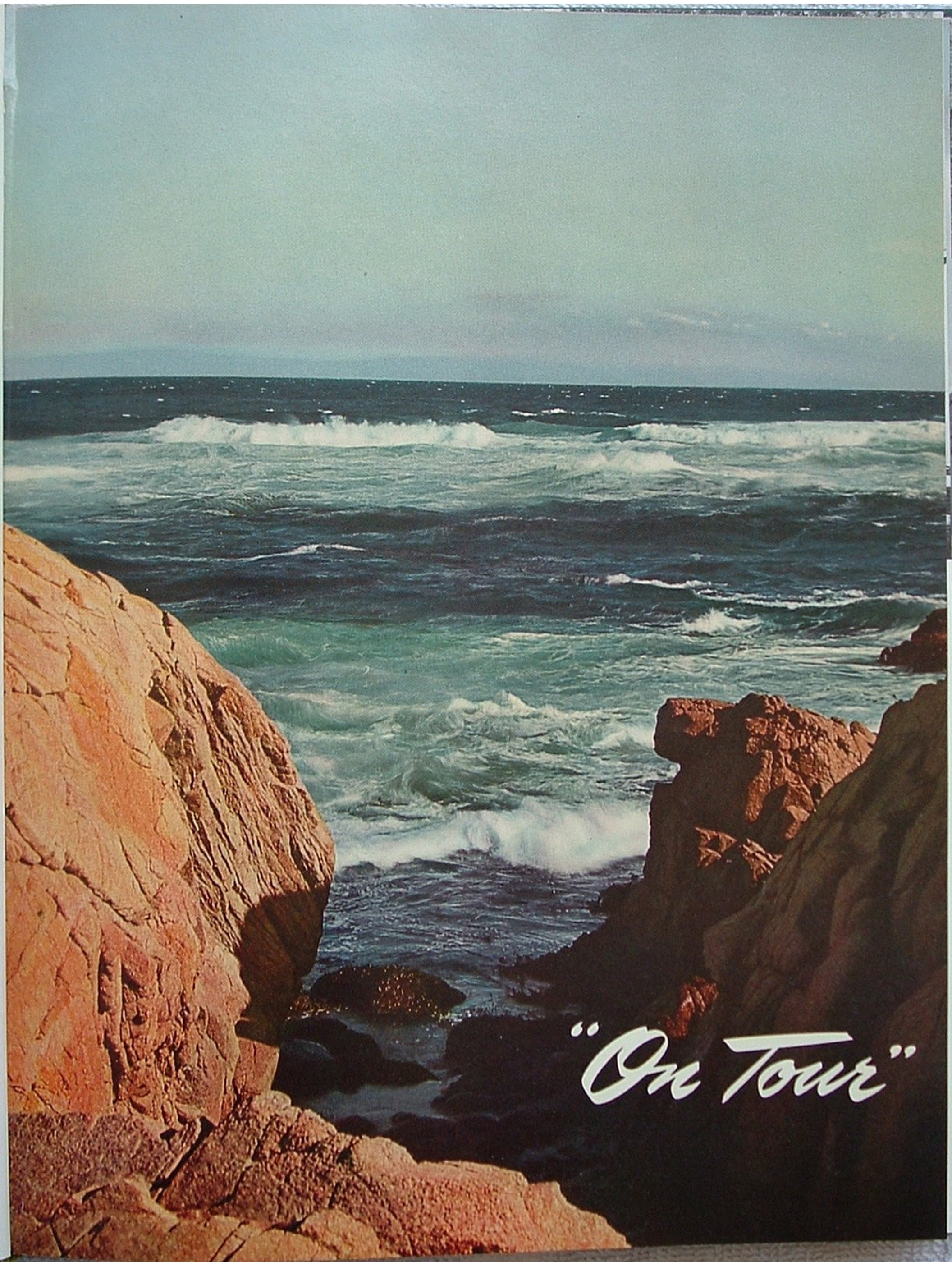

"On Tour"

On Tour

VOL. 11, No. 3
MARCH 1949

In This Issue

T. D. Collett ..... *Editor*
R. C. Hagen ..... *Asst. Editor*

ON TOUR is published monthly by Union Oil Company of California for the purpose of keeping Union Oil people informed regarding their company's plans and operations. Reader participation is invited. Address communications to ON TOUR, 617 West 7th Street, Los Angeles 14, California.

The Cover

Heading homeward one afternoon along the famous seventeen-mile drive between Monterey and Carmel, photographer Rod Daley looked toward the sea and stopped. Where two Pacific currents converge, this is what his camera recorded.

"TAXOLINE"

FROM Louisiana comes word of a service station operator who now advertises "Taxoline" for sale instead of gasoline. You will recall that the Louisiana state legislature increased the tax on gasoline last year from seven to nine cents a gallon, thereby raising about $80,000,000 a year in new revenue and creating the highest gasoline tax in these United States. The service station operator's sign now reads:

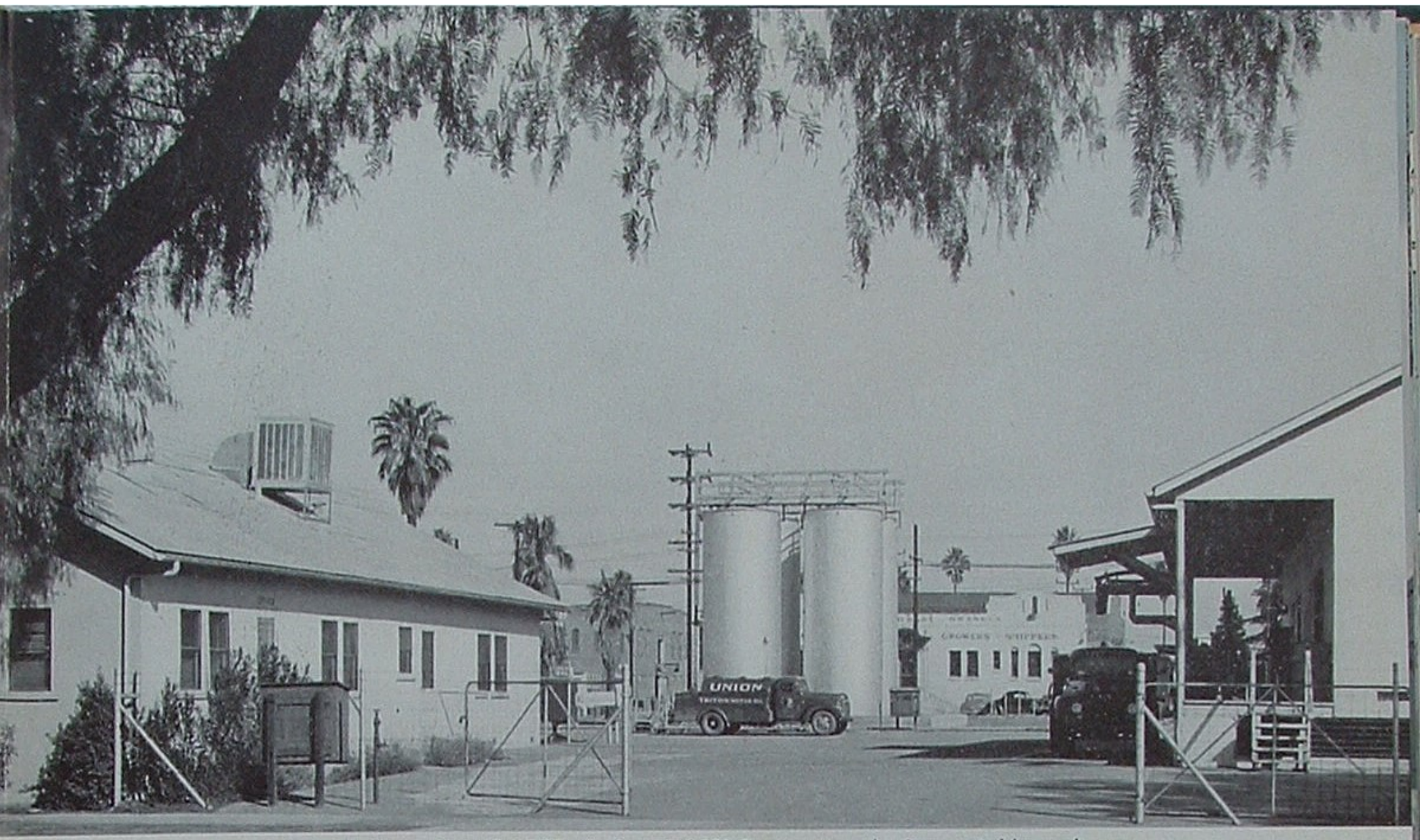
Gasoline	*18.3c per gallon*
State Tax	*9.0c per gallon*
Federal Tax	*1.5c per gallon*
TAXOLINE	*28.8c per gallon*

From nearby Chico, California, a tax inequity of another sort is reported. Butte County, during its fiscal year, collected $608,704, or 20 per cent of the county's entire tax revenues, from one lone gas and electric company. Such an amount may or may not be excessive, but this is the rub. Competing with the privately owned company for every available customer in Butte County is the government owned Shasta hydroelectric plant. Both compete on an "equal basis" except that the government owned plant, financed with taxpayers' money, is entirely exempt from any payment of taxes. Even if the private company continues to compete, despite its tax handicap, the government plant will not become a white elephant. It can be made to "succeed" by nearly limitless inoculations of tax monies.

American industry, although traditionally unafraid of competition in any form, is frankly concerned about some of the recent trends in government. The depression of the 'thirties and war during the 'forties were possibly good excuses for government to exercise emergency controls over industry. But prosperity and peace have brought about little relaxation of the political grip. The real emergencies have been followed by hypothetical emergencies. Government projects have mushroomed. Government payrolls have increased. And to pay for it all, this government of the people, by the people and for the people is nearly taxing private enterprise out of business.

Individual American citizens should be even more concerned. Our original brand of democracy was largely based upon the fact that the self-governed are the best governed. Our form of government, supported by equitable tax levies, was designed to function principally as a wise and impartial referee—to enforce good competitive rules but not to enter the game as a competitor. Recently we seem to be getting away from that original concept. Too many players have become referees and too many referees want to carry the ball.

If the trend is not reversed, "Taxoline" may soon be rationed from government exchanges—at twice the price—and only to party members in good standing.



Marketing station at Riverside, California, is one of 135 Company owned units operated by employees.

Poso Lubricants Go To Market

HAVING followed Poso crude from its oil field origin, through hundreds of miles of pipe lines, on board an ocean tanker to Oleum Refinery, and through the refinery's many distillation, treating, blending and packaging steps, we now come to the final chapter of this oil story—marketing.

Union Oil products have grown to world-wide importance. As far north as Kotzebue on the Arctic Circle in Alaska and as far south as Valparaiso in Chile, agents are distributing our wares from Company-owned marine marketing outlets. Throughout the orient and westward to Bombay in India, our attractive Yankee containers carry useful products into bizarre fields of service. Union Oil offices in Chicago and New York find commodity markets not only in the eastern United States but in Europe and as far eastward as Syria. However, it is from Pacific Coast terminals located between Seattle and San Diego that most of our fuels and lubricants proceed to serve western America.

The hub of all oil sales activity in a community is the marketing station. Its function is to serve an area's industry, business, farms and service stations with petroleum products that are not delivered more economically by large direct shipments from terminals and refineries. The marketing station consists generally of several storage tanks for gasolines, fuel oils, kerosene and solvent;

Resident Manager C. R. MacKenzie, right, at Riverside, spends most of his working day soliciting sales, delegating to William Longnecker, marketing station clerk, the plant and accounting work.

Consignees operate 340 of our Company-owned marketing stations. At San Fernando we are represented by (l-r) driver G. Fuller, consigne E. A. Thomas, driver H. Harrison, assistant manager W. R. Wellman, driver A. Corwin. The consignee hires his employees, owns his trucks.

Highly versatile trucks with meters, pumps and hose reels carry mixed loads of bulk fuels and packaged lubricants to customers.

Industrial Service Representative Ralph Henderlong, right, sells to McGillivray Construction Co., Sacramento, large industrial buyer.

a warehouse for packaged goods; an office; and a garage for the housing of trucks. It is kept supplied with stocks by tankship, barge, rail, truck or, in a few instances, pipe line services. Union Oil Company owns approximately 500 of these storage and marketing units.

Of our 135 Company-operated marketing stations, 13 function as terminals. Located at key distribution points, they serve also as intermediate points of supply between refinery and marketing station, service station or consumer. Our largest terminal, Los Angeles, employs nearly 200 people to handle a delivery volume of some 13 million units or gallons each month. In certain rural areas where marketing station deliveries amount to around 25,000 units monthly, one man may handle the entire sales and delivery assignment. Altogether it requires more than 2500 Union Oil employees to staff our Company-operated units and marketing services.

In addition, 340 marketing stations owned by Union Oil are operated by consignees. Under this leasing arrangement, the consignee pays a rental for the use of our plant. Shipments of petroleum products go to him on a consignment basis and he is paid a commission on all products sold in his area. He hires his own employees, buys his own trucks and delivery equipment, and pays for all licenses and utilities.

A third kind of wholesale marketing arrangement provides for distributors, of which the Company now has 32. The distributor owns or provides his own marketing station facilities in addition to buying trucks and hiring employees. He buys petroleum stocks in large quantities at a discount and depends upon a price mark-up for his recompense. Unlike the consignee, he is financially responsible for all products sold on credit.

A fairly representative marketing station, whether managed by an employee resident manager or a con-

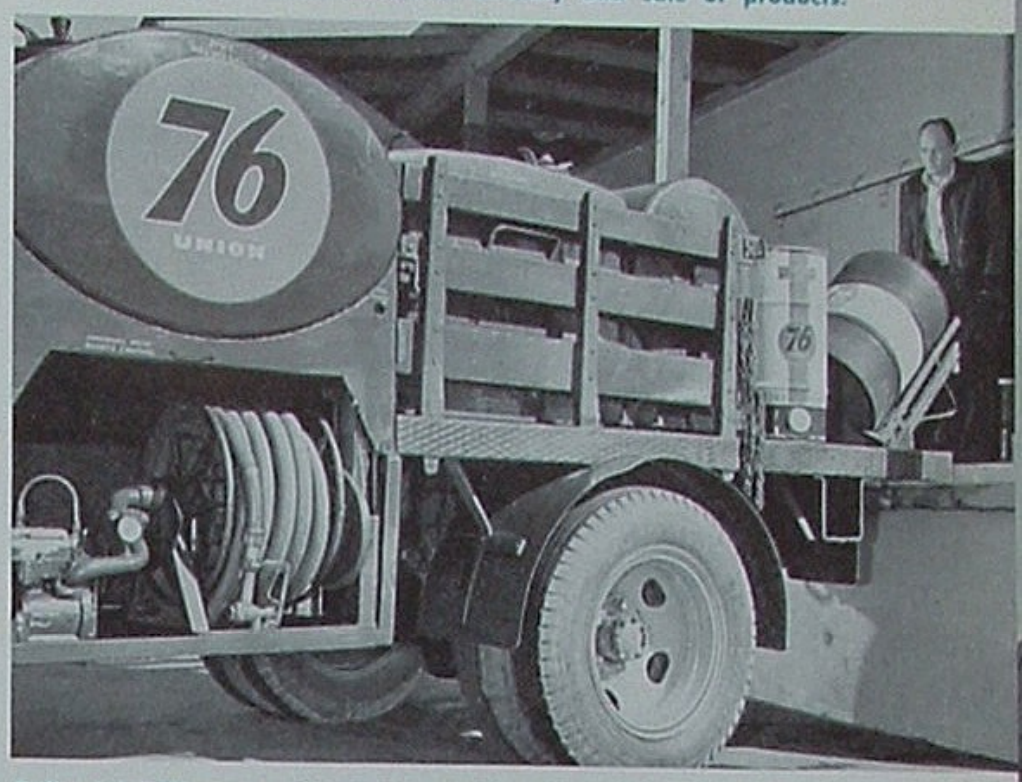
signee or a distributor, is one that might serve a community of 10,000 people. Assisting the manager usually are a clerk in charge of station operations, two drivers to operate delivery trucks, and in some cases a relief driver or extra salesman.

The selling of oils and greases, such as the line of lubricants made from Poso crude, calls for an alert and aggressive organization. Needs exist everywhere, but rarely does a customer come to the marketing station to buy. Rather, nearly every order of oil and grease has to be solicited. The products have to be good, have to be promptly available, have to be competitively priced.

The Union Oil salesman, including every marketer from driver-salesman to president, needs to be versatile. He must know and be known favorably by scores, oftentimes hundreds, of potential buyers. He must understand a community's petroleum needs somewhat better than do the buyers themselves. He must know products so well that he will make no mistake in recommending each for its intended uses. He must be Johnny-on-the-spot to fill a customer's oil requirements. Otherwise a fresh barrel or carload of competitive products will occupy the buyers warehouse. In the forefront of his consciousness the salesman must also carry up-to-date information on prices, delivery schedules and customer credit standing. If he knows and does all this and is a salesman besides, then our products find their way to a waiting market.

Strangely, the conclusion of our Poso crude oil story is in a sense its real beginning. Our long journey from oil well to market has succeeded only in bringing the oil to a condition and location of usefulness. So on the following pages ON TOUR is presenting supporting evidence that the skill, brains, brawn, energies and capital of a great industry have been well invested. Proof of the Mt. Poso pudding is in the eating.

Tank truck salesmen, represented here by Spencer Cockerham, serve an important part in the wholesale delivery and sale of products.

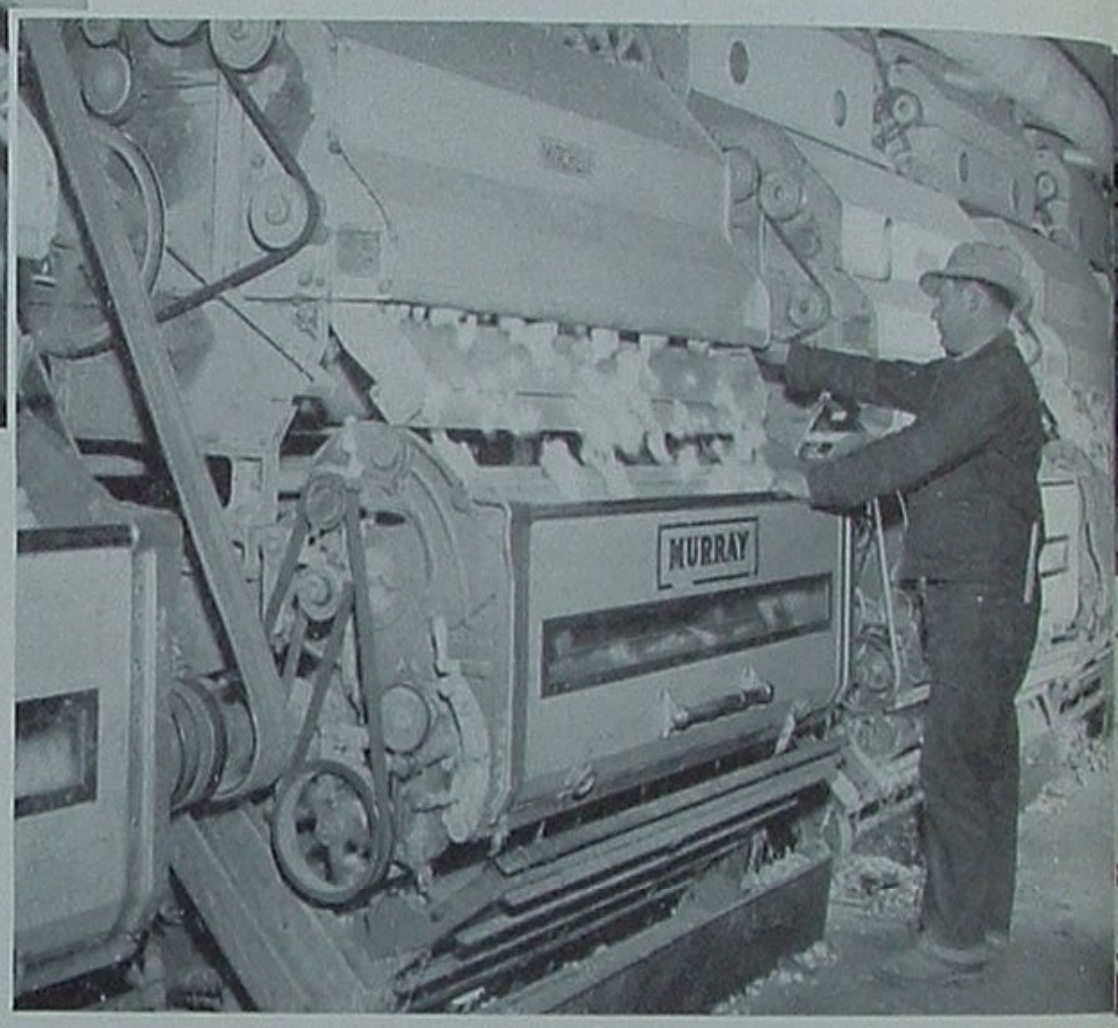


Seller John Kliewer and buyer James Camp agree on an order easily, as both represent S. A. Camp, farmer, businessman and consignee.

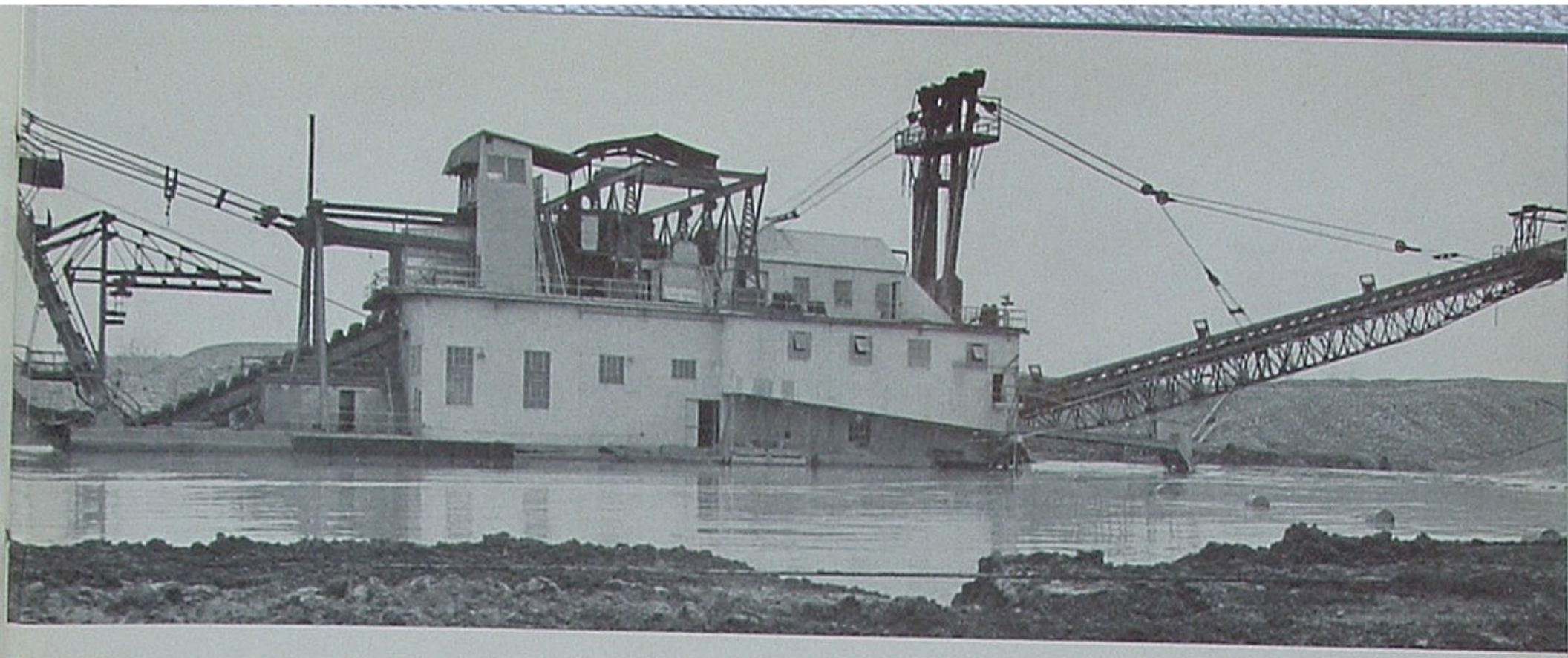
Marketing terminals function as major distribution points from where bulk products can be distributed most economically to service stations and other marketing stations. Sacramento Terminal, below, is supplied by truck, railway and river barge from Oleum Refinery.

THE COTTON INDUSTRY, a thriving newcomer to the West, also turns on a film of oil. This battery of de-linting machines, operated by S. A. Camp, removes the final bits of lint from cotton seed prior to processing of the seed into oil and cotton-seed meal.

COTTON GINS, where cotton is separated from its seed and pressed into 500-pound bales, operate on a large scale in the Bakersfield area, near where Poso crude is produced. Each moving part of this S. A. Camp gin is lubricated with Unoba Grease.



MECHANIZED FARMING is the proper description of Heidrick Brothers' operations near Woodland, California. Plenty of horsepower but no horses can be found on their 30,000-acre expanse of rice, barley, alfalfa, tomatoes and beets. The self-propelled rice harvesters shown below were designed and built on the Heidrick farm. Twenty tractors and scores of other machines here consume 45,000 pounds of grease and 9,000 gallons of lubricating oil—all of Union Oil manufacture—annually.

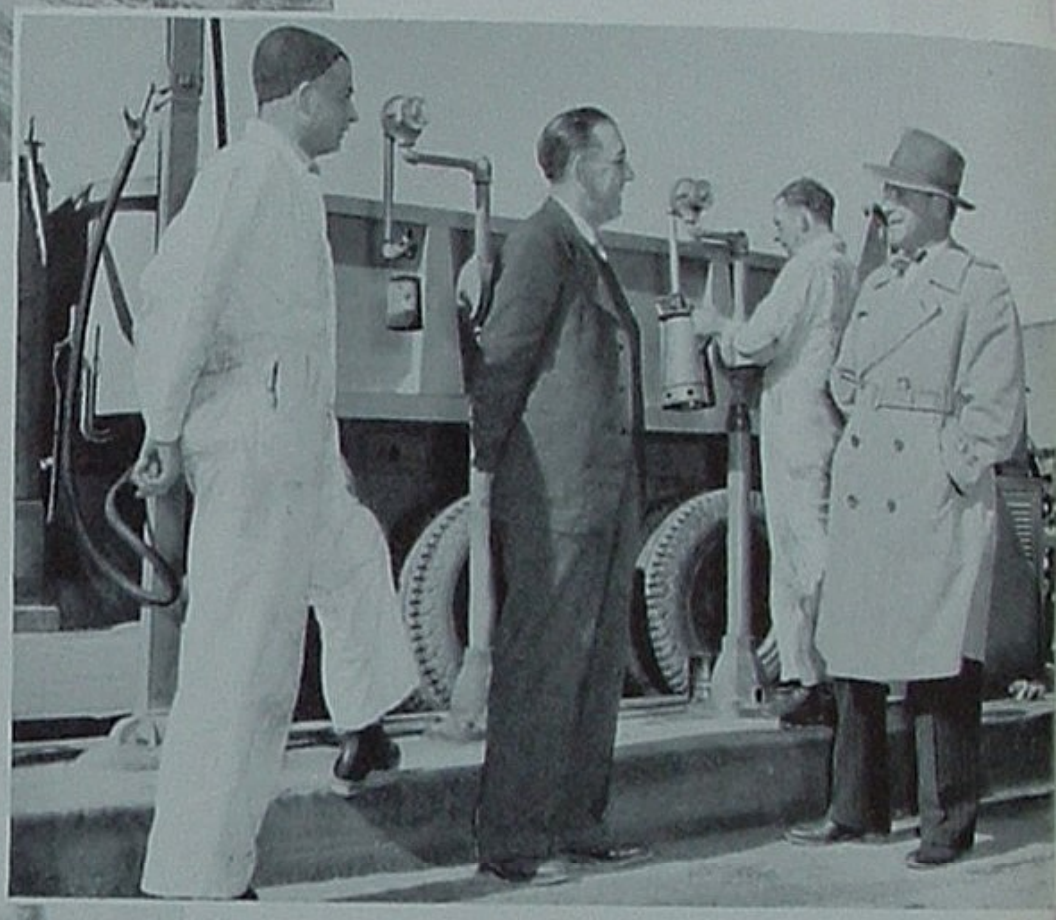


GOLD DREDGERS operate in the vicinity of Roseville and northward, gouging up some 600 cubic yards of earth per hour and expertly taking out the "pay dirt." This giant Natomas Dredger No. 5 is powered by electricity, but we supply Gearite for its open gears. Many carloads of Eboncup have also aided in this form of gold mining.

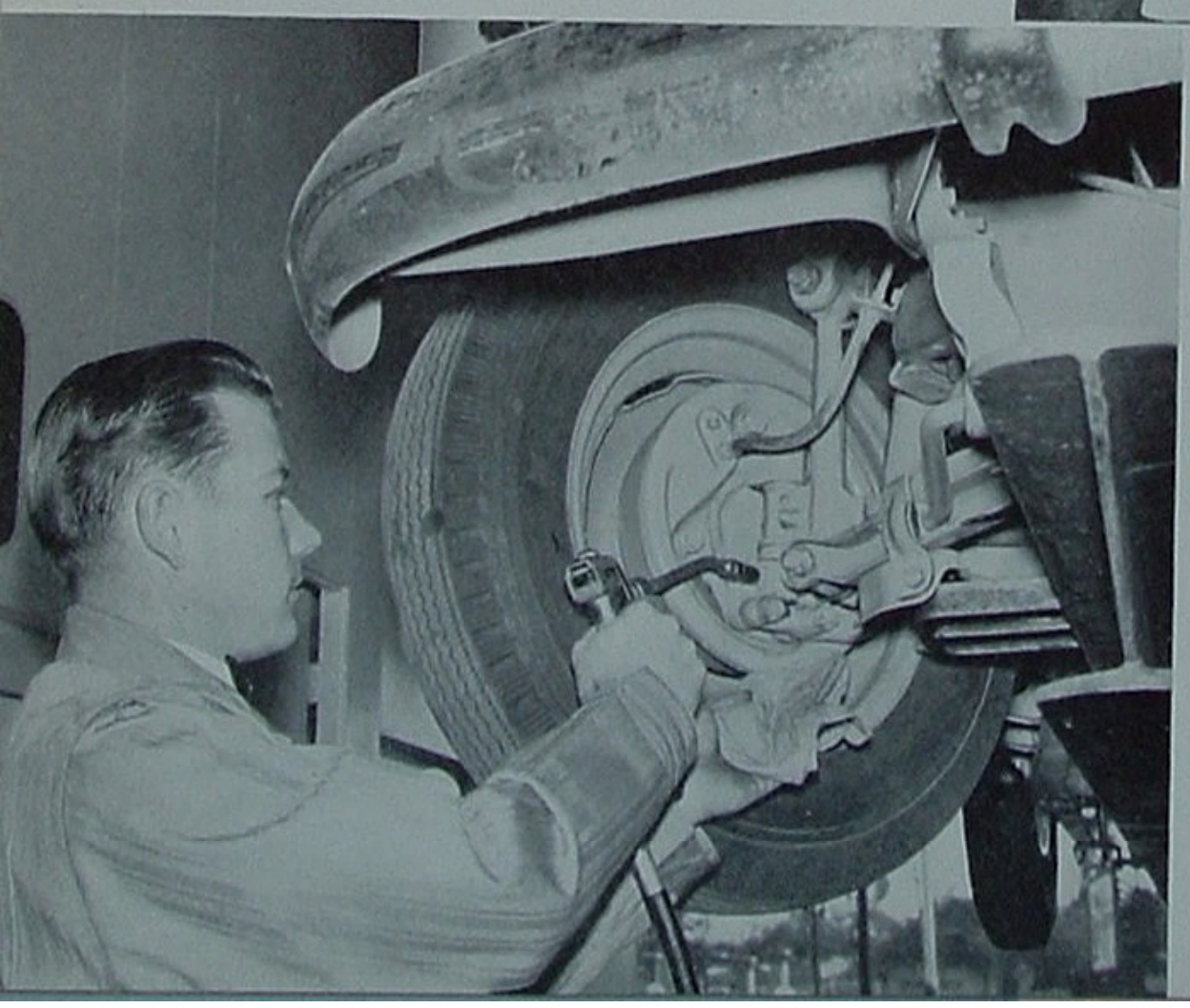
MARINE SALESMAN Hal Schuyler of Seattle makes it his business to know the petroleum needs and problems of seafarers. Here, in the engine room of an Ocean Tow, Inc. vessel, he literally lends a hand to the lubrication problem encountered by Thomas Jones, right, chief engineer.

WIND MACHINES were the salvation of this San Fernando orange and lemon orchard during a recent heavy freeze. The propeller, turning on a film of Unoba Grease, keeps air circulating through the orchard and can defeat temperatures down to 19 degrees.

ROCK AND SAND PLANTS segregate natural deposits of earth into various sizes of rock, gravel and sand, called aggregates. The John D. Gregg plant at Sun Valley, California, specializes in supplying wholesale quantities of aggregates to contractors for use in building highways and concrete structures. The materials are here being transported to a building site by 17 truck-and-trailer units each carrying a net load of 21 tons. This and many similar rock plants throughout the West depend upon a supply of lubricants made from our Mt. Poso crude.



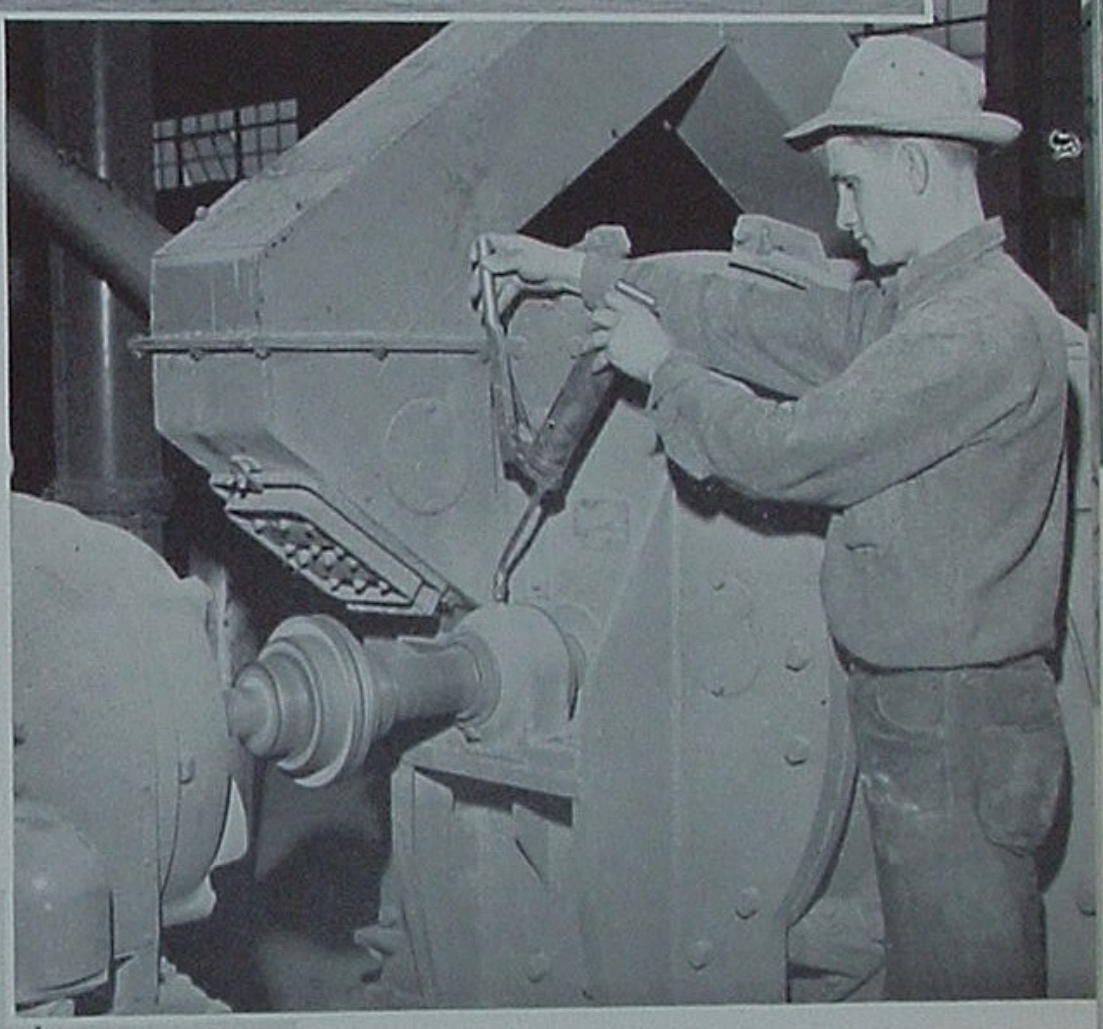
RESIDENT MANAGER Joe Sanford, right, of Burbank Marketing Station has ample reason to take good care of his John D. Gregg account. Discussing a carload order of Unoba Grease, Red Line A. P. Gear Lubricant, Ballroll Grease and Dieso-Life are (l-r) Larry Lightfoot, shop foreman, and John H. Jackson, plant manager. The pump island in background dispenses lubricating oils from underground storage tanks. Six or more carloads of lubricants are needed annually to keep this customer's trucks and rock plant well oiled and greased.



STOP-WEAR LUBRICATION is the Union Oil way of guaranteeing motorists the greatest satisfaction for each maintenance dollar they spend. Although somewhat less than one pound of grease is used per average lubrication job, our large number of retail customers has made Stop-Wear service a major avenue of grease sales. Shown applying Unoba Grease to a wheel spindle is Bob Bohannon, a service station manager in Los Angeles.

SEATTLE is typical of the great Pacific Coast industrial centers where commerce on land and sea demands a steadily increasing supply of petroleum products. The tug and barge at work are operated by Ocean Tow, Inc., a 100% Union Oil customer, who transport freight on Puget Sound and far north to Alaska. Eight carloads of lubricants represented just a part of their 1948 purchases.

NEW EQUIPMENT frequently enters the industrial scene to challenge the best lubricants. Here a shaft traveled at such high speed that ordinary greases could not remain in the bearing. Our research men developed Strona HT-1, which met the challenge perfectly and brought a smiling nod of approval from the operator.



IN CONCLUSION we return to the very well from which Poso crude began its adventures several months ago. A small part of the crude, after a round-trip of 1000 miles, has returned in refined product form to lubricate pumping units and well servicing equipment in the Mt. Poso field. Well pullers Tom Isaacs and Otto Pedro are both the consumers and producers in this unusual instance.

INDUSTRIAL SUMMARY

LABOR RELATIONS

Toward the end of January negotiations were started with Oil Workers International Union (CIO) on a new contract. The union representatives asked for complete reinstatement of the old contract in principle plus a return of jurisdiction to them over people now working at refineries for contractors in the A. F. of L. building trades. The Company replied that we could not agree at this time to such jurisdiction because of commitments made to the contractors during the strike. The union representatives then stated they could not jeopardize their position by negotiating a contract that would not return jurisdiction over these people to them. Negotiations were therefore recessed. It is reported that O. W. I. U. representatives will petition the National Labor Relations Board for a ruling in this case.

On January 26, 1949, the National Labor Relations Board certified Radio Officers Union, Marine Division Commercial Telegraphers' Union (AFL) as the bargaining agency for Company ocean-going radio operators. The balloting resulted in six votes for the certified agency, one vote for the American Radio Association (CIO) participating as intervenor, and no votes for no union. Previous balloting had resulted in tie votes.

MANUFACTURING

Erection of the new Triton facilities at Oleum continues even better than expected. Part of the new equipment will be placed in operation early in March. It now appears that the project will be completed before October.

MARKETING

While total sales volume for the year 1948 was 3 per cent less than for 1947, revenue from sales and services increased 23 per cent to an all-time record of $203,858,991. Gasoline sales were 9 per cent greater, resulting from a 4 per cent gain in civilian domestic sales and an 82 per cent increase in U. S. Government requirements. Combined stove oil and Diesol sales were up 12 per cent, while fuel oil volume dropped 14 per cent. Civilian domestic lubricating oil sales increased 8 per cent, but total volume dropped 14 per cent due to a decline in U. S. Government purchases.

During the latter part of January fuel oil prices dropped, following similar softening of fuel oil prices in Eastern, Gulf, Carribbean and Persian Gulf areas. This reverse trend on fuel oil prices is caused by an oversupply of heavy products.

FIELD

The curtailment of drilling operations in California, due to over-production of heavy crude, finds Company drilling activities reduced to 11 strings of tools in this state during February, compared with 18 strings operating one year ago.

Several leases on which no production has been developed heretofore have initial wells completed. These are Kaufman at Rosecrans, Son at Jacolitos, and the Miller Lease at Kern Bluff northeast of Bakersfield.

Extremely cold weather has greatly hampered operations in the Rocky Mountain and West Texas Divisions. However, a winterized rig at Government 1, on the Moxa Prospect in southwestern Wyoming, has permitted continuous operation. This deep wildcat, now drilling at 4,450 feet, will reach an estimated total depth of 12,000 feet.

During a recent sale of state leases at Baton Rouge, Louisiana, we completed a lease block on the South Tigre Lagoon Prospect, which will permit its drilling within the next few months. This property is on the north edge of Vermillion Bay in south central Louisiana. It will be drilled with a rig mounted on a drilling barge.

PIPE LINES

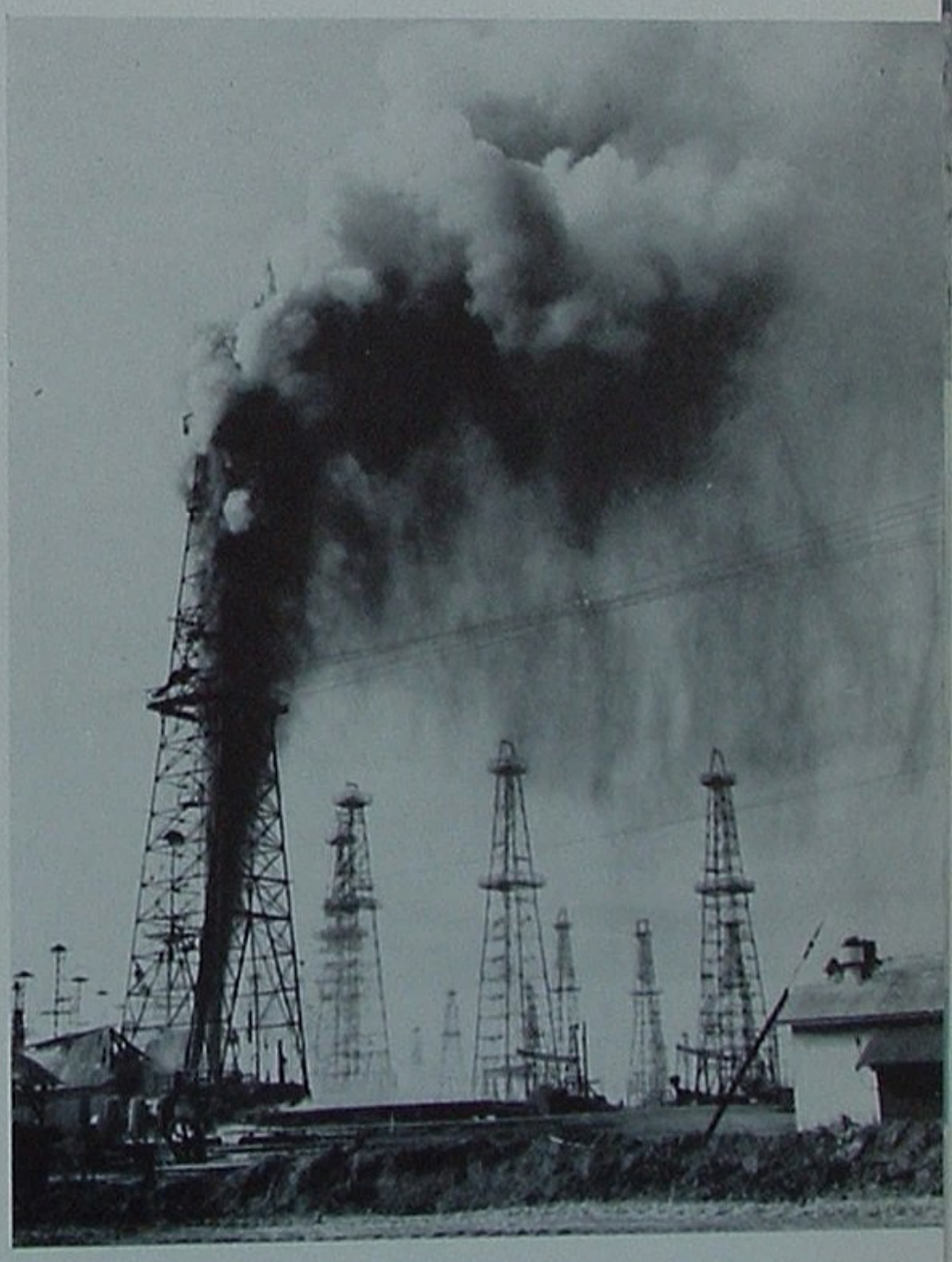
To improve our tanker loading facilities at Avila Station, two gas-diesel engines are being installed in place of steam turbines now operating the centrifugal shiploading pumps. A new 20-inch suction line for Santa Maria type crude and manifolds at the pumphouse are also being installed. These improvements, including an additional shiploading pump, will increase our tanker loading rate 3,000 barrels to a maximum 15,000 barrels per hour for Santa Maria type crude. A 15,000 barrel-per-hour rate is considered the highest rate at which a tanker can be loaded

with safety at Avila. These changes will also make it possible to load Santa Maria crude through the existing 16-inch line with two pumps at a rate of 8,500 barrels per hour; at the same time light crude can be loaded through the two smaller lines at a rate of 7,000 barrels per hour, into the same tanker or into two tankers.

● MARINE Unusually cold weather, together with new fuel oil business in the Northwest, has placed heavy demands on our fleet for the movement of fuel and stove oils. During January it was necessary to supplement our fleet by chartering several vessels for one or more voyages to that area. Vessels were also chartered in January to move 137,000 barrels of natural gasoline from the Texas-Gulf area to Los Angeles Refinery and a cargo of fuel oil from Los Angeles to the Panama Canal Zone.

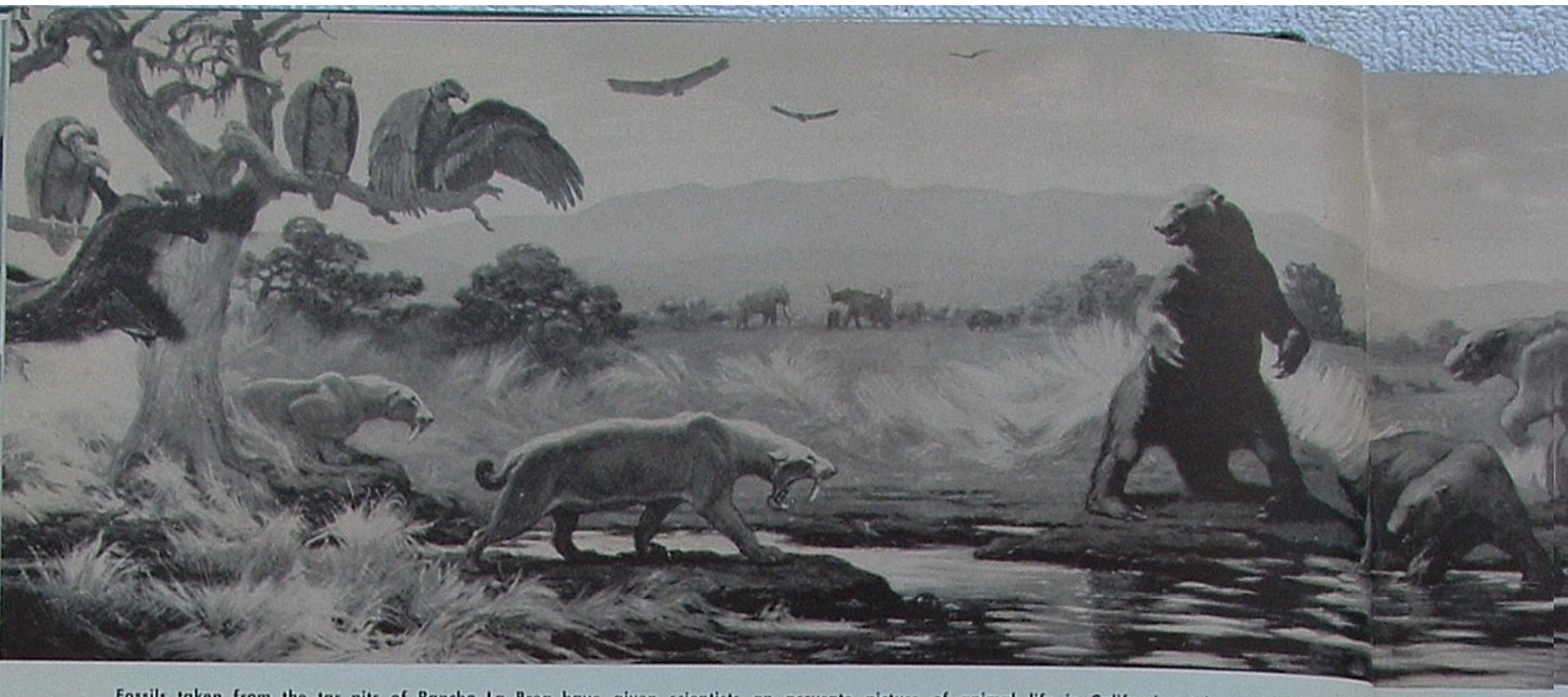
January provided a month of contrasts in fleet activities. The SS A. C. RUBEL was engaged in a voyage to Valparaiso, Chile, while the SS PAUL M. GREGG carried a cargo into the Alaskan ports of Juneau and Ketchikan. The former ship returned to California via the Canal Zone and Aruba, calling at Puntarenas, Costa Rica, on the way north to replenish stocks at our new marketing facility. The SS SANTA PAULA was also in Central American waters during the month making deliveries into customers' storage at San Jose, Guatemala and La Union, El Salvador.

● PURCHASING A saving of approximately $5000 was made during January on mud chemicals for Paraguay by our work with the Research Department in substituting dry chemicals for the regular finished materials. . . . The work of streamlining Minute Man stocks and simplifying the ordering procedure is progressing and will effect quite a saving when completed. . . . In general, commodity prices held steady during January. However, sales construction work is stirring with new activity. We find dealers in service station equipment are pressing for business with ample supplies. There has been a considerable increase in salesmen's calls. Contractors are aggressively bidding on work, indicating that many concerns are having to intensify procurement of contracts.



FIRES put in their unwelcome appearance twice recently to give Field and Manufacturing departments a bad time. At five o'clock in the afternoon of January 11, lightning struck Los Angeles Refinery, setting off two gasoline tanks and resulting in the loss of 35,000 barrels of "7600" Gasoline. Then on the 25th, contract drillers on a new Santa Fe Springs well lost circulation and found themselves with a gas and mud gusher. Gas burned for several hours until the well choked off its own flow. Losses have not yet been determined.

Photos Courtesy Times-Mirror



Fossils taken from the tar pits of Rancho La Brea have given scientists an accurate picture of animal life in California at least 40,000 years ago. Charles Y. Knight's mural

Ancient Secrets of Ra

By Mac O. Lackie

Hancock Park, where thousands of tragedies like the above once occurred, is today bordered by Wilshire Boulevard in Los Angeles.

IN THE YEAR 1901, no automobiles crowded the streets and unpaved country roads of Los Angeles County. Sections of the area bristled with odd types of drilling equipment. On many a lot or farm, oil was being found in small quantities. But no driller had yet struck one of the rich pools for which Los Angeles County was soon to become noted.

One day during that year a young man of 32 rode out to old Rancho La Brea—today a scene of luxurious stores, buildings and homes—then a country grazing area of no pretensions whatever. He was an exceptional young man in several respects. Entering Stanford with the pioneer class of 1891, he had graduated from that university in 1895 with a degree in geology and engineering. He had served for two years as a United States deputy surveyor, and for four years in San Joaquin Valley as division superintendent for Union Oil Company. On this day he bore the new and untested title of petroleum geologist, the first such title ever conferred by Union Oil and most probably the first job of its kind in the entire oil industry. His name was William W. Orcutt.

Orcutt's interest in Rancho La Brea was confined to some old tar seeps that had no doubt inspired human curiosity during hundreds of years of Spanish and Indian migration. He knew that the source of this tar,

through
lighter pp
in the de
by drilli
Neithe
day in 19
While pr
several pp
Possibly
lar disco
paleontol
usual abb
inspectio
might be
birds.
Orcutt
cussed h
it was n
fornia's
discover
Willi
up a co
ferred t
member
found n
dividual

arles Y. Knight's mural at the Los Angeles County Museum shows a ground-sloth becoming involved in the natural trap amid carnivorous onlookers.

ts of Rancho La Brea

By Mari O. Lackie

through which gas constantly bubbled, was a deposit of lighter petroleum. But whether oil of value remained in the deposit, or where it might be tapped profitably by drilling, no one had been able to determine.

Neither did Orcutt find the answer to his problem that day in 1901. But he did make a remarkable discovery While probing through the meandering seeps, he noticed several pieces of bone resting in the tar-saturated ground. Possibly hundreds of previous visitors had made similar discoveries. However, Orcutt, with some Stanford paleontology stored in his mind, noticed something unusual about the bones. A little preliminary digging and inspection quickly convinced him that here in the tar might be found the petrified bones of extinct animals and birds.

Orcutt made many another visit to the rancho and discussed his theory with friends and associates. However, it was not until 1906 that he urged University of California's Dr. John C. Merriam to take an interest in the discovery and begin excavating.

William W. Orcutt died in 1942 after having built up a commendable record of achievements. Often referred to as the "Dean of Petroleum Geologists" by members of that profession, he is credited with having found more oil fields in California than any other individual. He was associated with Union Oil Company

The tar pits as they appear now, although much less menacing than formerly, still ooze gas and tar and claim a few rodent victims.

Exposed in an execavation pit are the bones of an ancient horse and a bison intermingled possibly with those of predatory dire wolves.

A paleontologist examines one of nature's "cross-bone puzzles" before resuming an intricate task that has yielded some 8000 skeletons.

until shortly before his death, serving at the peak of his career as vice president and director. The scientific world remembers and honors him for recognizing what has proved to be the world's greatest deposit of pre-historic fossils.

Hancock Park

Rancho La Brea, which derives its name from the Spanish word *brea*, meaning asphalt or tar, was one of the old Spanish land grants. A later division of the property gave ownership of the tar seeps and adjoining areas to Major Henry Hancock and Madame Ida Hancock Ross. The 23-acre plot of seeps was named Hancock Park in memory of its owners and given by their heir, G. Allen Hancock, to Los Angeles County for development into a public park.

The late William W. Orcutt, Union Oil Company's first geologist, discovered the Rancho La Brea fossils while exploring for oil.

Today Hancock Park adjoins famous Wilshire Boulevard between Curson Street and Ogden Drive. Concealed behind a wall of trees and shrubs and practically unmarked by signs, it is passed daily by thousands of city motorists who know little or nothing about the park's scientific importance.

Although fossils taken from pits in Hancock Park are to be seen in most large museums of the United States, an exhibit in the Los Angeles County Museum in Exposition Park constitutes the largest and most varied fossil assemblage ever taken from one location. Scientists from everywhere come to study these pre-historic animals. But no scientific training is required to glean information and interest from the exhibit. Thousands of visitors are awed each year by these evidences of earliest life in California.

Because there is no other city in the United States where a fossil quarry and museum can be made so easily accessible to the public, a commendable effort is being made to further develop Hancock Park. Leading the drive is Dr. Chester Stork, vertebrate paleontologist of the Los Angeles County Museum and California Insti-

tute of Technology. Plans have been made to construct a building over one of the excavation pits, enabling spectators to view fossils in their undisturbed resting place. Paved walks, adequate lighting and other public conveniences will be arranged. Later, when Hancock Park is complete according to plan, a museum building on the grounds will house collections of skeletons. Life-sized replicas of the animals and birds as they appeared in life, together with trees and shrubs that grew in this region during the Ice Age, will give strollers an authentic conception of the Pleistocene era.

Pre-historic Fauna

It may be a number of years before the development of Hancock Park is completed. But meanwhile we can reconstruct the ancient scene in our minds.

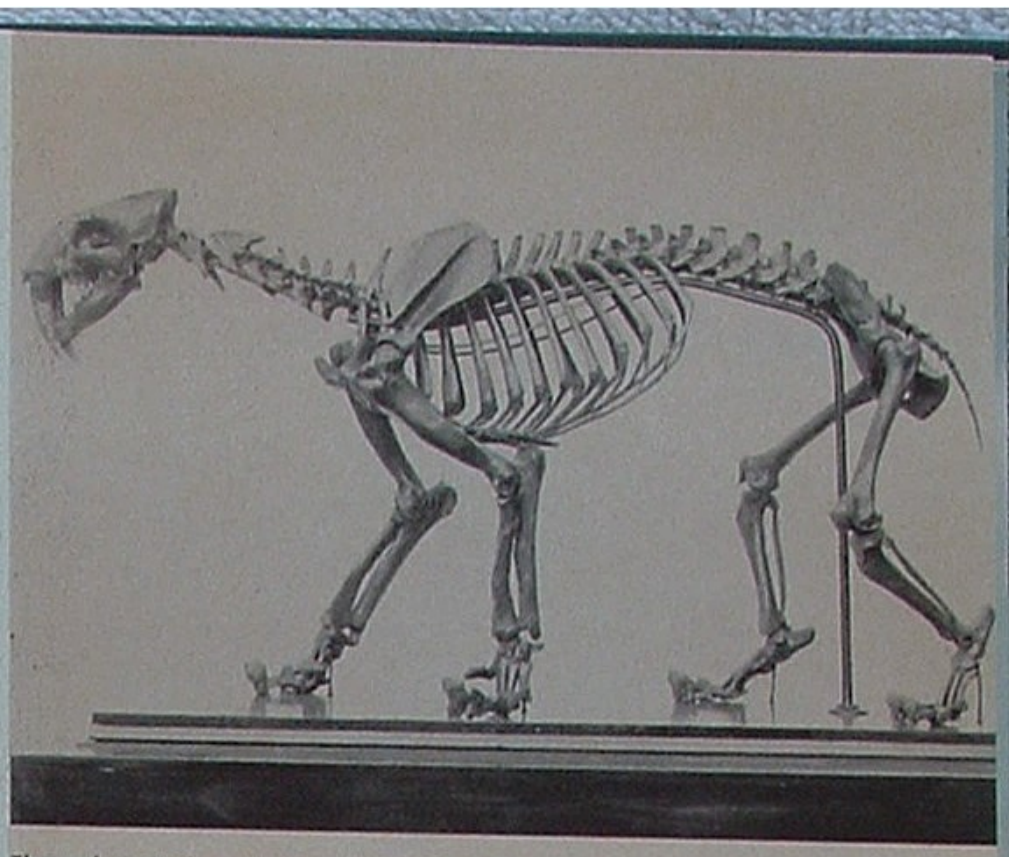
A visit to the Los Angeles County Museum impresses us not only with the variety of animal and bird life on the ancient American continent but also with the evolutionary changes that have taken place. Skeletons of wolves, bears, bison and horses taken from the tar pits are noticeably different from the species living today. Also, there then roamed in this area large numbers of animals we normally associate with other continents, such as elephants, camels and lions. These too differed from their modern descendents seen in circuses and zoos. In addition, there were the ground-sloths, sabre-toothed cats and an assortment of predatory birds, all now extinct.

Wolves of those days, known as dire wolves, were larger than the modern wolf. They had comparatively large heads, short lower leg segments and small feet; were not swift runners but were capable of dragging heavy bodies of prey. The great number of dire wolves found in the pits suggests that they hunted in large packs.

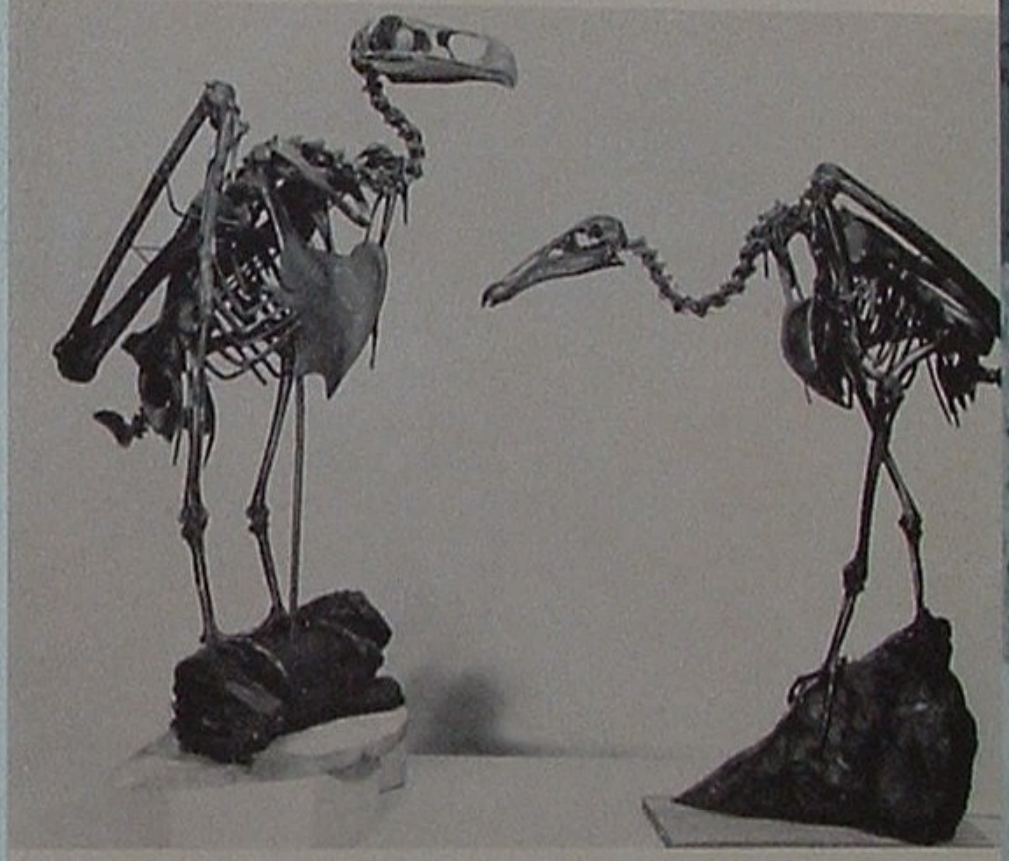
Horses of that period were about the size of our modern horse, but their hooves were then little larger than those of a deer.

Other interesting facts are preserved in the ancient tar. Elephants often attained a height of 12 feet or more and had immense curved tusks of nearly that length. Evidently the sabre-tooth cats lost or shed their vicious tusks only to grow a new set, for the tar contains a proportionately large number of such teeth. The carnivorous or predatory animals greatly exceeded the herbivorous kind trapped in the tar. This is also true of the birds, since by far the greater number found are vultures or condors, eagles, crows, ravens, magpies and other predatory or scavenger types. However, some of the birds found fed on insects, seeds and berries.

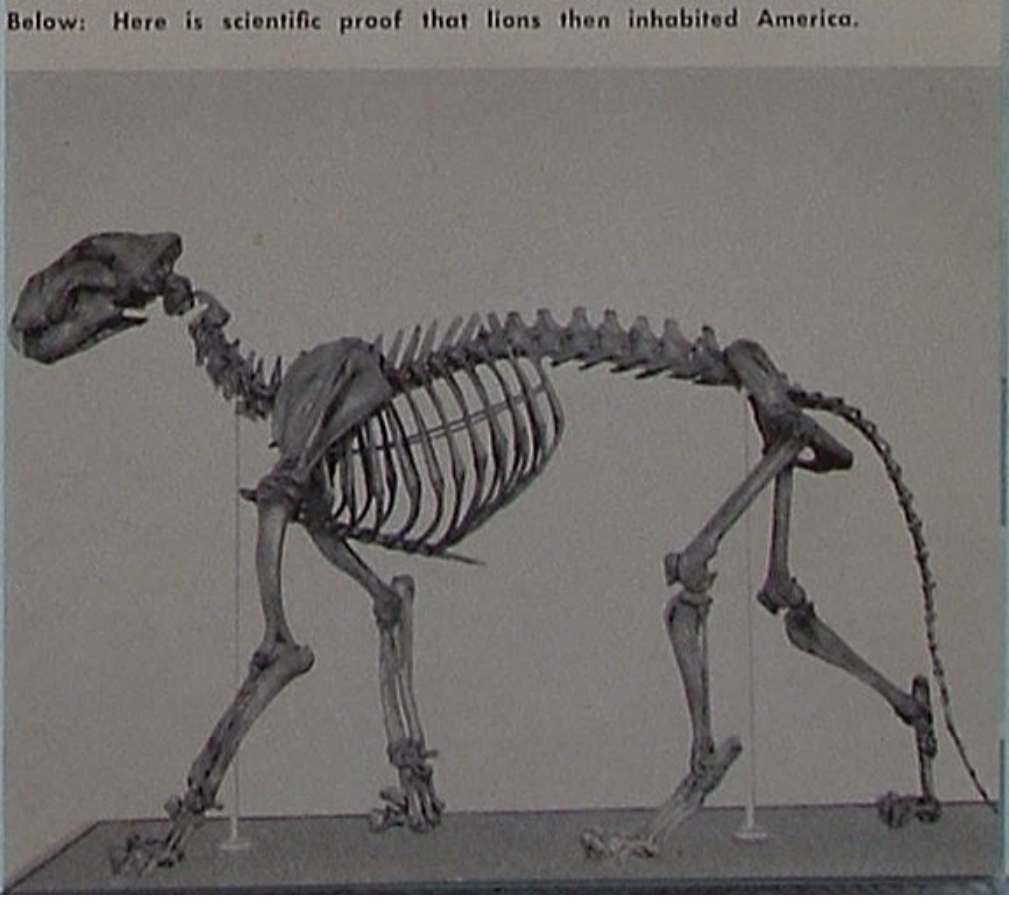
A census of skeletons taken from La Brea pits shows 3890 carnivorous animals, as compared with only 374 of the herbivorous types. Of the flesh eaters, the canid or dog family, including dire wolves, coyotes and foxes.



The sabre-tooth cat was a powerful flesh-eater who preyed on the tar-trapped herbivorous animals only to become one of the victims.



Above: The vulture-like Teratornis, on the left, was the largest flying bird yet known. The extinct Breagypes, right, resembled a condor. Below: Here is scientific proof that lions then inhabited America.



predominate, numbering about 2200 individuals. Some 1500 members of the cat family found include the sabre-tooth cat, lion and puma. Other carnivorous animals found include skunks, weasels, badgers and three types of bears. Most numerous among the plant feeders are the bison, followed by horses, ground sloths, camels, antelopes, several types of mastodons, and deer. Undoubtedly other thousands of skeletons remain to be excavated.

The skeletons of over 4000 birds, representing 115 different types, have been taken from La Brea. Here again the predatory and scavenger types predominate. Most spectacular of the birds is the huge condor-like vulture, which stood two-and-one-half feet in height, had a wing spread of at least 12 feet and probably weighed about 50 pounds.

Portions of a human skull and associated skeletal remains were found at a depth extending from six to nine feet in one of the excavations. These remains were not in association with the older fossils and, while they are believed to be some thousands of years old, they are not tens of thousands of years old as are some of the other fossils. However, there is evidence of man's presence in association with older fauna in some of the other excavation pits. This evidence consists of several broken atlatl dart foreshafts. Atlatl darts were used prior to invention of the bow and arrow and consisted of darts of stone or ivory with a throwing device which greatly increased their range or force. There is a possibility that future exploration will reveal the humans who used these weapons.

The Traps

With the help of a few scientific facts, any visitor to Hancock Park can mentally reconstruct some of the tragedies that occurred there—at least 40,000 years ago.

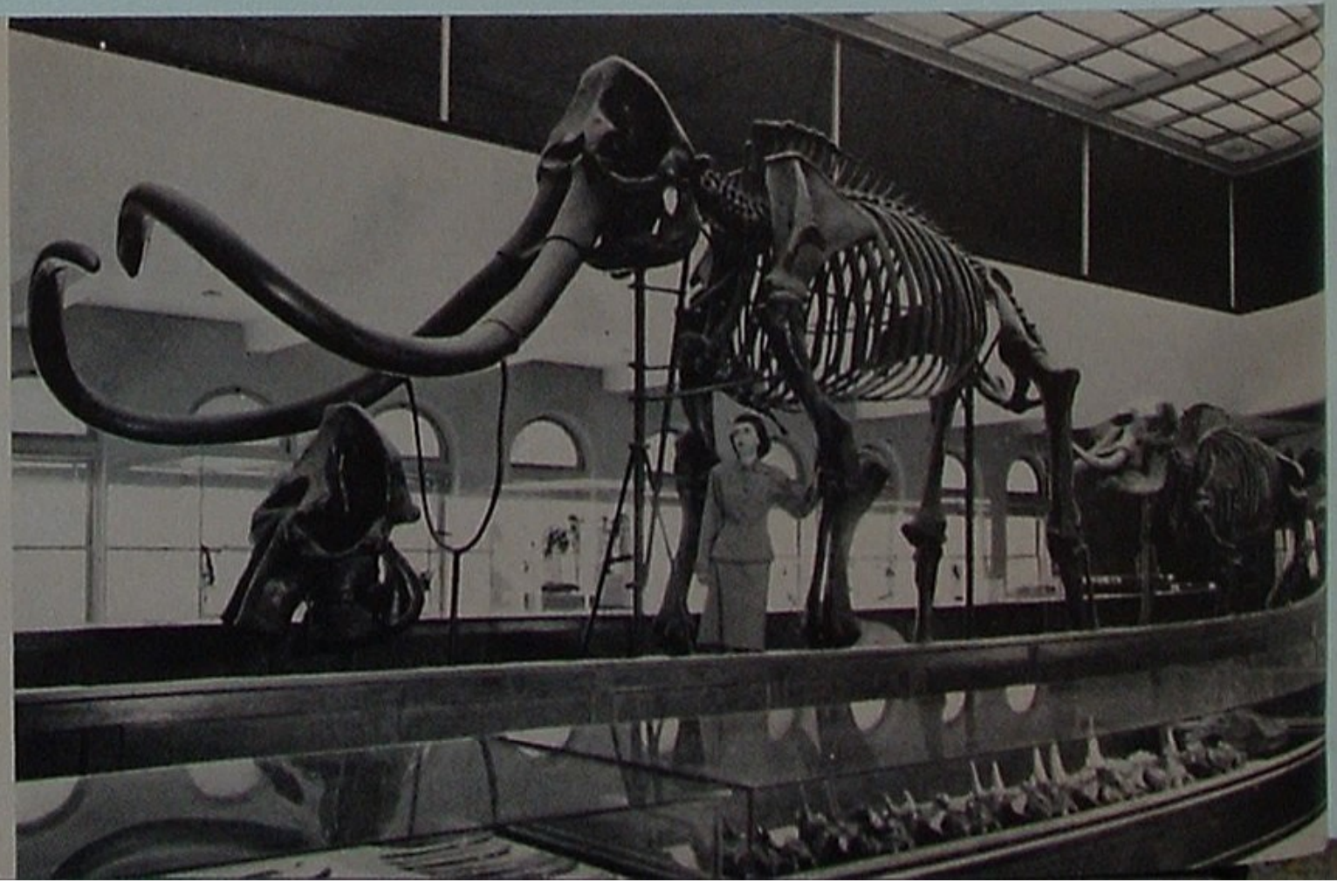
In general, the topography of Los Angeles County then

Author Marie O. Lackie, after studying languages at Iowa State, took up geology at U. C. L. A. She now serves Union Oil Company as a consulting geologist.

was quite similar to that of the present, consisting of a relatively flat plain semi-surrounded by mountains. The ocean was farther away and the climate, while comparatively equable, was more humid than we find it today. Temperatures were similar or higher. There was slightly more rainfall. The scattered groups of trees included pines, Monterey cypress, live oaks and manzanitas. Bushes of the juniper type existed, as well as blue elderberries, western hackberries and cockelburrs.

Tar and gas can still be seen bubbling from the earth in Hancock Park. Sometimes such modern creatures as birds and squirrels are caught in the treacherous mire. But the death traps are insignificant compared with their former magnitude.

Just to the north of Hancock Park is the old Salt Lake oil field, from which profitable quantities of oil have been produced. Undoubtedly from this same source came the oil which, when exposed to air, lost most of its volatile content and was reduced to La Brea tar. This oil reached the surface along faults or fissures, or from



We modern six-foot homo sapiens are dwarfed by the towering elephants of ancient California. This mastodon's great curving tusks, while formidable in appearance, may have been a reason why the species became extinct.

the truncated edges of oil-bearing rocks that are believed to be folded into a small anticline or ridge below the tar pits. The viscous material accumulated over a long period of time and often extended into pools of considerable size and depth. It seems probable that the tar, mixed with sand and gravel, formed deceptive crusts that would not support the weight of animals, especially during warm weather. Or, as is evident today, the tar formed natural seepage-proof reservoirs in which rain water would accumulate and remain.

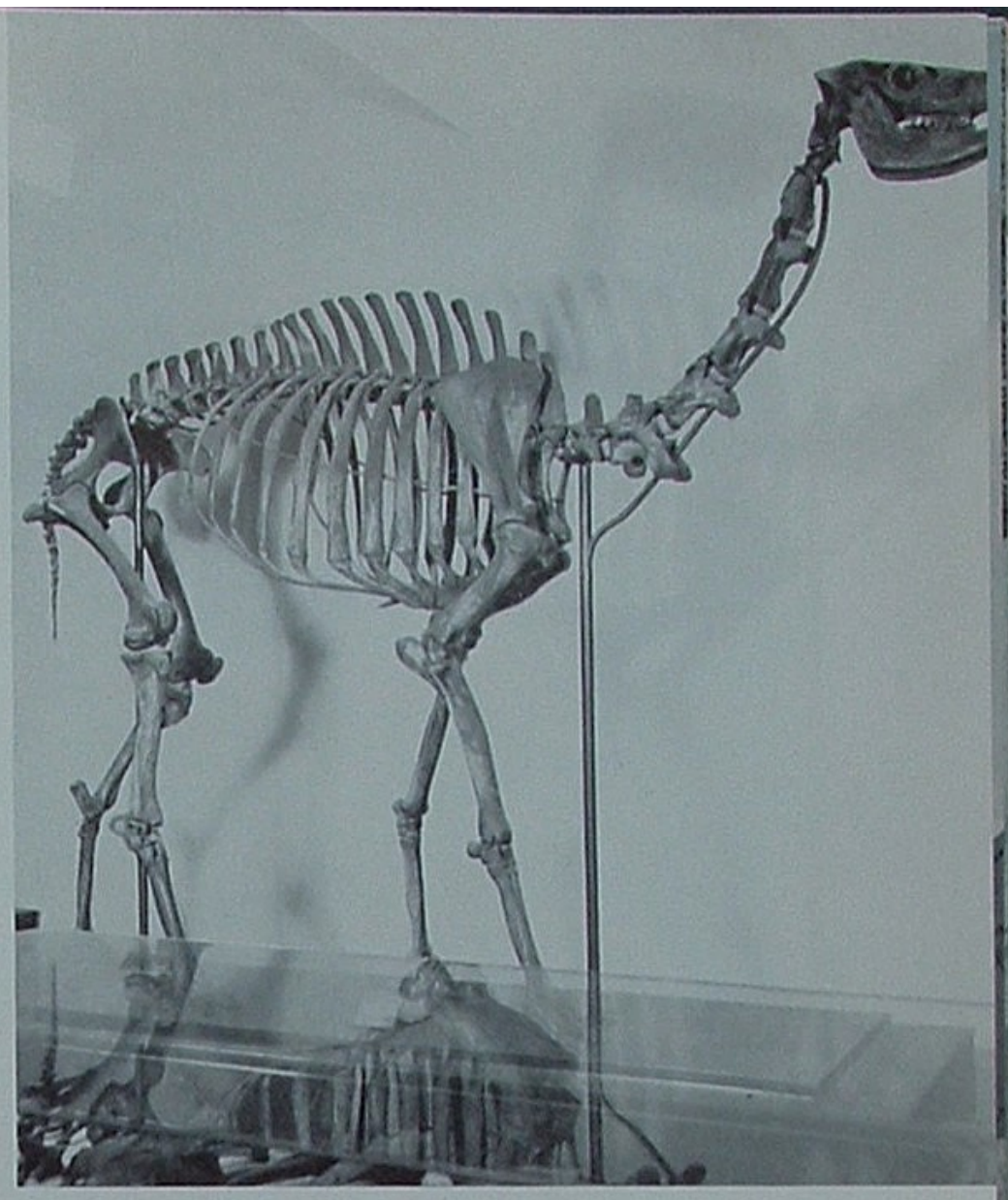
We can readily imagine one of the large ground sloths, bison or elephants of the area grazing too near the bog's edge or being attracted by its supply of water. As the beast eats or drinks, his feet break through the crust or gradually sink into the treacherous mire. Presently he tries to free himself, but the tar clings far more tenaciously than any mud. The animal struggles frantically and gives voice to an alarm that attracts other members of his herd, or perhaps some unsympathetic wolves, cats and vultures. But struggle only makes matters worse. Perhaps other beasts are trapped in the excitement and the tar slowly swallows its helpless prey.

Such an opportunity is what the carnivores have been waiting for. The great sabre-tooth cats and lions are perhaps first to pounce upon the trapped sloth or elephant. But in their savage eagerness they too sink into the ooze and are firmly held. Then at nightfall come the dire wolves to feast and be caught. Finally the vultures and eagles, circling above or waiting in nearby trees for a chance at the bones, try their luck. But they are a greedy crowd. Jostling each other for room on the carcasses, they brush a wing through the disturbed tar and find themselves permanently grounded.

The smaller herbivorous animals, such as bison, antelopes, camels, deer and horses, commonly traveled in herds, depending on speed to escape their enemies. It seems reasonable to believe that such animals, if fleeing in darkness or during the frenzy of a stampede, might run directly into the tarry death traps. At any rate, the number of bones of very young, very old or crippled animals found at La Brea is in excess of the normal percentage found in living groups, suggesting that in many cases the stronger members of a herd escaped.

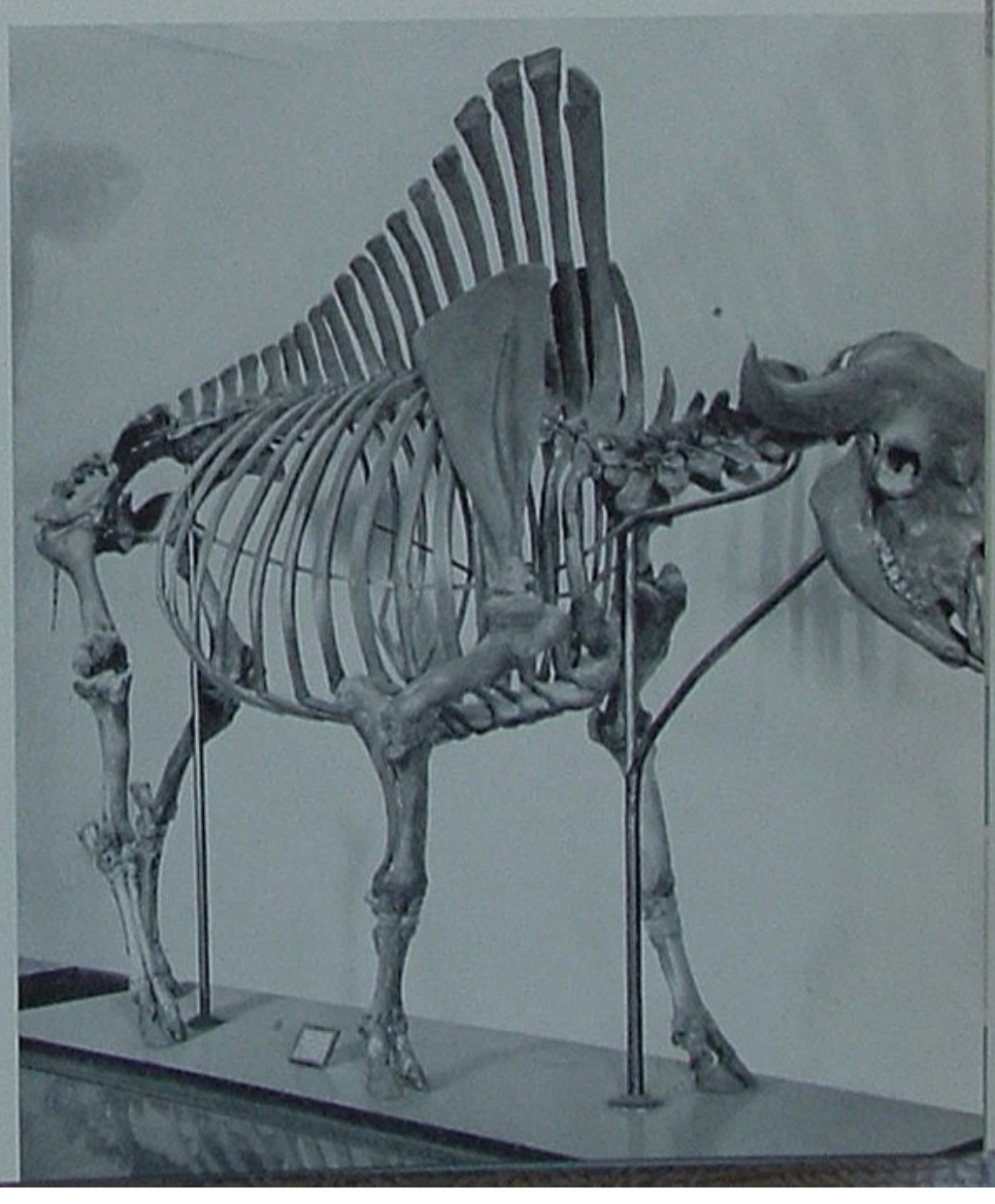
A single event of this type would add a considerable number of skeletons to the accumulation. The predominance of carnivorous animals indicates merely that they were attracted in greater numbers to devour the victims, only to be devoured in turn by the tar.

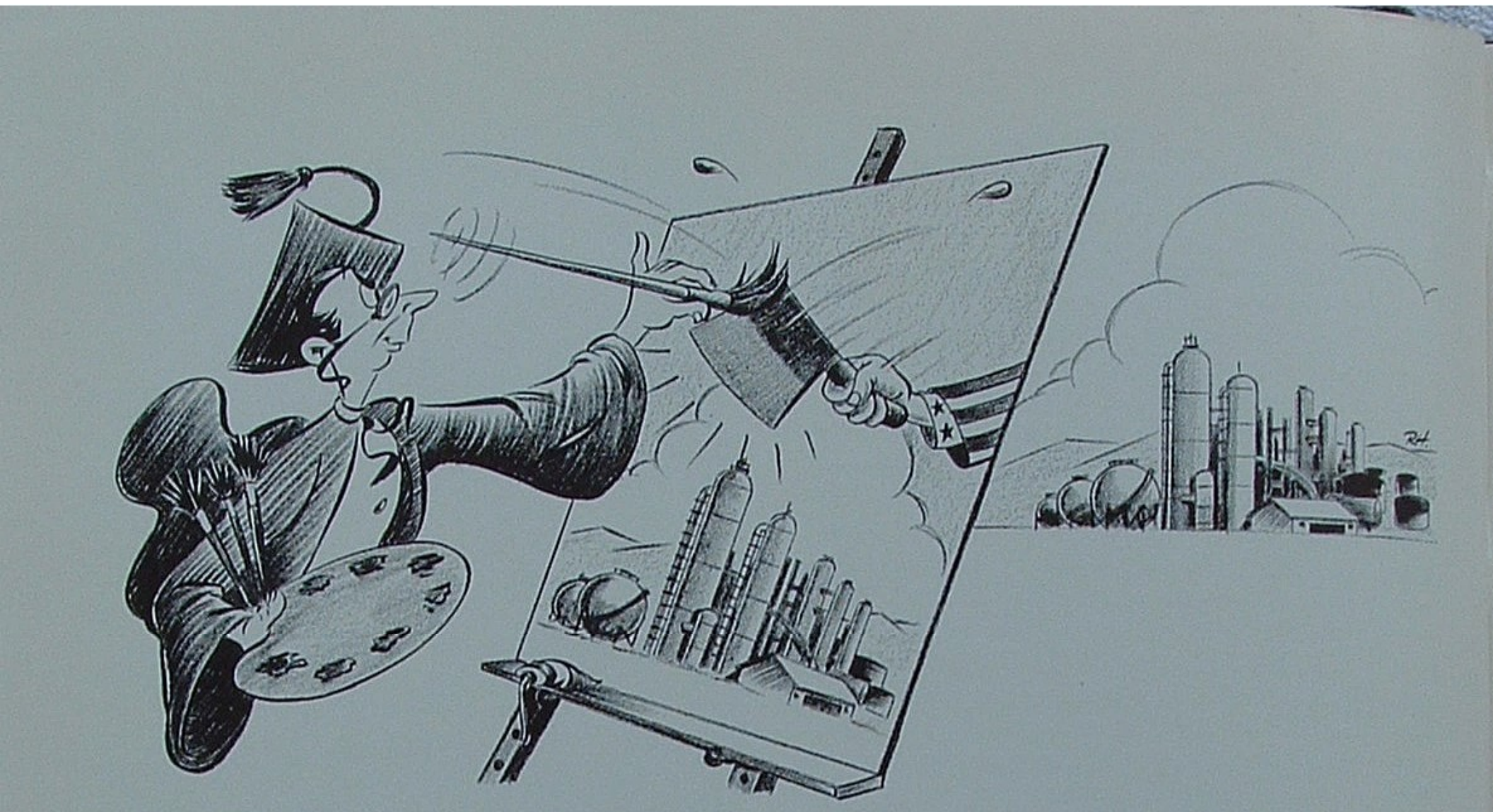
Such are the revelations of Hancock Park, whose tar pits are undoubtedly one of the greatest links with the past that science has ever discovered. It is hoped that the site will be preseved both for future exploration and for public enlightenment.



Camels were definitely a part of the American scene long before modern zoos began importing them from habitats on other continents.

The American bison was apparently among the fittest to survive, although today's species differs somewhat from this aged patriarch.





The Finishing Touch

Another Professor Would Make America Over and Would Start on the Oil Industry

RECENTLY various professional groups began turning attention to a hitherto unsurveyed and undefined concept which was called, for convenience sake, national oil policy. Among these groups were the Petroleum Industry War Council, the American Petroleum Association of America and the Interstate Oil Compact Commission.

Some of the studies were not formally labeled and were confined to one or more phases of the petroleum industry's operations. Others more ambitiously sought to present a program which would satisfy the needs of the national economy and national security. The studies made by the Senate Committee to Investigate Petroleum Resources—the O'Mahoney Committee—were an exhaustive undertaking. The House Committee on Interstate and Foreign Commerce has held many hearings and has made interim reports on national oil policy.

All this professional activity was certain to inspire amateur effort. From the quiet recesses of the library, far from the maddening crowd of pedestrian realities, has come a procession of ex-cathedra pronouncements ever since Professor Tugwell set out to "make America over." These might be quietly ignored but for one thing—unchallenged, they gain a certain acceptance. When a volume bears such an impressive title as "A National Policy for the Oil Industry," and borrows by association the prestige of Yale University, the Carnegie Corporation, and the Ganson Goodyear Depew Memorial Fund, the public is inclined to rest on the presumed indorsements. Why bother to challenge the qualifications of the author for the job he has undertaken, or even to ask how he went about doing it?

It happens that the author in this case is a Yale professor of law, Eugene V. Rostow, and there is nothing in the 170 pages he has produced to indicate that he made any serious effort to prepare himself for his role as Prescriber Extraordinary. He is not avowedly opposed to the profit system or capitalism, but certain expressions indicate that he would not be first to man the ramparts in its defense.

At the outset it is asserted in a footnote to the preface that "This paper is part of a large inquiry into the functioning of public law for the control and *direction* of the national economy." The italics are mine, but it is at this early point in the volume that the reader may infer the policy which is to control the text—the author will see to it that nowhere will he find merit in anything the industry has done from the beginning.

The Horizon Revealed

A work which at the very start exposed this fixed horizon of political purpose might very well have been dismissed as an unsafe guide to economic solutions, and this was about the situation in which it stood when the House Interstate and Foreign Commerce Committee projected it into public notice by inviting a number of oil companies to comment on it. These replies were published in a committee report, and they provide no literature for use in stimulating sales of the book.

There will be other books of like nature, however, for Prof. Rostow is not unique in yearning to solve the nation's problems from the restful quarters of faculty accommodations. He—and others—will continue to nurture in both book and classroom the cockleburs of thought sown by such phrases as "the industry's deep-seated and basically emotional or ideological resistance to the development of a governmental oil policy." For that reason his work should be accepted as laboratory specimen. Suppose we apply the lens, for example, to this statement:

"What the oil men are fighting is an idea—a pattern of relationship between industry and government which violates their notion of the right order of things in a capitalist world. Their stubborn fears are a measure of the difference between American and British or Dutch capitalism, where partnership with the state has always been accepted by business as a convenient device for getting things done."

The Rostow book was published in 1948

and it should not have escaped the author's notice that the British style of "partnership" in numerous businesses and industries has been ended by the simple method of the big partner gobbling up the capitalist associates.

Competition—Yes or No?

Rostow's primary premise is that the petroleum industry of the United States is a monopoly. He labors earnestly with this theme and can't quite make it stand up. In the end he arrives at something he calls "monopolistic competition," a condition which he declares is on the point of being recognized by the courts. He does not deny that competition exists and, in fact, has some complaint on the score of competition in marketing products—he thinks there is too much, particularly in advertising products and in maintenance of distributing facilities. It is the size of those who compete that worries him. He thinks the time may come when brands, slogans and the like, used as marketing stimulants, would be ended by the courts. ". . . the right to use trade names would be one of the property interests to be disposed of in an anti-trust decree. Perhaps the proper remedy would be to suppress existing trade names altogether, on the ground (familiar in patent cases) that they have been used as instruments of monopoly power."

His overall, basic cure for all the ills and the malpractices which he finds to exist would come about through both legislation and litigation, with the heavier emphasis on court action. He would have a federal unitization law which would take care of the producing end of the business. True conservation would be brought about in this way. There would be no more regulation of producing rates by the several states. Their interest, he finds, is wholly selfish and is aimed at maintaining price more than it is at preventing waste. Proration, in short, is a conspiracy between the states and the oil industry.

Author Rostow advocates complete reorganization. He would establish federal control over production. About all that would be needed would be the unitization law. Congress could enact this without difficulty, for the belief that the states are the custodians of their mineral resources is an out-worn fiction, Rostow says, although it has not yet been so declared. The other big step in oil industry reform would be dissolution, disintegration and a general hacking and hewing at the corporations until there would be no large companies at all.

It Just Doesn't Work Out

Well, it is not exactly that simple. Most of the Rostow proposals begin bravely to establish a point but somewhere along the line a counterbalance is installed and they end in a dogfall. So it is with his disintegration plan. The big companies would all be split vertically four ways into the four principal branches of producing, refining, transportation and marketing. That might not be sufficient and in case it was not, there could be some horizontal cutting across the vertical segments. That would get rid of bigness, but somehow there would magically appear a hundred "major" producers of crude oil, instead of the 22 which Professor Rostow finds to exist. Disintegration, it seems, is a vitamin which stimulates growth and there would *soon* be a new group ready for a swing of the cleaver.

A good deal of oil history seems to have eluded the professor. There is a statement that production and refining were started in 1859. The point is minor, but it occurs early in the Rostow book and the memory of it lingers during the reading of everything that follows. There is another statement, made more than once, concerning the "quota" system on imports of petroleum. Rostow thinks it should be abolished. It has been. It was put into effect as part of the Trade Agreement with Venezuela in 1939, in connection with tariff or excise tax reductions on petroleum. It provided for importation of a limited amount at the reduced rates of duty. In 1943 it was ended, and all the duty reductions applied to the total amount.

In such an array of shaky premises, conclusions have been erected, and none is further from fact than the author's conception of the operating rates of the industry. He asserts:

"If all the wells and all the refineries were worked all day and all night, seven days a week, total production would be greater than it is, but, as found out during the war, it would not equal the total supply refined in 15 average years."

Like much else in the book, the meaning of that is not clear, but it seems to indicate the Rostow belief that "all wells" during the war were producing day and night, which is an absurdity of a height seldom equalled. That would mean that every stripper well was pumped around the clock, including all those which "pump off" in a short time each day—many would have been pumped 24 hours to get out the one barrel or less of oil that they yield in a day. It would mean that flowing wells would never cease their flow. It would mean, finally, that the refineries of the nation actually turned out less during the war than in the "average" years.

It escaped the author's notice altogether that refineries actually do operate continuously day and night. His belief is that they run a little while and then shut down, for he says that, "And the measure of refining capacity is in itself an arbitrary one, being the amount which could be produced if all refineries worked a one shift day, six days a week." Not far from Yale University, almost within sight of the cloistered library, there are refineries. It would have been possible to note firsthand that these plants are in continuous operation and that their rating is the amount they can refine in a 24-hour day.

It may be that the age of some of the material from which Rostow compounded his proposed medications has something to do with it. He narrows his case against "controls" to the following:

"In the East Texas field in 1935 there were 74 independent refineries. By 1941 there were only 3, although at least 25 of the original refineries were strong modern plants, technically equipped to stay in the market."

This, to the Rostow way of thinking, appears to prove the following:

"In the market for crude oil, the majors are monopsonistic or oligopsonistic buyers; in the markets for refined products they are oligopolists."

Mebbe so, but judgment is reserved until Noah Webster and Funk & Wagnall's catch up with the Professor's vocabulary.

The petroleum industry which the author has conjured up in his book is one in which all the big companies would be made into small ones, which would then start growing. There would be refineries all over the landscape, small ones preferably, with a multitude of consultants to make them as efficient as the largest. Filling stations would sell at different prices so that the buyer could always be assured of a lower price. A weakness in his text is that he has provided no means for cutting one of those giant refineries into a number of small ones or of dividing a thousand-mile pipeline into segments of diverse ownership. One can have no doubt, however, that, given a little more time, Professor Rostow could handle this one.

Responding to a request by the House Interstate and Foreign Commerce Committee for comment on the Rostow book, one company summed up as follows:

"While we were reading Mr. Rostow's polemic and discovering, with some amazement, the manifold and grievous imperfections, wasteful methods and other shortcomings of the oil industry and its deplorably inefficient and monopolistic state, we were reminded of the once popular doggerel:

"'The lady bug has wings of gold,
The June bug wings of flame,
The bed bug has no wings at all,
But he gets there just the same.'"

—M. T.

A NATIONAL POLICY FOR THE OIL INDUSTRY. By Eugene V. Rostow. 173 pp. New Haven: Yale University Press. $2.50.

Reprinted through courtesy of "SERVICE," a publication of Cities Service Co.

Los Angeles

'49 Emphasis is on Sales

A SUDDEN slackening of the line in most major industries is also beginning to affect the oil business. Economists say this does not signify the start of another depression—there are still many commodity needs to be filled, wants to be supplied, and reserves of purchasing power to keep the production ball rolling. But it does indicate that industry has about leveled the mountain of consumer orders built up during the war. After a long illness, the time has returned in good health when American products and services are competing for survival on a basis of "who gets there first with the best."

This was the impression carried home by dealers and employees from more than 50 Marketing dinner-meetings held throughout the West during January and February. The fellowship, the food and the entertainment were top-notch. But the message of Company management, delivered by speakers and the movie "Born to Sell," rightfully played first fiddle. We have the resources, human and material, to preform greater services and achieve greater success in the industrial scheme of things. Our program in 1949 must see increased emphasis placed upon good salesmanship.

Upper left to lower right:

A hundred such tables of Head Office employees dined on good food and good salesmanship at the Biltmore.

Irving Scharf and Linda Merrill stopped the show with a number entitled, "They Call Me Rosie the Hip."

Accordionist Francine Fay delighted Traffic Manager Jack Rearden, center, with "A Kiss Goodnight."

And when it came time to talk business, J. W. Miller, manager of Southwest Territory, held 'em speechbound.

Top to bottom:

Union Oil dealers predominated at this highly successful sales meeting held in the Olympic Hotel in Seattle.

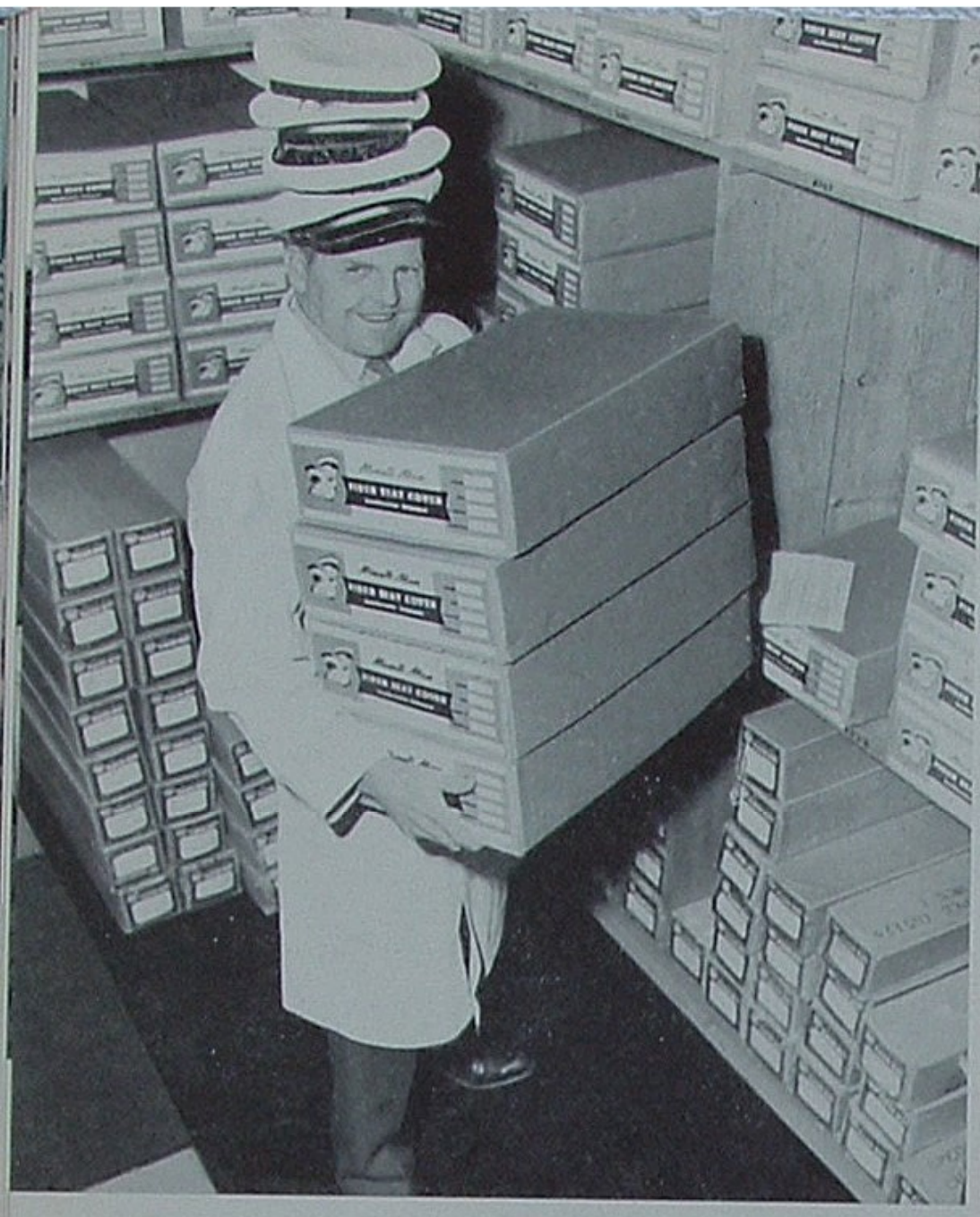
A Northwest Territory innovation this year was to insist that all retail representatives attend in formal attire.

The Hadfields, operators of a Union station started by their father in 1917, were regaled by W. E. Davenport.

Accordionist Jewel Eberle and Doris Drew entertained prior to Roy Linden's, center, more serious discourse.

Seattle

Union Oilers



WAREHOUSE MANAGER The ability to do four things at once should speed Einar Hansen, left, toward success in his new job as Minute Man Warehouse manager in Seattle. Einar, who joined the Company in 1941, has run the gamut of service station jobs up to manager. With many another Union Oiler he took time out to help Uncle Sam square some overseas accounts; then returned to managing and finally leasing a Seattle service station. Although very successful as a lessee, he chose to make a career within employee ranks of the Company. Dealers who obtain their merchandise from the shelves of Minute Man in Seattle will find Einar well qualified through pump island experience to supply them with the right goods in the proper amount.

by Gudrun M. Larsen

ROYAL WELCOME It was the continuous flow of Royal Triton from a can suspended in thin air that stopped 'em at the Kanoehe 4-H Fair in Honolulu. The electric plate at left demonstrated virtues of Unoba Grease. And Barney Schwalm, behind camera, had 'em sign on the dotted line.

by Everett Smith

WORD FROM WISE Charles J. (Chuck) Dalzelle, left, received a little paternal counsel from T. G. (Tom) Wise, district sales representative, before stepping into his new assignment as retail representative at Corvallis. A dilly-dallying stork held up Chuck's transfer for 30 days.

by Gudrun M. Larsen

"7600" Robert L. Philippi, former Union Oil employee, is a Mercury-Lincoln dealer in East Oakland. One of Bob's sedans, entered in a recent stock car race, broke the world's record for a ⅝-mile dual-bank track, being clocked at 85.09 miles per hour by the American Racing Association. Driver Johnnie Soares, above, also led the 250-lap event until a collision of two other cars forced him to second place on the 195th lap. The record breaking car was "7600" fueled.

by Everett Smith

T-5-X The Boise Bus Company's (l-r) Willy Carstens and Earl Turner and Union Oiler C. A. Johnson are qualified boosters of T5X. More than eight times around the world, 200,500 miles to be exact, without need of an engine overhaul is the record of this Twin Coach bus. Seven similar busses have exceeded 150,000 miles, showing cylinder wear of less than .006 at this mileage. All have been powered and lubricated with Company products exclusively. Their T5X Motor Oil is changed each 4,000 miles.

by Gudrun M. Larsen

SERVICE BIRTHDAY AWARDS

MARCH, 1949

Thirty-Five Years

Herbert, Chas. B., Cent. Div. Auto.
Schmitz, Peter J., So. Div. Field

Thirty Years

Caldwell, Chas. F., No. Div. Pipe Line
Irwin, Ole O., Valley Div. Field
Lorimor, Leonard L., Central Territory
Ness, Sigurd O., Coast Div. Field
Quinn, John M., Oleum Refinery Mfg.
Sacca, Manuel G., Oleum Refinery Mfg.

Twenty-Five Years

Anderson, Leonard J., H. O. Comptroller's
Boness, Harry E., Valley Div. Field
Colby, Glen V., Central Territory
Lockwood, Walter H., Valley Div. Field
Ruggles, Herbert C., No. Div. Pipe Line
Smith, Mounce F., Valley Div. Field

Twenty Years

Bills, Hilda H., Northwest Territory
Bjelland, Gerhard O., No. Div. Auto.
Francis, Webster, L. A. Refinery Mfg.
Glendenning, Howard L., Southwest Ter.
Gluyas, Wm. H., Valley Div. Field
Gray, Andrew D., Northwest Territory
Jones, Frank R., Research-Wilmington
Lindsey, Chas. W., H. O. Comptroller's
McFaddin, Don E., Coast Div. Field
Moffitt, Earle F. Southwest Territory
Moran, James C., L. A. Refinery Mfg.
Pate, John B., So. Div. Pipe Line
Stirling, Alene, Southwest Territory
Windes, Noel, So. Div. Pipe Line

Fifteen Years

Baldwin, Leo E., Oleum Refinery Mfg.
Bergvelt, William, L. A. Refinery Mfg.
Bowie, James D., Oleum Refinery Mfg.
Brenchley, Reginald, Southwest Territory
Brown, Fred W., Oleum Refinery Mfg.
Gobby, Wm. M., Central Territory
Ham, Thomas D., Southwest Territory
Hamilton, Clarence E. Oleum Ref. Mfg.
Lippens, Chas. E., L. A. Refinery Mfg.
Lundstrom, Roy L., Northwest Ter.
Neely, Samuel R., Oleum Refinery Mfg.
Nuzman, Frank C., Oleum Refinery Mfg.
Petersen, Porter I., Oleum Refinery Mfg.
Prolo, Joe, Oleum Refinery Mfg.
Shuck, Hugh N., So. Div. Auto.
Simonson, O. Clifton, So. Div. Field
Stull, Clarence J., Southwest Territory
Thompson, Chas. W., Oleum Ref. Mfg.
Tyler, Eugene R., Oleum Refinery Mfg.
Williams Harold S., Head Office Field
Wilson, Harold N., L. A. Refinery Mfg.

Ten Years

Beauchamp, David D., Central Territory
Miklich, Anton J., Cut Bank, Mont.
Oswalt, Geo. D., Northwest Territory
Podoll, Adolph, Cut Bank, Mont.
Poe, Herman, Southwest Territory
Robeson, Lawrence J., Southwest Ter.

Worthwhile accomplishment can be read in the feature
of a field engineer when he sees a blueprint transforme
into something new and productive. Don E. McFadde
who guided the dry ice plant at Santa Maria to com
pletion, is your man.