the success of whose efforts is a fine example of the reward of application.

The employment of Samuel A. Allcot, of the Northern division field department, actually dates from 1908, but he left Union Oil Company for a short time, and in August, 1911, allied himself with the Pinal Dome Oil Company at Cat Canyon in the Orcutt district. When Union Oil Company took over the Pinal Dome properties in 1917, Sam Allcot was head well-puller on the Pinal lease. He was transferred to Lompoc, as lease foreman, where he remained until 1925, and later took over gas storage operations, which are still under his supervision. In a letter to the

editor Sam expresses the great pleasure he has had in working with Union Oil Company for twenty-five years, and we would like Sam to know that Union Oil Company is just as

pleased about it as he is.

Patrick J. Collins, senior engineer at Middlewater pump station, is not just a member of the northern division pipe line-he is a tradition. Pat's first job with the company in 1911 was dragging the second line of the telephone system from Orcutt to Avila, and these being the days of the horse and wagon, most of the work was done by hand. Here are his personal impressions: "Twenty-five years of pleasant (chiefly) association has taught me to appreciate the wise heads that steered my course in the early days; the technical men who solved the many problems in which we became involved; and the constant cooperation and loyalty of the men with whom I worked. This cooperation and a benign providence have established for me what might be some sort of a record - thirteen years in charge of a station without a single lost time accident. (It probably is a record, Pat, and in any case it's a grand performance.—Editor.) Besides four 'sprouts' who completely absorb all my surplus energy, I enjoy reading and hearing about what's going on in the world, and I'm looking forward with enthusiasm to my next 25 years with Union Oil Company."

Simeon Hanna, of the sales department in Panama, has spent the entire period of his Union Oil Company employment in the Canal Zone, where he was first engaged as a yard laborer and general utility man. Two years after his initial employment he became oiler at the pumping plant, and through various positions progressed until he was put in charge of pumping operations at Balboa. Simeon is a man who has had a wealth of nautical experience in Central American waters, and this marine training has proved a valuable asset in his work for Union Oil Company during twenty-five years of com-

mendable effort in the Canal Zone.

Roy E. Pierce, of the Coast division field department, is another member of the old Pinal Dome Oil Company, the acquisition of which by Union Oil Company, in 1917, constituted an important step in the development of the Orcutt district. He first started work for Pinal in 1911 as pumper, and has since occupied various positions as plant operator and field pumper. Mr. Pierce spends his spare time raising black Minorca chickens, and if you don't think that's a healthy pastime, we might add that he has never been in a hospital with sickness or accident during his 59 years of existence.

Valentine Lopez, of the Avila refinery, began work with Union Oil Company as a laborer at the old Port San Luis refinery. He was later transferred to the Avila refinery when that plant was under construction. Since moving to Avila he has filled the jobs of pipe fitters' helper, pipe fitter, boiler washer, and is now craftsman's helper. Valentine is one of the most successful deer hunters in the business, and our information is to the effect that no matter how scarce these animals may be in season, he never fails to

bring home his quota.

F. C. Owen, production and transportation accounts division of the Comptroller's department, has been so long associated with this phase of the business that he is now the constituted authority of the department on all the early transactions involving crude production and purchases, particularly those incidental matters that are not on record but seem to be indelibly impressed on his memory. He is a highly respected citizen of the town of Monterey Park, of which he is at present mayor, and for which he has done yeoman service as councilman for many years.

Kleber A. Hoxie, attached to the southern division field department, has one outstanding interest—the Union Oil Company, but when his concentration develops the need for a little relaxation, he may be found chasing the chickens out of the flower beds at his home in Huntington Beach. Kleber derives real pleasure from his home, his flowers, and his chickens, and most of his spare moments are spent in these restful pursuits. He is still hoping, however, that some day he may make a successful deer hunting trip.

In the two months' period twenty-year service emblems were presented to nine men led by William B. Ring, superintendent of the Potrero plant at San Francisco, whose first efforts for Union Oil Company were directed from the seat of a truck wagon. Mr. Ring's friends, and they are many, tell us that his one outstanding characteristic is a fine encouraging and helpful interest in the men who come under his supervision, and who consequently hold him in the highest regard.

Frank Tennyson, of the southern division field department, makes his home in La Habra, and when not engaged in pulling wells in the Long Beach-Huntington Beach area is usually either off on a hunting trip or is laying plans for one. Deer and quail provide him with his favorite sport, and he has acquired more birdies than a professional golfer.

Royal "Roy" Linden, division sales manager at Los Angeles, was first employed in the old Los Angeles sales department at Seventh and Spring Streets, and in the interim seems to have occupied every position in the sales field, in the continuous series of promotions that have carried him to his present high post. He is just as well known and as highly regarded in the northwest, where he held various managerial positions, as he is in the southern division, where he started his career.

A. J. McGurn, assistant manager of purchases, came to California in 1911 from Pittsburgh, Pa., where he was employed by various engineering companies. Shortly after his arrival in Los Angeles he went to work for Union Well Supply Company, which was owned by Union Oil Co., and was with this firm until it was sold to National Supply Co. in 1913. He entered the services of the Company as a buyer in the purchasing department, and it is evident from his present position that it was a happy choice.

Away from business Mr. McGurn likes nothing better than to sit with his favorite cocker spaniel at his feet, and play a good close game of bridge with three other experts.

Morton E. Sims of the southern division field department, has a miniature rancho in the town of Compton, and likes nothing better than to spend his leisure time in the cultivation of his garden, unless perhaps it is to go off with his twelve-year-old son on a fishing trip. Morton is keenly interested and active in Boy Scout work, and is a director of Troop 60 at Lynwood.

Bjarne "Barney" Ness, stillman at Los Angeles refinery, was first employed as a boiler fireman at Avila refinery on August 27, 1916, and was moved to Wilmington nine years later, where he has remained until the present time. Having in his long career witnessed many fires and explosions, and their results, Mr. Ness has become intensely interested in fire prevention and safety. That's his hobby—a mighty fine one, too—and it not only claims his attention while he works, but utilizes also a large part of his off-duty time.

Earnest F. Falk, employed at the Redwood City marketing station in the central division, has spent his entire twenty years of effort for Union Oil Company at this station. Mr. Falk drove the last team of horses used at the Redwood plant, a fine old team by the name of Tom and Jerry, which were obviously named by some advocate of prohibition. When he climbs off his tank truck at night he usually dashes home to attend to his shrubbery, in which he has developed a diversity of species of which he is very proud.

Frank Duffy, pipe fitter at the Oleum refinery, started in for Union Oil Company at Oleum as a laborer on September 14, 1916, and has spent all of his twenty years in the refinery. Frank is a man of exceptionally pleasant disposition, which has made him many friends both inside and outside of the Company and his greatest interest apart from his work is the church, to which he devotes himself whole-heartedly during his leisure moments.

George L. Parsons, northern division pipe lines, first joined Union Oil Company as a gauger at McKittrick twenty years ago. He knows almost every oil tank in the San Joaquin Valley by number, and has witnessed the rise and fall of many mushroom towns that sprang into being with new oil discoveries and eventually died of ennui. Through his familiarity with the district he has discovered a gold mine which he hopes will some day enable him to turn in his gauge tape and retire to a life of luxury and ease. George is now senior gauger in the Midway district.

The remainder of the service emblem list follows:

#### Fifteen Years-August, 1936

Blankenship, L., Field, So. Div. Fallan, H. E., Sales, So. Div. Israel, B., Sales, No. Div. Klatt, P. F., USS, So. Region. Nielsen, G. F., Field, So. Div. Olsen, A. B., Marine, M.S. Olinda. Rogers, J. Hal, Sales, Head Office. Sutherland, A. G., Mfg., L. A. Refy.

### Ten Years—August, 1936

AhFat, W. A., Sales, Honolulu. Atherton, R. B., Field, Head Office. Calori, Cleo A., Mfg., Oleum Refy. Cartwright, E. E., Mfg., L. A. Refy. Condon, J. F., Jr., Mfg., Research. Cox, M., Mfg., Oleum Refy. Eggleston, W. S., Field, Head Office. Garris, A. B., Mfg., L. A. Refy. Gillingham, O. N., Gas, So. Div. Hansen, F. C., Sales, No. Div. Higgins, L. W., Gas, So. Div. Hoban, J., Jr., Mfg., L. A. Refy. Hull, O. C., Field, No. Div. Kelly, E. L., Mfg., L. A. Refy. LeFebvre, L. C., Mfg., Oleum Refy. Masters, R. H., Gas, So. Div. Miller, C. H., Field, No. Div. Miller, J., Mfg., Oleum Refy. Moore, S. M., Sales, No. Div. Newell, R. W., Credit, Head Office. Ozenberger, L., Mfg., Oleum Refy. Palm, L. E., Sales, So. Div. Perkins, C. S., Field, So. Div. Plath, F. L., Garage, Cent. Div. Pumphrey, A. L., Sales, No. Div. Rankin, S. G., Mfg., Oleum Refy. Romer, H. B., Sales, No. Div. Smith, E. J., Transp., Prod. P. L. Tanner, R. J., Mfg., Oleum Refy. Waller, A., Mfg., L. A. Refy. Wharton, J. F., Sales, So. Div. Williamson, W. R., Sales, Cent. Div. Willis, R. T., Mfg., Oleum Refy. Wilson, H. L., Mfg., L. A. Refy. Wimpress, C. S., Mfg., Head Office. Wood, G. C., Transp., Prod. P. L. Young, T. R., Sales, No. Div.

### Fifteen Years—September, 1936

Gillenwater, C. C., Sales, No. Div. Hammond, W. C., Sales, No. Div. Jeffery, C. A., Sales, Head Office. Kellett, G., Executive, Head Office. Kroeger, A., Industrial Relations, Head Office. Lapham, H. A., Comptroller's, Head Office. Lewis, G. E., Field, So. Div. Loughery, D. L., Sales, So. Div. Morgenson, S. G., Construction, No. Div. Rathwell, N. H., Sales, No. Div. Stephenson, C. P., Traffic, Head Office. Upton, E. E., Sales, No. Div.

### Ten Years—September, 1936

Alm, R., Sales, Vancouver.
Angrave, W. W., Sales, Cent. Div.
Anderson, H. B., Sales, Cent. Div.
Barr, W. M., Transp., Prod. P. L.
Bragg, V. C., Mfg., Oleum Refy.
Burgess, K., Mfg., Oleum Refy.
Chapin, E. M., Mfg., L. A. Refy.
Coates, S., Mfg., L. A. Refy.
Connolly, M., Mfg., Oleum Refy.
Darr, N. C., Mfg., L. A. Refy.
Davison, F. E., Sales, So. Div.
Dritchel, O. F., Field, So. Div.

Duysen, B. A., Mfg., L. A. Refy. Fallon, B. E., Mfg., L. A. Refy. Glynn, P., Transp., Prod. P. L. Harris, J. M., Mfg., L. A. Refy. Herron, W. J., Mfg., L. A. Refy. Horton, S. G., Sales, Vancouver. Koester, M. E. A., Mfg., Oleum Refy. Kawashima, T., Sales, Honolulu. Kincaid, A. M., Sales, Vancouver. Lee, P. M., Sales, No. Div. Marks, M. C., Sales, Cent. Div. Milman, H. J., Sales, Vancouver. Parlier, A. H., Mfg., Oleum Refy. Sidford, J. P., Sales, Head Office. Sigler, H. R., Sales, No. Div. Sloan, J. A., Sales, Vancouver. Snitzler, Z. L., Patent, Head Office. Stubby, G., Mfg., L. A. Refy. Wallace, J. A., Sales, No. Div. Williams, H. S., Mfg., Oleum Refy. Wade, D. I., USS, So. Region.

# Seattle Employees Prepare for Channel Swim

IN A TYPICAL outburst of Washington weather, the Northern Division office force, and the Seattle and Tacoma sales personnel, took their families out to beautiful Lake Lucerne for what our reporter describes as a swimming meet. Actually the affair was a picnic, and despite the extreme humidity it was a thoroughly enjoyable one, too. Over 340 were present, and due to the excess of liquid sunshine, they were able to partake of a first class picnic dinner, which, for probably the first time in history, was entirely free from ants. The big event of the day was a closely contested baseball game between the "City Slickers" and the "Farmer Boys," in which the latter just managed to nose out their opponents by the narrow margin of 21 to 0. A first class orchestra was on hand to inveigle itching feet into the classic steps of the rhumba, and Jim Federspiel provided further entertainment when, disguised as Cleopatra, he won the suitcase race. It was a grand party despite the epidemic of hay fever that developed on Monday morning, and Mr. Davenport particularly compliments the committee for its wonderful foresight in choosing Sunday, August 23, as the date of the event. It hadn't rained for 41 days prior to that day, and the district hasn't had a drop of rain since.

# REFINED AND CRUDE

By Richard Sneddon

The football season with all its glamour is here again, and the continued popularity of the great college sport is quite evident in the remark of a local paper to the effect that at one of the first games of the year "hundreds of persons were turned down for seats."

And while on the subject of sport, we have just discovered that the game of baseball is mentioned in the very first verse of the Bible. It starts thus: "In the big inning."

A famous writer, discussing the all-important question: "Should children be chastised?" asks, "What has a mother in view when she whips a disobedient child?" We know the answer, but don't like to say it.

Also, although England is reputed to be remarkably free from cases of juvenile delinquency, we note that at a recent society wedding, two very young children held up the bride's train.

And says Junior as he smeared the jam on his little sister's face, "I hate to do this, but I can't have the finger of suspicion pointed at me."

The preacher of a Southern California church some years ago was appointed chaplain at a state penitentiary. Appropriately enough he chose as his farewell sermon, "I go now to prepare a place for you."

Then there was the engineer who had the hives and was placed in the B class.

After visiting a local art gallery, and concentrating on an exhibition of cubist pictures, we have lost all desire to go to Cuba.

In this connection, it is really amusing how differently people are affected by the same picture. In the gallery mentioned above, there was one of these fine old records of Roman cruelty — a painting depicting the Christians being thrown to the lions in the arena. One little girl stood and gazed at this for some time, evidently much impressed, and as she moved with her parents to the next attraction she said, "Aw, daddy, did you see that? One of the poor lions had no Christian."

We also understand that a girl employee of an Eastern bank was recently arrested on a charge of embezzlement, so it looks as if the days of the short skirt haven't completely passed yet.

And did you ever notice that they always have better weather on the big boats?

Printed in U.S.A.

This being election season, we recall that some years ago a man by the name of Wurld was a candidate for election to Congress, and by a peculiar coincidence he was flattened at the poles.

In applying for the position the girl had enclosed her photograph, and was naturally elated when she received word to report at the office on Monday. Imagine her surprise, however, when she was abruptly informed that she was too late. "Is the position filled, then?" she inquired. "No," replied the manager, "I mean that you should have come at the time you had your photograph taken."

And now says the guide on the sight-seeing bus, "We are approaching the Falls of Niagara. When the ladies stop talking you will hear the roar."

"This," said the furniture dealer, "is the only genuine antique Louis XV chair in the entire city." And the customer expostulated, "Why, you told me you had two of them." "I have," responded the dealer, not the least bit disturbed, "but the other one isn't quite finished yet."

It's an uncomfortable fact that when a piece of music threatens every minute to be a tune, and keeps on disappointing you, it's classical.

And it's a grand thing for America that most of its musicians go abroad to study.

Also on the same subject, a quartet is a group of four men, each of whom thinks the other three are terrible.

A local trade magazine announces that a certain factory has been so swamped with business, it has been necessary to put on a "night shirt" to fill the orders.

But the psychology of the following our readers will have to figure out for themselves:

"Do you love me, darling?"
"Of course, I do, Herbert."
"Herbert! My name's Arthur!"

"Why, so it is. I keep thinking this is Monday."

Unusual business acumen, incidentally, was exhibited by the owner of a private ferry, who posted a notice at the quay, reading, "Passengers must pay in advance as the boat leaks."

With which few remarks we conclude. Remember that even the most menial tasks are important. Many an executive has been obliged to scour the whole place for a janitor.

Times-Mirror Printing and Binding House, Los Angeles



