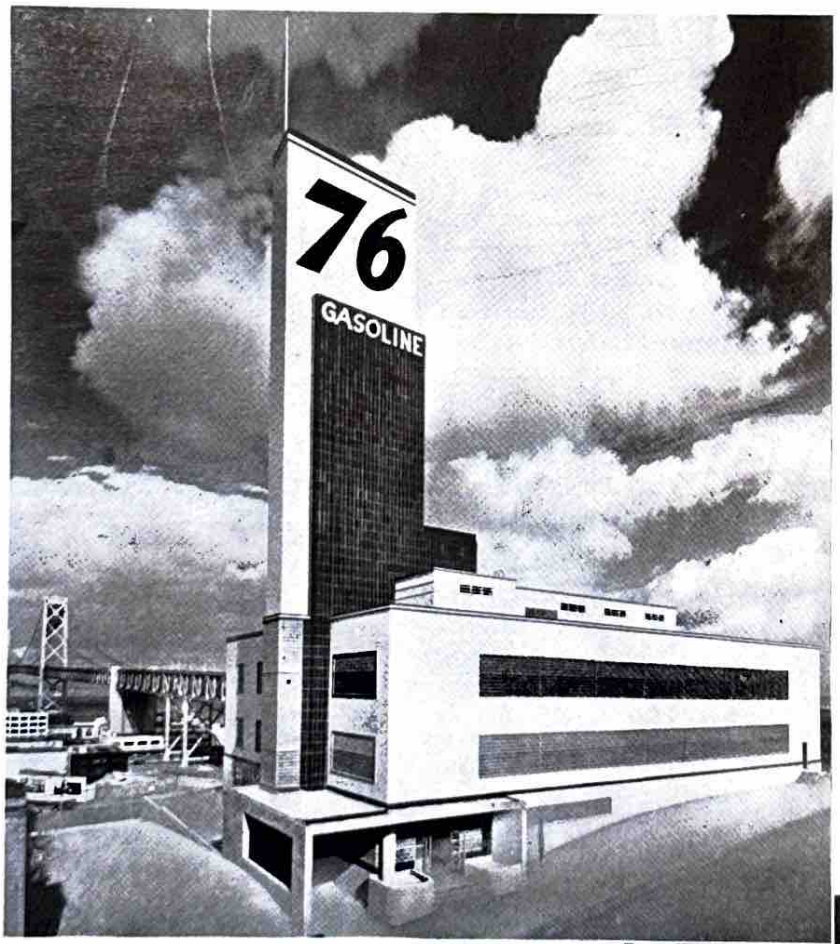
"On Tour"

PUBLISHED MONTHLY FOR EMPLOYEES OF UNION OIL COMPANY

VOLUME 2, NUMBER 10 NOVEMBER, 1940

S. F. BUILDING OPENED



ABOVE: This photo of the new San Francisco building was taken just after completion of the structure and shows its close proximity to the bay bridge. The huge neon-illuminated 76 atop its 140-foot pylon can be seen from many sections of the East Bay area, and serves as a constant reminder of Union Oil products to commuters crossing the big bridge. The new building is located on Rincon Hill, at the terminus of First Street.

MAYOR ROSSI CUTS RIBBON AT OPENING

On October 17, atop famed old Rincon Hill, Union Oil Company opened the doors of its new San Francisco office building. Attended by several Company officials and many San Franciscans, the opening served as a fitting climax to Union Oil's fiftieth anniversary celebrations. It was just 50 years ago to the day that Lyman Stewart and W. L. Hardison founded the Company in the original old office in Santa Paula.

Ultra-Modern Lines

Constructed along ultra-modern lines, the new building embodies the functional type of architecture and is an imposing addition to the city's famed and colorful skyline. Most outstanding exterior feature is a 140-foot pylon of orange and blue glazed terra cotta, topped by a huge neon-lighted 76 that can be seen for miles around. Inside are four stories of offices completely modern in every detail.

History Interesting

The story of Rincon Hill, on which the new building is located, is a most inter-

(Continued on page 6, col. 3)

RIGHT: Officiating at the opening of the new building was San Francisco's Mayor Rossi, who wielded the big shears at the ribbon-cutting ceremony. Officials assisting Mayor Rossi are, left to right, Allen J. Lowrey, W. L. Stewart, Jr., Lewis P. Hobart, architect; A. C. Stewart, Roy Linden, W. A. Newhoff, Felix Kahn, contractor, and Reese H. Taylor. Many San Franciscans inspected the new offices, which were open all day.

On Tour

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ADDRESS ALL COMMUNICATIONS
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ORGANIZATION CHANGES

News from the Manufacturing Department states that N. F. MYERS has resigned from the Company, and the position of manager of refineries will not be filled.

Managers of Oleum and Los Angeles refineries and superintendent of Maltha Refinery will report to W. L. Stewart, Jr.

SHERMAN DOTY, supervisor refining operations, will continue in his present capacity, reporting directly to W. L. Stewart, Jr. All correspondence and reports regarding routine operations and shipments should be addressed to him.

Effective November 6, J. N. HOLDEN was transferred to the research and development department and was appointed resident engineer at Oleum, reporting to Earle Gard, manager research and development.

R. G. BRAY was appointed manager Oleum Refinery.

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A bulletin from the Marine Department states that, effective October 14, GEORGE B. McLEAN was given the title of marine superintendent in charge of the Union Oil Company office at Wilmington.

CAPTAIN JOHN B. STENE continues to fulfill the position of port captain, reporting to G. B. McLean.

R. H. CYRUS became port engineer, replacing G. B. McLean.

W. J. MURPHY continues in the capacity of personnel representative, functioning under the title of personnel supervisor and reporting to G. B. McLean.

J. R. KRUGER continues in the capacity of port steward, reporting to Captain John B. Stene.

L. A. OFFICES TO BE REMODELED

NEW BUILDING TO BE ERECTED AT OLEUM REFINERY

In step with the opening of the new San Francisco building, is news this month that plans are now under way for the modernization of the Los Angeles office. A second twenty-year lease has been signed with the Namleh Company, owners of the property, and plans for modernization, including complete redesigning and redecorating of all office interiors, are being submitted.

According to H. W. Keller, Namleh Company executive, approximately $400,000 will be expended on the building. Architect Gordon Kauffman has started plans for the modernization and actual construction work is to be handled by McDonald and Kahn, contractors who built the original structure.

The Los Angeles building was constructed in 1923 and has housed the Los Angeles offices of Union Oil Company since that time.

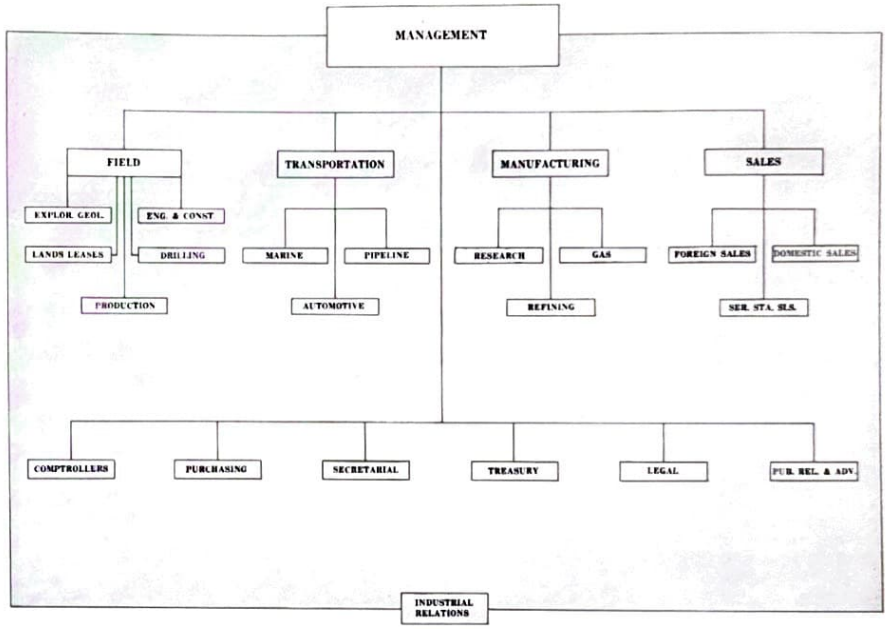
Union Oil's Los Angeles offices, constructed in 1923 and leased to the Company in that year, will undergo a complete modernization in the near future. All office interiors will be redesigned and redecorated.

New Oleum Building

Of interest this month also is news that plans are now being considered for a new administration building at Oleum. The offices now being used at Oleum are the original ones built in the very early days of the refinery.

UNION RECEIVES CONGRATS

On October 17, Union Oil Company's 50th Anniversary date, employees entering the lobby of the Los Angeles office were confronted with a beautiful array of flowers presented to the Company by various corporations. In the picture above, Evelyn Joslyn and Rosemary Rahn read the congratulatory messages attached to the many baskets.



TOURING UNION OIL COMPANY

2. LAND AND LEASE DEPARTMENT

This month Hubert C. Ferry, manager of Leases, gives us a picture, in his own words, of the inner workings of his department.

The Lease Department was established four years ago to consolidate and provide for a better coordinated administration of all matters relating to lands and leases, granting and acquiring of rights of way, easements and franchises, settlement of damage claims, ordinances and rules and regulations of public bodies affecting the company's operations and the citrus project, which theretofore were handled by separate departments. The department is composed of four divisions, as follows:

1. Lease Division
2. Land Division
3. Right of Way and Franchise Division
4. Citrus Division

LEASE DIVISION

Leslie H. Young
Supervisor of Leases

OIL LEASES: The Lease Division is charged with the administration and interpretation of oil leases, including any amendment or modification of the terms of the lease, the extension of drilling and producing rights and all business relations with the landowners.

Until the Lease Department was established, landowners were required to discuss matters relating to our oil leases with the department of the company primarily concerned. Sometimes the discussions took place at the head office and at other times in the field offices. Frequently landowners were dealing with several departments at one time and receiving reports and information, or modifying a lease in some respect, without the knowledge of other departments which may have been directly or indirectly affected. Each department kept a record of its own transactions, but no complete record of all of the company's rights and obligations under its oil leases was maintained in any one department. Obviously this procedure resulted in confusion and misunderstandings between the departments and with the landowners.

Under the present organization, the Lease Division maintains a complete record of all documents affecting the company's oil leases and holdings. All matters relating to oil leases, whether originating in one of the departments of the company or with a landowner or other interested party, are taken up directly with the Lease Division and if necessary the Legal, Accounting, Geological or the Operating Department concerned are consulted before a decision is made. All departments are advised in advance of the accrual of any lease obligation, particularly the drilling of wells, so that they may plan their activities accordingly. This centralization of all lease matters in the Lease Division has resulted in more efficient operation of our properties and better relations with our lessors and other parties interested in our oil holdings.

During the course of a number of years, all oil leases will be modified a number of times to meet changing conditions and to provide for more economical operations. Some of our leases have been modified as many as fifty or sixty times over a period of fifteen or twenty years. Each modification is evidenced by a new document, so that in interpreting an oil lease as to any particular point, all supplemental documents as well as the original lease must be reviewed and taken into consideration.

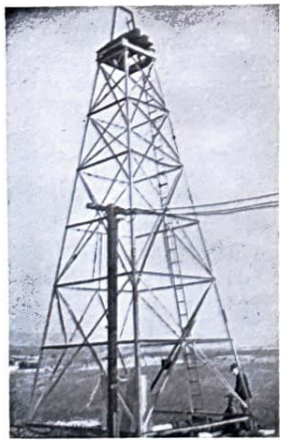
Following are some of the principal matters which the Lease Division is called upon to handle in connection with the administration of oil leases and properties: Abandonment of wells; assignment of leases or interests therein; cost of manufacturing gasoline; accounting for gas and

gasoline; commingling of oil of various gravities on one lease; curtailment of production; dehydration expenses; appointment of depositaries to receive rents and royalties; drilling obligations; extension of drilling rights; extension of producing rights; location of wells; offset obligations; producing obligations; quitclaiming of all or portions of leases; payment of royalties and rentals; furnishing drilling, producing and other reports to lessors; disposal of rotary mud; delivery of royalty oil in kind; surface use of leases by landowners and others; suspension of drilling and producing rights; taxes; use of lessors' water supplies; well spacing programs.

Union Oil Company owns the fee title or mineral rights in, or has under lease, 377 parcels of land, comprising 165,750 acres, exclusive of the 383,025 acre tracts in Colombia and Venezuela, South America. Frequently a number of persons are interested in one of our oil leases or properties. It is estimated that more than 3000 parties have an ownership in our oil holdings.

Oil leases may be entered into with the federal, state, county and city governments; profit and non-profit corporations; partnerships; trustees; private individuals; commissioners; guardians; executors and others. The legal rights and obligations of these various lessors, and their interest or title in the property, must be taken into consideration in dealing with them.

WASTE WATER SYSTEMS: One of the important functions in producing an oil field is to dispose of the waste water and waste oil. The water produced with the oil usually contains a large amount of salt—from one-fourth to one-third of the amount in ocean water—and if discharged on the surface of the ground may destroy plant life and contaminate fresh water supplies. Consequently, it must be collected, cleaned and transported to tidewater, or otherwise disposed of without creating any damage. It usually is too expensive for each operator to construct and operate his own system. Therefore, four companies have been organized to handle waste water in Southern California—Valley Waste Disposal Company, in the San Joaquin Valley; Santa Fe Springs Waste Water Disposal Company, at Santa Fe Springs and Montebello; Oil Operators Incorporated, at Signal Hill, and Waste Water Disposal Company, in Northern Orange County. Each operator contributes to the cost of construction, maintenance and operation of the system in the proportion that the operator's use of the system bears to the total use by all operators. Union Oil Company operates the waste water disposal system in the Santa Maria Valley and Orcutt Fields and contracts with other operators in these fields to handle their waste water.



BELOW: Eighteen water wells are necessary to supply irrigation water to the many acres of citrus and avocado trees on Union Oil's reserve oil land. Union's citrus and avocado grove is one of the largest in the world.

ABOVE: Taken at the Santa Fe Springs Waste Water Disposal plant, this picture shows the concrete tanks in which the oil is drained off the water. This plant handles all waste water produced by the wells in the Santa Fe and Montebello areas. LEFT: Waste water as it enters the plant.

These waste water systems have been constructed at a cost of approximately $1,750,000.00, and the operating expense is approximately $183,000.00 per year. Approximately 160,000,000 barrels of waste water is collected and treated annually. The systems in Los Angeles and Orange Counties have recovered 1,614,000 barrels of waste oil from the waste water during the last ten years.

WATER SYSTEMS: Union Oil Company owns or is interested in forty water systems in the State of California, from which we obtain approximately 21,210,000 barrels of water annually for our operations, at an annual cost of approximately $210,000.00.

Representatives of the Lease Division serve on the boards of directors and as officers of the waste water corporations and mutual water companies in which Union is interested, and this division also is responsible for the administration of Union Oil Company's privately owned waste water disposal and fresh water systems in conjunction with the operating department concerned.

LAND DIVISION

D. L. Springmann
Supervisor of Lands

Last year all lands owned by the company, except active Sales and Operating Department lands, were transferred to the Land Division. This involved 347 parcels of land, including industrial and residential lots, abandoned service and marketing station sites, tank farm sites, dock sites, warehouses, grazing and agricultural lands and tidelands located from Mexico to Alaska and in the Mid-Continent, having a value of several hundred thousand dollars. It is the responsibility of this division to rent, exchange or dispose of all such lands which the company does not desire to retain. Any department of the company requiring additional land consults with the Land Division to determine if some of the company's properties cannot be utilized or exchanged for the parcel desired. Whenever it is desirable, the Land Division purchases or assists in the purchase. Sixty-two parcels of land were sold during the past year.

All of the company houses have been placed under the jurisdiction of the Land Division, and are sold whenever they are not necessary in the company's operations. During the past year 112 houses have been sold—most of them to employees, who were given the first choice to purchase company houses.

Fifty-nine thousand acres of the company's land are under lease for agricultural and grazing purposes. These leases, together with many other land and building leases, yield an annual income to the company in excess of $50,000.00.

ABOVE: A typical scene in the Fullerton-Brea-La Habra area, showing some of Union's groves and the Stewart tank farm in the background. RIGHT: Loading a truck with oranges in one of the lush groves near Brea. From here the oranges go to a packing house where they are prepared for shipment.

RIGHT OF WAY AND FRANCHISE DIVISION

H. H. Hart
Supervisor of Rights of Way

RIGHTS OF WAY: The Right of Way Division acquires and grants rights of way and licenses for pipe and pole lines and roadways. During the course of a year several hundred rights of way are acquired for Union's facilities, each involving a survey to establish the route of the facility, determination of the ownership of the land traversed, negotiating the agreements and securing the consent of any party who may have a mortgage, trust deed or other encumbrance on the land over which the right of way is acquired. Union has 1875 miles of oil, water, gas, gasoline, telephone and power lines on rights of way.

Many rights of way and licenses are granted by Union each year to others across property owned or leased by us.

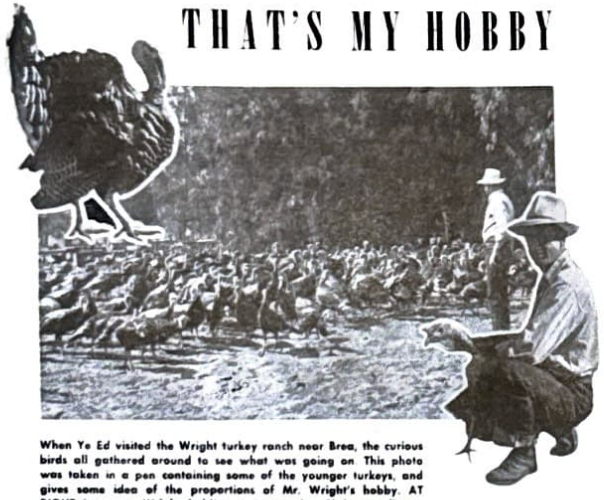
FRANCHISES: Franchises, as distinguished from rights of way granted by private individuals, are acquired from cities and counties to maintain pipe and pole lines in public highways. The same legal procedure, with its attending applications, notices of sale, hearings, public auction, bids, ordinances and bonds, is required for a pipe line one hundred feet long as is required for a railroad or any other public utility franchise many miles long. As prescribed by law, we are required to pay annually to the city or county granting the franchise two per cent of the gross receipts arising from the use of the franchise. Some cities and counties impose an additional fee, based upon the length and size of the line and the commodity transported. Union has 178 miles of its pipe and pole lines located in public thoroughfares under franchises from various cities and counties.

ZONING—SUBDIVISIONS—CONDEMNATION PROCEEDINGS: Zoning ordinances, and rules and regulations

(Continued on page 13, col. 3)

BELOW: J. D. Neuls, supervisor of citrus operations; W. E. Chronister, Times-Mirror Company, and Dean Millen, assistant to J. D. Neuls, pose for the photog. After January 1, W. E. Chronister will be in charge of pest control for Union.

THAT'S MY HOBBY



When Ye Ed visited the Wright turkey ranch near Brea, the curious birds all gathered around to see what was going on. This photo was taken in a pen containing some of the younger turkeys, and gives some idea of the proportions of Mr. Wright's hobby. AT RIGHT is owner Wright holding a prospective Christmas dinner

Nine years ago, L. A. Wright, operator in the Bell absorption plant, decided he would like to raise a few turkeys as a hobby. So, buying an incubator and a few eggs, he began raising the gobblers in the back yard of his home in Buena Park.

Today the Wright turkey ranch is known from Palm Springs to West Covina and has a reputation for the finest birds that ever winged their way around a Thanksgiving or Christmas table.

Scientific methods and a keen knowledge of turkey husbandry are the things that make for a successful gobbler venture, according to Mr. Wright. Right now he has 5,500 broad-breasted bronze birds, some of which weigh over 30 pounds at the tender age of six months. Every one of these birds he has raised in his battery of electrically equipped brooders.

Wright gives some very interesting facts regarding the feeding of his turkeys. It takes about 40 sacks of feed a day to fill those 5,500 craws, or roughly about 240 tons a year. Albers feed is used exclusively.

Mature turkeys are placed on ten acres of shaded range near Brea. Here they are vaccinated, blood tested and tattooed with the ranch's own AL-30 brand. For highest sanitation, location of the range is changed each year.

COMMENTS ON COMPTROLLERS

By Ray Teal

A resounding commotion was observed in the sport pages of the Sacramento papers during October when Bob Henderson, our District auditor at Sacramento, proceeded to eliminate a reigning favorite by the name of Ralph Presby in the championship flight of the City Amateur Golf Tournament in Sacramento. Mr. Presby was confidently expected to be one of the top contenders in this tournament, and, in the words of one of the Sacramento sports scribes, "met with unexpected opposition and found himself on the outside looking in after two rounds of match play." This will teach them to belittle our ability. As another sports writer put it, "Henderson closed his eyes to Presby's reputation and fired an unending series of pars."

Our worthy correspondent, Frank "Winchell" Bescos, reports that Miss Rose Pelous, comptometer operator, has been transferred to his office from Santa Fe Springs.

Miss Katherine de la Plata, comptometer operator, was hired in the Bakersfield office to replace Miss Zella Horton, who resigned.

At the time of receipt of the Bakersfield communication it was reported that the Bakersfield Comptroller's Office bowling team was tied for third place and was rapidly ascending the ladder to fame. This ascension is probably due to the fact that Frank increased his batting average from 109 to 140.

Friends of Spencer A. Steidel will be sorry to hear that his little daughter Patty suffered a serious automobile accident recently during which both of her legs were broken.

Lew "Tubby" Hastings and Cliff "Fatty" Shamblen are quite interested in Frank's new reducing diet, particularly since he was able to lose around 20 pounds during the past month.

After gathering the foregoing items, Mr. Bescos must have been in a somewhat weakened condition as it was necessary for him to go to the hospital for an operation on October 18, being released from the hospital on November 6, and is expected to return to work in a week or two in a rejuvenated condition.

With regret we record the death of Emerson F. Smith, senior clerk at the Santa Fe Springs office, who died October 21.

To return to the ignoble game of golf, we will record that R. R. Hensler of the Disbursements Division, playing on the Brookside course on a par 5 hole, had a fair drive, a marvelous second shot, and a 140-yard putt for an eagle three.

What Comptroller's Office employee was seen furtively leaving the Union Oil Building at quitting time with a box, possessing what looked suspiciously like gift wrapping, all this following receipt that day of a congratulatory telegram from his wife, which reminded him of the forgotten fact that it was their wedding anniversary!

BUILDING OPENED

(Continued from page 1)

esting and romantic one. Located on the edge of San Francisco when that city was but a small village known as Yerba Buena, Rincon Hill later became a government reservation, where a navigation light was built. From time to time in the march of San Francisco's early expansion, there was debated the question of leveling Rincon Hill. Possibly because of the uncertainty as to its future, the Hill acquired a community of squatters with their tents and shacks. It became necessary in February, 1850, to order the incumbents from the government land, and some fifty soldiers won for themselves the title of victor in this bloodless "Battle of Rincon Hill."

During the next decade, Rincon Hill blossomed in earnest. Beautiful homes and vast gardens spread over it. Such famous names as the McAllisters, Ralstons, Crockers and Huntingtons graced the doorways of the most exclusive residential district of the city. Civic expansion, however, soon saw wharfs and warehouses take the place of lawns and gardens. Rincon Hill's grandeur was short-lived.

Linden Official Host

Roy Linden, Central Division manager, was official host during the day's activities. Present from Los Angeles at the opening were Reese H. Taylor, A. C. Stewart, W. L. Stewart, Jr., M. G. Kerr, W. A. Newhoff, Earl Cooper and J. B. Williams.

WOODSIDE WINS CANADIAN TOURNEY

On October 5, at the University golf course in Vancouver, Canadian Division employees held a golf tournament in which six foursomes participated. The dark horse of the tourney was Erskine (Erk) Woodside, a southpaw golfer who surprised everyone, including himself, by shooting a net 64, playing with a 20 handicap and thereby winning the tournament.

W. A. (Bill) Sloan, credit manager, was right on the heels of the winner with a net 66, taking a low gross with an 80. Bill and Erk each had 7 pars and one birdie.

R. J. Kenmuir, division manager, also shot 7 pars and carried off one of the prizes in consequence. Distribution of prizes was made at a dinner held on October 11, and as usual, the whole tournament was replayed, alibis and excuses offered, and the pros and cons of golf generally discussed.

An interesting feature of the tournament was the imposition of a 10c penalty for every stroke below the given handicap, and all those penalized paid up like good sports, which added to the general enjoyment of all concerned.

FIRST AID STUDENTS

Comes news from Seattle this month that several Willbridge Plant employees have successfully completed courses in first aid training. Enrolling in the standard course last fall, they attended regular classes conducted by the American Red Cross in Portland.

Those who completed this course and received certificates are: A. Marti, Jr., H. J. Steffen, A. Peterson, R. H. Gibson, R. P. Codd, D. E. Hoss, R. J. Maxwell, D. B. Morsman.

At the completion of the standard course, seven Willbridge employees who completed the regular course continued on and the following men have just finished their examination on advanced first aid: A. Marti, Jr., A. I. Branthoover, H. J. Steffen, A. J. Peterson, R. H. Gibson, R. P. Codd, and D. E. Hoss.

THE UNION OIL SPEAKERS CLUB (L.A.) celebrates the start of its 6th successful year. . . . "CONGRATULATIONS." . . . The newly elected officers, President A. O. Hazeltine; R. A. Klinge, Vice-President, both of L. A. District Sales, and Secretary, D. R. Dieudonne, Southern Division Accounting, are working tooth and nail to assure (if possible) even more interesting and beneficial series of speech programs.

FEMININE ANGLES

1890 1940

BY THORA BANKER

NEW PENTHOUSE QUARTERS

'Twas a thrill for Trexpuensa Girls' Club to meet for the first time in their new penthouse quarters atop Central Division's streamlined building on Rincon Hill, San Francisco. . . . A lounge and sundeck provide a perfect setting for the girls' activities, and the view of the bay and skyline is the envy of us all. . . . The girls, too, lent a capable and hospitable hand in the opening ceremonies of the building on October 17th. . . . Florence Smith, former switchboard operator, now calls Santa Monica her home after leaving her position, which has been filled by Anna Marie Hollenbeck of the credit department. . . . Dean Stratton Ricketts is the center of attention in the home of Mr. and Mrs. R. S. Ricketts (he of sales promotion) since his arrival in August.

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HAWAII LURES

Dorothy Rivers of the accounting department, San Luis Obispo, is in the public eye these days with her excellent motion pictures of her extended Hawaiian trip in August. . . . The office force joined in reviewing Dorothy's "perfect time" recently at a gathering at her home, and report her souvenirs and art objects made the evening complete.

L. A. NEWS

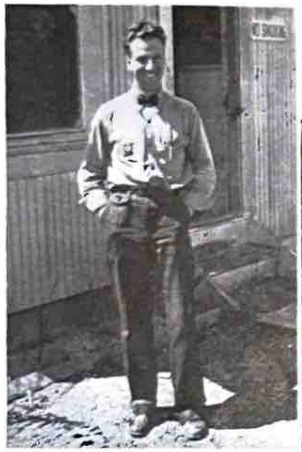
To her duties of being president of the Los Angeles Girls' Club and holding a position in the Southern Division, Mary Braun has added the new role of being Mrs. Charles R. Phiffer. . . . Best wishes to you, Mary, and Hubby Chuck, who is also a Union Oiler in the service stations department. . . . Speaking of Girls' Club activities . . . the October party, a bridge-luncheon at the new May Company Wilshire, was a gay success with prizes going to Vivian Thurston and Margaret Riley. . . . A newcomer to the Southern Division Sales is Bertha Gillespie, who left Central Division for sunny Southern California. . . . The credit department was sorry to lose Edith Timm, who became Mrs. Carl and now handles the affairs of a new home. . . . Dorothy Eckhard of refinery accounts had the thrilling experience of flying east for her vacation, with an auto trip home through the New England states and Canada. . . . Eleanor Wells of technical products sales returned recently with happy memories of a New York and Vermont vacation that was "the best ever." . . . Esther Koch of purchasing "did" the middle west during her vacation. . . . To Hazel Barcherer, chief telephone operator, goes our sympathy for a shoulder fracture suffered while bowling.

SACRAMENTO DIST. WINS CONTEST

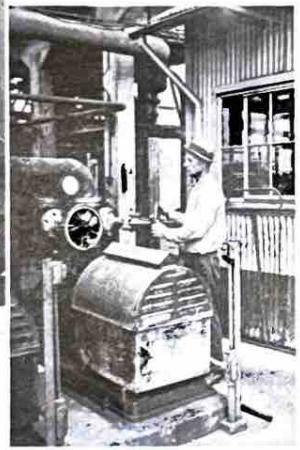
ABOVE: In Central Division's Recruiting Campaign, a novel sales contest, Sacramento district walked off with high honors. Among the parties that were held to celebrate this achievement was a get-together by the salesmen of Sacramento, Stockton, and Lodi. Kneeling are Bob Blakeslee and Frank Reynolds. Standing, from left to right, front row, are Al De Nevi, Jimmy Owen, Clark Williams, Cab Balaam, Bill Smiley, Elmer Glau, Sam Waters, Fred Holt, Art Holmes, Ira Finley, Frank Van Arsdale, Clem Clementson, and Hap Pfeiffer. Standing, in the rear, are Bill Workmen, Nat Ross, Pat Padula, Bill Angrave and Ed Jones.

HERE 'N THERE WITH UNION OILERS

Here are some more members of the Union Oil Family that we should know. Ye Ed managed to snap a few of these photos, but the majority of them were sent in by Union Oilers throughout our marketing area. And mighty fine pictures they are, too. How are you at the art of picture taking? Next time you find something interesting, either on the job or at home, record it with your camera and send in to *On Tour*. It isn't necessary that you send a print; just send the negative and proper identification of the people or places shown. If you desire, the negatives will be returned.

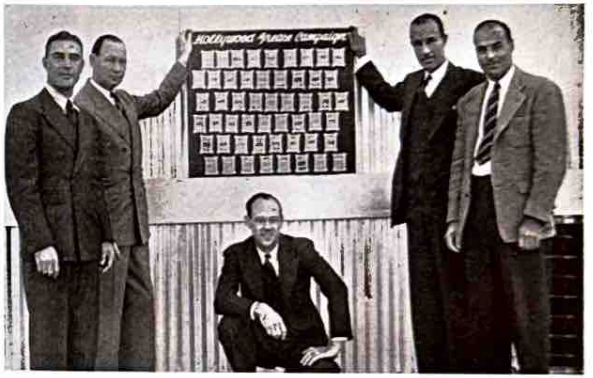


PLANT SUPERINTENDENT at Olympia, Washington, is smiling, affable John Lucas. It's his job to see that things are taken care of around the plant in such a way that not a minute is lost in filling the increased orders Olympia salesmen are chalking up this year.



STILLMAN Bill Mabry, above, is all business as he regulates the suction valve on the circulating line at the Oleum asphalt tube stills.

UNION'S BIG TURKEY SHOOT, held in Brea Canyon on November 3, brought Company marksmen out en masse and provided a full day of fun and peaceful noise. Shown above is a small section of the big crowd that turned out for the event. Nearly everyone who attended, with a little patience, managed a turkey or side of bacon. New gadget this year was the mosquito skeet. It drew a record crowd of participants, including many of the youngsters who had a chance to try skeet shooting for the first time. The splatterboard event had its usual good turnout and gave those who didn't wield a rifle a chance to take home a gobbler.



HOLLYWOOD GREASE CAMPAIGN. A novel contest in which salesmen pull one card for each 200 lbs. of new grease business, one card when 33 1/3 of 3 months' quota is made and one card for each 25% over quota is now under way in Hollywood. Under each card is written an amount from 25c to $1.00. The man pulling the card receives the amount listed. Cards are retained, and at the end of the campaign the man having the best poker hand receives two tickets to the Rose Bowl game. Shown in the picture above are: Lee Barnes, Jack Lawson, R. H. Rockwell, O. C. Williams and Dale Wells.

Your photog snapped the above picture at Santa Fe Springs the other day. Pretty cute, eh, wot? They're Margie Knight and Prenty Carroll, comptometer operators.

LEFT. The ladies took home their share of the turkeys with some fine marksmanship. Here are Misses Brown and Kinney shooting a round.

WILD BILL HICKOK had nothing on the pistol experts above. They are, left to right: Messrs. Young, Hohn, Walker, Hardison, Mallory and Rockwell. Swede Larson and Bob Taylor, at right, pick up a few pointers. AT LEFT is A. E. Marsh, construction department at Bakersfield, who took home enough turkeys to start a ranch. Here he's sighting down the barrel of his high-power rifle preparatory to blowing the blazes out of a bull's-eye at 200 yards.

BELOW: You wouldn't believe it, but this little pup is perched atop a one-quart Triton can. The pup's name is "Triton" and he belongs to Maurice Ring, second mate on the La Placentia.

ABOVE: As in many Company tournaments recently held, women participants turned out to vie for the various trophies. Although no official scores were reported on the foursome shown, it is rumored the cards they held vaguely resembled scores chalked up in a bowling tournament. Left to right are the Misses Rogers, Gordon, Wilson and Sutton.

CANADIAN DIVISION EMPLOYEES held their golf tournament October 5th amid fine weather and a swell turnout. Six foursomes participated and some very interesting cards were turned in. BELOW: Charlie Pigott, Alf Smart, Ted Pigott and A. Stewart compare cards as the tournament draws to a close. Looks as if Al Smart is watching Charlie Pigott pretty closely on the scores.

IN THE NEWS

ENLISTMENT CAMPAIGN

During September, the Central Division conducted a highly successful "Enlistment Campaign" with each sales district soliciting recruits for a branch of the armed forces—Chico for the Marines; Fresno for the Artillery; Oakland for the Navy; Reno for the Tank Corps; Sacramento for the Air Corps; and San Francisco for the Infantry.

Rivalry was intense, and the enthusiasm high. A novel and interesting feature of the whole program was the cartoon bulletin service handled by "General Headquarters." Each week a separate sketch was sent to each district depicting progress and personal items, and a general bulletin sent to all stations showing relative district positions pictorially.

"Wing Commander" Sam Waters led his pilots in repeated flights up and down the valleys and into the hills. The roar of the airplane motors and the thunder of dropped barrels stunned the prospects and the "recruits" were secured by droves. A few escaping refugees report the roads littered with empty Triton cans, broken-down motor trucks and exhausted drivers. "The Air Corps" took the honors, winning on a per man basis and exceeding objectives by a 46.6%.

All in all, it was a close and interesting campaign with full division objectives being attained.

ANOTHER ANNIVERSARY

Union Oil Company celebrates another anniversary this year. Mr. William J. Graham, vice-president of the Equitable Life Assurance Society, has notified the Company that on October 1, 1940, twenty-five years of participation in a group insurance program were completed.

During the period of our contract with the Equitable, there has been $2,786,250 in benefits distributed to 831 employees and their families.

AQUA-OILERS

Those devoted to aquatic activities may be interested in learning that the Oleum research division possesses a competent swimming team consisting of Messrs. Ott, Schact, Post and David. Undoubtedly these gentlemen would be willing to compete with any other swimming team in the Company at a point suitable for all parties concerned, preferably in the Bay Region. No handicaps will be allowed. Recently, several members of the team visited probable meeting places between San Francisco and Long Beach and undoubtedly a suitable location could be agreed upon for any future meet.

CRACK KEGLERS

The Union Oil interdepartmental bowling league, Vancouver district, is now in full swing. Out in front for the moment is the office team, followed by the refinery, fuel oil, and sales department teams. High scorer so far is Johnny McCargar of Port Moody Refinery, who rolled a neat 300 in a game in which the refinery rolled up a total score of 1169, which so far is tops.

Miss Isobel Rogers leads the fair sex with a high score of 198.

HEUSCHKEL WINS POST

Frank Heuschkel, Sales Supervisor at Eureka, has recently been elected President of the Eureka Kiwanis Club.

Since his arrival in Eureka some four years ago, Mr. Heuschkel has been active in Kiwanis and has held many offices in the club in that period. He has just concluded a term of serving as vice-president and has also served on every important committee in the club during the past two years.

GRANDPA CLUB

Newest members of the local "Grandpa" Club are Messrs. J. W. Miller, C. C. Ireland, W. F. Lewis and P. C. Weston who have all become grandfathers of boys in the last four months. The proud grandpappies are in Southern Division Sales.

A FRIEND IN NEED

Recently, when an employee in the Valley Division Field became seriously ill and in need of a blood transfusion, seven salesmen from the Santa Barbara district immediately went to the hospital and offered their blood. That's what we call real Union Oil Family spirit.

LAKE ELSINORE COUNTRY CLUB was the scene of the big dance and "Dutch" lunch given by more than 75 employees in Field 211 a few weeks ago. Service station employees, their wives and friends, came from Elsinore, Ontario, San Bernardino, Riverside, Redlands, Upland, Beaumont, Banning, Indio, Blythe, Palm Springs and Hemet to join in the big celebration. Particularly interesting was the handsomely done backdrop directly behind the orchestra. The music was superb, the food excellent, and the floor just right. Next year's party is already planned.

WHO CARES?

A letter from Oliver Leedy in Seattle reads: "The other day several of us happened to pass by a meat market. Bob Roginson, fuel oil sales, remarked that the strange-looking object we saw on the floor was an ice cream freezer. Upon closer examination we found it to be an iron lung. What would either an iron lung or a freezer be doing in a meat shop?

To either freeze the meat or bring it back to life would be our guess.

CAPTAIN KIDD

H. P. Kinghorn, L. A. Refinery, is not to be outdone by the stories told by our seafaring men in Marine Notes. He's done a bit of adventuring himself. According to him, he has been shipwrecked once, on fire at sea twice, around Cape Horn twice, around Cape of Good Hope five times, washed overboard twice, fought Chinese pirates a few times, and, by way of breaking the monotony, served through a war as a mounted infantryman.

UNION BOOSTER

Sid Horton, up Vancouver way, sends in a letter that only goes to prove what they say about Union Oil service. Here it is:

Mr. R. J. Kenmuir, Manager
Union Oil Co. of Canada, Ltd.
402 W. Pender St.
Vancouver, B. C.

Dear Bob:

I would like to express my appreciation of a service rendered to me by Mr. Chester Jacobs, your Alberta representative.

About two weeks ago my car stalled 8 miles from the nearest garage. Quite unexpectedly a Buick drove up and stopped and the driver asked if they could be of any assistance. I told him what I thought was wrong and he called his friend, who happened to be a mechanic. The day was Sunday and both men were in their good clothes. The mechanic, whose name I did not get, decided the job would need a new part, and before I could say scat, they had me hooked up to their car and on the way to Banff. They deposited me at the Nash dealer and refused to take any remuneration.

Actually, it was a service that couldn't be paid for in money, but it certainly was a case of "When a feller needs a friend," and the friend arrived.

I trust your company will acknowledge to Mr. Jacobs their appreciation of the service rendered to me, and I sincerely hope that if Mr. Jacobs visits Vancouver he will give me an opportunity to in some measure reciprocate the great service he rendered me.

Yours sincerely,
ARTHUR T. TINDLE.

10 YEARS WITHOUT A LOST-TIME ACCIDENT is the record recently set by Orcutt District gas department employees. The above picture shows the Orcutt gang and the safety flag recently presented to them. From left to right they are: L. Hilton, H. J. Multer, R. E. Openshaw, A. B. Chadband, E. D. Hammond, H. Billington, J. Fuller, D. A. Nicholson, M. V. Pimentel, C. Enterline, L. La Graffe, P. Northrop, T. E. Purkiss, B. T. Dinnes, S. Ness, M. K. Sween, C. L. Morgan, R. Quick, L. F. School.

A REAL RECORD

Ye Ed learns this month that Jack Ivy, laboratory warehouseman at the Los Angeles Refinery, has never lost a day of work in his 20 years with the Company. Also, he has never been sick and has never missed a day of work at any of the other jobs he has held. That is, to say the least, a very remarkable record, and we are making a detailed study at the moment concerning the type of breakfast food Jack eats.

TO THE RESCUE

On October 22, the crew of the *S.S. Utacarbon* did its daily good turn by coming to the rescue of a small pleasure craft that was displaying a distress signal. The incident took place about seven miles west of Point Vicente, where the cruiser, "Lively Lady", ran out of gasoline. The boat was taken alongside of the *Utacarbon* and furnished with 15 gallons of Ethyl gas, and "Lively Lady" went on her way.

WINNERS IN PETROLEUM INDUSTRY LEAGUE are these men from the wholesale and service stations departments of the Union Oil Company of Canada. A regular league schedule was played with the Union team winning the final game from the Imperial Oil team by a 6-3 score. Members of the team are: Back row—W. Cade, N. Flewerdew, G. Clarke, C. Palmer, W. Robb, A. Caddell. Front row—D. Parke, H. Lear, J. Condon (captain), R. Alm (manager), R. Symmes.

ABOVE: Esther Pollock holds trophies which she and Mrs. Wm. C. Mitchell won in the bowling tournament recently held by Los Angeles building employees. The trophy on the right was made by Virgil Jasper, and the one on the left by Wm. Oke.

SAN DIEGO NEWS

By Frank Caudell

Sparked by the outstanding pitching of Joe Frame, Union minute man, the Union Oil Company's 1940 team playing in the San Diego softball tournament established a record which showed them to be a greatly improved club over that of a year ago.

The team swept through the opening practice games with a display of faultless baseball, and were, therefore, classified as an "A" club for league play. The following tournament play is now a matter of record. Even though no trophies were won, this year's club, it is agreed, were a tough bunch to down at any time.

There were many outstanding highlights of this year's season, a few of which follow: Joe Frame's pitching, Jack Ryan's base running, "Monte" Montague's play at first, catcher "Bill" Darby's ceaseless fire and pepper, and not to go unmentioned, the faithful Union minute wives' rooting section.

Gordon Hesselbarth, service station manager, was again chosen to manage this year's ball club.

In midseason the team suffered a noticeable setback when their utility player, "Muz" Bernardini, left the Company to take over the management of the famous Bernardini Cafe.

A lineup of this season's nine is as follows:

Joe Frame	pitcher
"Bill" Darby	catcher
"Monte" Montague	1st base
"Red" Clark	2nd base
Jack Ryan	shortstop
Jack Shultz	3rd base
"Ed" Reed	left field
"Joe" Sanford	center field
L. M. Pepper	right field

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In a recent issue of *On Tour* was published photographic proof of the piscatorial prowess of Mrs. Miona Minor, San Diego credit department stenographer. Now we have learned that in the thirteenth week of the Southern California Salt Water Fishing Tournament, sponsored by the Los Angeles Junior Chamber of Commerce, Miona led all contestants.

"UNCOMMON SENSE"

Now, more than ever, we need to develop and use common sense in an uncommon degree. That is the one effective way to combat subversive activity—in our own minds, in the oil industry, and throughout America. This sixth, or "Uncommon Sense" will beat the "fifth column" every time.

We in America are conscious of our freedom—aware at last of its true value and of the danger in which it stands. With the tragedy of Europe ever in our minds, it is quite natural for us to become suspicious and intolerant of anyone who, by word or action, seems to imperil our peace and security. There may even be a tendency on the part of some to become unduly alarmed at the thought of "fifth columnists" and saboteurs within our industry. These fears, if permitted to sway us, may cause us to imagine criminal intent in the innocent words and acts of others, and prompt us to brand as un-American all those who do not think or believe exactly as we do. It is so easy to believe and to repeat exaggerated rumors of spies and subversive activities. This is especially true if the accused is of foreign birth. Such accusations, if directed against innocent persons, can cause incalculable harm.

The essence of national defense is national unity. The most destructive enemy of national unity is class hatred. The best defense against class hatred is to develop a tolerant way of thinking. Benjamin Franklin, during a great national emergency, said, "Either we hang together, gentlemen, or we shall surely hang separately." That is still true today.

We believe that all employees of Union Oil Company are loyal to the United States. We do not want any of them to suffer because of false or unconfirmed gossip or unjustified accusations. We must remember that we are being subjected to a steady mental bombardment of doubt and fear. One of the principal objectives of this propaganda is to cause suspicion and division among ourselves. There is no need for fear in the oil industry or in America while we use common sense.

It is conceivable, of course, that there may be among the million workers of the oil industry some few who do not believe in America or the American way of life—some, even, who may be willing to betray their country by crippling its industry through subversion of employees and sabotage of facilities. Of these, Mr. J. Edgar Hoover, head of the Federal Bureau of Investigation, has said:

"Our military and naval secrets would be of little avail to us if supplies and materials could not be promptly transmitted to our military and naval forces. . . . It is the saboteurs' goal to hamper the manufacture and delivery of these supplies. . . . The expert saboteur discerns, usually through employment in a key plant, the particular buildings or the exact machinery vitally necessary to the continuance of production. Then he tries to halt or slow down that production."

We all know how vitally necessary the oil industry is to the nation and what effect delays and loss of oil shipments would have on the national defense program. The Union Oil Company realizes the important part it must play, and will do everything necessary to protect its employees and facilities and to insure uninterrupted production of needed fuels and lubricants.

Gates and fences alone, however, cannot shut out the enemies we may be called upon to face. The protection of property and resources will depend primarily on the care and alertness of our employees: care to see that prompt reports are made of defects in machinery and equipment; alertness to fire and accident hazards or other conditions which might interfere with the efficient and economic operation of the Company's business.

We know that the employees of our Company can be counted upon to give their full cooperation in this effort to protect themselves and the oil industry from the few who would injure them, and to guard our country from the activities of those who may be hostile to its welfare.

Unusual or questionable activities near Company facilities should be reported immediately to the supervisor in charge. They should not be the subject of gossip among employees; for these precautions are not in the nature of "spy hunts"—we simply want to do what we can to keep working conditions safe and productive.

(signed) REESE H. TAYLOR.

SERVICE EMBLEM AWARDS

OCTOBER

30 YEARS

H. P. KINGHORN

S. S. KRAMER

25 YEARS

A. G. HARTMAN

F. W. KARGE

W. H. MARTIN

20 YEARS

C. G. ATWOOD

H. A. DELANO

W. H. GREEN

R. W. HENDERLONG

J. IVY

F. PHILBRICK

G. E. SEWRIGHT

Thirty Years

Kinghorn, Henry P., L. A. Refinery
Kramer, Samuel S., L. A. Refinery

Twenty-five Years

Hartman, Arthur G., Central Div. Sales
Karge, Fritz W., Research & Dev., L. A.
McElhany, Benj. F., So. Div. Field
Martin, Wm. H., Sales, L. A.

Twenty Years

Atwood, Charles G., Central Div. Sales
DeLano, Harold A., Sales, L. A.
Fiske, Marvin L., Export Sales, L. A.
Green, Wm. H., So. Div. Pipe Line
Henderlong, Ralph W., Central Div. Sales
Ivy, Jack, L. A. Refinery
Philbrick, Fred, No. Div. Pipe Line
Sewright, Geo. E., So. Div. Field

Fifteen Years

*Berryhill, Leonard R., Central Div. Sales
Braykovich, Mathew, Oleum Refinery
Furtado, Joseph S., Oleum Refinery
Hallander, Stanley E., Oleum Refinery
Lippiatt, Lionel, So. Div. Pipe Line
Leslie, William J., Oleum Refinery
McQuiston, Thomas, No. Div. Sales
Martindale, Wharton M., Can. Div. Sales
Millard, Harriet C., So. Div. Sales
Nisson, Byron B., Oleum Refinery
Rettig, August R., Central Div. Sales
Scott, James L., So. Div. Telephone
Shafer, Esther V., No. Div. Sales

Ten Years

Bergstrand, Donald V., So. Div. Sales
Bettencourt, Frank J., So. Div. Sales
Boice, Versil J., No. Div. Sales
Dedrick, George M., No. Div. Sales
Fee, John H., Jr., Central Div. Sales
Gobby, Albert, Central Div. Sales
Marti, Arnold, No. Div. Garage
Wright, David J., Canadian Div. Sales
*Omitted on July List.

Lands and Leases

(Continued from page 5)

relating to and restricting the use of property, and being adopted and amended continuously by cities and counties, and require much attention from the Right of Way Division in so far as they apply to drilling of wells, storing of oil, construction of plants and facilities and other matters pertinent to the oil business.

A typical example of the effect of a zoning ordinance may be cited in the drilling of our Callender well No. 79 in the Dominguez Field, in the County of Los Angeles. Structures in the county cannot exceed a height of 150 feet; the derrick which we proposed to use was 178 feet high. Therefore, it was necessary to secure a permit from the county. This required the passage of a variance ordinance, effective thirty days after its adoption. The ordinance could not be adopted until the application, signed by the landowner, had been referred to and approved by the Building Department, the Planning Commission Engineer, the Planning Commission, the County Counsel and finally the Board of Supervisors. We could not begin construction of the derrick until this procedure was completed and the ordinance became effective.

All proposed subdivisions of land in which Union Oil Company may have an interest, such as surface rights, mineral rights, leases or easements and rights of way across the land affected, must be approved and consented to by Union Oil Company in so far as its interest in the land may be concerned.

The Right of Way and Franchise Division also cooperates with the Legal Department in all condemnation proceedings for highways, flood control projects, dam sites and other matters affecting our properties and facilities.

ORDINANCES: The Supervisor of Rights of Way represents Union Oil Company on the Ordinance Committee of the California Oil and Gas Association. This committee is continually reviewing with public officials proposed ordinances relating to derrick fees, oil production taxes, building codes, spacing of oil derricks, excavations in highways and other similar regulations affecting the oil industry.

Many and various kinds of permits are required by governmental authorities for the construction, maintenance and operation of buildings, plants, tanks, pipe lines, equipment and other structures. These are acquired by the Right of Way Division for the operating departments.

DAMAGE CLAIMS: The Right of Way and Franchise Division handles all claims resulting from pipe line breaks, drilling of wells, construction of roadways, pipe lines, structures and other activities of the operating departments.

(Continued on page 16, col. 1)

DO YOU KNOW THE ANSWER?

In the last few issues of *On Tour, Do You Know the Answer?* has concentrated on questions about Union's specialty products. For the next couple of months, however, we're switching to a different subject and giving Union's gasolines the limelight.

There are probably very few of us, outside of refinery technicians, who can answer, intelligently, questions shot at us by outsiders regarding the various types of gasolines produced. We know that 76 is orange and has high anti-knock qualities, but it's part of our job to know more than that. When a friend asks us *why* he should use 76, a few well-placed and well-worded sentences from us are bound to go a long way in converting him into a staunch Union product supporter. Let's snap on the old horn-rims and see what we can learn about Union gasolines.

Q. "I've heard several people say they like 76 GASOLINE very much and wouldn't change brands for anything. What's the reason for their loyalty?"

A. That's a good question and one that several people have asked me recently. In my opinion the answer is just this: 76 is tailor-made. That is, it has been tailored to properly fit every requirement of the motor in your car. When you use 76, you find that your car starts easy, is less likely to vapor lock, has lots of power, gives long mileage, performs economically—all because 76 has been tailor-made to guarantee a high over-all standard for each of these characteristics. Not a single quality that a good gasoline should have is missing in 76."

Q. "Can you be a little more explicit. For instance, just why *does a car start more easily when it's filled with 76?"*

A. "Only a sufficient amount of light (easily volatile) gasoline fractions are included to insure quick and easy starting of a cold motor. That the proper amount of these light fractions be included is very important for other reasons, too. An excess of them causes vapor lock and reduces the power and mileage characteristics of the gasoline."

Q. "That's very interesting. Tell me more."

A. "Well, smooth and rapid acceleration are things you demand in a gasoline. 76 Gasoline gives them to you because it is carefully blended so that the proper quantities of light and intermediate fractions are present. The correct relationship of these fractions to each other causes each to burn quickly, thereby releasing enough heat to develop the power that is necessary to cause acceleration."

Q. "You mentioned long mileage. Can you explain in a little more detail why 76 will give me more miles per gallon?"

A. "Long mileage is secured by blending just the proper amount of the heavier gasoline fractions to give the piston its final drive for completing the power stroke. These heavier fractions are properly related to the light and intermediate fractions to make certain they will be completely utilized. In the same way, proportions are properly balanced so that each fraction releases its energy at the proper time to assure maximum power and smoothness."

Q. "One more question. You say 76 is high in anti-knock qualities. Can you tell me the reason for that?"

A. "Proper blending permits full usage of the potential power built into 76, and at the same time prevents knocking in fully 90% of the engines that are operating under the climatic conditions that are common to the area in which the gasoline is distributed."

PORTLAND PEOPLE

By Dave Hoss

The "Kendall Klub," whose mysteries and "goings-on" are not for your correspondent to divulge even if he knew them, rose to the occasion of Bud Stebbins' transfer to the sales promotion department several weeks ago, and if "doghouse" results from the wives is any indication as to the success of the party, it was decidedly a real blowout. During the course of the evening, A. I. Branthoover, recently named Kendall superintendent, was initiated in the mystic rites of the order and survived the ordeal in first-class shape.

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Slacking off somewhat from previous year's heavy competition, Portland Union Oilers have entered only one team in the city-wide bowling league and this in the automotive division. Team members are: A. I. Branthoover, King Bailey, "Monty" Dean, Sam Slauson, Geo. List, "Hop" Hopfield and Art Parker. Top bracket results are expected by the boys when the final tallies are totaled.

• • •

Portland city salesmen are still hashing over the picnic held recently at River Lot Park on the turbulent Clackamas River, given by H. H. Ramsay, division sales manager, and E. G. Coopman, district sales manager. Refreshments included T-bone steaks, baked beans, roasting ears, and all the trimmings, supervised very ably by Fran Wood, in charge of culinary efforts. The general consensus of opinion was "we'll all be back for more next year, how's about it?"

• • •

Downtown credit department gleanings reveal that Evelyn Brunnick left October 31 for Los Angeles to join her husband. . . . That the furniture came in for re-arranging when division auditing department set up housekeeping in the credit office. . . . And speculation is rife regarding eligibility of Edwards and Frazier for the draft. Rumor has it that romance may enter their lives.

Eloise Rau has a special regret regarding her vacation. It seems she left Placerville, Calif., just a day in advance of the capture of the De Tristan kidnapper, and "Shucks," she says, "I'll bet those two hunters who did the trick were handsome he-men."

• • •

Congratulations are in order, and cigars forthcoming from Mr. and Mrs. R. McFarland. Bob, who is chief order clerk at Willbridge, became a proud papa August 21, with a 7-pound 9-ounce girl arrival. The new infant, Nancy Jane, says she will welcome callers at 111 N.E. 18th, Portland.

MARINE NOTES

By Barney Owen

We note that Allen Parker, A.B., *Victor H. Kelly*, has changed the beneficiary on his insurance policies to Mrs. Elizabeth Parker, WIFE. Congratulations, Allen.

• • •

The shortest man in our marine service is the proud possessor of the longest name in the fleet. Escolastico Baiia Concepcion, messboy on our *Santa Maria*, can chin himself on a five-foot bar. There's one for some other department to shoot at.

• • •

A short while ago, an item appeared in *Strictly Speaking* that could probably be best explained in this column. The item stated—"What, no ice for the President of Guatemala?" Here's what it's all about: When the *Deroche* pulled in to San Jose de Guatemala recently a group of natives rowed out to meet her and wanted to buy some ice. In his best Spanish, Chief Bohrer tactfully explained that the *Deroche* was an oil tanker, not an ice wagon. He later found out that the request came from the President of Guatemala himself.

• • •

Two of our famous Ottos are now ashore; Captain Otto Weidemann, of course, is our Oleum representative, and now Otto Jorgensen is relieving Port Steward Joe Kruger, who is on vacation. They certainly otto get along all right.

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Our *S. S. Cathwood* boasts of the following ex-footballers; Ralph Johnson was an outstanding end for three years at Riverside High; Jim McCalla played fullback at high school, Compton J. C. and three years with the L. A. All-Stars pro outfit; Jack Franklin played three years of high school football and on the frosh team at Bradley Tech, and last, but not least, Frank "Tex" Coghlan once quit the sea to go to college and play football, but after three weeks of spring training with the Loyola squad, he decided to go back to sea for a rest.

Let us hear from some of the other ships about their athletic prowess.

GIVE GENEROUSLY

Your Community Chest needs your support. Give generously this year to an organization devoted entirely to the assistance of the less fortunate.

PINGS AND PURRS

LETTERS FROM UNION OIL PEOPLE

Union Oil Program
KFI, Hollywood.
Dear Sirs:

Last year I was too young to know how lucky I am to be an American. Now I understand because I am ten years old and my mother has told me.

I live in a land that is big and free and is kind to its people. I have a safe home. I go to a public school. My daddy can vote next month for anyone he wants to for president. I don't have to be afraid of bombs dropping on me. I go to the Methodist Sunday school, but my best friend, Loren, is a Catholic. I'd fight anyone who says his religion isn't good. Everybody is free in America. I'm proud I'm an American.

JACK LUCAS,
465 Randolph St.,
Pomona, California.

Editor's Note: The above letter from Jack Lucas of Pomona was a $5 prize winner in Union Oil's radio contest. Jack's thank-you note, below, should be a prize winner, too.

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Mr. R. L. Philippi
Union Oil Company
Los Angeles, Calif.
Dear Sir:

I was pretty surprised when I came home from school and found a $5 check. I want to thank you and the Union Oil Co. for it. I am going to give some to the Red Cross and buy my winter coat and save the rest for my education. My daddy didn't use Union gas, but he says he'll sure use it now, and so will I when I grow up.

Your friend,
JACK LUCAS.

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The Editor, *On Tour*
Dear Sir:

Sincere congratulations on a well-done job on the last *On Tour*. You make me eat my words, covering the entire Company front in fine style.

The Santa Paula celebration was well covered and seemed like the enjoyable occasion it must have been. Other sections of the Company received attention with great impartiality.

I am even on your side when that gent complains about your hobby biographies. What does he expect for nothing—Ludwig's "Napoleon"?

Keep up the high standard, for I still have my doubts about you. They don't have a Rodeo every day in Santa Paula, or anything else, for that matter.

Again congratulations,
C. M.

The Editor, *On Tour*
Dear Sir:

Accepting your invitation of comments in your "Pings and Purrs" section of *On Tour*, may I comment that I think Ed H. struck oil when he suggested photography, in September issue. But why a limited contest? Isn't it a fact that a good photograph is sometimes good publicity and most always worthy of print? Leastwise, these are my sentiments.

We do have a thing or two here in Hawaii besides coconuts and hula girls, I'm quite sure you are acquainted with that fact. It seems to me your readers would be interested in a good picture from the islands now and then, be it hula girls, gasoline stations or otherwise.

Sincerely,
A. M. MITCHELL.

Editor's Note: Let's have some more comment on this photographic contest idea. If enough people are interested, perhaps we can start the ball rolling.

• • •

The Editor, *On Tour*
Dear Sir:

Speaking of purrs, I've been purring ever since I went into one of our stations and had my windshield fixed up via those new paper towels. They're certainly slick.

MIONA H.

ABOVE: Hardworking Union Oilers are Don Kridler, agent at Pomona, and W. A. Gibson, assistant agent at Whittier. They've been going great guns in their respective districts and are now getting set to make 1941 an even greater sales year.

Lands and Leases

(Continued from page 13)

Between seventy-five and one hundred damage claims are settled each year.

CITRUS DIVISION

J. D. Neuls
Supervisor of Citrus Operations

Union Oil Company owns one of the largest citrus and avocado groves in the world, located in the northern part of Orange County in the Fullerton-Brea-La Habra area. The orchards were planted between the years 1925 and 1929 by Mr. Gaston Bastanchury, a citrus grower, on land owned by Union, a portion of which constitutes one of our oil reserves. In 1933 Mr. Bastanchury conveyed his interest to The Times-Mirror Company, which has been operating the properties until the present time. On January 1, 1941, Times-Mirror Company will release all of its interest in the orchards to Union Oil Company and thereafter we will take over the complete operation of all of the orchards.

There is a total of 2350 acres planted, containing 207,000 trees, with eighteen water wells, seven booster plants, nine reservoirs, one hundred miles of pipe lines and twenty-six miles of roads. During the course of a year 560,000 pounds of nitrates and 1,425,000 cubic feet of manure are used to fertilize the orchards; also, 10,000 pounds of mustard seed is used for planting cover crops. Approximately 3100 acre feet (102,006,928,000 gallons) of water are used during an irrigating season. Forty-four thousand pounds of hydrocyanic gas and 30,000 gallons of spray oil are used each year to control scale, red spider and other pests. During a normal year the orchards will produce 510,000 boxes of citrus fruits, weighing about fifty pounds per box, and 150,000 pounds of avocados. Citrus fruits are marketed through the California Fruit Growers Exchange and the avocados through Calavo Growers of California. During a normal year it costs $250,000.00 for the cultural care of the orchards. This does not include the cost of picking, packing, hauling and marketing the fruit.

COORDINATION WITH SALES DEPARTMENT

Since the Lease Department is continually granting privileges to others, such as rights of way, licenses and roadway easements, and the right to use surplus gas and water from our systems, or making agricultural and other leases, and is acquainted with all of the landowners and others to whom the company is paying bonuses, rentals and royalties, this department is in a position to furnish the Sales Department important leads to secure business, and it is the responsibility of each division of the Lease Department to cooperate fully with the Sales Department whenever possible.

BETWEEN TOURS

By Richard Sneddon

It seems to be going a long way back for an opener, but we can't help thinking that prohibition had one terrific advantage over the present system. It reduced the number of people who thought they could sing.

* * *

And Jim Goodale declares, on his word of honor, that among the recent applicants for jobs at the San Francisco office was a chap who confessed that he last worked as a frightful example for a temperance lecturer.

* * *

Which recalls Bob Gilliam's interesting, if true, story about the Taft octogenarian. This old fellow (stop Bob if you've heard it), despite his advanced age, has a wonderful crop of strong, healthy hair. He attributes it to the fact that for years he has rubbed whiskey on his scalp to make the hair grow, and has then taken a little internally to clinch the roots.

* * *

That brings us to the case of the Irishman who shaved twice a week on week days, and once every day on Sundays.

* * *

On this same subject, Frank Gess tells about a rousty who married a girl named Ann—a very indefinite article.

* * *

And we have this heartening word for the ladies: Never give up! Naomi, the daughter of Enoch, didn't marry until she was 580 years old.

* * *

Whereupon, Dan Nichols describes a monologue as a conversation between two motorists, one of whom has just changed to 76.

* * *

Reminding us of the irate husband who wailed, "Darn this motor, it's heating worse than ever." To which his wife contributed, "Isn't that provoking! And only yesterday I had the man come and disconnect the radiator."

* * *

It was at a general sales conference of an eastern organization, according to George Hiniker, that an officious little gink breezed into the meeting chamber, sniffed a couple of times, and announced peevishly, "I can't breathe in this place for tobacco smoke." From the far corner came the effective squelch, "Well, nobody's askin' you to."

* * *

Then there was the farsighted motorist who heard that the petroleum supply would be completely exhausted in two thousand years, and promptly bought five more gallons of gasoline.

* * *

And just by way of some helpful advice, when you ask the boss for an increase, it's a good idea to laugh, then if it doesn't work, you can pretend you were only joking.

* * *

Did you ever notice, also, that the guy who is well to do is usually, at the same time, hard to do?

* * *

At this point in the discourse, Orville Balcom quotes a cute ending to an advertising folder, issued by a local farmer, evidently trying to dispose of his property: "The surrounding country is the most beautiful that God ever made. The scenery is celestial — divine. Also two wagons to sell, and a yoke of steers."

* * *

Incidentally, the only prosperous farmer we know at the moment is a chap who turned his place into a golf course.

* * *

In that way, people actually pay you for the privilege of plowing it.

* * *

Diverging all over the place, we have just been informed that a small western town has organized a local regiment. Very simple by-laws, in two sections, have been drawn up, as follows: Article First. This regiment shall be known as the Bunktown Rifles. Article Second. In case of war, this regiment shall disband immediately.

* * *

And Ralph McGoey says now that we have arrived at the age of mechanized warfare, it's too bad some smart guy couldn't invent a machine to do the saluting.

* * *

In conclusion, paste this in your hat —you will find few disappointments if you go through life looking for trouble.

* * *

For life on this mundane old sphere is, after all, a hazardous adventure. It is rarely that anyone comes out of it alive.

Unocal ponders fate of Imperial Golf Course

By Sheldon Craig
DSP Staff Writer

BREA — "Plans and alternatives" are being discussed for the area around Unocal Corp.'s Brea Chemical plant, according to a Unocal spokesman. The area includes Imperial Golf Course.

Mike Biggi, vice president of development and sales for Unocal Land and Development Co., which administers the site, said today no specific plans have been discussed and that it was "not a decision that comes lightly." However, the company had discussed some of its ideas with consultants, he added.

Discussion about the area's future began when Unocal Corp. announced in May that it would close its Brea Chemical plant, 2601 E. Imperial Highway, by 1991. Questions were raised about whether the Imperial Golf Course would be removed to make way for industrial development.

Biggi said the Imperial Golf Course property is a "long-term operation." He further stressed the land's development, if any, hinges on phasing out the chemical plant. He said no development would take place in the area before the scheduled phase-out in 1991.

The company is also looking at other development issues.

Biggi said Unocal had decided to build an additional 78 homes as a second phase of the Amber Hill tract at the north end of Berry Street. Initial plans for the Amber Hill tract involved a total of four phases, reaching up into the hills above the homes already under construction.

Biggi said the terrain above the planned second phase of the Amber Hill development is extremely steep and would pose difficulty for development. He also said the area is still an active oil field, although he wasn't sure of the amount of oil the land produces.

6-30-88

RANDOLPH SCHOOL

~~AN~~ OIL DISPATCHER

Russell Sage
Jack Pate
Howard Robinson
Bill Hay

MAIN FIELD OFFICE, UNION OIL COMPANY

Dispatchers controlled the shipment of oil to refineries and San Pedro Harbor.

Moved to Santa Fe Springs late (1930) - ? 1935 - 1970

APRIL 8, 1979

UNION OIL TO EXPAND IN BREA

BY DIANA SHERMAN

Construction will begin late this year on a major expansion of Union Oil Co. of California's research center at 376 S. Valencia Ave., Brea.

Designed by William L. Pereira Associates, the 166,000-square-foot science and technology division complex will include a three-story administration building, three new laboratory buildings and a new geological sample process laboratory.

The addition is expected to be completed in late 1981 at a cost of more than $20 million. The facility will then have a total of 494,000 square feet.

The center's population is expected to increase from more than 600 to more than 1,000 over the next 10 years, according to Union Oil.

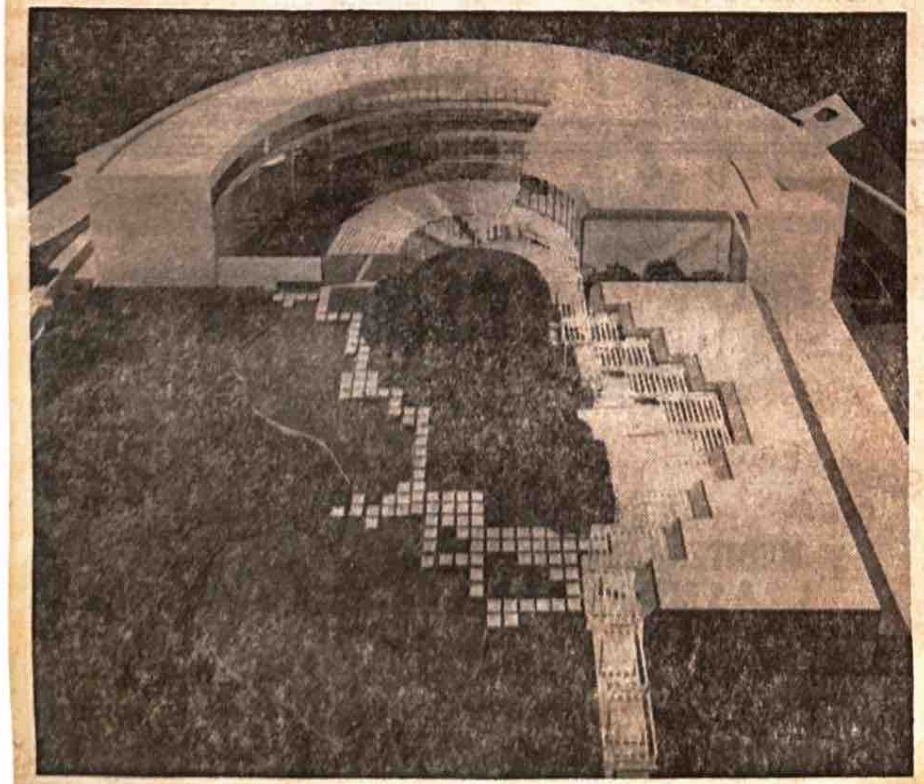
The master plan allows for on-site expansion and is coordinated with neighboring development plans, integrating the facility into the surrounding rural/suburban community.

"The design responds to people in a special way. It assumes a formal posture on the outside—toward approaching visitors. On the inside it assumes a more casual attitude, enclosing an informal dining area for employes," Chuck Grein, Pereira project designer, said.

Central to the research complex, on an elevated area, the new administration building will have a half circle configuration with arcs to link with a new employe cafeteria to form a central outdoor garden space available to employes and guests.

Blending in with the existing facility, the mirrored glass and precast concrete structure will house executive and administration offices, an audi-

Please Turn to Page 14, Col. 1



RESEARCH FACILITY—Semicircular format distinguishes Union Oil administration building.

torium, lobby display areas and a library. Reception and dining areas on the second floor will adjoin an exterior terrace.

Both the composition and configuration of the buildings are being designed to conserve energy.

To avoid unnecessary generation of heat within the building during the late afternoons, a minimum of glass is designed for use on portions of the buildings facing a westerly direction.

Overhangs will protect glass that must face west, while an ice storage system will operate during the night to cool the building during daytime hours.

Providing a naturally filtered sun control situation for building sections facing south, manufactured louvers and plant growth will allow sunlight and a natural flow of air to avoid heat buildup.

Horizontal trellises will create shaded areas as extensions of interior space. The best natural light for working, north light will enter through clear glass clerestories in all of the laboratories.

Visitor parking will be screened from view by gently sloping berms integrated into the setting. Robert Herrick Carter and Associates Inc. is landscape architect.

Pereira & Luckman designed Union Oil Center, the firm's downtown corporate headquarters building. The building opened in March, 1958.

Unocal plant to close by 1991

Plant closure is part of company's development plan

By Evelyn Bell
Staff Writer

The Unocal chemical plant in Brea will shut down by late 1991, company officials have announced.

As part of Unocal's master plan of land holdings, the Brea plant, located on Imperial Highway and Kraemer Boulevard, is no longer economically viable.

"The cost of natural gas for producing ammonia has increased to where it is no longer economical to continue running the plant," said Unocal spokesman Barry Lane.

The plant's 110 employees were informed of the decision last month and are planning their futures, Lane said.

"It is not known how many layoffs will take place. There is an early retirement plan available and many employees will be offered transfers to our West Sacramento plant and other chemical division facilities," Lane said.

One of Unocal's main chemical plants, which produces fertilizer products, is located in Kenai, Alaska.

After the Brea plant, which was built in 1953, is dismantled, Unocal plans to develop the land to include office and commerical structures surrounded by single family residential tracts.

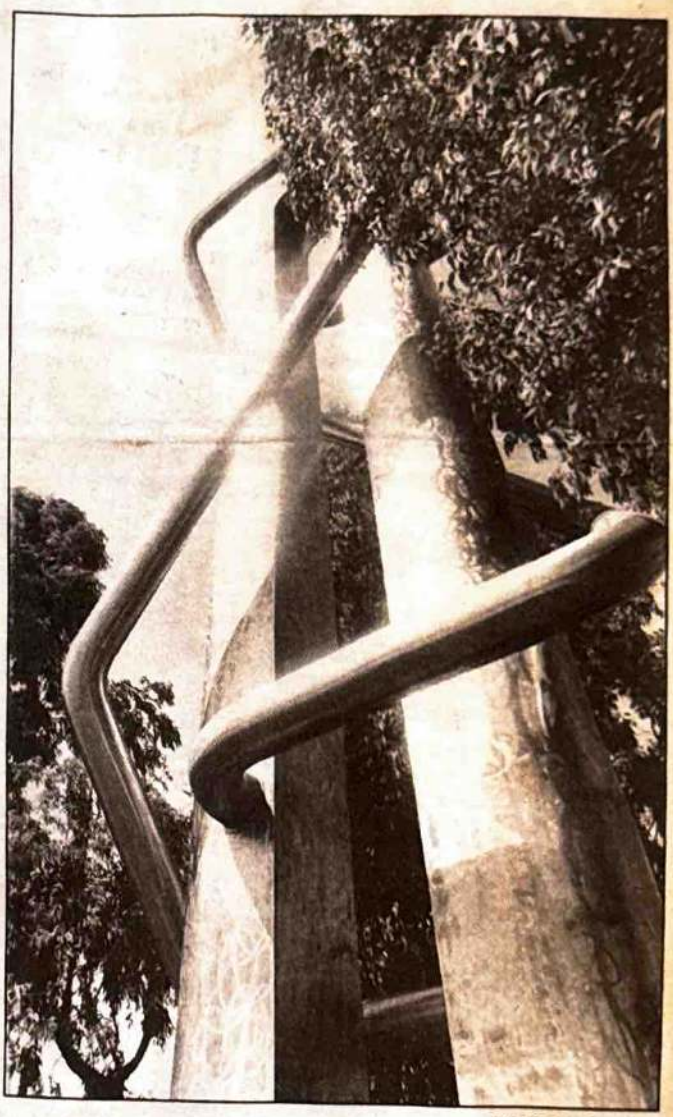
Unocal recently initiated a master development plan for its land holdings, which include the Imperial and Birch Hills golf courses, the Brea chemical plant and the Stearns and Coyote Hills East properties.

The proximity of these properties to Brea, Placentia and Fullerton presents a complex political situation for the resolution of development and planning issues, according a brochure published by Unocal.

The brochure was presented to each city's planning commission. The cities share several common planning issues, while other points are unique to each site.

The decision to develop these properties was based on economic reasons and the potential benefits to the cities, including commercial, residential and recreational growth.

Building community support also is a Unocal concern. Lane said the company is trying to garner support by maintaining the current level of service to area golfers with the completion of the Coyote Hills East and Stearns golf courses.



Staff photo by Gary Gossett

Guardian: This sculpture which stands like a guardian at Unocal's Brea chemical plant will guard a new business once the plant is phased out.

The Imperial and Birch golf courses would remain open until construction is finished.

Besides the new golf courses, Unocal plans to build an auto mall, a single-user site with corporate headquarters and residential tracts on the property.

The Stearns property, located within the unincorporated county of Orange and within Brea's sphere of influence, requires annexation to Brea before city planners can take action on the specific plan and the Environmental Impact Report (EIR).

The annexation and General Plan Amendment will involve a greater time in processing the property, according to Roger Friesen, Brea's assistant development services director.

The annexation process involves drafting a specific plan outlining the development area for the cities to re-

See UNOCAL / 4

UNOCAL CLOSURE:

Continued from page 1

view. An EIR on the physical impacts, traffic noise, air quality and oil drilling, among other concerns, must be conducted.

The specific plan will be produced by a private consulting firm, Planning and Design Solutions of Newport Beach. After the plan has been reviewed and accepted, the developer can then apply for annexation with the Local Agency Formation Commission (LAFCO).

Unocal representatives have met with planners in the three cities to expedite the development process.

A project management team was established to guide the processing of the projects. Project managers Michael Biggi and Alan Hawickhorst head the Unocal's management team and representatives from each city's planning department are working closely with them. Representatives from homeowners associations, school boards and parks and recreation commissions make up the Citizen Advisory Committee.

Unocal's Master Plan involves a total of 1,131 acres. The estimated time span for development is 12 years.

Unocal Corporation
Oil & Gas Division
500 North Kraemer Blvd.,
Brea, California 92621

March 5, 1990

Unocal Corporation
P. O. Box 7600
Los Angeles, CA 90051

Editor of Seventy Six Magazine:

The January/February copy of the Seventy Six Magazine which reviewed the various important historical events of Unocal has been read with great interest. This caused me to reread and study my copies of "The 76 Bonanza" and the "Sign of the 76".

This letter is written to bring to your attention that the Brea Field history has been omitted in each of these. The following is some of the history of the field gained mostly from fellow workers.

It is reported that the Brea Field was purchased in fee in the late 1800's as part of a 15,000 acre sheep ranch. It was desirable because the 1st and 2nd Pliocene zones seep oil to the surface in many areas throughout the field. The original 1886 sheep ranch house is inhabited by two descendants of the family. They were given this right as part of the sales agreement. I have been told that the property was purchased for 90¢ per acre. The two descendants are approximately 90 years of age. The company also agreed to allow 1,500 head of sheep to winter on the property until the late 1960's.

We have three wells, Stearns 12, 13, and 15 that were drilled in 1900 that are active producers. Over 300 wells have been drilled on the Stearns and East and West Naranjal fee properties. Many of the wells have in excess of 2,500' of perforated producing zone. The field is currently producing 2,100 B/D and is by far the most profitable field in the Los Angeles Basin. It is generally agreed that this field will be producing long after all of our other fields in the basin have been abandoned.

Mr. Harry E. Keegan, former president of Oil & Gas was a production foreman during the early part of his career here at Brea. Most of the presidents of Unocal have attended picnics at Brea's Cy Rubel Park. This causes me to believe that there should be some record of the field's existence.

I either read or was told by someone that the Brea Field contributed 10% of the total income of Unocal during a period of the company's history.

We have deer, mountain lions, bobcats, coyotes, squirrels, rabbits, owls, hawks, and various other kinds of wildlife living on the property.

We have two pictures on display here of the entire work force and their families that were taken in 1914 and 1917 when most of them lived in company houses. This picture includes the horses, mules, wagons, motorized vehicles, and some of the buildings.

We can not understand why a field that has contributed so much to the history and economic survival of Unocal should be completely omitted from all historical accounts. It will be a real disappointment to the men that work here if another historical book has been written with this same omission.

It is hoped that this letter will cause enough curiosity and interest of those charged with maintaining historical records of the company to study and record the history of the Brea Field.

Sincerely,

Eldon D. East

Eldon D. East

8/15/91
DSP

Unocal oil platform shut down

By Gary Robbins
Freedom News Service

The huge oil-drilling platform Unocal operates eight miles off Huntington Beach has been shut down indefinitely by the federal government because workers cracked the ocean-floor pipeline used to pump its crude ashore.

The Minerals Management Service closed Platform Edith on June 17, five weeks after it shut down Unocal's Platform Gina off Port Hueneme when contractors caused a similar accident.

Edith's pipeline leaked less than one barrel of oil. But investigators said the accident would have been far worse if a Unocal contractor hadn't stopped when he snagged the pipeline with a grapple hook.

These are the first platforms off Southern California to be shut down indefinitely for safety violations since a Unocal derrick was closed in 1969 when a blowout leaked 50,000 gallons of crude off Santa Barbara.

The platforms could remain closed for weeks while repair plans are approved.

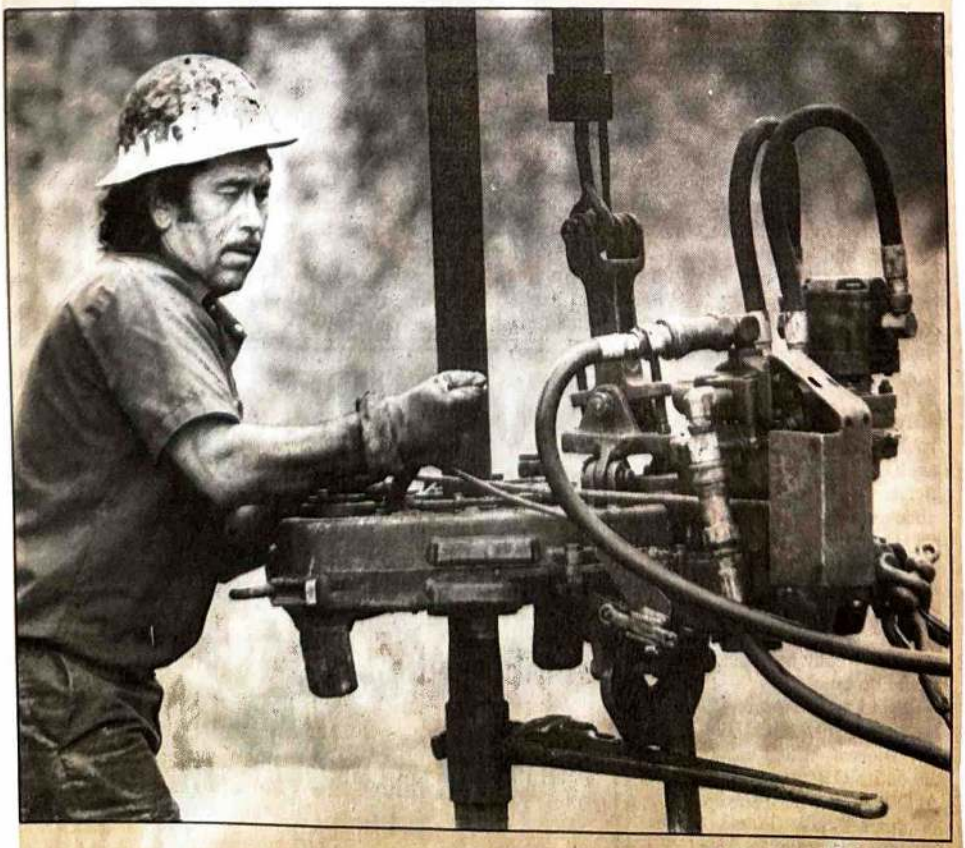
Unocal could be fined as much as $10,000 for each accident. A decision will be made later this year.

According to the Minerals Management Service, Hydro Marine of Long Beach, a Unocal contractor, snagged Edith's pipeline while trying to recover a buoy anchor chain from the ocean floor, 165 feet down.

Hydro Marine was using a grappling hook to drag for the anchor chain, even though Unocal told the firm not to because the technique led to a similar accident at Gina on May 10, the Minerals Management Service said.

Art Bentley, a Unocal spokesman, said, "We haven't seen the MMS investigation report and won't comment until we do."

Platform Edith is one of eight platforms and oil islands off Orange County.



(Star-Progress photo by Jack Hancock)

A FAMILIAR SCENE — A picture typical of the Brea area since the late 19th century continues today. Older workers have been replaced with new workers and new technology is being employed today. But the scene remains the same. A new well is being drilled on Tonner Canyon Road and a Daily Star-Progress roving photographer caught the

13A

Unocal offers visitors view of off-shore drilling rig

By Steve Creech
DSP Staff Writer

SEAL BEACH — Platform Esther stands in about 38 feet of water, nosing about the ocean floor for crude oil.

Test lines reach out like tiny feelers through layers of hard rock and sand.

Ultimately, one line burrows into the porous rock where the black substance lies trapped, its mission accomplished.

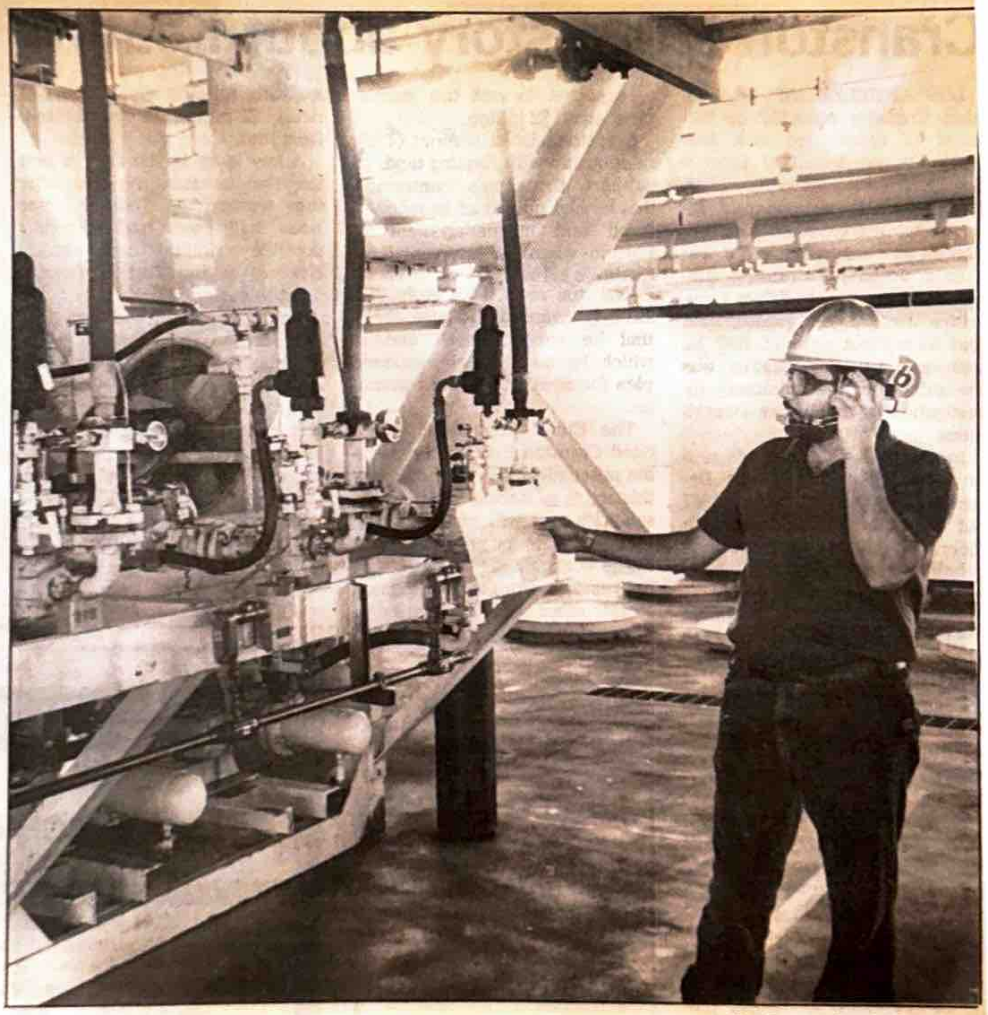
In most cases, however, when a pocket of oil is discovered, there is no fountain of black gold gushing into the air.

"Gushers like the ones seen in old movies are very rare," said Roger Lemons, district drilling superintendent for Unocal North American.

During a tour of the Unocal platform about a half-mile off Seal Beach, Lemons explained the modern techniques employed in today's off-shore drilling.

"The oil fields lose their pressure after extended use," he said. "The oil must be pumped to the surface because, after a while, it won't rise on its own."

Oil fields such as Belmont, where Esther now stands, host more than 900 wells extending from platforms along the West Coast.



(Star-Progress photo by Steve Creech)

INNER WORKING — Platform Supervisor Carlos Carrion explains the function of machinery on the rig's production deck. Like most platforms, Esther has the capability of seperating oil and water from sediments before its product is hipped on-shore for processing.

(Star-Progress photo by Steve Creech)

BLACK GOLD BENEATH THE SEA – Unocal off-shore drilling platform Esther was the recent site of a tour that gave visitors an inside peek at its oil production and special safety features. Currently, the rig is in test production one-half mile off Seal Beach. Unocal hopes it will produce 1,200 barrels of crude oil each day.

California is generally considered to be one of the last "hugely productive oil producers in the United States," according to Unocal Senior Public Relations Representative Janet McClintock.

Following a major blowout at a rig in 1969, she said the industry has drilled without incident, helping to supply consumers in the state with 2 million barrels of oil every day.

McClintock said a growing demand, coupled with a dwindling supply is one reason why Unocal is trying to step up the production on Esther, which it acquired from Chevron in 1988.

The rig was destroyed during a severe storm in 1983 and subsequently rebuilt by Chevron in 1985.

Currently, only five of Esther's 22 wells are producing, but Carlos Carrion, who oversees operations on the platform, expects production to rise from a current level of 250 barrels of oil each day to more than 1,200 barrels.

The rig's daily production of 150,000 cubic feet of natural gas also is expected to rise to 400,000 cubic feet.

"We're doing pretty well for this test phase," Carrion said. He explained the functions and safety procedures of off-shore oil rigs.

Like other platforms, Esther operates within the three-mile limit of off-shore drilling in California.

It is regulated under the jurisdiction of the State Lands Commission and Division of Oil and Gas.

Equipment on most full-scale platforms separates crude oil from the mixture of water and mud it brings to the surface.

The drilling rig penetrates deep into the seabed, grinding its way through hard rock, toward areas containing oil.

A drill bit is mounted on the end of a long pipe, which is rotated by an engine in the rig above.

To keep the superheated drill bit cool, a special mud is pumped down through the drill shaft. The mud then flows upward to the surface where it is filtered and recycled.

Next, the product is shipped to a processing plant onshore.

Although production on Esther is small, it surpasses the average daily output of nearly 100 onshore wells, McClintock said.

The total structure stands about 15-stories high, weighing 9,500 tons.

It has two decks – one for production, the other for drilling – with a combined area of about half the size of a football field.

Esther is closest to the shore of any rig in the area, anchored by 16 pilings that extend 162 feet below the mudline.

Unocal officials claim it can withstand 22-foot waves and an earthquake of 8.25 on the Richter scale.

A host of safety features, including a vast network of fire fighting equipment, a 750-foot-long oil boom, and early problem detection systems, abound on the decks of Esther.

In the event of an oil spill, the entire platform will shut down – all its wells, compressors, pumps and rig-to-shore pipeline, Carrion said.

The platform is constantly manned by a small crew who are provided with a sleeping area, kitchen and locker room.

Larger platforms may house a movie theater, and even an in-house chef, according to McClintock.

Carrion said landing a job on a drilling platform is not easy.

"Most men start as roustabouts and work their way up to a rig," he said. "They must be trained by the Federal government to work on the outer continental shelf."

In addition, he said, crew members are experienced in CPR and educated in fire prevention techniques.

If a medical disaster strikes, Carrion said the platform has a direct link to Lifeflight – a helicopter ambulance service.

With Lifeflight, an injured crewman can be transported to a local hospital within 20 minutes.

UNION CITRUS ORCHARDS WATER WELLS

Well #1	Drilled by Union OIl Co. Depth 1125 ft. Abandoned 1929 Location: Center of Section 23
Well #2	Drilled by Union Oil Co. Depth unknown and never used. Location unknown
Well #3	Drilled by Union Oil Co. Depth 645 ft. Abandoned. Ashly Turner Location along south line of Sec. 14
Well #4	Drilled SEptember, 1926 Depth 645 ft. Abandoned 1939
Well #5	Drilled by Union Oil Co. Sept. 1927 Depth 1790 ft. Location Union Oil Tank Section 10 - now Albertson's Warehouse
Well #6	Drilled by Saunders Bros., Whittier Depth 756 ft. Oct. 1927 Location N.W. Corner of Union Oil property. North line Sec. 4.
Well #7	Drilled by Union Oil Co. Depth 930 ft. Dec. 1927 Location No. 1/2 sec. 12
Well #8	Drilled by Union Oil Company Depth 735 ft. Feb. 1928 Location: along E.W. line 1/2 of Sec. 7 Lambert Street
Well #9	Drilled by Union Oil Co. Depth 760 ft. Aug. 1928 Location N.E. 1/4 Sec. 3
Well #10	Depth 3255 ft. ABandoned 1927 Location S.W. 1/4 Sec. 8 E. of Valencia St.
Well #11	Depth 3750 ft. Est. June 1926 Location no information available
Well #12	No Information available.
Well #13	Drilled by SAunders Bros., Whittier Depth 643 ft. May 1931 Cable tool H_2S Location along N.E. 1/4 Sec. 22 Next to Loma Vista Cemetary

Well #14
Drilled by Union Oil Co.
Depth 1709 ft. May 1931
N.W. 1/4 Sec. 10 Union Oil Tank Farm

Well #15
Drilled by Saunders Bros., Whittier
Depth 1310 ft. May 1931 Cable tool
Location - south side of 300 blk. South Laurel Ave.

Well #16
Drilled by Union Oil Co.
Depth 1487 ft. June 1931 Rotary
Location So. side Imperial Hwy. between Berry and PUente Sts.

Well #17
Drilled
Depth 736 ft.
Location No. side Deodara (now Lambert) Sec. 12

Well #18
Drilled Roscoe Moss Co. Los Angeles
June, 1935 Depth 606 ft.
Location S.E. of Well 8, Sec. 7

Unocal investigators assess noise

By Steve Creech
Staff Writer

The Brea Community Advisory Committee, in an attempt to assess the scope of a proposed Environmental Impact Report for Unocal's Imperial property, last week decided to expand the document to study noise in the area.

Brea City Senior Planner Patricia Shoemaker said the committee felt noise along Placentia Avenue, south of Rolling Hills Drive, should be examined as part of the EIR's investigation.

"In order to make a complete cumulative analysis, we need to make some land-use assumptions to help us determine what kind of traffic impact can be expected," Shoemaker said.

Throughout the planning and evaluation of the Imperial property, the Community Advisory Committee, an ad hoc committee comprised of representatives from the Brea Homeowner's Association and residents from surrounding neighborhoods, has met.

"The CAC is working very, very well," Shoemaker said. "We have a good cross-section represented and the discussions have been very fruitful. With each meeting, more information is being shared regarding what the development will entail."

The Imperial property includes the current site of Imperial Golf course, south of Imperial Highway, north of the Fullerton city boundary and west of Kraemer Boulevard.

Unocal plans to build a mixed use development on the 173.2-acre site, 74.2 acres of which lie within the city of Brea.

For purposes of the EIR, Unocal has selected a development plan that includes 217 single-family homes, 128-184 multi-family residences, and 6.3 acres of commercial development along Imperial Highway.

Shoemaker said the city has retained "Environmental Perspectives," a Santa Ana-based company, to prepare the EIR in accordance with the California Environment Quality Act and Brea's implementation procedures.

"We expect the document to be available for public view in late June," Shoemaker said. "Before it is published, the city's consultant must make sure it meets all the requirements."

Final development of the land, according to Shoemaker, is more than a year away.

"Unocal won't begin construction on the property until a new golf course is operational at a new site," Shoemaker said.

Then, entitlements must go through such as a general plan amendment, a zone change, subdivision maps, and discretionary reviews.

"The land is zoned for light industrial use. Whatever Unocal decides to use the land for will require a general plan amendment," Shoemaker said. "They'll probably change it to a combination of different uses."

Prior to development, Unocal will be required to obtain all necessary permits to remove its oil facilities and equipment, and institute a clean-up program.

Staff photo by Scott Ruby

Water hazards and now...oil traps: Brea's Imperial Golf course is being phased out to make way for Unocal development. Here, a golfer enjoys a day on the Fairway.

Unocal drills new oil well, ponders more

By Jackie Brown
DSP Staff Writer

FULLERTON — Unocal recently completed the drilling of an additional oil well in the East Coyote Hills and other wells are being considered, according to spokesmen for the company.

However, most oil operators are being cautious about drilling new wells, despite the current crisis in the Middle East and higher prices for crude oil, according to Roger Lemons, manager of Unocal's drilling department.

He said the company is watching to see at what price oil will stabilize. The West Texas Intermediate price, the benchmark U.S. crude oil quoted in newspapers, is $26.72 per barrel today, Lemons said, but the California oil is not as high a grade and would sell for roughly $20 a barrel, he said.

The expense of extracting the oil has to be weighed against the price obtained on the market, he said.

A water-injection well was completed this month and is now in operation in the East Coyote Hills, Lemons said, where about 100 wells are already in operation.

Output varies from 5 barrels per day from the old wells to between 100 and 120 barrels per day from the newer ones, he said.

"In the long term, we're looking at a maximum of seven more wells out there," Lemons said.

The establishment of new wells will not be a problem to the development of a golf course and residential complexes in the planning stages for the hills, said Dennis Chapman, vice president of Unocal Land and Development Company's Southern Region.

Chapman said the company can easily erect 10 to 12 wells on a parcel the size of a football field.

Meanwhile, Chapman said Unocal is attempting to complete its plans for a housing development at Rolling Hills Drive and Placentia Avenue and the golf course-residential development, roughly between Bastanchury Road and Brea Boulevard.

The project is complicated, Chapman said, and it takes time.

In order to cut back on water sage for the golf course, Unocal has met with the Orange County Sanitation District, the Metropolitan Water District and the city of Fullerton, he said. The object is to find a way to use non-potable water for keeping

(Continued on Page 2)

Unocal...

(Continued from Page 1)

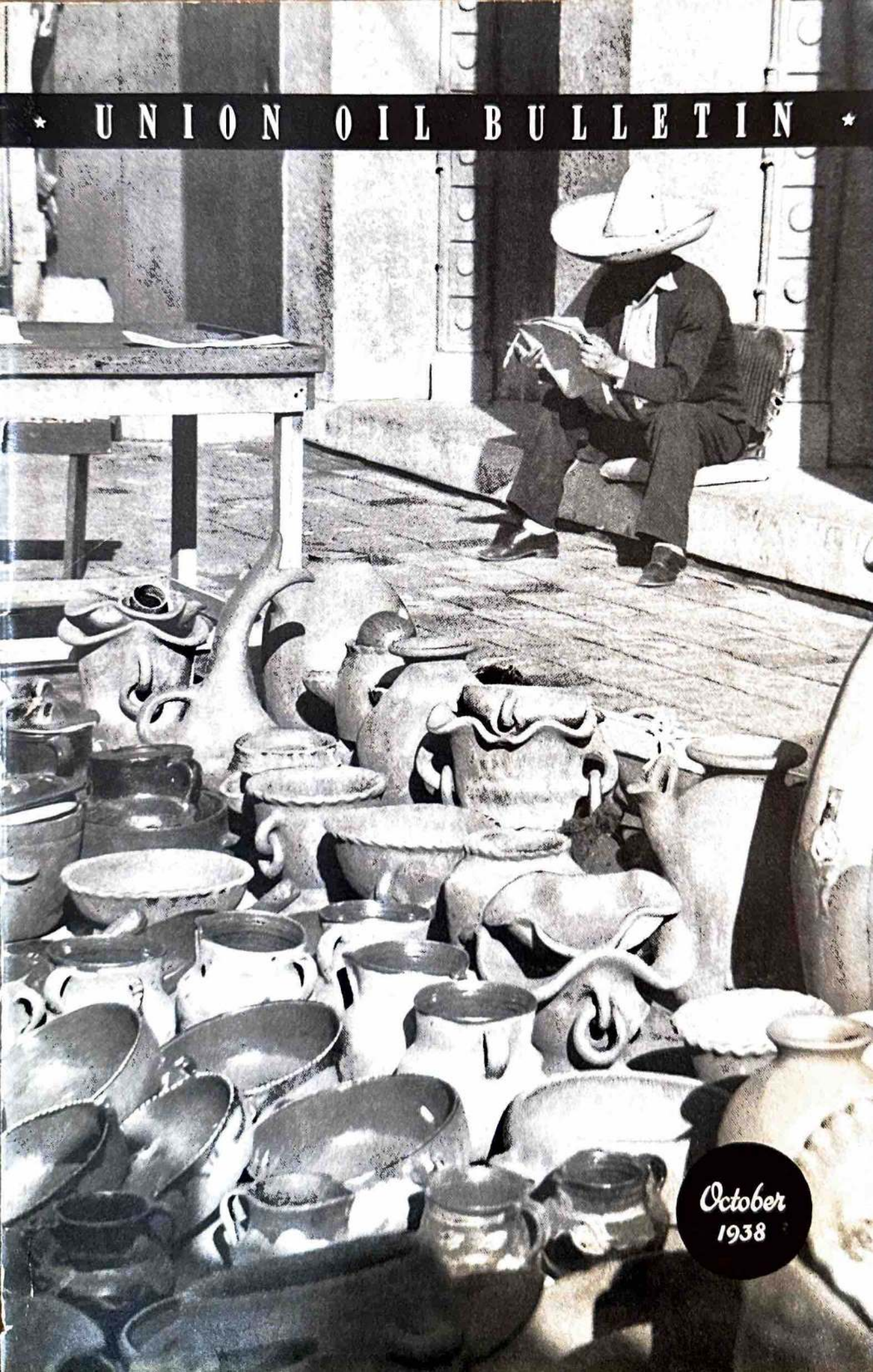
the golf course green.

Provisions also are being made to preserve more than 50 percent of the gnatcatchers' habitat, he said, as well as provide sites for possible wells.

He said the design had been very restrictive to provide the habitat, open space and develop the residential projects.

Unocal also has submitted plans to the city of Fullerton to provide soccer fields on Bastanchury Road at the site of the old mini-bike park, he said.

★ UNION OIL BULLETIN ★



October
1938

UNION OIL BULLETIN

VOLUME NINETEEN OCTOBER, 1938 NUMBER TEN

ROLE OF ASPHALT IN PAINT MAKING

By L. K. Bishop

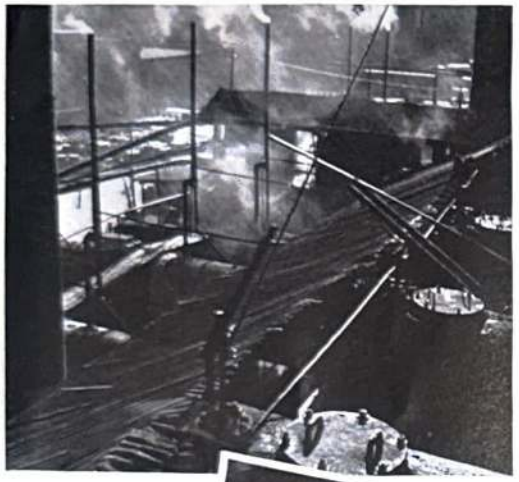
Manager, Paint Sales Division, The Paraffine Companies, Inc.

L. K. Bishop

ABOUT two generations ago there occurred in California a series of closely connected events which were destined to have considerable influence on the industrial history of the West. As with most "beginnings of things" those incidents which were to bring about the richest returns passed almost unnoted, whereas those destined for a brilliant but brief future were heralded as "greatest achievements" by every news journal in the land.

One of the many stories which grew out of these incidents has to do with paint. That is the story told in the following paragraphs, though just how the development of the Western paint industry is connected with the Union Oil Company and how the Union Oil Company was ever associated with the cyaniding of gold ore is not clear at first sight.

A group of men connected with the early development of petroleum in California included Thomas Bard, afterwards United States Senator, and Melvin W. Beardsley, an oil expert from Pennsylvania. Bard developed several small wells in Ventura County and built a pipe line into Ventura. His work resulted in the formation of the Mission Transfer Company which was a parent organization from which the Union Oil Company came.



At the great plant of The Paraffine Companies, Inc., in Emeryville, California, over 6,000 Pabco Products are manufactured. The photograph at left reveals a busy corner of the asphalt refinery, where Union Oil Company asphalt is processed to make roofing and paint.

The modern, five-roll paint grinder shown below mixes pigment and oil into a finely ground, homogeneous paste which may afterwards be thinned with additional oil to produce the paints.

The workman at right is operating one of the can filling machines at Pabco plant.

Beardsley established a small refinery in Ventura. While he naturally produced some illuminating oil, he was principally interested in the development of uses for the very pure and high grade petroleum asphalt obtained from the oil produced by Bard's wells.

One of the principal asphaltic products made by Beardsley was a very efficient paint for protecting metal and wooden structures against corrosion and other deteriorating agencies.

About this time the mining world was agog over the introduction of the new cyanide and chlorination processes in the gold regions of the West. The general public, however, did not know that these processes for the recovery of gold and silver from certain low grade ores were dependent for their efficiency on the protection the equipment received from Beardsley's paint—which in turn was made from the oil produced by Bard's wells.

By this time Bard's interests were incorporated into the Union Oil Company, and Beardsley's paint was being made by the Paraffine

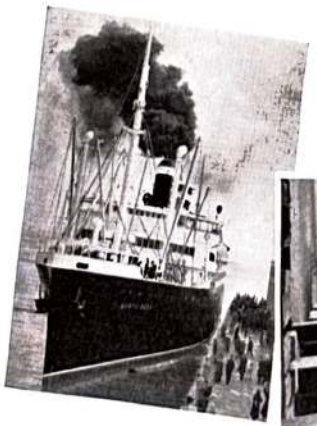
Paint Company, now The Paraffine Companies. All the value in gold produced by the cyanide and chlorination processes in the West up to the present time would buy only a small fraction of the petroleum and petroleum products produced by the Union Oil Company during the same period, and the gold would not buy more than a fraction of the paint, roofing and floor covering materials made by The Paraffine Companies. Today the chlorination process is obsolete and the wonder of the cyanide process is no longer front page news, even in mining publications.

One interesting phase of this story is that when industry needed a paint some two generations ago it went to Nature for the raw materials—in this instance the raw material was found in Ventura County petroleum. But now, more than half a century later, on the very threshold of the forties, when a new paint is needed in the industries or the arts we go to the laboratories for the base materials. Even if the base of the paint is a "natural" material, the laboratories so adapt and reform it by modernized refining processes to the specific need that old "Dame Nature" must find it difficult to recognize her own child.

Up to the middle of the last century all of the raw materials of industry were simple. The processes by which they were put into usable form were also simple processes. When the furniture maker made a chair, he used the native woods of the forest—usually a forest within a hundred miles of his shop. His glue was a product of some nearby abattoir. So it was with paints—the pigments were iron oxide, graphite, ochre, umber and, as a concession to the then infant chemical industries, the white pigment was basic carbonate of lead produced from small lead castings, vinegar and spent tanbark.

Paint existed long before the eighties. However, the asphalt paint produced from California petroleum asphalt has been singled out because its discovery and early production were typical of a certain period in industrial development. As has been said, this asphalt paint was first made at a time when the Union Oil Company was in process of formation and the same event also ushered in The Paraffine Companies. The pathway of paint from those days to the present illustrates typical stages through which industry has passed during the last sixty years. That many of the things done in earlier years were correctly conceived and well carried out is shown by the fact that asphalt paint which forms the opening theme of this article is still being made on almost the original formula and is still doing good work. So also are many natural pigments still being used—ochres, iron oxides, natural graphite, and even chemically made carbonate of lead, chrome yellows and chrome greens, which date back beyond the sixty year period we have arbitrarily set as a "dead line" between the old and the new.

Not only has the character of paint changed in the course of the last half century or so, but the manner of its application has also changed markedly. In the eighties the workman had time to apply paint in a manner totally impractical in these days. Three weeks could be devoted to the painting of a carriage.



A typical Pabco dealer stock room.

Above: Element defying marine paints are an important and widely used specialty manufactured by The Paraffine Companies, Incorporated.

Interior woodwork was elaborately grained by means of special "graining tools"; varnish was given three or four days to dry. Contrast all of this with the present day painting of an automobile in a few hours and the finishing of a room in a house in one day.

Another condition which has had much to do with the development of paint has been the fact that the surfaces on which paint is applied have changed radically in the last fifty years. Although the ancient Greeks painted the stonework of their temples, the extensive painting of masonry surfaces apparently suffered an eclipse during some twenty-four centuries and has only been taken up again within the last two or three decades. The extensive use of concrete and its employment in relatively thin, reinforced walls makes waterproof masonry paint coatings an absolute necessity.

Another influence of similar character on paint has been the enormous increase in the use of steel—particularly structural and tank steel. Two generations ago all but a few bridges were built of wood. Tanks were invariably wooden. Production of wrought iron and steel amounted to less than two million tons per year, with a considerable part of this going into railroad rails, which were not painted. At the present time the annual steel production is approximately thirty million tons and nearly all of it receives paint coats or equivalent protection before being put into use. Thus there is now far more surface to paint than there has ever been in the history of the world.

Probably one of the most striking influences in the development of the present day paint industry is the discovery of new sources of raw materials. As has been said above, the raw materials for paint, even late in the last century, were non-manufactured materials. The pigments were largely obtained from nature in the desired state or were modified by a few simple chemical processes. Oils were pressed from native seeds—principally flax. The "thinner," which always has been a necessary part of any paint composition, was the simple turpentine of the pine woods of the South. Resinous gums were gathered from the sites of ancient forests—in some cases by the simple process of prodding the soil with sharpened irons which indicated when a mass of gum was encountered. Other gums were obtained from still existing forest growths.

The quantity of raw materials available for paint manufacture in the eighties would make sufficient paint to cover only a small fraction of the surface to be painted in the year 1938. Raw materials of completely new character and from new sources have been requisitioned in order to keep up with the enormous demand for paints, varnishes, enamels and lacquers.

The petroleum industry was one of the first to come forward with a material available in almost unlimited quantities for the manufacture of paint. This material is best known as "mineral spirits." It serves to make up for the inability of turpentine production to keep pace with the increasing requirements of the paint manufacturers. Because nature has enriched California petroleums with certain highly solvent ingredients, and because good refining practice has conserved and added to these ingredients, our local mineral spirits, and particularly Union Oil Company aromatic solvents, have outstanding merit as paint solvents and thinners.

To describe the new pigments and improvements in the older pigments would fill a book. Some of the more common new pigments are the titanium dioxide series; lead titanate and lead molybdate (these bring in two of the less frequently met chemical elements); aluminum powder, accounting for the vast amount of surface now being painted with aluminum paint; another new pigment is copper phthalate, an extremely permanent blue. These are but a few outstanding examples typical of the scores, or hundreds, of new and improved pigments.

Drying oils have been brought from the Orient and from Brazil to reinforce the supply of linseed oil produced in the United States, in Canada and in the Argentine. It would have been rank heresy forty years ago to say that any other oil produced in nature would be equal or superior to linseed oil, yet the newer oils have much to commend them and many are certainly superior to linseed oils of the eighties. Linseed oil holds first place only because of the extensive employment of processes of refining, heat treatment, oxidation, bleaching and blending which vastly improve its quality. These processes also have been adapted to the treatment of the drying oils from other sources to step them up to meet the constant demand for more and more oils of the best possible quality.

The insufficient yield of natural resins and gums from extinct forest areas and the variable quality of these resins has been met by the introduction of synthetic resins. These now enormously surpass in quantity the natural resins and likewise excel them in uniformity and range of quality.

The starting point of the synthetic resins in many cases is some simple material. One large group of these resins is produced by the interaction of phenol (which is merely the chemical name for the well-known coal tar product, carbolic acid) and formaldehyde (familiar to every householder as a disinfectant). From these two materials—oftentimes with the assistance of modifying agents such as acidic oils—resinous gums having the appearance of common rosin are built up. These should not be confused with common rosin as they are vastly superior to rosin for paint making purposes. But even rosin itself—the rosin associated with turpentine as coming from the pine forests in the South—has been almost immeasurably improved by cooking it with glycerine, whereby a "condensation" process takes place and "ester gum" is produced. Ester gum was first used in industry as the base for a large portion of the highly waterproof and extremely resistant "spar varnishes" which appeared on the market some twenty-five years ago. Ester gum was "king but a day." While it is still extensively used and is better in quality today than ever before, it has been largely displaced in high grade varnishes by phenolic resins combined with heat treated oils.

Another starting point for resin synthesis, also having its origin in coal tar, is the combination of phthalic anhydride and glycerine. Glycerine needs no explanation to the layman. Phthalic anhydride is derived by a simple chemical transformation from a material almost as familiar—naphthalene, from which moth balls are made.

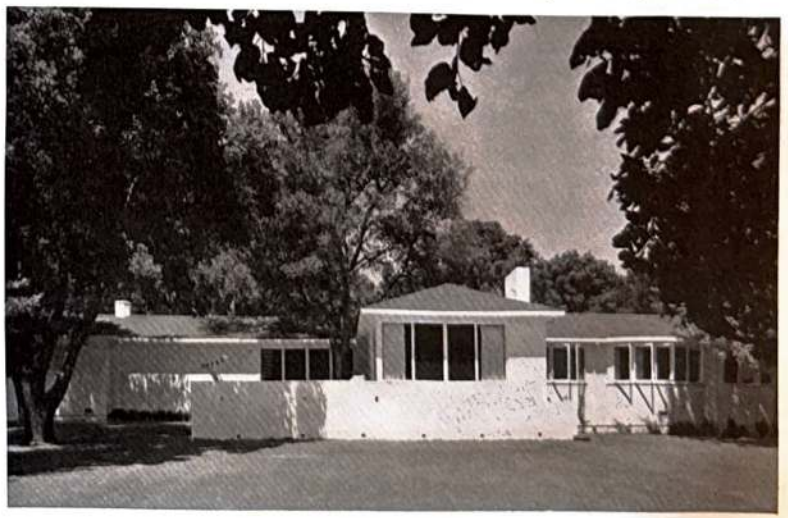
These gum making processes, as thus described, sound simple. But they are complicated by the fact that chemical reactions are often difficult to control and the ingredients require careful purification. A large number of the resins are not produced from the very simple materials above named but from compounds chemically related to phenol, formaldehyde, glycerine and phthalic anhydride.

In addition to the three main types of resinous materials described, there are many other synthetic resins used in the paint industry. Some of these are used in quite large quantities.

The dealers in natural gums have not been idle. They have done much to improve the grading of their material and in some cases have processed it to meet modern conditions. Despite all of the accomplishments of synthetic chemistry there are certain much used natural resins which have not yet been matched by chemically produced materials.

The cellulose esters have been extensively called upon to supply the vast demand for industrial finishes. Outstanding among these is "nitrocellulose." This should properly be called cellulose nitrate. It is produced by the

Wm. H. Lowe, president of The Paraffine Companies, Inc., owns this prize-winning Pabco home.



reaction of nitric acid on cotton fibre. It is closely related to "gun cotton," and to nitrocellulose powder which is used in certain classes of ammunition as the propelling charge for bullets and projectiles. For a period substantially all automobiles were painted—or rather lacquered—with nitrocellulose lacquer; this practice is still being continued by many automobile manufacturers. Building interiors were finished with these lacquers; furniture was extensively lacquered, using either the clear lacquer or the pigmented lacquer in various attractive colors. Lacquer has been withdrawn to some extent from several of the fields which it invaded but it still is an important member of the industrial finishing group. Where lacquer has thus been displaced, its place has been taken by some of the new quick drying synthetic resinous finishes.

The layman does not see one of the most important aspects of the present day paint industry. That is the powerful bond of orderly intelligence running through the entire structure and tying it together into a consistent, well-knit, effective whole. Without this bond it would be disorganized, without foundation and without purpose. We might have a paint for this, a varnish for that, but neither paints nor varnishes built to a proper standard, none of them displaying the fine quality that has become theirs through intelligent co-operation and understanding effort.

There is a vast store of literature which forms a stable record of paint, varnish and lacquer technology and manufacture. Associations of paint manufacturers, paint chemists and raw material producers meet regularly in all of the larger cities in the United States. Users of paint formulate definite nationally adopted specifications for their own paint requirements. Methods of testing paint, and certain essential qualities are carefully determined by groups of investigators connected with such great national organizations as the American Society of Testing Materials, the National Paint, Varnish and Lacquer Association, Inc., the Federation of Paint and Varnish Production Clubs and the United States Bureau of Standards, at Washington, D. C.

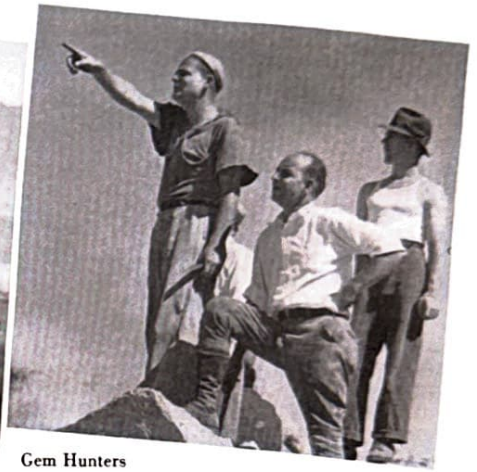
In the hands of the paint manufacturer are placed descriptive specifications covering essentially all of the available raw paint materials. These specifications enable him to produce a highly uniform output of paint necessary for each particular purpose. The pigments alone which are thus listed amount to some 1800 without taking into account other special pigments which may be offered from time to time. Most intimate descriptions of the characteristics of these pigments are listed—their fineness as determined by screen test, their oil absorption, specific gravity, bulking value and their chemical purity, or chemical composition, are listed in figures which may be carried out to several decimal places. The paint manufacturer thus feels certain that a carload of pigment of a definite brand purchased from a particular raw material manufacturer in the year 1938 will be exactly the same in quality as a carload of the same brand of material purchased in 1937.

Just as fine a differentiation in oils, varnish gums and solvents and other raw materials has been worked out for the benefit of the paint manufacturer.

The paint manufacturer, in turn, produces his paint to meet careful specifications as to quality. These specifications may be prescribed by the Federal Government, by a state, city or county or by some other user; or the specifications may be set up by the manufacturer himself in order to assure uniformity of his product. The paint is thus made to exact composition; the color, viscosity, hiding power, brushing qualities and the like are made perfectly definite and the product thereby is fitted for a particular use. It is in this latter phase of the paint industry that the layman finds the greatest contrast to the conditions of the eighties. Two or three generations ago a paint was regarded as a type of decorative material which might be applied to a chair, the side of a house or the farm wagon. Nowadays each one of these applications of paint demands a particular material. The primary purpose of this fine differentiation in the use of paints arises from the fact that there is so much surface to be painted in these days that a small change of formula may represent in the aggregate tens of thousands of dollars lost or saved in the mere act of application itself. And also tens—or hundreds—of thousands of dollars may be lost or saved in the durability factor—the paint must give protection to valuable equipment and structures for the anticipated period of time.

The days when "paint was paint" are gone forever. Paint now is a specialized product made in vast quantities and in many qualities and types, each designed to do its intended work in the best and most economical way. The paint of today is strictly adapted to the complex environment and meticulous need of the modern century in which we live.

Gem Country



Gem Hunters

GEM COLLECTORS IN CALIFORNIA

AN IDEA which grew out of a casual conversation between two neighbors at a fireside in Arcadia one winter evening seven years ago has expanded so rapidly in the meantime that it now has thousands of enthusiastic adherents and has come to be one of California's most interesting and educational hobbies.

This delightful form of outdoor recreation is the collection and classification of precious, semi-precious gems and mineral specimens and one of the reasons for its amazing universality is that the pursuit is not confined to some particular area to which long, tiresome and expensive pilgrimages must be made. On the contrary, any Californian may take up the hobby regardless of residence, for California was most abundantly endowed by Nature with gorgeous gems and glistening minerals.

Only one country in the world excels this state in the number and variety of its rock specimens, and that is Sweden. With New Jersey a moderately close second, California leads the world in number of minerals found nowhere else, being able to list fifty-four in her array of 400 different mineral species.

Nor are any considerable number of these to be lightly regarded from a collector's standpoint, because among them are the California diamond, already found in appreciable numbers in as many as eight of her northern counties; the pink tourmaline, of such rare beauty that the Empress of China adopted it as her favorite gem; and Benitoite, which is admittedly the rarest of all gem minerals and is furthermore the only known representative of ditrigonal bipyramidal crystal symmetry.

This extraordinary stone occurs in a small mine fourteen miles south of the New Idra cinnabar mines in San Benito county. Many of our gemologists declare that Benitoite excels our superb sapphire, to which it bears a closer resemblance than to any other gem. It was not discovered until 1907 and then it actually was mistaken for sapphire and was so classified for some time. Its tints range from colorless to a glorious rich blue tone, with an astonishing lustre.

With such a wealth of material at hand, it is not surprising that the California Federation of Mineralogical Societies grew out of a little neighborly chat between John Renshaw and Dave Scott, that night in Arcadia.

They felt that there should be some sort of organization to extend the science of collecting and classifying gems and mineral specimens, and in just about no time up sprang the Mineralogical Society of Southern Cali-

fornia, now the largest of a group of sixteen mineralogical organizations which are strung out the length and breadth of the state, with chapters in such important centers as Los Angeles, Pasadena, San Diego, San Bernardino, Long Beach, Santa Barbara, San Jose, Bakersfield, Sacramento, Stockton, and San Francisco, with a few over in the high Sierras and along the Mother Lode country thrown in for good measure.

All these are governed by the California Federation which has for its president Ernest W. Chapman of South Pasadena, who was a founder member of the original organization which claims Pasadena as its home and is, incidentally, still the largest unit in the state, numbering 220 members. The Los Angeles Mineralogical Society, of which Gertrude S. McMullen is president, is second in size with 178 members, while the California Federation has a total enrollment of 1200 members.

Practically all that these amateur and professional mineralogists need in order to pursue their hobby to the borders of the state is a car, some Union 76, a sampling hammer, a reading glass or microscope and a few cans of Triton Motor Oil. Thus equipped, either singly or in groups of a dozen or two, they spend week-ends, holidays and vacations in the mountains and on the desert, searching for specimens. Some even venture into neighboring states, and not a few have made mineral collecting an interesting phase of a motor tour from coast to coast.

At the outset these mineralogical societies simply held monthly meetings to talk about and study minerals and gems through the medium of samples which certain members were fortunate enough to possess. As time went on the monthly meetings featured speakers on geological and mineralogical topics. Then field trips were inaugurated.

Week-end motor caravans of mineral collectors were organized in Pasadena and Los Angeles for trips to neighboring desert regions, and as time went on the popularity of this idea grew until some of the societies were making monthly motor pilgrimages to areas where gems and mineral specimens were available. Finally the Pasadena group, under the guidance of Edwin Van Amrindge, planned and successfully staged a ten-day Easter season mineral collecting field trip into Arizona.

With the wealth of material being brought back by members of the different associations these societies soon found it possible to broaden the scope of their study, and the practice of exchanging specimens at meetings was inaugurated, to be quickly followed by occasional auction sales.

More recently some of the societies have broadened their educational programs by taking with them on their field trips educators who, at intervals along the route, deliver short, impromptu talks concerning the geological formations which are encountered. This, the members declare, heightens the interest in the more important things which come to their attention.

Interest among the mineralogical societies has been so keen that there has been an amazing growth in membership during the last year or two, and within the last few months a new group known as the Pacific Mineral and Gem Society has been organized in Los Angeles among former students in mineralogy, mining and geology at Manual Arts Evening High School. This new organization doubled its charter membership in the first four months. On Memorial Day this year it made its first field trip, going to the Julian-Banner district. Twenty-two automobile parties made up the caravan for a two-day outing.

Educators have been quick to recognize the opportunity afforded by this unique hobby. A little less than two years ago Dr. Robert W. Webb, an instructor in geology at the University of California, launched a course in "Mineral Deposits of California" in the extension division of the University, and to his astonishment more than 250 students enrolled last winter.

Among those in the class were two dentists, a sailor from Australia, a teacher of high school French, and the secretary of a mining company. Their common desire was for more information concerning mineral localities, instruction in the identification of minerals, and knowledge regarding fundamental laws of geology.

After a time the class wanted to go in for field trips, so a motor caravan was organized and a two-day trip to the Randsburg mining district was made. This laid the foundation for a number of interesting mineral collections, and resulted in the inauguration by the extension division of a class under the heading of "Field Trips."

Last winter these trips took students to Red Rock Canyon, where they collected zealites; to San Francisquito Canyon, where they collected graphite, clinozosite, gypsum and mariposite; to the San Jacinto mountains where they visited an ancient asbestos mine; and to the Palos

Verdes Hills, where they gathered excellent barite crystals.

This educational work, which some of the more experienced collectors believe is still in its infancy, has lately been extended into the elementary schools, particularly in Los Angeles city and county. Today there are courses in primary mineralogy in the schools of Los Angeles, Santa Monica, Pasadena, Long Beach, and a great many other communities.

These, Mr. Chapman says, lay the foundation for adult work in junior high schools and colleges, and are really the training ground for the gemologists and mineralogists of tomorrow. Popular belief is that, scattered the length and breadth of the state, are more than 10,000 persons, old and young, who are directly or indirectly interested in the collection of semi-precious gems and minerals, either as amateurs or professionals, in addition to which there are, in a number of cities, groups of manufacturing jewelers and gem-cutters arrayed in professional study clubs similar to the Gemological Society of Los Angeles, which does not admit laymen to membership.

In a state which produced more kinds of beautiful gems and mineral specimens than any other nook or corner of the universe, and produces them in seemingly inexhaustible quantities the public has apparently just begun to awaken to its opportunity and to develop it in a great many instances into a delightful and somewhat profitable hobby.

Indeed, an Oregonian who might be classed as a professional because of his ability to recognize valuable specimens, spent three-quarters of a day last summer at the waste dump of an old Idaho gold mine which was financially unsuccessful, and in the course of a few hours sorted out and hauled back to Portland in the turtle-back of his car an assortment of specimens which he is reported to have sold for $1,500.

In southern Nevada there is a second-rate gold and silver property which produces in considerable quantity realgar and orphinent—sulphides of arsenic. Los Angeles mineral dealers have from time to time offered to buy all of this material the mine produces, at prices above the value of the ore, if the operators will merely have it segregated, but the mining men still persist in letting this valuable material go into the waste dump. These two examples seem to point clearly to the gem and mineral collector's great opportunity.

California is a network of old abandoned, or sporadically-operated mines, like the caved-in vault near New Idra, wherein is to be found the country's most gorgeous and valuable mineral—Benitoite. Active mining properties will not always permit mineralogical groups to embark on collecting tours, but some of them will, especially when the tours are conducted under proper supervision.

Such a place, Mr. Chapman says, is the limestone quarry three miles south of Redlands, where eighty-four different minerals are to be found. This deposit ranks second in the world,

Gemologists collect samples at a Seismotite mine near Saltdale.

From the mine above comes an "Old Dutch Cleanser" ingredient.

A group of Los Angeles Mineralogical Society members, above, are listening intently as Walker Clute, geologist, explains an oil shale formation in Grimes Canyon, not far from Moorpark. Ernest W. Chapman, insert at right, is president of the California Federation of Mineralogical Societies and a founder member.

Mrs. Gertrude McMullen and Mrs. Cora Mae Life examine a specimen of mica, found in Red Rock Canyon.

being outstripped only by the Franklin, N. J., zinc mine, where 140 different kinds of mineral are obtainable.

The southern half of the state affords a wider variety of mineral specimens and gems than the upper half of California, although in the north there are some extraordinarily fine types to be found. In recent years the Barstow district has attracted hundreds of collectors and has been the destination for countless field trips, because there are not a great number of active mines in that district, and it is of easy access from such centers as Los Angeles, Pasadena, San Bernardino and Bakersfield.

The old ghost town of Borate, not far from Daggett, yields Priceite and Colemanite. The latter resembles snow, and has to be oiled or coated with shellac to prevent it from being reduced to powder by exposure to the air. Adjacent to Barstow are many kinds of semi-precious stones, and jasper occurs in a wide variety of colors.

North of Barstow, in the Lead Pipe Springs area, the collector finds Myrickite, and blue chalcedony — commonly termed blue agate. Red Rock canyon and Death Valley are delightful districts in which to collect mineral specimens, but it is necessary to obtain permits to collect in Death Valley because it is a national monument, under park supervision. The old town of Ryan, once a borax mining center, affords Colemanite. From Mt. Blanco comes Meyerhofferite—an alteration product of Inyoite, which has to be protected from sunlight.

Interesting oddities from the Badwater district of Death Valley are glauberite and halite crystals. November is the most favorable time to seek them, because with the arrival of cold weather the pools of water are crusted with salt. Halite forms in the water beneath this crust, and in the winter the rangers dynamite the pools to break up the salt so the crystals may be seen by tourists.

Some amateur mineralogists make their start by collecting moonstones at the beach. From there they shift to the Mojave desert or Death Valley. Finally, having temporarily satisfied their yearning for mineral specimens, they turn to California's great jewel box and begin collecting semi-precious gems.

This territory covers parts of southwestern Riverside county and eastern San Diego county. The richest region extends southeast from the little Indian village of Pala. The territory stretches out like two narrow ribbons running almost parallel. So abundant is the gem supply in this region, and so impressive are the gems in color and size, that gemologists frequently refer to the San Jacinto mountains in that district as the jeweled peaks.

One of the loveliest gems that has ever been obtained in San Diego county is Kunzite, found in 1902 at the Pala Chief mine, in association with that unusual mineral lepidolite. This mine, incidentally, is perhaps the greatest of all litha producers, and from it is obtained most

of the lithia that has in recent years been sold by druggists throughout the world.

As the story goes, concerning this deposit, an Indian found it and took samples to Pala. A prospector named Magee looked them over and went out to the scene and filed on a claim, thinking the ore was cinnabar. Assayers failed to find mercury in Magee's samples, and did not detect the presence of lithia, so Magee allowed the claim to lapse.

Not long afterward a Mexican filed on the claim, thinking he had located a valuable marble quarry. Failing to develop marble on the property, he also permitted it to lapse. Finally it fell into the hands of a couple of prospectors who sent samples of it to New York, where it was properly classified and named for a gemologist named Kunz.

The samples made such an impression that Tiffany immediately paid a fancy price for a small box of specimens. In addition to being both beautiful and unique, Kunzite belongs in the category of rarities, for it is found in but few of San Diego county's gem mines, and not even then in quantity. Its range of color is from white with pink shimmering through, to several shades of pink, and from pink to a lilac, and finally, with darker shadings, to a deep lilac.

As early as 1903 gemologists discovered a beautiful topaz in the vicinity of Ramona. These range in color from white to bluish and greenish shades. Some are transparent and are as big as walnuts. Several years ago miners recovered fifty pounds of these gems in a tunnel eight feet wide and twenty feet long. In some cases they are associated with tourmaline crystals.

The good hunting for gems is not peculiar to Southern California. Some of the central and northern counties are veritable treasure boxes, filled with pleasant surprises. One of the most enjoyable pastimes of the amateur or professional mineralogist is the pursuit of "thunder eggs." These were created, in some localities, by a rhyolitic flow and they occur as nodules of considerable size which, when broken open, are likely to pour out quantities of agate, chalcedony or opal. Those which are hollow or geodal in structure sometimes are lined with gorgeous crystals of amethyst, quartz, calcite, opal or agate.

So many persons in Southern California possess large and interesting collections of gems and minerals that description of them is impossible. J. W. Ware of San Diego was first a collector, then he bought some gem mines, and now he has a large jewelry manufacturing establishment. Gertrude McMullen of Los Angeles permitted mineral collecting to lead her into the gem stone business.

W. Scott Lewis of Hollywood, who began collecting when he was four years of age, has a unique and unusual geological garden arranged in a cluster of eucalyptus trees in his back yard. One of his favorite pastimes is getting a group of students together from one of the public schools, and explaining the garden to them.

Edwin Van Amrindge of Pasadena, teacher of geology in Pasadena Junior College, has an astonishing collection of gem stones which were brought together from several western states. Dr. A. L. Maclennan of Pasadena also has an outstanding collection.

Collectors are quite generally agreed that the oustanding private collection of minerals on the Pacific Coast is that of M. Vonsen at Petaluma. This was started in 1917 and now consists of 3000 specimens from countless groups of minerals. The outstanding division is that of borates, considered to be the finest in existence. He has the largest and finest sample of crystallized Colemanite that has ever been exhibited anywhere. This collection is chiefly in showcases and trays in a specially constructed room at his home.

The late John Melhase, former president of the California Federation, who spent the most productive years of his life as geologist for one of the western railroads, built up a collection consisting of 2000 showy specimens, 3000 smaller specimens, and 500 loose crystal specimens, the latter being in glass tubes arranged in drawers.

The collection owned by William Pitts of Sunnyvale, and now loaned to the Academy of Science Museum in Golden Gate Park, San Francisco, where the many visitors to the Golden Gate International Exposition may see it next year, is regarded as one of the greatest things of its kind in the entire country, and it came from all over the country, for Mr. Pitts laid the foundation for it when he started traveling for a drug company in Atlanta, Ga. Some idea of the magnitude of this display may be gathered from the fact that it includes over 100 sets of polished book-ends cut from as many different precious minerals. Mr. Pitts has another fine collection in the state capitol at Atlanta, and an extensive collection at his home. He does his own cutting and polishing.

One of the first things the average person who acquires an interest in mineralogy desires

to know is how he may recognize the thousands of different items. This is something which obviously cannot be learned from a book. It is chiefly a problem of visual education. Mr. Chapman thinks the best way to acquire this knowledge is by attending one of the public school or night school classes in mineralogy to become familiar with the many kinds of gems and minerals by seeing them on display. The next step is practice during field trips.

One naturally wonders if, by putting in years of effort on a collection, one accumulates something of intrinsic value. Some of the collections in California represent sizable fortunes and could readily be sold for large sums.

As to what one might find, consider the Roebling Opal, largest and most precious black opal in the world, and now in the gem collection at Smithsonian Institution in Washington. It weighs nineteen ounces, and has never been cut. It is a coal-black mass showing fiery flames of green, red and purple. It was found in 1919 in the Rainbow Ridge mine of Humboldt county, Nev. At the time it was taken from the mine it was valued at $250,000.

Convinced that it has barely undertaken the work which Nature provided for it to do, the California Federation of Mineralogical Societies now is driving forward toward four objectives. First, it wants in some way to arrange for a museum which will house some of the best mineral collections on the Pacific Coast. Second, it would like to devise some means for keeping the Vonsen and Pitts collections permanently in California. Third, it desires to raise enough money to purchase for the Federation the Golden Bear Nugget (shaped like a bear), which was found in Placer county. Fourth, it looks forward to some day being able to publish its own magazine to extend the science of collecting and classifying rare minerals and gem stones.

Stage Set for Pageant of the Pacific

Nature and man collaborated to create this magnificent setting for the 1939 Golden Gate International Exposition on Treasure Island in the San Francisco Bay. Here, on February 18, 1939, the Exposition opens for a run of 288 days. In the background are the palaces and in the foreground the Port of Trade Winds.

L. P. St. Clair

Reese H. Taylor

CHANGE IN CHIEF EXECUTIVE POST

EMPLOYEES and stockholders of Union Oil Company of California were interested in two highly pertinent news items, released following the regular meeting of the board of directors on Monday, October 24. First came the announcement that Mr. L. P. St. Clair, for eight years president of the Company, had, at his own request, been granted relief from his presidential duties, and had been persuaded to remain active in the affairs of the organization as chairman of the board of directors.

Then came the report of the election of a successor to Mr. St. Clair, in the person of Reese H. Taylor, member of the board of directors, and a widely-known figure in western business circles. Mr. Taylor had been president of Consolidated Steel Corporation, Ltd., since 1933, which position he resigned immediately to take up his new assignment.

The retiring president, Mr. St. Clair, has long been prominent in the affairs of the petroleum industry, and has earned an enviable reputation for his extensive knowledge of its ramifications, and for his keen executive ability.

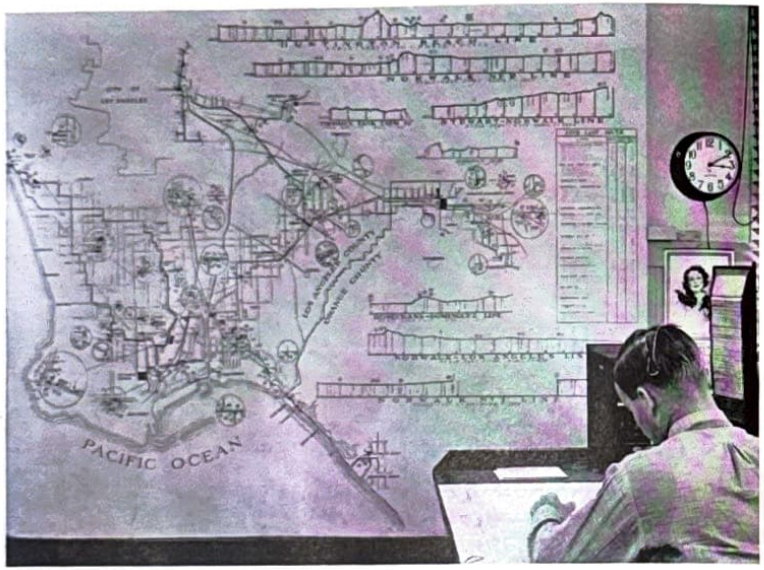
Always a valiant champion of the small producer, Mr. St. Clair was one of the organizers of the Independent Oil Producers Agency, and has been its president for more than thirty-one years. During the war he served as a member of the Pacific Coast War Service Committee, and later helped to organize the American Petroleum Institute, acting as vice-president at large for several years.

He still holds the gratitude of the industry for the splendid contributions he made to the cause of stabilization, when, during periodical overproduction periods, he gave his unstinted aid to the development of curtailment and proration plans that were eminently fair to all producers. It was in the year 1909 that he first identified himself with Union Oil Company, and he has been a director since 1920. In 1922 he was elected vice-president, and eight years later, following the death of Mr. W. L. Stewart, became the fifth president of the Company.

The new president, Mr. Taylor, is a native Californian, having been born in Los Angeles on July 6, 1900, and received his education at the Los Angeles High School, Cornell University, and University of Californa at Berkeley. His first business affiliation was with the Llewellyn Iron Works, with which he began his working career in 1922. When the Baker, Llewellyn, and Union Iron Works merged some six years later to form Consolidated Steel Corporation, Ltd., he was appointed production manager of the newly-organized concern. By 1930 he had become vice-president and director, and his ascendency to the chief executive post took place in 1933.

He is a man of pleasing and impressive personality, and his executive ability has been amply demonstrated in the wide diversity of business interests which he has acquired during recent years. He is a director of the Pacific Finance Company, Douglas Aircraft Corporation, Pacific Indemnity Company, Gladding-McBean and Company, and the Federal Reserve Bank of San Francisco. He is also favorably known to the oil industry through his activities in the California Oil and Gas Association, of which he was appointed a director in 1937.

Union Oil Company welcomes Mr. Taylor, and looks forward with enthusiasm and optimism to another progressive era under his leadership.



Before this board sits the dispatcher—rivers of oil obey his command.

THE DISPATCHER

THROUGH a complex system of pipelines as bewildering to the layman as the Einstein Theory, Union Oil Company moves annually from the various fields to its marine terminals for shipment to other ports, or to its refineries for the manufacture of a diversity of commodities, approximately 60,000,000 barrels of crude oil.

The transportation of this immense volume of fluid from the producers' tanks to seaboard or to the refineries, is a prodigious task, the details of which are controlled by two comparatively small but exceedingly industrious groups of individuals known as dispatchers.

For twenty-four hours each day oil dispatchers, like their brothers, the train dispatchers, are on the line, issuing endless orders, receiving interminable reports, and guiding the conduct of every significant oil movement that is undertaken by the pipeline system. To the industry, the dispatcher is a familiar individual, but to the general public he is still an obscure, isolated being of whom little is known, and yet the story of his activities is co-incidentally the story of an extremely important phase of petroleum operation—pipeline transportation.

Before attempting to outline the duties of the dispatcher, however, it will facilitate a better understanding, if we familiarize ourselves with certain incidental matters that are definitely pertinent:

First, be it understood that the capacity of every tank used in the movement of oil is determined prior to its use, by "strapping" engineers, so called not because of their physique, but because they employ a strap tape to secure the essential measurements for their computations. The capacities of all pipes involved in such operations are also easily determinable and are, in fact, a matter of accurate and complete record. Gauge tables are compiled for every tank on the pipeline system showing the content in barrels for every eighth or quarter inch from the bottom up, and these, with the record of line capacities, form an important part of the dispatchers' stock in trade, as we shall learn later.

When crude oil is produced at the well, it is gauged, sampled, and tested by the production department, and if sufficiently clean, that is, contains 3 per cent or less of water and sediment, it is then ready for shipment to the pipeline. If wet, it is first treated by one of several dehydrating systems to remove the excess water, and is then acceptable to the pipeline gauger. In any case, the shipment is not quite the simple matter it sounds, because crude petroleum is by no means a commodity of uniform character or quality. Each particular type, and there are a number, has a specific use, and it becomes necessary, therefore, to segregate light crude from heavy, asphalt from fuel oil, wet from dry, and in general, one class from another. These classifications are in some degree related to the source of the oil, but it is quite common to derive two completely different types of oil from different zones in the same field. All of which makes the problem of the pipeline department, and of the dispatcher, just a little more confusing.

The lines through which the oil is pumped or gravitated into the pipeline system are known as gathering lines, and the main lines that carry it to the terminals are called trunk lines. The general oil is moved through the gathering lines by small field pumps, into station or tank farm storage, and thence through trunk lines by the large engines at these plants. The stations are situated at intervals along the main lines, usually close to producing fields, although not necessarily so, and are provided with sufficient storage to take care of all contingencies, in addition to heaters for liquifying the more viscous oils, dehydrators for removing excess water, and all the other multitudinous essentials of the petroleum transportation business. The lease run-down and shipping tanks ordinarily vary in capacity from a few hundred barrels to five thousand, but at the stations and tank farms they mount to considerable proportions, some tanks holding as much as 130,000 barrels, and one reservoir—this, incidentally, the largest in the world, in which can be stored 4,000,000 barrels.

And now we are perhaps ready to turn our attention once more to the dispatcher and his duties. We find him in his office at Brea, which controls all oil movements on the Los Angeles pipeline, or at San Luis Obispo, from which the Northern Division pipeline is operated. Strapped to his chest is a telephone mouthpiece. Harnessed to his head is the receiving instrument, and in front of him is that highly essential adjunct—"the board." The board is simply a map of the pipeline system on which are innumerable brass plugs to represent the various valves on the main lines. Each valve has its identifying number, and when the plug is pegged in, the valve is closed; when it is out, the valve is open. The pipeline gauger, engineer, and pumper each has the section of this map peculiar to his own district, with the valves correspondingly numbered, and when the dispatcher refers to any particular one by number, there can be no mistaking his meaning. Oil, gas, and gasoline lines on the board all have specific colors, also to avoid possibility of mistakes. In addition to these accessories, the dispatcher has close to his hand, the dope book into which goes all the accumulated information of the day, and the large daily report sheet that records every movement on the system.

Hovering ever in the background, with his eagle eye constantly on the sheet, is the chief dispatcher, the guiding genius of this interesting activity. His particular function is to develop what the operations are to be for the day, and to pass the dope along to his boys. This he does, accompanying his instructions with copious references to the board, in order to insure complete understanding and obviate the possibility of a slip-up. Each dispatcher in turn passes the story along to his successor in the same meticulous manner, and so it goes twenty-four hours a day, every day in the year.

Incidentally, it must not be assumed that the boys all gather around the table in the orthodox manner, while these curtain lectures are being delivered. Oh, no! The dispatching business goes merrily apace meantime, and the chief is obliged to dodge in and out between snatches of telephone conversation in order to get his story across. Nor is it possible to plan these essential conferences for any specific time of the day. Pipeline operations are as changeable as the affections of a movie star, and just when all arrangements have been completed to make a delivery of a commodity through a certain line to a specific point, it may suddenly become necessary to make an altogether different sort of delivery through the same line to another point. This, of course, calls for an immediate huddle, out of which the chief emerges with a hectic rearrangement of the lines and valves involved.

Let us assume, however, that the dispatcher is all primed for his work, and that just ordinary operation is the order of the day. From

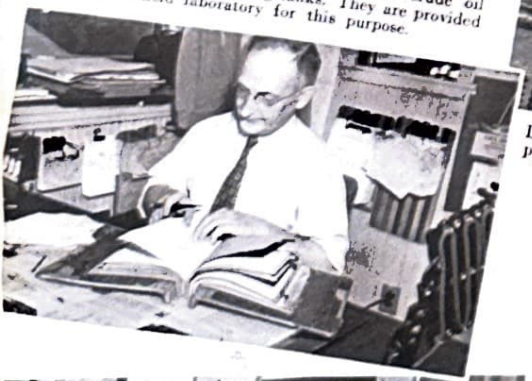
Handling Black Gold is an Intricate Procedure—

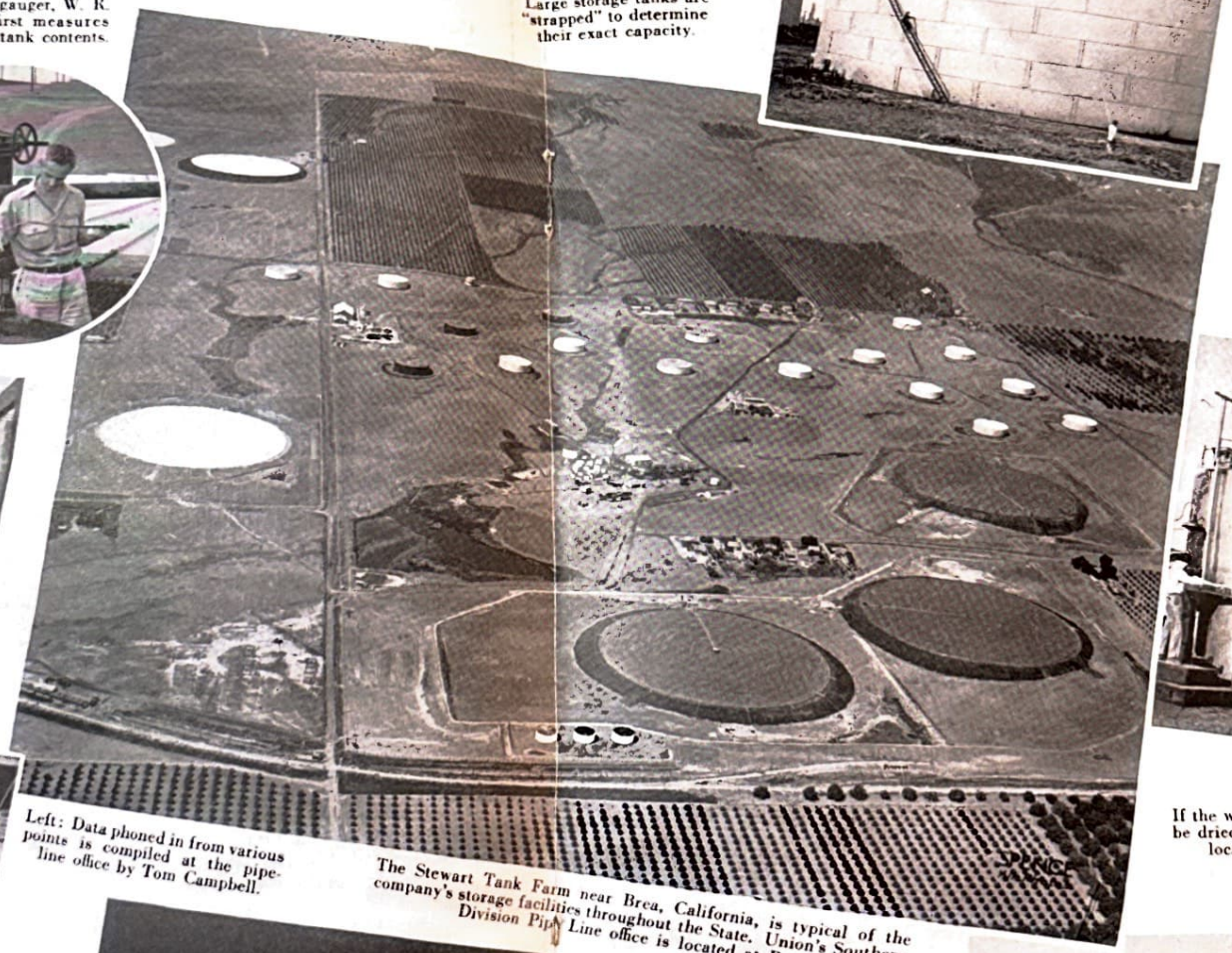
Transferring millions of barrels of oil through a network of pipelines requires many machinations. The pipelines operated by Union Oil Company cover hundreds of miles and must be guarded constantly to prevent costly losses of oil. The photographs on this page graphically present certain phases of the system whereby oil from California wells eventually reaches Alaska and the Orient.

Above: These shipping tanks receive crude oil from nearby wells.

Pipeline gauger, W. R. Griffith, first measures shipping tank contents.

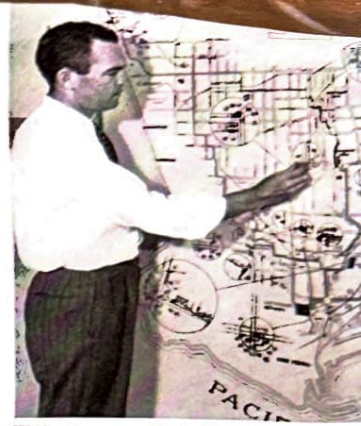
Gaugers, Clifford Perry and Hugh Jones, test crude oil samples drawn from the shipping tanks. They are provided with a field laboratory for this purpose.





The Stewart Tank Farm near Brea, California, is typical of the company's storage facilities throughout the State. Union's Southern Division Pipe Line office is located at Brea.

Large storage tanks are "strapped" to determine their exact capacity.

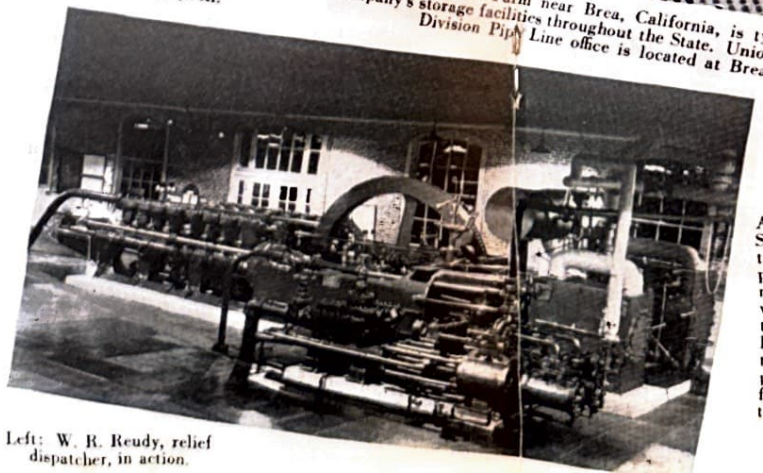


With storage and pipeline data compiled in advance, chief dispatcher Russell Sage can plan operations on the board.

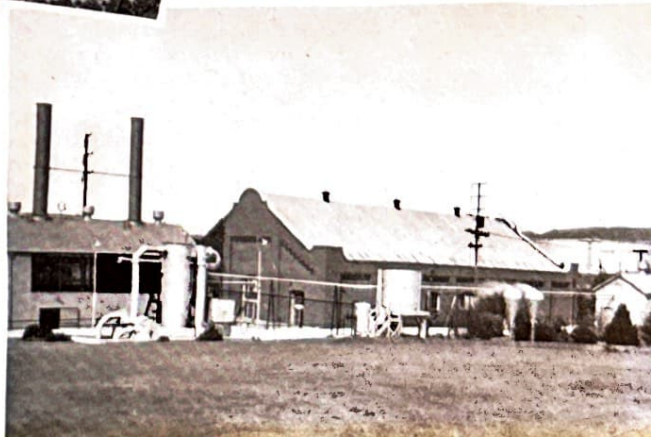
If the water content is too great, crude oil must be dried in this battery of electric dehydrators, located at the Stewart Pump Station.

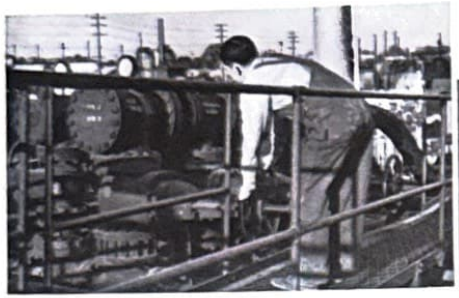
Left: Data phoned in from various points is compiled at the pipeline office by Tom Campbell.

Left: W. R. Reudy, relief dispatcher, in action.



At right is the Stewart Pump Station, which supplies the impetus necessary to push viscous crude oil through the pipelines. At left is the huge steam pump which, in final analysis, does the actual pushing.





Union's Los Angeles Refinery at Wilmington receives crude oil from the pipeline system through the large gate-valves shown in picture at left.

the producers' tanks in every district oil is being pumped or gravitated through gathering lines to station storage, where it is being picked up and pumped through the trunk lines to the refinery. That is perhaps the simplest species of operation the dispatcher knows, but it merely goes to show that dispatchers have unusual ideas regarding simplicity.

Here roughly is the routine: First, he issues orders to all gaugers and engineers involved in the preliminary operations. These orders are entered in the Log Book, are repeated back by the recipients, and are reported executed as they are completed. Next, he is informed by each gauger of the quantity and quality of oil turned on in his particular district. Then every hour from every pumping station he receives and records an accurate statement of the quantity of oil received at or delivered from that station. At the same time he is furnished with an account of the pumping rate, and the line pressure developed at each one of these points. Meantime he is still issuing the orders for every succeeding step in the operation, and receiving notice of execution. When it is remembered that Union Oil Company produces or purchases oil in practically every southern California field, and that each has its separate contingent of gaugers, and pump stations, receiving and shipping oil intermittently during the twenty-four hours of every day, the reader will have some conception of the simplicity of the daily operations.

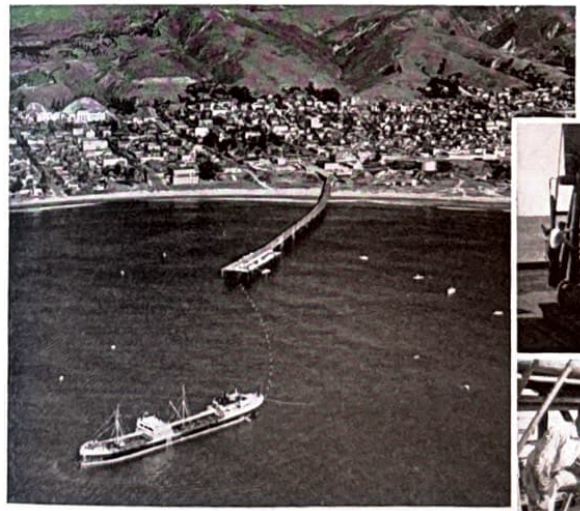
It may be pointed out, also, that the function of the dispatcher does not cease with the accumulation of this mass of data every hour. Each pipeline has a maximum pressure to which it may be subjected. Each tank has a maximum capacity to which it may be filled. And woe betide the dispatcher who fails to observe a pressure rise beyond the limit, or who is so forgetful of his capacities as to order a tank filled beyond the prescribed level.

This hourly check is not only designed to conduct operations exactly as prescribed by the pipeline superintendent and the transportation department, but is, in addition, a protective measure that has resulted in a totally inestimable saving of properties, facilities, and even life. A sudden drop in pressure may mean a broken line, with oil spilling on the ground at the rate of a thousand barrels an hour, and the prompt action of the dispatcher has on many occasions averted catastrophe. He knows the pressures all along the line, and can soon spot the section affected. A sudden increase in pressure may indicate a closed valve, a line stoppage, or any one of a dozen things that can blow up lines, and cause great damage to lines and pumps, as well as serious losses of oil. With the watchful eye of the dispatcher ever on his pressures, however, these things rarely get beyond the incipient stages, and are, in fact, usually caught before they can do any damage.

One of the interesting phases of the dispatcher's work is changing commodities through the same line. As already indicated, he is familiar with the capacities of every section of pipeline on the system, and when it becomes necessary to make a change, for example, from light oil to heavy, he merely cuts off the light oil, and starts heavy oil through the line. Since, however, it is a heinous offence to mix the two, he pumps the exact quantity of heavy oil required to displace the light that lies in the line. As the heavy oil fills the line, the light is discharged into some auxiliary container, and when tank gauges show that the line is completely occupied by the new commodity, the delivery may be begun into the tanks designated for the heavy oil receipt. This operation can also be checked, and frequently is, by observing the change of gravity at the discharge end of the line, samples being drawn off at intervals, and tested until the determined gravity shows that there is no admixture of commodities.

All movements of oil from the lease shipping tanks in the field, to the ultimate receipt at the terminal, are recorded hourly on the dispatching sheet. So, similarly, are all movements of casinghead gasoline and such refined products are are pumped into the pipeline system. Pressures, pump counts, and other incidental, pertinent information are also accounted for completely on this comprehensive document, and so at any interval during the twenty-four hours of each day the dispatcher can tell exactly what the various operations have accomplished up to the moment. At the conclusion of each twenty-four hours the dispatcher's sheet constitutes a complete record of the day's transactions from which receipts and deliveries can be balanced accurately.

While the accumulation and correlation of this data constitutes his most important duty, it falls far short of being his entire responsibility. Into the Log Book go the work reports from all the various pipeline gangs, all the orders, and every significant piece of information that is gathered in the field. The dispatcher is the czar of the company telephone system, and a call to him has priority over all others. He receives first reports on pipeline leaks, fires, accidents, new wells—anything, in fact, that is oil news, and he in turn passes it along promptly to the interested party or parties. He is without question one of the busiest men in the oil industry. He makes hundreds of telephone calls in a day, and yet 90 per cent of the people with whom he converses have never seen him.



Crude oil, refined oil, and gasoline earmarked for foreign or coastwise shipment is dispatched to one of many marine terminals where it is transferred to Union tankers. The men below are preparing to float a hose.

The Ventura terminal differs from seaport terminals in that tankers must anchor offshore and receive their oil from hoses supported by floating buoys. Members of the tanker crew at right are opening a hatch to inspect the tanks.

E. W. Gard

Earl Gard Appointed Director of Research

Effective October 1, in accordance with a bulletin released by R. D. Matthews, executive vice-president, Earle W. Gard was appointed to the position of director of research and development, reporting to Vice-President W. L. Stewart, Jr. Mr. Gard, who has been development engineer for the Company for the past eight years, is a graduate of the University of Southern California, and during the war served as an engineering officer in the U. S. Navy. He has, in the meantime, been consistently engaged in the engineering and scientific advancement of refining practice, has also devoted considerable time to the study and development of dehydration processes for the field and pipeline departments, and has been active in the design of modern type absorption and compressor plants.

For the past decade, particularly, Mr. Gard has devoted his efforts to the development of highly modern processes that have almost completely revolutionized refinery operations, and has in no small measure been responsible for the specification of the unusual equipment and new type materials required by the rapidly changing technique. In his present position, which experience and education fully qualify him to fill, he is assigned responsibility for the affairs of the research, development, and patents departments.

Weaver Takes New Post

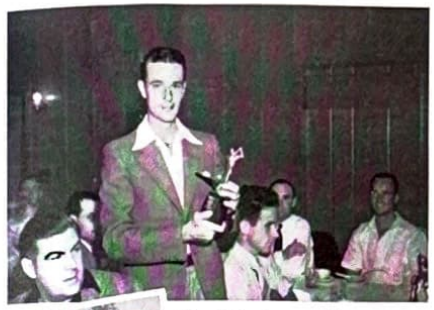
E. H. Weaver

Effective October 3, 1938, E. H. Weaver was appointed to the position of assistant manager of purchases, according to a bulletin released by H. C. Farquhar, manager of purchases. "Buck" Weaver has been associated with the company since July of 1918. He spent fifteen years in the Northwest as a district purchasing agent, but returned to the Head Office last year.

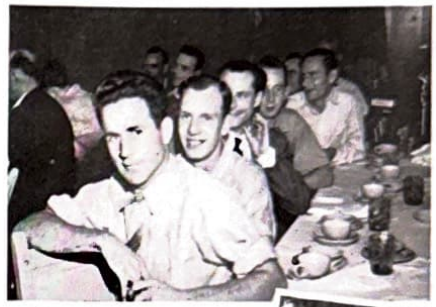
Turkey Shoot Scheduled

Union Oil Company employees Sixth Annual Turkey Shoot has been scheduled for Sunday, November 20th. Brea Canyon, as in former years, provides the location for this event, which will feature all kinds of pistol, rifle, and shot-gun shooting as well as special events. Last year this well-established institution drew some one hundred nimrods, and competition for the various prizes waxed hot. As large, if not larger, turnout is anticipated this year. The committee in charge of this year's shoot consists of: J. P. Rockfellow, H. K. Said, J. E. Hill, S. H. Grinnell, Dumont Kimmell, and N. G. Hinkle. Prospective contestants are advised to contact the nearest committee member for further details pertaining to the program, which, as we go to press, has not been announced.

L. A. REFINERY STAGES GOLF TOURNAMENT



The lad, above, with cup is Grant Benham, a flight winner.



Above are Myrl Reagh, G. Baumgartner and Joe Cuneo.

Dr. Elik, above, was low net winner.

Above: The entry desk. Below: L. J. Jacobson, Al Greenwood and foursome await the green light.

Ray Bray shows concentration.

Sid Morgan, prexy of the club, tees off.

C. L. McCreery, below, won high gross award.

Jack Malseed, below, won the putting contest.

Carl Madsen, secretary, was co-host.

Ethyl Corp. Broadcast Features 76 Talent

On Sunday night, October 2nd, the Ethyl Gasoline Corporation, sponsors of the popular air show "Curtain Calls," played host to several hundred Union Oil Company employees. At this hilarious "radio party," held at the El Capitan Theatre, Union employees, of varied talents, staged their own show prior to the broadcast, then, as "Curtain Calls" went on the air, were called before the microphone to answer the brain-twisters propounded by Lee Cooley, the show's master of ceremonies. At left are W. K. Hopkins, Union's personnel manager; A. C. Stewart, Manager of Service Stations; and Lee Cooley. Below: Lee Cooley, with six-shooter, and the guest comedian "Smiley" Burnett.

76 talent added to the fun. At left are "jitterbugs" Rita Glaze and Ted Naly. Hugh Johnson, center, crooned lilting Spanish songs.

Cover Illustrations

Apropos of nothing in particular, our Bulletin covers this month present ever-romantic Olvera Street and the Plaza district in Los Angeles' Latin quarter. In the last few years Olvera Street, a miniature restoration of early-California days, has become a favorite haunt of many Angelenos and a famed tourist Mecca as well. In its tiny shops and stands are a wealth of interesting and beautifully wrought Mexican articles, from sandals to perfumed tapers. With rare artistry and perception, photographer Charles E. Kerlee portrays the somnolent pottery merchant, who appears on our front cover. Kerlee also photographed the somewhat more aggressive sombrero vender on the back cover. Ernest M. Pratt, a photographer renowned for his Mexican subjects, contributes the picture on the inside front cover. In this effective composition he has caught the sleepy atmosphere that pervades the Plaza at mid-afternoon. The old Plaza Church forms a background for this ever-so-typical study. We are indebted to The All-Year Club for these beautiful photographs.

Standing, left to right: J. N. Holden, Manager of Oleum Refinery; C. Kelly; Wm. Simas; J. McCormick; B. Stewart; R. Olsen; C. Kasich; R. Ehlers; C. Hardt; and "Sears" Lewis, a 100% 76 fan. Kneeling in front: E. Parker; M. Florence; N. Carter; G. Hayden; W. Correia; F. Elsworth; and R. Van Arsdale.

76 Teams Compete in Northern Tournaments

With an interdepartmental softball league, a 76 softball club competing in the bay area, and a hard-playing 76 hardball team entered in the Oakland Tribune's California State Championship tournament, Oleum Refinry was a proverbial beehive of activity right up to the conclusion of the recent season. Results of the interdepartmental race for the N. F. Myers trophy, and the enviable records established by both softball and hardball representatives were highly gratifying to baseball enthusiasts at the plant.

The 76 softball team included many college stars and this classy aggregation didn't suffer a single defeat in the bay area, but lost in the quarter finals of the San Francisco Examiner softball tournament, 13 to 12.

The 76 baseball team, skippered by William "Butch" Simas, also included several former college athletes. This outfit sailed through the season with unusual success and were heavy favorites to win the Oakland Tribune's California State Championship tournament, but, like other 76 teams up and down the coast, ran into hard luck in the final game. The Moffat Packers beat them 3 to 1 to win the cup, but the boys pictured at the top of this page avow they'll bring home the bacon next season.

C. S. Myer Recovering

Mr. C. S. Myer, former Central Division operating manager, who took a leave of absence on July 1, 1936, due to failing health, is now convalescing at the California Sanitarium, Belmont, California. He has gained more than fifty pounds since his retirement and his Union Oil Company associates, with whom he worked for more than ten years, will be glad to know that he expects to be back in active circulation in the near future. Congratulations, Mr. Myer!

Pipefitters Win Refinery Title

On page eight of the August *Bulletin* we referred to the softball team which played the Head Office "Redliners" as L. A. Refinery champs. As a matter of fact this team, made up from the Distillation department, was leading the Refinery League at that time, but in a final playoff, held several weeks later, was defeated for the Refinery championship by the Pipefitters. Our apologies for being previous.

With permission of author and publisher, Union Oil Bulletin reprints Willis Werner's concise and well-written column which appeared in the San Diego SUN on August 23, 1938. W. A. Cole, Union's district sales manager at San Diego, helped Werner obtain this interesting information.

FACT -o- GRAPH

By Willis Werner

Gas Tanks

YOU probably didn't know it, but you've driven past fire departments in San Diego that have never fought a fire. They're private ones—which protect the millions of gallons of gasoline stored in huge tanks clustered in half-a-hundred spots around the city. Thanks to protective devices, they're safer than a hay-barn!

✧ ✧ ✧

In fact, more gasoline fires occur in private homes with one gallon than happen in storage plants where thousands of gallons are handled every day. It's not the gasoline itself that is dangerous—it's the vapor. That's what explodes when housewives clean things in gasoline, especially inside where the fumes can't escape.

Willis Werner

✧ ✧ ✧

All those big tanks you see have vents in the top which prevent any pressure from building up. When a tank is partly empty and the sun's heat makes fumes rise, the pressure pushes up a hinged valve and they dissipate. On a hot morning you can hear the valves clunking open all over the place.

✧ ✧ ✧

Gasoline expands under heat so even the pipes leading from the storage tanks are fitted with expansion joints. On hot days the pipes "grow!"

The valves at the base of the tanks, through which fuel is drawn, also are by-passed with small pipes (like ordinary water pipes in your house) which lets gasoline flow back into the tank even when the big valves are closed; just enough to relieve pressure.

✧ ✧ ✧

Neatest gadget: automatic valve. This is held open by a long cable inside the tank. The cable comes up over the top and down the outside and hooks to a fastener attached to the main valve. Just above the hook is a flat piece of metal.

✧ ✧ ✧

If there's a fire and oil workers can't get near a tank to shut it off, as soon as the temperature reaches 160 degrees the metal link will melt, the cable flies loose and lets the valve inside drop shut, cutting off flow of gas.

✧ ✧ ✧

MAIN protections, however, are foamite—and walls. If you'll look at any large storage plant in a congested area you'll see a 12-foot brick wall around it. That'll hold any escaping fuel in the area so in event of a fire it'll stay on its own property.

✧ ✧ ✧

Every day, these foamite pumps are started, run for at least five minutes, and once a week water is run through them in tests—but most of them have never been used. One oil firm covering the whole coast has had foamite at marketing stations for 20 years and hasn't had occasion to use it yet. (Hopes it never will have.)

✧ ✧ ✧

When it comes to safety, oil companies have no secrets from each other, and every fire is studied by engineers from all firms. As a result, Safety Engineer George Prussing declares insurance rates on those big tanks of oil are lower than on most dwelling houses!

✧ ✧ ✧

There's a lot of argument about static electricity. It's often blamed for sparks that ignite fumes but other experts claim it can't happen. Just to be sure everything is grounded anyway steel hammers are not used—bronze or some other metal that won't spark when striking steel is substituted.

✧ ✧ ✧

You'll notice that most storage depots are near the water and that's because they are connected by underground pipes which extend to piers where oil tankers dock to unload cargo.

✧ ✧ ✧

THERE'S another oil line through the heart of town which you have passed over many times without knowng it—but which may at any moment mean the difference between light and darkness. It runs from a depot on National-av to the gas company powerhouse at the foot of Broadway. The big boilers there burn natural gas but if the gas should ever fail, everything is all set to turn on fuel oil, keep things hot.

✧ ✧ ✧

It's quite a trick to measure gasoline in a big tank—in one of those 1,500,000-gallon things, every ⅛ of an inch means 385 gallons more or less.

✧ ✧ ✧

There's water inside a lot of tanks, too—some of it comes from condensation, some is put there. Seals the bottom of the tanks by corroding the steel, rusting any leads shut until they are discovered—one of nature's contributions to safety.

✧ ✧ ✧

Don't worry—you won't get any of the water in your gas. Water drops through gas like a rock. They measure the depth of the water cushion by putting a purple paste on the measuring stick. Water turns the paste white but gas doesn't affect it.

✧ ✧ ✧

It doesn't take a special paste to check it, though, W. A. Cole, manager of a local plant, was called out to test a leaky tank once. He went across the street to a grocery store—and bought a can of molasses, smeared it on the measuring stick. The water in the bottom of the tank washed it right off—up to the gasoline level. Gas doesn't touch molasses at all.

Union Booth Wins Ribbon!

Union's handsome exhibit booth, pictured at right, won first prize at the Anacortes, Washington, Inter-Island Fair, which is staged annually by local citizens and Grange members. H. T. Cram, district agent for Union Oil Company, and his assistant, V. G. Hull, conceived this interesting display, the sides, back, and top of which were fashioned from strips of orange and blue paper. The shelves were lined with silver gray paper, setting off the products effectively.

Northern Division Employees Frolic at Lake Ballinger

The sea of happy faces above belong to employees of the Northern Division Office, the Seattle Sales district, and nearby sub-stations. These people assembled at lovely Lake Ballinger on August 14th, for a day of sport. Baseball, swimming, tennis, badminton, boating, and sundry other pastimes were the order of the day. Over four hundred employees attended the main event—which, of course, was served on paper plates and tasted especially good to appetites whetted by the diverse activities offered before the gong sounded. T. E. Coleman, P. E. Tychsen, Ruth Wisness, Marion Cole, A. L. Kincaid, R. W. Smith, Lyle Martens, Adele Lanier, and Jessie Stranahan composed the program committee.

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VOLUME NINETEEN OCTOBER, 1938 BULLETIN No. 10

THROUGH the efforts of the Bureau of Trade and Industrial Education, California State Department of Education, there has been developed a pretentious program of vocational training that should prove of immense benefit to the petroleum workers of this state individually, and to the industry generally. This program, originated by the demand of the workers themselves, and recommended by the Pacific Coast Division of Production of the American Petroleum Institute, offers an opportunity for petroleum workers to acquire greater facility in, and understanding of, the specific trades and crafts in which they are engaged, and to keep abreast of rapidly changing technique in the diverse phases of the industry.

Working assiduously for many months, the Bureau of Trade and Industrial Education, aided by an advisory committee representing the petroleum industry, has succeeded in outlining a series of exceptionally fine courses that are now available in various secondary schools so far as possible located in the oil centers.

These classes are open to workers actively engaged in any department of the industry, so long as classes are chosen that are directly related to the daily work of the individual. The process of enrollment is simple, and requires only, with the foregoing restriction, that the interested party make application to the local evening school principal in charge of trade extension classes. The latter will arrange schedules to suit the convenience of the majority, and if enrollment meets the minimum state requirement, will also arrange day classes for night shift workers.

The courses are comprehensive in scope, and under competent instructors embrace all the significant aspects of such important phases of the oil business as Drilling, Production and Pipe Line Methods and Problems, and Natural Gasoline Plant Operation, coupled with basic courses on Oil Field Mathematics and Oil Field Science.

These classes constitute a part of the public educational program of the State of California and no tuition charge is made, although in some cases a nominal registration fee may be levied.

The satisfactory development of the plan is in no small measure due to the hearty cooperation of the public schools, evidence of which may be found in the substantial list of schools which have already signified their intention of offering courses, provided the demand is adequate. They are as follows: Los Angeles city schools, Wilmington high school, San Pedro high school, Huntington Park high school, Bell high school, Long Beach trade extension school, Brea-Olinda high school, Fullerton high school, Compton high school, Huntington Beach high school, Whittier high school, Ventura high school, Santa Barbara high school, Santa Maria high school, Bakersfield high school, Taft high school, Coalinga high school, Avenal high school, Martinez high school, and Crockett high school.

Thirty-Five Years

J. B. Thompson
Trans., N. D. P. L.

C. M. Piatt
Field, So. Div.

W. A. Ferguson
Trans., N. D. P. L.

Service Emblem Awards

THREE Union Oil Company employees head the service emblem list, this month, each having spent thirty-five years with the company. In addition to this, another employee completes thirty years of service this October, and the list contains four twenty-five-year employees. Of the eight twenty-year employees, six were added to the payroll on the same day, October 1st, 1918. The biographical sketches that follow are arranged not alphabetically, but chronologically, in the order in which the employees entered the company's employ.

JOSEPH B. THOMPSON

Joseph B. Thompson, who is better known as "Joe" to his intimates in the Orcutt territory, started his thirty-five year association with the company on October 3, 1903, as a pumper at the old Brea Canyon Pump Station, in Orange County. After five months he was transferred to the Norwalk Pump Station where he spent the next three years. In December, 1907, however, he was dispatched to the Orcutt Station as engineer and has efficiently and faithfully discharged all the responsibilities assigned to him since that time. For the past 19 years he has been senior engineer at the Orcutt Station.

Joe Thompson is known throughout the company for his ready fund of stories, a wonderfully retentive memory, and an exceptionally affable nature. He has made his work at the Orcutt Station his chief interest, although he still likes deep sea fishing and the inevitable fish stories that go with such interests.

CLARENCE M. PIATT

Clarence Piatt spent eight years in the oil fields of West Virginia before he came to California and joined Union Oil Company on October 8, 1903, as a gang pusher on the Stearns lease. After six years at this job, he was made responsible for the maintenance of all gas engines operated by the company in the Brea district. During the next twenty-six years this job grew in scope until he had charge of all gas engines in the Richfield and Long Beach fields. In January, 1936 he was transferred to the Stearns lease and works for the Production Department at the present time.

During his long period of service, Clarence has witnessed great changes in the technique of the oil industry. He has seen the company grow from a small group to the point where it employs thousands. He looks back with pleasure and satisfaction to the innumerable times he came in contact with the late Lyman F. Stewart, with F. F. Hill, W. W. Orcutt, and other pioneers who have helped build the petroleum industry to its present dimensions in California. Today Clarence takes life a little easier than during the strenuous infancy of the company, but he'll still pick up his fishing tackle and sally forth at every opportunity.

Thirty Years

I. A. Wayne
Trans., N. D. P. L.

Twenty-Five Years

G. E. Pyle
Field, Valley Div.

J. L. Horvat
Mfg., Oleum

WILLIAM A. FERGUSON

William Ferguson started with the company on October 17, 1903, as a roustabout on a crew which at that time was engaged in laying a pipe line from Hill Camp to Carega. That was in the days before the Lompoc main line to Avila existed and oil was either hauled by rail or pumped to Gaviota where it was loaded on ships. Ferguson was made field gauger shortly after joining the company and in 1912 was transferred to the laboratory at Orcutt. Except for three years during the depression when he operated dehydrators at Orcutt, he has worked in the Orcutt laboratory and relieved field gaugers, since 1912.

His chief diversion has been Sunday school work. For more than thirty years he served his community as superintendent of Sunday schools, supervising the first unit introduced in Orcutt, known as the Hillside Union Sunday School. He was also superintendent of the Santa Maria Presbyterian Church for five years. Another hobby, which he no longer pursues, was the raising of capons, at which he proved more than moderately successful. William Ferguson's high but tolerant standards of morality have won for him the affection and admiration of his many friends in the district.

IRA L. WAYNE

Ira Wayne started with the company on October 1, 1908, as a roustabout on a crew which was engaged in laying a pipe line from Harris Water Station to Newlove Reservoir. His next job was the laying of an eight inch line from Bell Station to Orcutt Station. The Bell Station was completed in the Spring of 1909 and Wayne was left there to finish up the last few items of work, which it was expected would take about one week. He stayed for twenty-nine years. He built a house near the Bell Station and, when the station shut down in 1914, he was reluctant to leave the area and so left the company to obtain work with Pinal Dome Oil Company. Union Oil purchased Pinal Dome next year, and Ira was reinstated to his original employment date. The Bell Station was put into service again and he was assigned to run it. He was made senior engineer at about the time the eight hour per day schedule became effective. Since 1925, along with duties at the station, he has gauged the purchase oil from this area. He also looked after the company's water plant at Sisquoc for a number of years.

Being a mere six-foot seven, Ira was long ago dubbed "Shorty" by some wag, and the name stuck. He has always enjoyed stream fishing and hunting. In the house he built at Bell, he has raised a family of five children, the youngest now being eighteen years old.

GUY E. PYLE

Employed on October 10, 1913, as a roustabout on the Dome lease in Cat Canyon, Guy Pyle was made tool dresser after only four months. He worked as a tool dresser for about one year, and then for a short time was a pumper. Leaving the company for a few months, he returned as a pipefitter during construction of the Dome Compressor Plant—probably the first plant of its kind in California. He was soon promoted to construction foreman and followed the oil booms at Orcutt, Santa Fe Springs, Dominguez, Athens, etc. He has engaged in the building of most of the company's absorption and compressor plants and, during the past few years, has made gas trap and manifold installations. At the present time he is working in the Rio Bravo and Kettleman Hills districts.

Deer hunting is Guy's favorite sport. He goes into the backwoods whenever time will permit during deer season and, at this writing

Twenty-Five Years

H. L. Bowlen
Sales, No. Div.

R. W. Supler
Field, So. Div.

is headed for the hunting grounds near Porterville. He gets an extra two weeks added to his vacation this year, so should bag the limit.

JOSEPH L. HORVAT

Joseph Horvat was first employed by Union Oil Company on October 13, 1913, as a laborer at Oleum Refinery, but after a few days was detailed to pack grease in the old compound building, located near the present lube oil treating plant. He subsequently worked as a solderer in the can filling department, and in 1914 became a drum repairman. In 1917 he joined the American Expeditionary Force and served overseas until the conclusion of the conflict. Upon his return he was rehired in the drum shop and, during spare evenings, attended night school where he studied welding. Today he spends most of his time as a barrel welder in the drum department.

Even-tempered and pleasant, Joseph Horvat is well liked by his co-workers at Oleum. He has never acquired any consuming enthusiasms that he is willing to talk about, his job being his chief interest.

HARRY L. BOWLEN

Harry Bowlen was employed by the company on October 23, 1913. His first job was as relief pumper at the old Portsmouth Plant at Portland, Oregon. Shortly after he started with the company, he was detailed to assist in dismantling that plant, since the present Willbridge Plant, directly across the Willamette River, was under construction. He soon assumed duties in connection with the Willbridge dock and, in 1917, went into sales work. On July 15, 1918, he was appointed agent at Astoria and during the years that followed he served as agent at McMinnville, city salesman at Portland, and service station supervisor at Portland. In 1931 he returned to the Willbridge Plant and is located there at the present time.

As a youngster, Harry lived in Montana and loved fishing and hunting in the wide open spaces, which in those days were really wide open. In later years, however, his fancy turned to baseball and football. He is still an ardent follower of these national pastimes.

ROBERT W. SUPLER

Robert Supler was born in Waynesburg, Pennsylvania. When he was three years old his parents moved to West Virginia. Bob's first job was with the West Virginia Gas Company. He remained there for seven years then came to California and obtained a job with the Union Oil Supply Company, but was laid off three years later, when the supply house was discontinued. After a trip East, Bob started to work for Union Oil Company on the G & L lease. This was on October 24, 1913. By 1917 he had been promoted to driller and subsequently worked at Montebello, Long Beach, Santa Fe Springs, Dominguez, and Del Rey fields during their boom periods. In 1926 he was promoted to drilling foreman and continued in this capacity until the finish of the 1928-29 drilling boom. In 1934 he was shifted to the production department at Montebello, his present location.

Although he enjoys many sporting events, Bob devotes most of his spare time to fraternal activities.

RALPH E. BRAVO, JR.

On October 1, 1918, Ralph Bravo joined Union Oil Company as a junior clerk in the Head Office fuel oil and asphalt sales department. Except for a year and a half spent in production and transportation accounting, his twenty years of service have been with the fuel oil and asphalt department. After capably fill-

Twenty Years

R. E. Bravo, Jr.
Fuel Oil, H. O.

E. A. Linsdell
Compt., H. O.

F. S. Manley
Compt., H. O.

J. W. Stemmle
Mfg., Oleum

ing a number of clerical positions, he was promoted to the position of head clerk for the department. His familiarity with the history and details of the department's various sales accounts is an immeasurably valuable asset to the department, as is his keenly analytical mind and unfailing loyalty.

Although Ralph has no particular hobbies, he takes great interest in community affairs. He is a member of his local Boy Scout executive committee and takes an active part in other civic affairs. His greatest interest, however, is lavished upon twin daughter and son.

ETHEL A. LINSDELL

Ethel Linsdell's employment dates from October 1, 1918. She was hired during the World War as a chemist in the laboratory at Brea Refinery and, after the Armistice was signed, she was retained in the same capacity despite the return of several overseas men. On January 1, 1928, Miss Linsdell was promoted to the position of chief clerk of the office and laboratory at Brea. She was transferred to the Head Office as a clerk in the Manufacturing Department on September 1, 1930. Exactly three years later she was transferred to the refinery accounts division of the Comptroller's Department, where she is employed at the present time in a clerical capacity.

Miss Linsdell is a member of the Union Oil Girls' Club and has been active in fraternal work in Orange County. She enjoys singing, likes to go camping, and devotes much of her spare time to her avocado orchard, near La Habra.

FRANCES S. MANLEY

Frances Manley started her twenty-year term of employment with Union Oil Company on October 1, 1918, as a clerk in the accounting division of the Head Office Sales Department. Her work consisted of bookkeeping and general clerical work under R. B. Wallace. When Mr. Wallace passed away in 1929, the Sales Department accounting division was incorporated into Comptroller's Department general accounts, but Mrs. Manley remained at the same desk and continued to be engaged in the same general type of work.

JOHN W. STEMMLE

John Stemmle has resided on the shores of Carquinez Straits since the day of his birth in 1886. He was born in the little town of Crockett, California, and, after receiving his degree in mining from the University of California at Berkeley, entered the service of Union Oil Company as a chemist at nearby Oleum Refinery. That was in August of 1911. In 1914 he was made a lube oil treater and, with Tom Allen, treated and loaded the first car of lubricating oil marketed by the company. The W. P. Fuller Paint Company purchased this first carload, he recalls.

In 1916 Stemmle resigned from company service to become postmaster at Crockett, his appointment having been signed by Woodrow Wilson, then President of the United States. John, however, soon became dissatisfied to remain apart from his chosen profession and so, on October 1, 1918, he returned to the company ranks as a chemist in the research department at Oleum. In 1921 he entered the analytical laboratory where he has spent the remainder of his time. At present he is engaged in solving advanced analytical problems.

John's outside enthusiasms include fishing, baseball, and football.

KARL H. YOUNGBERG

Karl Youngberg was employed by Union Oil Company on October 1, 1918, as mate on the S.S. La Placentia. He became second mate of

Twenty Years

K. H. Youngberg
Trans., Marine

J. G. Mackie
Sales, H. O.

R. E. Soto
Trans., N. D. P. L.

the ship in 1921. Slightly more than a year later, he was advanced to the rating of first mate. On April 21, 1927, he was temporarily assigned to the S.S. Santa Maria as master. During the intervening years he has served the company's marine fleet as mate and master of some twelve ocean-going tankers. At the present writing he fills the post of first mate on the S.S. Los Angeles.

Karl holds the commission of Lieutenant-Commander in the Merchant Marine Naval Reserve. Like many another mariner, he enjoys his home when ashore. His vacations are spent there and he enjoys nothing so much as puttering around the yard and flower garden. That's his idea of a real vacation.

JAMES G. MACKIE

James Mackie was employed by the company on October 7, 1918, as a clerk in the San Francisco district office. In January of the next year he was made traveling auditor for the Head Office, but in May was transferred to Emeryville as clerk, a temporary appointment which lasted less than a month. From June, 1919, to April, 1928, he served as a traveling auditor for the Comptroller's Department, then became auditor for the Southern Division Sales Department. In 1929 he was assigned to reorganize the accounting system of the Atlantic Union Oil Company of Australia. When this work was completed in December of 1929, he was appointed Central Division auditor at the Head Office and shortly thereafter became sales auditor for the Head Office. In April of 1931 he was moved to Spokane as district manager of operations. He was subsequently moved to Portland and Sacramento in similar capacities and, on May 1, 1933, returned to the Head Office Sales Department to handle special assignments. He has continued in this capacity without further shifts up to the present time.

Mackie has had an opportunity to travel over the company's territory so often during his twenty years that he is on friendly terms with employees at nearly every plant. Like his business career, his hobbies are diverse. Among other things he likes golf, bridge, and fishing.

ROSS E. SOTO

On October 28, 1918, Ross E. Soto entered the service of Union Oil Company as a laborer at Midway Station on the Northern Division Pipe Line. He worked on the pipeline gang as a roustabout until November 12, 1919, at which time he was promoted to boiler washer. During the next seven years he worked in several capacities until promoted to the position of fireman at the Midway Station in 1926. He still capably performs the duties contingent upon this job.

Ross is well known in the Midway district, having lived there during his entire twenty years with the company. He owns his own home, which is located on the company's Bedrock lease. On his days off, you'll usually find him cultivating the fruit trees which grow on his property, or tending to his garden.

Thirty-five Years—October, 1938

Ferguson, W. A. N., Transp., No. P. L.
Piatt, C. M., Field, So. Div.
Thompson, J. B., Transp., No. P. L.

Thirty Years—October, 1938

Wayne, I. L., Transp., No. P. L.

Twenty-five Years—October, 1938

Bowlen, H. L., Sales, No. Div.
Horvat, J. L., Mfg., Oleum Ref.
Pyle, G. E., Field, Valley Div.
Supler, R. W., Field, So. Div.

Twenty Years—October, 1938

Bravo, R. E., Fuel Oil, Head Office

Linsdell, E. A., Compt., Head Office
Mackie, J. G., Sales, Head Office
Manley, F. S., Compt., Head Office
Soto, R. E., Transp., No. P. L.
Stemmle, J. W., Mfg., Oleum Ref.
Youngberg, K. H., Transp., Marine
Globe, M., Duncan Fox Co., Taltal, Chili

Fifteen Years—October, 1938

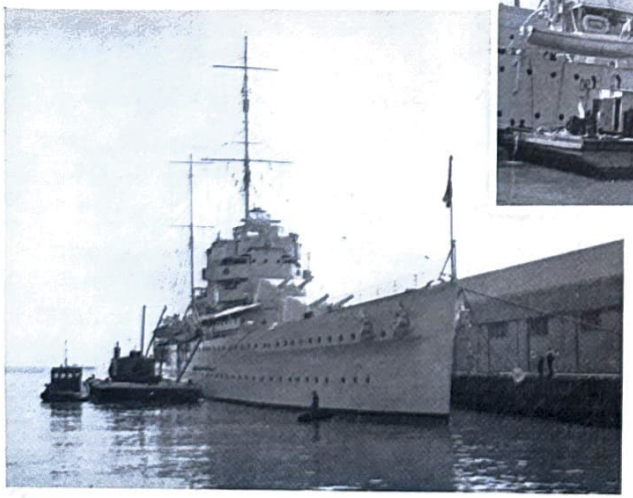
Fitzgerald, G. R., Mfg., Oleum Ref.
Juhl, A. E., Gas, So. Div.
Leao, J. T., Mfg., Oleum Ref.
Mabry, W. R., Mfg., Oleum Ref.
McGarigle, R. S., Auto., No. Div. Garage
Nicholls, T. S., Mfg., L. A. Ref.
Slate, H., Mfg., Oleum Ref.
Sumner, G. A., Transp., No. P. L.
Uyeda, G., Sales, Honolulu
Vardaman, W. L., Sales, So. Div.

Ten Years—October, 1938

Barker, E., Sales, Cent. Div.
Benson, J. C., Mfg., L. A. Ref.
Berry, C. R., Field, So. Div.
Coles, W. C., Mfg., Oleum Ref.
Driesbach, M. B., Transp., So. Div. P. L.
Greaves, E. R., Sales, So. Div.
Hartfield, G. H., Mfg., L. A. Ref.
Hawkins, J. A., Transp., No. P. L.
Hurst, G., Sales, So. Div.
Laycook, W. L., Mfg., Maltha Ref.
Locati, P. J., Mfg., Avila Ref.
Lough, S. T., Field, Valley Div.
Luckensmeyer, E. C., USS, So. Region
Matthews, C. C., Compt., Head Office
Orr, A. H., Sales, Canadian Div.
Petersen, R. L., Sales, Cent. Div.
Riley, F. E., Field, So. Div.
Schafer, H. M., Sales, So. Div.
Schoneman, A. J., Sales, So. Div.
Shaffstall, R. M., Sales, So. Div.
Smyth, H. J., Sales, No. Div.
Wilkinson, C. F., Sales, Cent. Div.

British Cruiser Visits San Francisco—Buys Union

On September 5th, 1938, British Cruiser H.M.S. York visited San Francisco. She is the flagship of Vice Admiral Sir S. J. Meyrick, K.C.B., Commander-in-Chief of the American and West Indies Station, and was in command of Captain H. E. Morse, D.S.O., during her jaunt up the Pacific Coast. While at San Francisco, the York took on bunker fuel oil, purchased from Union Oil Company.



Above: Union barge 1922 supplies fuel oil to the H.M.S. York. Left: The British cruiser at berth. She was on her way to England for reconditioning, but during her stay awaited immediate sailing orders in view of the tense European situation which then existed.

REFINED AND CRUDE

By Richard Sneddon

We have often been asked why an editor always uses a blue pencil. Well, to cut a long story short, to cut a long story short.

And on the subject of writing, it is well known that a writer and a hen both have to scratch for a living. There is this distinct difference, however, the hen gets hers.

Continuing on with no regard for the consequences; to those who aspire to become newspaper columnists, we suggest, by way of preparation, a study of the octopus. This astute cephalopod (you can call an octopus anything) can see in all directions at the same time, and periodically squirts out an inky fluid.

It is said also that only those who have suffered deeply can write a novel. So, if you want to write a novel, read one.

All of which merely goes to show that the man who is round-shouldered from writing, does not necessarily have a literary bent.

And reminds us of an old story: Says the irascible editor, "Have you submitted these poems anywhere else, first?" Replies the meek poet, "No, sir." Continues the editor, "Then where did you get the black eye?"

That would ordinarily conclude the topic, but we have just remembered another one that is older still:

Landlord: "In one word, sir, when are you going to pay your arrears?"

Author: "I will satisfy your demands as soon as I receive the money which the publisher will pay me if he accepts the novel I am going to send him as soon as the work is finished that I plan to do as soon as I find a good subject and the necessary inspiration."

Wherewith we turn to matters of more general interest. First, may we point out that if you see a woman wearing a hat that looks less like a hat than any hat you have ever seen, you may be sure you have just seen a woman wearing a hat.

Remember this, also, if it has a powder puff and some street car tokens in it, it is a purse, not a hat.

Out at a church social the other night, the ladies' aid staged a crazy hat contest, and a woman who wasn't in the contest won.

Which, for no particular reason, recalls the peculiar gazabo who declared he had no religious views whatever, but had some excellent photographs of the City Hall.

And it's the funniest thing how one idea leads right to another. A photographic enthusiast, who shall be nameless, dashed into the kodak store a few days ago, and demanded, "Gimme some film." "Fast or slow," asked the clerk, and our friend came back, "Which is the most expensive?" "Fast," said the clerk. "Well, gimme the slow," says the snapshooter, "I got plenty of time."

Now we pause to introduce a beautiful piece of iambic pentameter or something, that came so recently from Scotland, it still smells of heather:

A bugler named Sandy McDougal
Found ingenious ways to be frugal
He learned how to sneeze
In various keys
Thus saving the price of a bugle.

By the way, when Sandy first saw the pyramids of Egypt, he remarked, "Losh, that's an awfu' pile o' masonry, no tae be bringin' in any rent."

Rent, of course, naturally reminds us of home, and the astonishing fact that a horticultural genius has just developed a folding geranium for breakfast nooks.

And when the next door neighbor called the other evening to borrow our rug beater, Junior brusquely replied, "He won't be home till late tonight. Sorry!"

"Was the boss surprised when he heard you were leaving?" asked a rousty, and his buddy replied, "Heck, no, he knew before I did."

By the way, we know a harpist who candidly admits he had to pull a lot of strings before he landed a job.

That's the sort of thing that leads to economic upheaval, and splits human beings into two opposing classes—vegetarians, and those with large incomes.

We know one poor farmer who had to take the situation in hand, and raise the price of milk a cent a quart in order to give his cows better social conditions.

Diverging atrociously at this point, an expert in such matters says, "Wireless waves are hurled through the ether, strike the moon, and the moon throws them right back to earth again." No wonder!

And as we near the end of another highly instructive session, we can't help feeling sorry for the man who spent the evening at home and could find nothing to read but some old next month's magazines.

With which we leave you to your own devices. Remember, all the pessimists notwithstanding, business is definitely on the upturn. This is the best October we've had since July fourth.

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