

SEVENTY SIX 
UNION OIL COMPANY OF CALIFORNIA

FEBRUARY 1964



Gulf Division Pioneer



The Union Oil Company entry in the 1964 Tournament of Roses was titled "Spirit of '76." In flowers, it depicted the drummers and fife player famous from a Revolutionary War painting. Here the float sits for its portrait just before parade time.

Symbol of Freedom

THE SPLENDOR of the nation's No. 1 floral pageant, combined with the marvels of the electronic eye, has transformed the habits of the American people on New Year's Day.

Thanks to the television camera, nearly half the people in the United States could witness the 62-float, live spectacular that is Pasadena's Tournament of Roses.

For its diamond anniversary this year, the tournament chose the theme "Symbols of Freedom." Appropriate to this theme was Union Oil Company's third-place winning entry, "Spirit of '76." The brightly flowered float depicted the drummers and fife player of the Revolutionary War era.

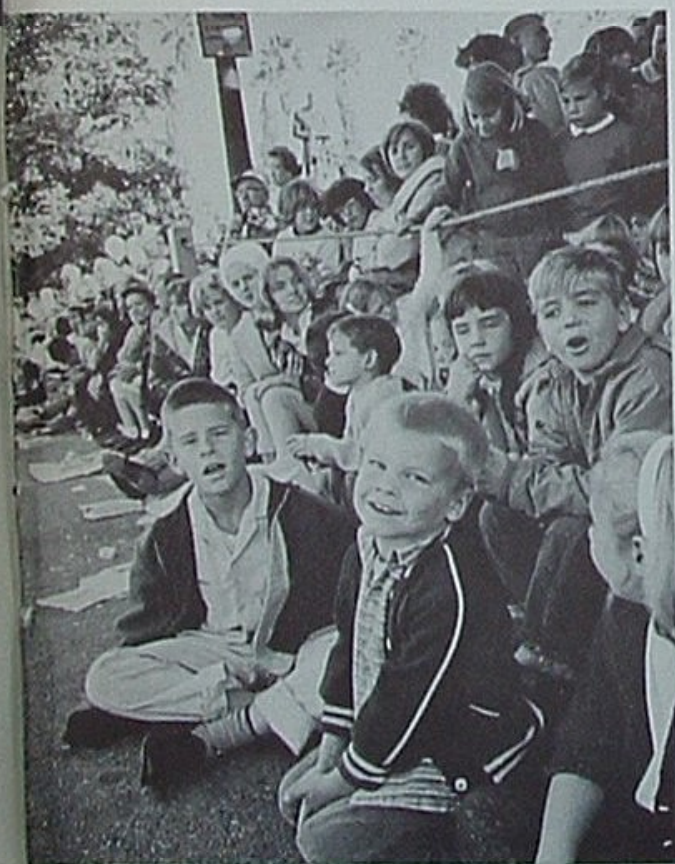
In the unlikely event you weren't one of those nearly 80 million TV witnesses, here is a pictorial record of some highlights of the Rose Parade.

A ruddy, grinning Dwight D. Eisenhower led the parade as grand marshal. Bareheaded, the former President and general of the army rode in an open, rose-colored convertible beside his wife, Mamie.



One of the final tasks before the parade starts is "topping off" the fuel tanks on the floats. Union Oil Company supplied the gasoline for the 62 participating floats in the 75th Tournament of Roses.

The Rose Parade is always a favorite with the younger folk, many of whom manage to slip in front of the barricade ropes. Police estimated the crowd along Pasadena's Colorado Boulevard at more than one-and-a-half million persons.



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is a Union Oil Company of California trademark. It also symbolizes the American freedoms won in 1776, which made possible this nation's industrial development and abundance. Our SEVENTY-SIX magazine, published monthly, mirrors industrial freedom through the thoughts, skills, accomplishments and appreciations of Union Oil people. We invite readers to participate with us in an exchange of ideas and information. Address correspondence to The Editor, SEVENTY-SIX, Union Oil Center, L.A. 17, Calif.

COVER: Our cover sketch by artist Wes Parlee depicts oil hunter San Grinsfelder against a background of Union's activities in the Gulf Division. Story on page 2.

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Company's early oil discovery on Gulf Coast is model of

Vinton

PHOTOGRAPHS BY TOM CARROLL



At Vinton Field discovery well are, l-r, Clyde Aycock, Elie Courville, Harry Barrios, Woodson Hardin, Robert Finn, M. S. Johnson, Mitchel Parrish and Royce Broussard. Most have operated the field since its beginning.

will yield 76%

VINTON FIELD, LOUISIANA

TIME MARCHES ON! It was exactly a quarter-century ago, in February, 1939, that Sam Grinsfelder was asked by his exploration and production chief, Cy Rubel, to begin a Union Oil exploratory effort along the Gulf of Mexico.

Sam, now a retired vice president, hesitated only an instant. He had spent several years on a company assignment in Texas and felt most of that effort was in vain. To tackle the job of finding commercial quantities of oil along the soggy Gulf Coast, he knew, was tougher if not formidable. Rubel, today president of Union Oil, assured him the company was eager to broaden its petroleum resources and would back his effort to the limit.

A picture published the following year in the August 1940 issue of this magazine testified of Manager Grinsfelder's good beginning. Along with Sam in the "Texas Gang" photo were Dudley Tower, J. E. "Sonny" Suttles, Wayne Burkhead, Lon Cartwright, Don Hofmann, Leslie Bowling, Harold Mitchell, Mrs. T. C. Hickey and Lydia Marquis. Of these, Grinsfelder, Suttles and Mrs. Hickey, now Mrs. Temple Young, are still with Union Oil. Sam describes them as "one of the best and most loyal groups I've ever worked with."

They were smiling, these ten—possibly to please the photographer. More probably their feelings ran deeper. Because in July 1940 their very first exploratory well, Walter White Heirs No. 1, penetrated good oil and gas sands 10,500 feet under East White Lake and came in as a producer.

Sam admits, "We were lucky on this one because the lease owners, Louisiana Land and Exploration Company, had already drilled two dry holes on the property and had started the Walter White Heirs No. 1 we completed as a producer. They wouldn't even let us look at their core samples until we agreed to accept a *farmout* on a block of some 17,000 acres and also prospect a 15,000-acre tract at Freshwater Bayou. Both properties, located in the marshes of Vermilion Parish, Louisiana, were destined to add important oil and gas reserves to the Union Oil larder."

Additionally these Gulf Division pioneers at Houston were looking speculatively at a salt-dome acreage on cattle-ranch land belonging to Mrs. Matilda Geddings Gray at Ged, just outside of Vinton, Louisiana.

The importance of that beginning—which seems like a quarter-century ago or only yesterday, according to how old you are—is best illustrated by the scope of our Gulf Division's operations today:

The Gulf Division encompasses all or part of seven states. Oil fields developed in the area by Union alone or in partnership with others total sixty. Our net production from these fields, heavily restricted by state controls, amounts to nearly 30,000 barrels of crude oil, condensate and natural gas liquids a day.

Even more significant are the division's gas discoveries, amounting to 450 million cubic feet daily and more than doubling the company's reserves of this increasingly valuable commodity.

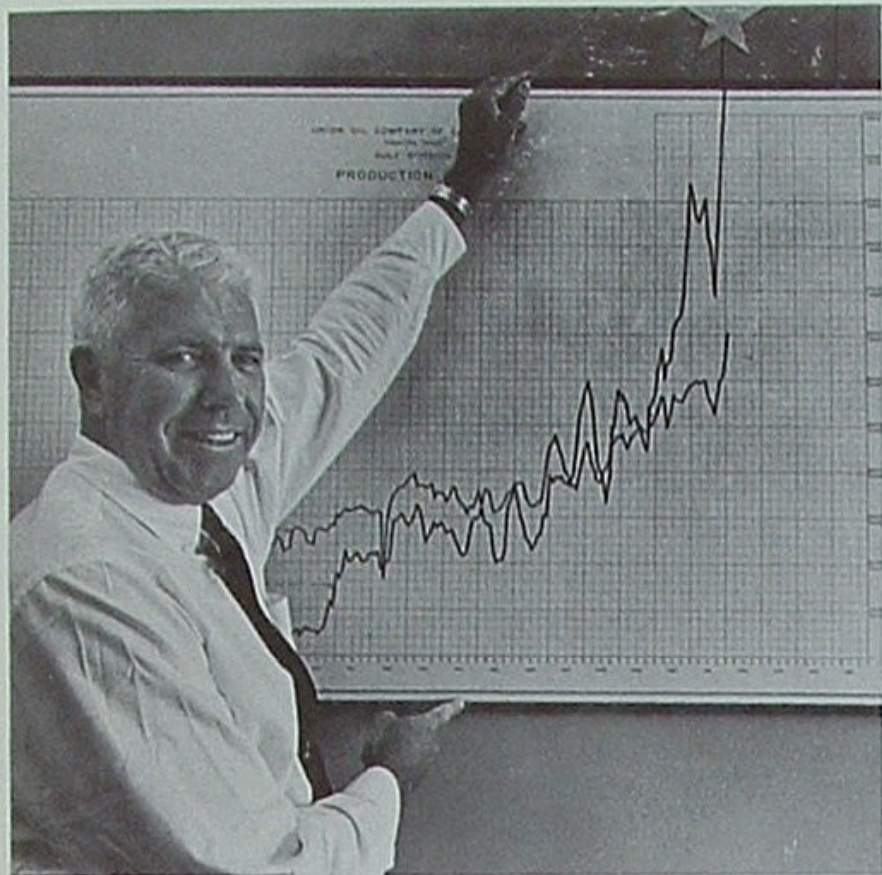
As recently computed, Gulf Division's reserves of crude oil, condensate and natural gas liquids—together with natural gas expressed in equivalent barrels based on realization prices—amounted to 344 million barrels, or about one-third of the company's total.

High Yield at Vinton

Nearly all of Gulf Division's sixty-odd fields have interesting stories to tell. But Vinton Field, one of our oldest and most important oil discoveries there, is of special note:

Actually the original Vinton Field, called Ged Dome, was one of the industry's earliest oil discoveries in the Gulf Coast. Drilled first in June 1910—only nine years after Spindletop, the famed Lucas Gusher, blew wild and burned at nearby Beaumont, Texas—Ged Dome rewarded its drillers with rich quantities of oil trapped above and on one flank of a large salt plug. Sands on top of the dome gave up some 50 million barrels of crude oil. A portion of the field, known as Green Acre, had produced one of the highest crude oil yields in U.S. Petroleum history. But

continued



Manager of Production Ed Sands at Houston points to an inadequate chart showing growth of Union's gas and oil position along Gulf.

Vinton *continued*

when Union Oil entered the scene in 1939, the oil field was considered nearly depleted.

Grinsfelder and his team of geologists suspected there might be more oil on other flanks of Ged Dome. The spot they proposed to drill was on the 50,000-acre cattle ranch belonging to Mrs. Gray.

Subsequent drilling on the property over the west flank of Vinton Dome resulted in two dry holes. Then, in 1942 on the third try, over the north flank, the drillers hit pay sand. Among the most surprised witnesses of this new drilling success were veteran operators of old Ged Dome, only 200 yards away, who had long considered the north flank dry as a bone.

Our discovery well, Matilda Gray No. 3, has been followed over the years by 95 wells, nine of which were dual completions (two wells in one). Of these 105 total wells 15 were dry holes. From the 90 producing wells, Vinton Field has accounted to Union for nearly 30 million barrels net of crude. It is estimated that another 14 million net barrels will be produced before the field is abandoned.

As reservoir engineers at Houston were giving us these production figures and estimates, another question suggested itself: How much oil will be left in the ground when we finally pull up stakes and abandon Vinton Field?

While one of the engineers was poring over records and figuring the answer with a calculator, a co-worker explained:

"Vinton is an extraordinary field. Its oil sands are highly permeable and porous. This, combined with its excellent

natural water drive, permits a most effective sweep of oil from the sands. We have been able to maintain the reservoir pressure within 100 pounds of its discovery pressure. We've subjected the field to the best—you'd say *finest*—well spacing and production techniques the industry has to offer.

"Here's another important fact. The local people we have trained as field operators have proved more than equal to the task. I believe, if you were to check on it, that nearly the entire crew at Vinton has stayed with the field since its beginning.

"All of such factors contribute to an oil field's success. And Vinton may come very close to establishing a production efficiency record for the oil industry, which regards a 50 per cent recovery as excellent.

"Do you have the figures yet, Don?"

J. Donald Clark, chief resident engineer at Houston, turned toward us with a broad smile:—"Being a staff member of SEVENTY-SIX, you'll hardly believe this when I tell you. Nevertheless, the calculator comes up with quite an interesting figure. Based on our best estimates of the oil in place and the amount we expect to produce, Vinton Field will yield exactly 76 per cent!"

THE END

Engineers Bernie Brauer, Donald Clark, Guion Kleinpeter and Richard Lembcke keep statistical watch over Vinton.





'FILL IT WITH UNIGAS?'

SAN CLEMENTE, CALIFORNIA

OUR TITLE is the question you'd be asked on driving into dealer Steve Snyder's Union service station at San Clemente, California, with a camper or trailer.

Steve, you see, is one of the first gasoline dealers in Union's western sales area to offer LP-gas service. With the cooperation of our people at Unigas, a Union Oil subsidiary, he has installed a large container of liquefied propane. The tank reclines glistening white behind a neat link-fence enclosure. Through a safe and simple dispensing system, perfected by long Unigas experience, it will quickly replenish the fuel tank of any vehicle or appliance requiring LP-gas. A wide, circular driveway leading to the tank makes this service particularly attractive to motorists with trailers in tow.

LP-gas, in case you're not aware, is a high-quality, clean-burning petroleum fuel. Normally gaseous, it can be stored in liquid form by holding it under a few pounds of pressure.

The Unigas product is now widely used in camp trailers for heating and cooking purposes. It is popular with hunters and sportsmen as a great improvement over firewood. In industry, plumbers, roofers, street repairmen and contractors are depending more and more on LP-gas to do the job cleanly and quickly.

This will give you some idea of the potential business Steve Snyder is gunning for:

In the West there are approximately half a million camp-

ers and trailers on the move during vacation season. Even during the off-season a large proportion of these mobile homes are used for weekend adventures or for spare rooms or for all-year homes. Nearly all depend for fuel upon one or more five-gallon containers of LP-gas.

Steve Snyder is simply making the refueling job easier than ever before. In one stop the customer can fill his gasoline tank with "76" and his trailer tank with Unigas, charging both purchases on a Union Oil credit card.

Vice President C. Roland Usher and Sales Representative James R. Mullen of Unigas, Inc., who are developing this new service throughout the Union Oil system, predict it will bring many appreciative customers into the fold and contribute to dealer success, particularly in the West's resort areas.

THE END

Customers may now buy LP-Gas for their trailers and "76" for their cars in one stop—at this Union station in San Clemente, above. Pioneering the new service is Unigas, whose C. Roland Usher and James R. Mullen, below, are helping Dealer Steve Snyder get started. Unigas plans many similar installations.



When the flood disaster struck Los Angeles,



THESE MINUTE MEN TURNED TO LIFE SAVING

THERE WAS ample time—an hour or so—for nearly everyone to evacuate the threatened Baldwin Hills Reservoir area and reach safety or high ground. The police, with their patrol cars, sirens and loud-speakers, had seen to that as soon as word of the impending reservoir break had been confirmed.

But the Union Oil crew at dealer Jack Galley's "76" service station, La Brea and Rodeo streets, decided not to run. A few nearly-out-of-gas cars continued coming in for emergency fills. Scores of people were inquiring which way the flood might come and where to find safety. And there were a worrisome too many pedestrians and motorists either unaware of the peril or ignoring it.

On duty with Jack Galley were Royal King, Glenn Jensen and the service station bookkeeper, Terry Logudice. They continued manning the gasoline pumps and answering all inquiries, meanwhile keeping an eye cocked for any wall of water that might come sweeping down from the nearby hills.

When the reservoir bank did burst and flood water came pouring down both of the intersecting streets, Jack recalls it did not seem too frightening. Fortunately, because the embankment gave way gradually, there was no terrifying wave. The water flowed more like a swift river, filling the streets from curb to curb and gradually rising to a depth of two or three feet inside the station office.

At that stage of the disaster, so many things were happening the crew hardly thought of their own safety:

A thousand varieties of debris—things that float and things that aren't supposed to—began accompanying the tide. Furniture, cans, tanks, refrigerators, stoves, television sets and automobiles were swept through the rapids like buoyant rafts. Even a heavy roller of the type used to repair asphalt-paved streets bobbed now and then to the surface on its voyage downstream.

At first Jack and the boys began grabbing for cans of oil and service station equipment that threatened to wash away. But presently their attention was arrested by far more precious victims of the flood—people. Some were wading to their armpits in the swift current. Others sat

helpless in floating automobiles or stood signaling from the tops of their stranded cars.

Terry Logudice, the bookkeeper, who had found a questionable haven of dryness atop her tall service station desk, became one of the nearest eyewitnesses of the tragedy. This is about how she described it:

"Jack and Royal and Glenn waded out toward deep water in the streets to help women and children get out of their cars and reach higher ground. At the peak of the flood the men actually had to swim. One woman sat in her car waving for help until Glenn went out and rescued her. Why, at one time we must have had 25 people right here in the station, standing in waist-deep water.

"Then we noticed a car come floating down the street toward that big hole (a sewer repair excavation) in the middle of Rodeo. There was a woman in the car.

"A soldier saw the woman's predicament before we did. Just as the car's front wheels went over the edge of the hole, he reached it and held on with all his strength to keep it from going down completely.

"Royal King didn't hesitate a second. He waded to the curb and then actually swam out to help the soldier. But just as he got there, the car slipped into the hole and sank out of sight.

"That poor woman was one of the few who lost their lives. And Royal came very close to losing his. As he swam back toward the station we saw him go under once and thought for sure he was gone. But he came back alive—to our nice cozy three feet of quiet water.

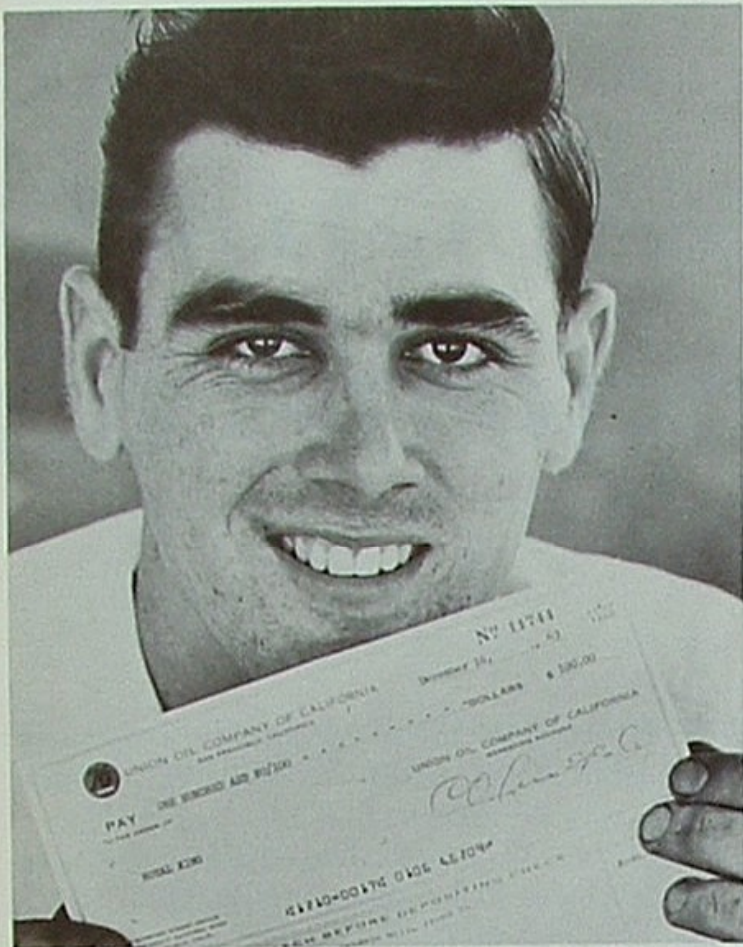
"If it hadn't been for these three Union Oilers, I believe the death toll would have been greater."

The valiant Minute Man crew stayed with their "good ship 76" until the flood subsided and there were hundreds of firemen and volunteer rescuers to take over. They were back the following Sunday to assess the damage, lend a hand, and plan a speedy reopening of the station.

Perhaps one of their proudest moments came when Union Oil presented them with \$100 checks and the company's congratulations—for valorous Minute Man service far beyond the call of duty.

THE END

Dealer Jack Galley shoveled away part of the Baldwin Hills reservoir embankment a day following the disastrous flood.



Besides replacing the dealer's lost stock and tools, Union Oil presented \$100 checks to Royal King and Glenn Jensen "for heroic work in saving lives and property." Eyewitness to their daring rescues was Terry Logudice (right), bookkeeper, who watched the flood water rise to within inches of her desk top.

Photo taken as the flood neared its crest shows "76" station just beyond rapids.



Organization changes elevate...

TOWLER, VAUGHAN TO SENIOR VICE

ON DECEMBER 30, 1963, Union's Board of Directors elected two vice presidents to the title of senior vice president.

The men are John W. Towler, named senior vice president in charge of the Refining and Marketing Division, and Kenneth C. Vaughan, named senior vice president in charge of the Exploration and Production Division. In their posts, Towler and Vaughan will head the two major profit centers within the company. Both men report to Executive Vice President Fred L. Hartley.



John W. Towler

Kenneth C. Vaughan



PRESIDENTS

Towler had been named responsible for the Refining and Marketing Division on November 27, 1963. He succeeded Fred L. Hartley upon the latter's election to the position of executive president two days earlier.

Vaughan, in the Exploration and Production post, succeeds Dudley Tower, who resigned at the December 30 board meeting as a director and senior vice president.

At the January 27, 1964, meeting, the Board of Directors elected Vaughan as a director and member of the Executive Committee.

J. W. Towler joined Union Oil in 1933 as a laborer at Los Angeles Refinery following graduation from the Air Force Flying School and a tour of duty as a second lieutenant. He was graduated from the California Institute of Technology in 1930 with a B.S. in mechanical engineering. From 1934 to 1941, Towler worked in various capacities up to chief refinery engineer at Oleum Refinery. He was recalled into the Air Force during the second World War, where he rose to the rank of colonel. After the war, he returned to L. A. Refinery as chief refinery engineer. In 1953, he was named manager of Oleum Refinery; three years later he became manager of L. A. Refinery, and two months after that was named director of refining. In 1960 he was elected vice president of refining. In November, 1963, he was put in charge of the Refining and Marketing Division. Towler was born in Sturgis, South Dakota, on February 10, 1907.

K. C. Vaughan also joined Union Oil in 1933 as a well-puller following graduation in 1932 from petroleum engineering studies at the University of Southern California. His 30 years of company experience includes assignments as production superintendent in California, manager of field operations in the Pacific Coast Division, and manager of the Natural Gas and Gasoline Department. Since 1959, he has been manager of the company's Gulf Division, with headquarters in Houston. In January of 1962, Vaughan was elected a vice president. Kenny, as he is known to most Union Oilers, was born at Potter Valley, California, on June 11, 1909.

BOWDEN TO MANAGER OF GULF DIVISION



Charles F. Bowden

NAMED BY Ray A. Burke, vice president in charge of the Exploration and Production Department, to succeed Kenneth C. Vaughan as manager of the Gulf Division is Charles F. Bowden.

Bowden joined Union Oil in 1939 as a petroleum engineer following graduation from Pennsylvania State College. Advancing from division petroleum engineer for Southern California in 1950 and chief petroleum engineer in 1955, he served as assistant to the vice president for production from 1960 through 1961.

Since then, he has been manager of the company's Central Division headquartered at Midland, Texas. He was born in Grove City, Pennsylvania, on April 15, 1910.

KEEGAN TO MANAGER OF CENTRAL DIVISION

TO FILL C. F. Bowden's spot at Midland, Texas, Ray A. Burke of the Exploration and Production Department appointed Harry E. Keegan as manager of Union's Central Division.

Keegan joined the company as a trainee in 1948, following graduation from the University of California as a petroleum engineer. After serving in numerous field operating positions in California, he was named division superintendent at Tulsa, Oklahoma, in 1959.

In December, 1962, Keegan was transferred to Midland as division superintendent. He was born in Alameda, California, on November 17, 1922.



Harry E. Keegan

We buy insurance by the crate

Having a \$22,000 spare part on the shelf is good business even when you're keeping a tight rein on inventories.

LOS ANGELES REFINERY

YOU CAN BUY insurance against practically anything: holes-in-one during a golf tournament, rain during a football game, the birth of triplets, and the fanciful antics of drivers on West Coast highways. Union Oil buys insurance, too—and keeps it in a crate.

Take that piece of machinery in the crate beside Lou Knudsen in the photograph at the upper right. Lou is supervisor of supplies at the Los Angeles Refinery. The crated part is a \$22,000, precision-made, one-of-a-kind insurance policy.

Knudsen calls it a “rotating element,” and it’s the heart of a big blower that circulates hydrogen-rich gas in the Unifiner-Platformer Unit. (The Unifiner-Platformer combination is part of the hydrogen refining process for making our patented, exceptionally clean, exceptionally powerful gasolines.)

If the blower breaks down, a gasoline plant is out of business. To get a new rotating element takes nine months. The money Union Oil could lose waiting for the part—or the money it could spend buying a spare for the entire blower—makes the cost of warehousing a \$22,000 item look like small change.

In warehouse language, the crated part is “insurance stock.” Insurance stock is anything we can’t be without when we need it. “Anything” ranges from the costly rotor to the small white plastic ring Lou holds in his hand, a \$20 mechanical seal part for a pump.

Insurance stock is one element Union Oil’s supply people weigh on the scales they call “inventory control.” The idea behind successful inventory control is to have on hand *as much* as you need . . . of *what* you need . . . *when* you need it. And no more.

Union Oil’s purchasing men figure the cost of keeping an item—a valve, a piece of pipe, a tool—on the shelf for a year adds up to 25 per cent of the original cost of the item itself. That 25 per cent is made up of warehousing, of de-

preciation, obsolescence, deterioration, taxes—and the loss of earnings.

So on one side of their inventory scale go “insurance stock” or those items that are just good business to have on hand; “working stock” that moves into the warehouse and out again regularly; and “quantity discount” items where savings made in buying quantity more than offset the cost of warehousing.

On the other side of the scale go dollars: the investment in inventory *plus* the money those same dollars could earn if they were put to work building service stations, digging oil wells, or even gathering interest in a bank.

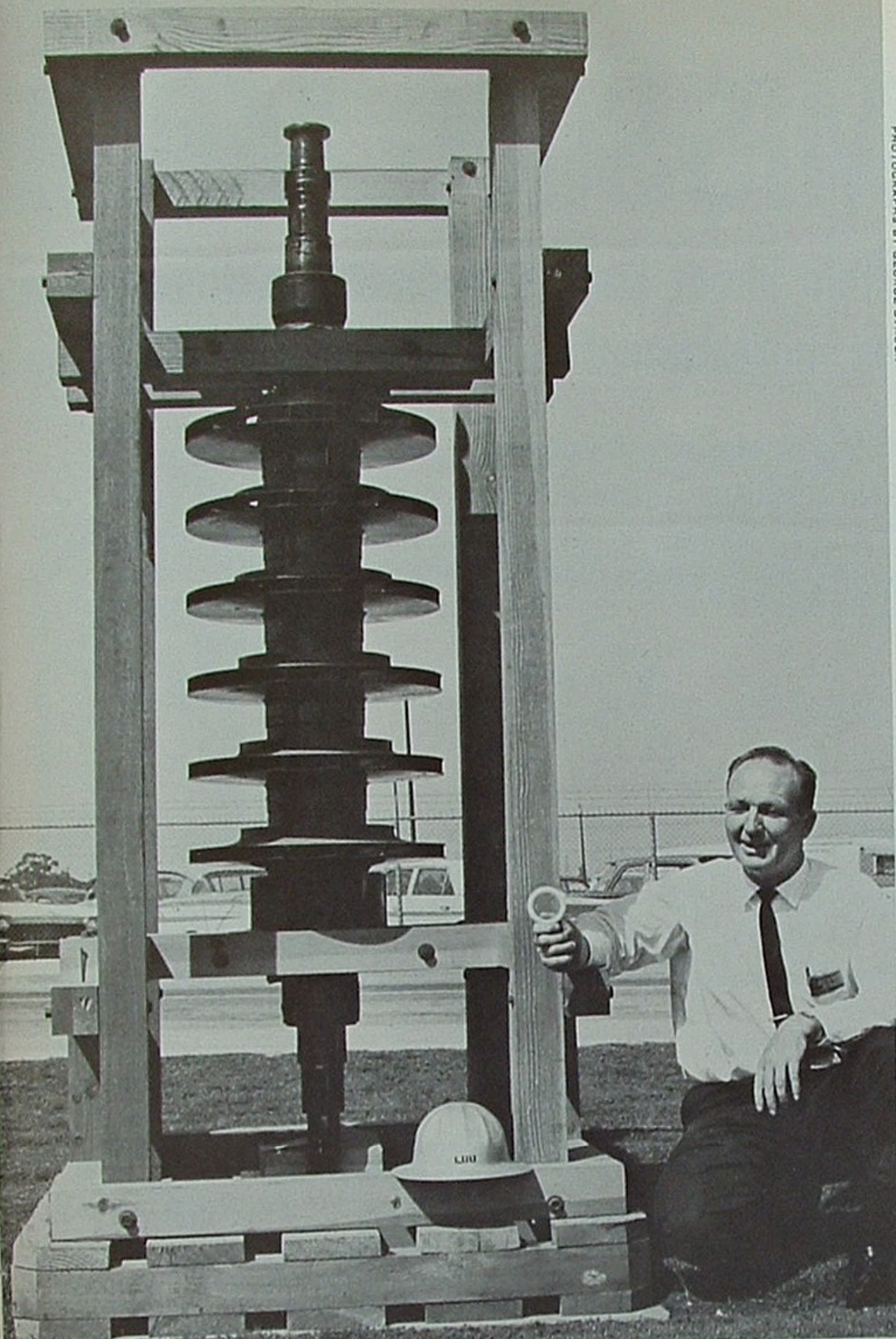
In recent years, inventories have been getting lighter and lighter. And, as a result, the stack of dollars on the other side of the scale has been getting lighter, too. Why the lighter inventories and the fewer idle dollars? Some of the reasons:

We bring material into warehouses as close as possible to the time it’ll be used. It doesn’t gather dust on the shelf! (The valves senior warehouseman Bill Schweickhardt is inspecting are an accumulation of reconditioned and new items being assembled for a turnaround—an overhaul of a thermal cracking plant. The valves and other material for the turnaround are bought on a short, highly planned time schedule.)

Whenever possible, we standardize on the equipment we use, thereby reducing the cost and quantity of spare parts required. (For example: The plastic seal in Knudsen’s hand may fit ten different pumps.)

We contract for an entire year’s requirement of certain materials. The winning bidder carries the inventory and delivers the material as we order it. Everybody gains. He’s assured a definite volume of sales; Union Oil doesn’t tie up money that could be working elsewhere.

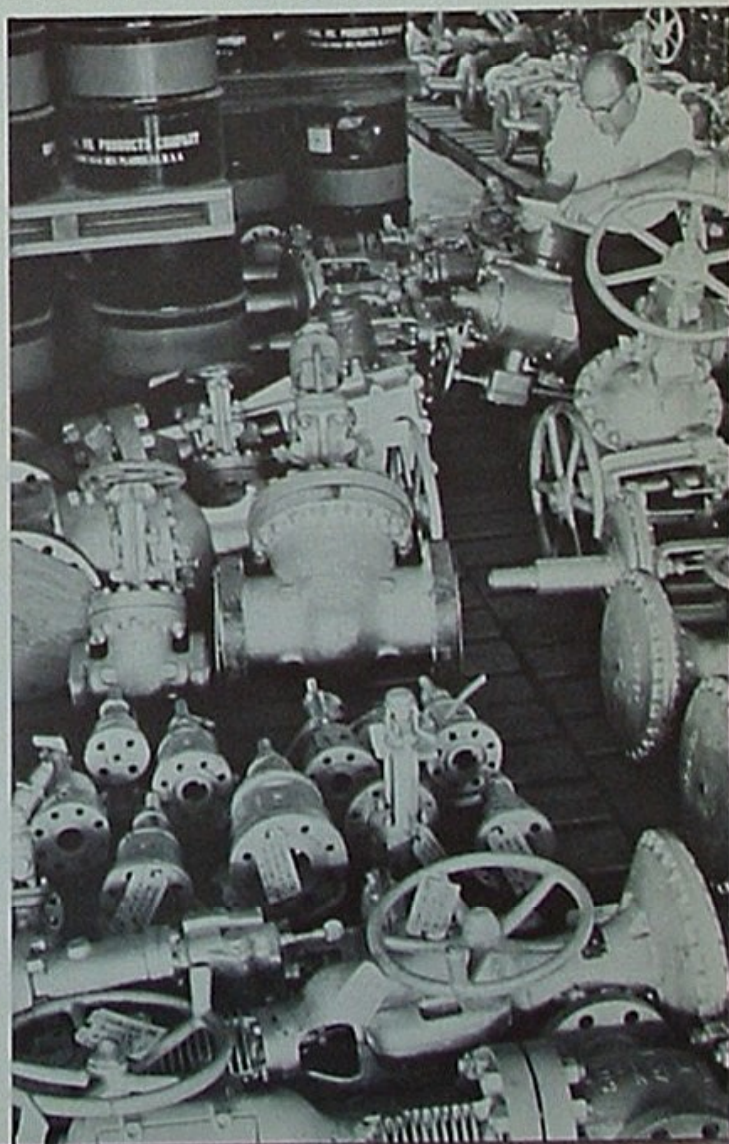
This last approach is a real money saver. Six years ago the company had \$150,000 worth of condenser tubes sitting



PHOTOGRAPHS BY GEORGE STROCK

Lou Knudsen, supervisor of supplies at Los Angeles Refinery and some of his "insurance stock:" A \$22,000 part for a blower and a \$20 mechanical seal.

Bill Schweickhardt is checking off pallets of valves ready to move from warehouse to a thermal cracking plant.



on pipe racks in the refineries. Today, its investment in tubes is negligible—yet, if they're needed, we can get them from a supplier immediately.

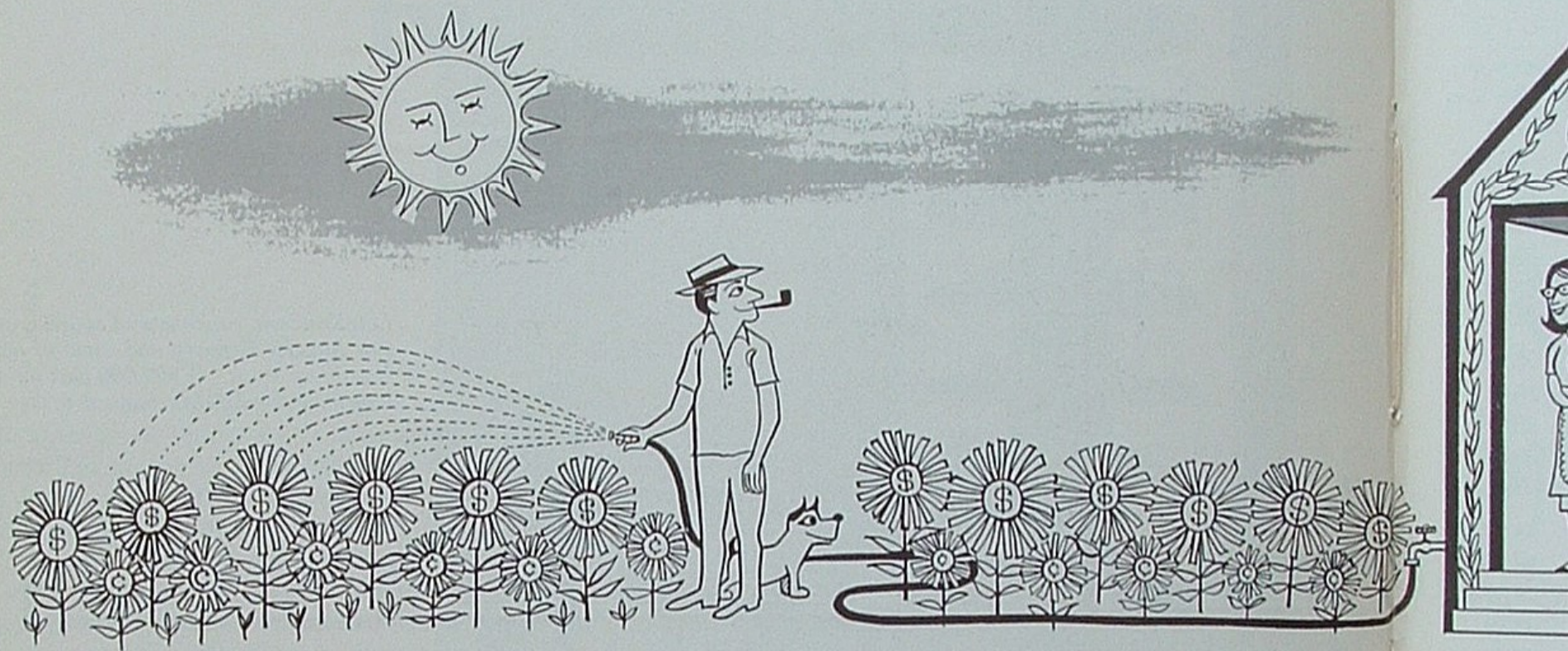
To give you an idea what tight inventory control means to the company in dollars: Back in 1957, Union Oil had \$7 million tied up in inventory of materials, principally in tubular products and equipment spare parts. In 1963, the inventory will average out around \$2 million—including those twenty-two thousand insurance dollars that are kept in the crate.

The difference between 1957 and 1963 is \$5,000,000—dollars that have been freed to make more money for Union Oil as service stations, oil wells, or perhaps new refining plants at Los Angeles Refinery itself.

THE END

YOUR MISSING MONEY: ^{\$}

This is the final article about payroll deductions. It explains your Retirement Plan. Union Oil contributes more than four dollars to the Plan for every dollar you contribute.



SEVEN ISSUES ago, we started this series about your missing money, the dollars subtracted from your check by payroll deductions.

In that time we've worked our way through all 25 boxes on the paycheck stub except one: the deduction for the Retirement Plan.

We covered the deductions required by law—including the big bite for federal, and in some cases, state and local income taxes. (One of these required deductions, Social Security, is also involved in the Retirement Plan.)

We've covered your voluntary deductions: those for benefit plans and those that make it easy for you to pay bills—union dues, credit card and credit union payments, and so on.

Now let's look at the only plan for which Union Oil requires a deduction: the Retirement Plan.

The aim of the Retirement Plan is to give you and your family a higher standard of living after you retire than you could enjoy from Social Security and your savings alone. If you leave the company before retirement, it becomes either a savings plan or a retirement plan.

Like other plans, the Retirement Plan becomes complicated when you go into detail; it's tailored to meet the varying needs and desires of many employees. In this article, we can touch only the basic points. If you have a question

about your personal situation, please read the Retirement Plan booklet or talk to your personnel representative.

Must I join the Retirement Plan?

Yes. As a full-time employee, you must join the plan on the first day of the month after you complete one year of service.

What is the normal retirement age?

The normal retirement age is 65, for both men and women.

However: Women who were members of the plan before January 1, 1964, have an option. Their normal retirement age is still 60, but with company permission they can work to the 65-year maximum. By working extra years, they increase their retirement income under the formula given in the next answer.

How much income do I get when I retire at the normal age?

You get a monthly income figured this way:
Take your average monthly rate of pay for the five highest-paid consecutive years in your last 10 years before retirement. Multiply this number by 1.8 per cent. Multiply the result by your years of continuous service with the

company's
ment income

Say a man
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retirement

Such a man
\$64,210. For

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The retirement

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Retirement

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You and

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Can I retire

Yes. The

and women

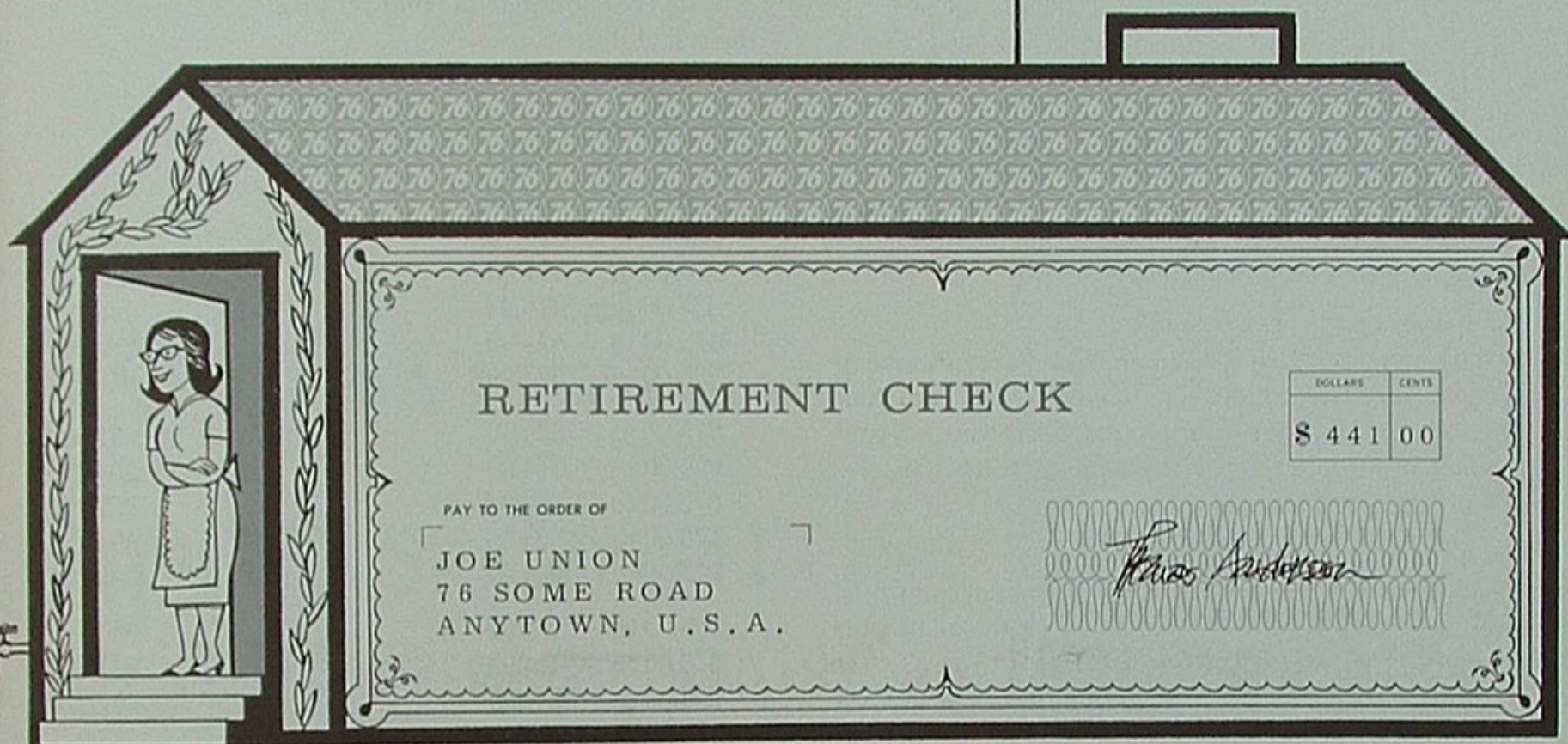
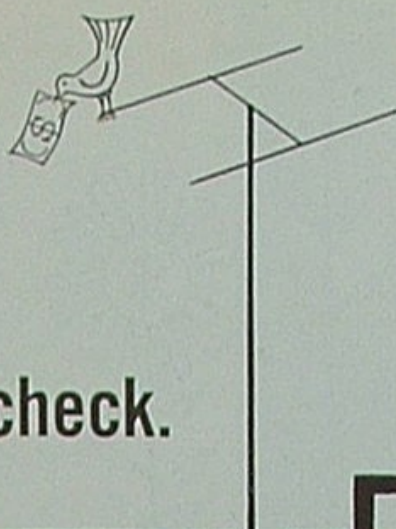
the old plan

If you re

income is r

because you

your Retirement Plan, and how every dollar deducted from your check.



company at retirement. The answer is your monthly retirement income. Here's an example:

Say a man's pay for those five years averages \$700 a month. At retirement, he's been with the company 35 years.

$\$700 \times .018 = \$12.60 \times 35 \text{ years} = \441 , his monthly retirement income.

Such a retirement income would cost a 65-year-old man \$64,210. Further, in just 20 months, he'll get back all the money he put into the plan!

What part does Social Security play?

The retirement income in the last example—\$441—includes income from the Retirement Plan and from the primary Social Security benefit. Of the \$441 total, the Retirement Plan pays \$316 a month, Social Security pays \$125 a month.

You and the company each contribute the same amount of money toward your Social Security.

Can I retire before 65?

Yes. The minimum retirement age is 55 for both men and women. (Women who were eligible to retire under the old plan at 60 retain their 50-year-old minimum.)

If you retire early, you receive a smaller income. Your income is reduced because it must be paid longer—and because you've contributed to the plan for a shorter time.

Here's a table showing the special percentage that applies if you retire early.

WOMEN WHO WERE MEMBERS BEFORE 1/1/64	ALL OTHER MEMBERS	SPECIAL PERCENTAGE
60 to 65	65	100
59	64	97
58	63	94
57	62	91
56	61	88
55	60	85
54	59	78
53	58	71
52	57	64
51	56	57
50	55	50

Getting back to the example we used before:

Say the man had retired at 60. At that age, he'd have 30 years with the company. For simplicity, let's assume his salary averaged \$700 a month for those five years. To get early retirement income:

$\$700 \times .018 = \$12.60 \times 30 \text{ years} = \378 dollars a month. According to the table, if he retires at 60 he gets 85% of this amount or \$307.90 a month.

continued

YOUR MISSING MONEY *continued*



He'll continue to receive the \$307.90 throughout his retirement. After he's 65, the amount of the company's payments will be reduced by the amount of Social Security for which he would then be eligible.

How long is my retirement income paid?

As long as you live. If you die before or after retirement, your beneficiary will receive an amount no less than your contributions to the plan plus interest. Or you or your beneficiary may elect a form of payment which will give your beneficiary an income for life.

What if I leave the company?

If you leave the company before retirement, you may receive the total of your contributions to the plan plus compound interest.

Or...you may leave your contributions on deposit with the insurance carrier and receive a paid-up annuity at retirement age.

Then, there are the "vested rights." After a certain period you are entitled to a share of the company's contributions. So...

If you have been with the company 10 years, you may elect to receive at retirement age a paid-up annuity purchased with your own contributions plus 50 per cent of the company's contributions. Your percentage of the company's contributions goes up 5 per cent a year, so that after 20 years service you can take a paid-up annuity purchased with *all* your own contributions plus *all* those made by the company.

This same vesting—100 per cent of all contributions—takes place after 15 years service if you are 50 years of age or older.

What if I'm disabled before retirement?

If you're totally and permanently disabled before age 60, the Disability Income Plan gives you an income until your retirement date. During this time—if you had been with the company at least 10 years—you accumulate credit for service in the Retirement Plan just as though you were working.

Then, on your retirement date, the retirement income formula we gave you earlier applies—with the number of years service being those you would have had if you'd never been away from work.

What does the Retirement Plan cost me?

Your contributions depend on your rate of pay. Here's the schedule:

BASE RATE OF PAY		MONTHLY CONTRIBUTIONS
\$ 275.00 to \$	299.99	\$ 7.93
300.00 to	324.99	9.23
325.00 to	374.99	11.18
375.00 to	424.99	13.65
425.00 to	474.99	16.12
475.00 to	524.99	18.59
525.00 to	574.99	21.06
575.00 to	624.99	23.53
625.00 to	674.99	26.00
675.00 to	724.99	28.47
725.00 to	774.99	30.94
775.00 to	824.99	33.41
825.00 to	874.99	35.88
875.00 to	924.99	38.35
925.00 to	974.99	40.82
975.00 to	1,024.99	43.29
1,025.00 to	1,074.99	45.76

The base rates continue in increments of \$50. Each higher bracket pays an additional \$2.47 monthly.

This final plan in Union Oil's package is one of the best. It's a fine plan, not only because of the future security it gives you and your family—but also because of the low cost involved. To provide some of its extraordinary benefits, Union Oil contributes more than four dollars to the plan for every single dollar deducted from your pay check.

* * *

If you missed any of the "Your Missing Money" series and would like back issues of the SEVENTY-SIX, some are still available. Drop a note to SEVENTY-SIX magazine, care of the Public Relations Department, Union Oil Center. The articles ran in this sequence:

May-June 1963: The biggest payroll deduction of all: Taxes.

July 1963: A resume of the entire benefit plan package; how the plans complement each other.

August-September 1963: The Employees Medical Plan and the Insured Medical Plan.

October 1963: The Incentive Plan.

November-December 1963: The Sick Pay Plan and the Disability Income Plan.

January 1964: The Life Insurance Plan. THE END

FOUR OF THE FINEST...

Receive 76 Sports Awards

AS A CLIMAX to Union Oil's *finest* year of advertising, particularly in the field of sports, "76" Sports Awards were presented to a quartette of the world's foremost athletes and sportsmen during December.

The medium chosen for sharing the presentations with the largest possible audience was KNXT Television News, Channel 2, Los Angeles. The host was KNXT sports director Gil Stratton, who interviewed each of the recipients on successive Saturdays, beginning November 30th.

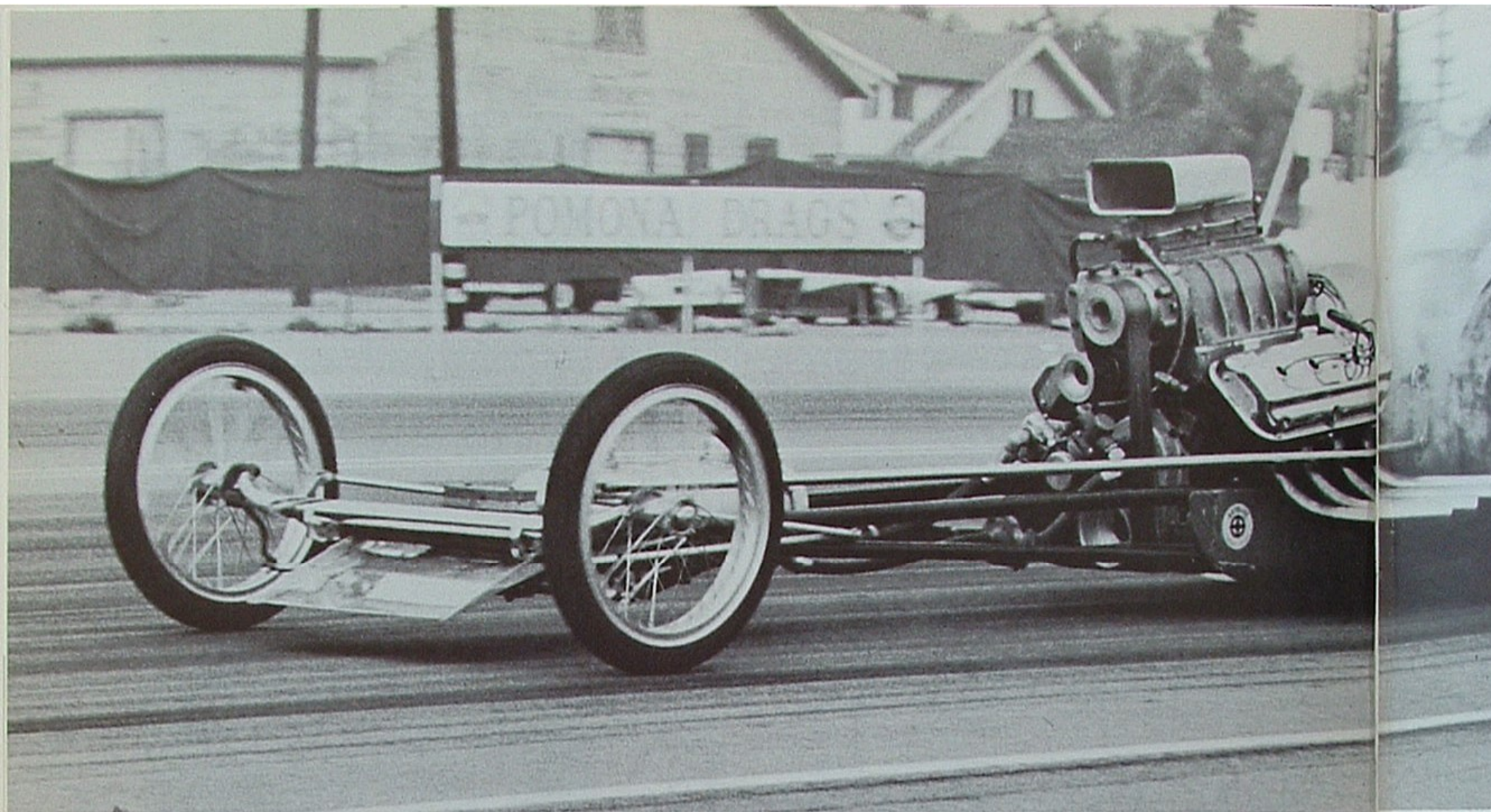
Leading off the awards series was Athlete of the Year for 1963 Sandy Koufax, whose record-breaking pitching performances for the Dodgers were credited to a high degree with bringing that club the National League baseball championship and a clean sweep of the World Series.

On the following Saturdays, through December 21st, similar "76" Sports Awards were made to hockey player Bruce Carmichael of the Los Angeles Blades, outfielder and batting champion Tommy Davis of the Dodgers, and jockey Johnny Longden, a grandfather, whose exploits on horse-racing circuits now surpass a world's record of 5,776 wins.

THE END

Interviewed by KNXT sports director Gil Stratton prior to receiving "76" Sports Awards were, from top, Koufax, Carmichael, Davis, Longden.





How about **'ALKY'** to pep up your car?

RACING DRIVERS who man the high-performance, rubber-ripping "rails" shown here use and swear by alcohol-gasoline mixtures to power their spectacular vehicles. If it's good for them, some persons ask, why can't we use such a mixture to give regular cars better performance?

Although gasoline mixtures laced with alcohol are fine for the dragstrip—where economy counts for nothing—both chemistry and economics team up to say no to such fuels on the freeway.

First, let's look at the chemistry of it.

The alcohol they are talking about is ethyl alcohol, often made from grain. By weight, it contains 35 per cent oxygen. Because of this oxygen content, it is regarded chemically as being "partially burned," or oxidized. Thus, pound-for-pound or gallon-for-gallon, ethyl alcohol cannot furnish as much energy as gasoline. In other words, there isn't as much mileage and power in a gallon.

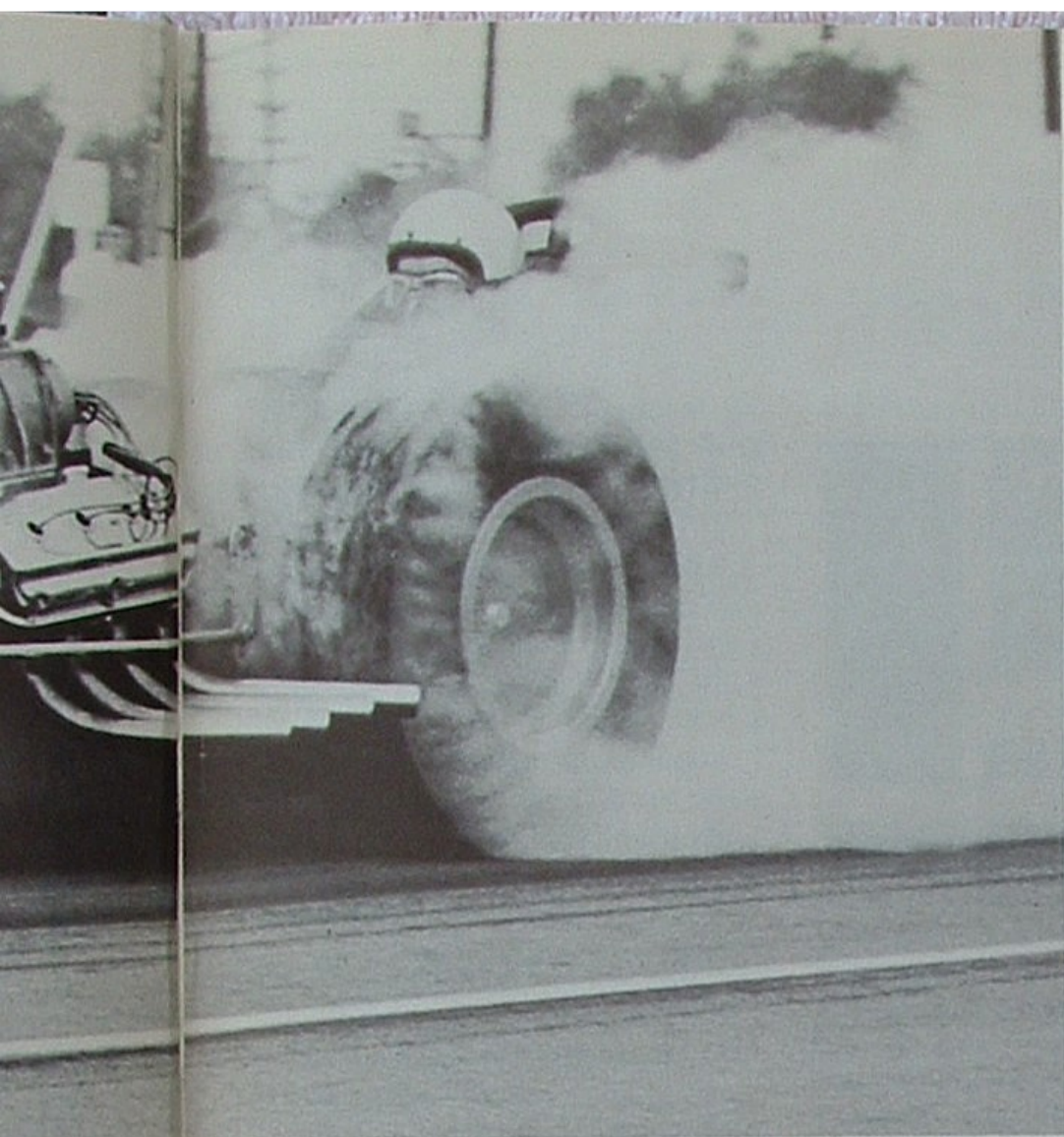
Then why do racing drivers use these fuels? Here's the answer: Alcohol cools the air-fuel mixture better than gasoline. As this mixture cools, it shrinks in volume. This

means more of it can be packed into the combustion chambers of an engine. Large amounts of an explosive mixture put into a cylinder naturally give more power—but don't do much for economy. Racing engines are designed to take advantage of this effect, and that's why dragstrip racers can "burn" rubber by spinning their wheels on takeoff. But they can't count pennies when it comes to fuel consumption.

Another problem is water. In an alcohol-gasoline blend with less than 50 per cent alcohol, it is essential that the mixture be water-free. Otherwise the alcohol and water will separate into layers. It's obvious the headaches this would produce. And from a practical standpoint, ordinary industrial alcohol contains about five per cent water. To wring out this water is expensive.

Admittedly, the octane rating of alcohol blended with gasoline gives about the same road antiknock performance as butane. But this apparent advantage is offset by two factors. Alcohol has about the same vapor locking tendencies as butane. And butane is a low cost motor fuel com-

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PHOTOGRAPH BY GORDON CHITTENDEN

ponent. Thus if alcohol were used in a gasoline, it would displace butane, rather than the more costly hydrocarbons in gasoline.

This brings us to the economics of it.

While the facts on costs aren't as clear cut as are the facts on chemistry, everyone agrees that an alcohol-gasoline mixture would cost more than gasoline alone.

Because alcohol produces less energy, the alcohol would have to be cheaper to be competitive. Actually it couldn't cost more than two thirds as much gasoline and remain competitive. And gasoline before tax now costs you only about three cents a pound.

Some persons, ignoring the chemistry of it, suggest the use of alcohol in gasoline to help reduce our grain surplus. While our agricultural surplus is indeed a problem, the use of grain-derived alcohol is no answer.

If alcohol were made in commercial volumes from corn (at current prices of \$1.20 to \$1.30 a bushel), the alcohol would cost three to four times as much as gasoline—before taxes.

On the other hand, ethyl alcohol could be made in tremendous volume from petroleum hydrocarbons at less cost than the same alcohol could be made from corn.

Any way you look at it, the alcohol-gasoline mixture would cost more. Some persons admit to an additional four cents a gallon; others claim it might run to 15 cents a gallon more. Nevertheless, the technical disadvantages would go along with the higher price.

Whether the alcohol be in the driver or in the gasoline, neither combination is a good one on the freeway. THE END

That old gasoline tax

Reprinted from the Reading, (Pa.) EAGLE
November 3, 1963

Ever hear the old saying: "There's nothing so permanent as a temporary tax?"

Ever wonder if there was anything to it or whether it was just another of those things that people say?"

Well, here's an example:

Right now, if you're a motorist, you're paying four cents tax to Uncle Sam for every gallon of gasoline you buy. Under the law that fixed the tax at four cents it's due to revert to 1½ cents in 1972.

In short, the four-cent rate is just "temporary." But, then, the 1½-cent rate is just "temporary," too. So maybe we ought to look forward to the day a decade from now when we won't pay any federal gasoline tax at all. Don't hold your breath, though.

You see it all started away back yonder in 1932 when Congress imposed a "temporary" tax of one cent a gallon on gasoline. Expiration date: 1933.

In 1933, the "temporary" one-cent tax was extended for another year and another one-half-cent "temporary" tax was added.

In 1934, the "temporary" half-cent tax was dropped, but the "temporary" one-cent tax was extended.

In 1935, Congress changed its tune: It extended the "temporary" tax for two years, instead of for just one year.

In 1937, the "temporary" tax was extended for another two years. In 1939, it was extended for two years more.

In 1940, another "temporary" half-cent hike was approved, making the tax "temporarily" 1½ cents.

The next year, the 1½-cent tax was designated as a permanent tax.

Ten years later, in 1951, a "temporary" half-cent hike was made; total tax: Two cents; expiration date: March 31, 1954.

In 1954, the "temporary" two-cent tax was extended.

In 1956, the "temporary" tax was increased "temporarily" to three cents.

In 1959, the "temporary" three-cent tax was increased "temporarily" to four cents.

The tax was due to revert to three cents on July 1, 1961, but Congress amended the law to make the four-cent tax "temporary" until Oct. 1, 1972. On that date it's supposed to revert to 1½ cents.

As we suggested, though, don't hold your breath. There's pretty much at stake. Too much, probably.

Back in 1933 when Congress couldn't resist the urge to increase a "temporary tax," the gasoline tax brought in for Uncle Sam \$125 million; in 1961, it yielded \$2.4 billion for him.



Business



Highlights

HIGHSPEED 'TURNAROUND' AT LOS ANGELES REFINERY

One of the most indispensable, hence hardest working, units at Los Angeles Refinery is the Fluid Catalytic Cracker. Its function is to produce high-octane gasoline in large and steady quantities by *cracking* gas-oil and light fuel oil. It gets no coffee breaks, no rest, no holidays. Even a sort of vacation, called a *turnaround*, that it takes every year or two has been cut from 29 to 19 days.

Because of the pressures, wear and corrosion such refining units are subjected to, a constant vigil is maintained of every pipeline and part. Trained men with ingenious equipment are able to detect the inroads of wear and corrosion and predict with great accuracy when replacements or repairs will have to be made. They of course always insist on a margin of precaution or safety to avoid the costliest of troubles—an unscheduled shutdown.

Prior to the FCC Unit's most recent *turnaround*, it was planned that the principal repair would be to replace 12 steel cyclone separators in the catalyst regenerator. The regenerator is simply a large steel container, 35 feet in diameter by 75 feet high, where the little beads of catalyst, so

important to this cracking process, are cleaned or regenerated by burning off the shells of coke that gradually form around each pellet. Cyclone separators inside the regenerator remove catalyst dust from exhaust gases leaving the regenerator, thereby conserving valuable catalyst and preventing air pollution. The refinery's fastest previous time for a turnaround of this kind required shutting down the FCC Unit for 29 days.

Planning, smooth execution of plan, and excellent coordination among maintenance, engineering and operating groups are credited with reducing this shut-down time to the new record of 19 days. Personnel were carefully selected. Preceding the actual *turnaround*, meetings were held to instruct job crews regarding technical procedures, teamwork and safety. Some phases of the work were even rehearsed through practice sessions or dry runs. In addition, special redesign and prefabrication reduced the complexity of setting the new equipment in place.

Reducing the time for such a task by one-third means lower *turnaround* costs and a 10-day increase in FCC Unit thruput and efficiency. All personnel involved in this achievement at Los Angeles Refinery can be proud of their accomplishment.

OUR 1964 DRILLING BUDGET SPOTLIGHTS OFFSHORE WELLS

Wildcatting, development drilling and secondary recovery projects all will play major roles in the company's 1964 Exploration and Production budget.

A hint of the times to come, however, stems from the increased interest in drilling on offshore prospects in the Gulf of Mexico and offshore California.

Here are the highlights:

EXPLORATION: The 1964 drilling program calls for participation in 96 exploratory or wildcat wells, with a net interest of 66 wells.

Although this sounds complicated, it's not really so. Because of the risk and heavy expense involved in many large oil drilling ventures, it's common practice today to share the risks—and the rewards.

An example of this is the Las Cienegas Field in residential Los Angeles. Union Oil has a 60 per cent interest in this field; Signal Oil and Gas holds a 40 per cent interest.

If we jointly drill a well in this field, Union gets credit for participating in one well, but the net interest is six-tenths of a well.

Thus, our 1964 budget calls for participation in 96 exploratory wells, and a net interest of 66 wells. These drilling operations will be spread over the Pacific Coast, Gulf, Central, and Glacier Divisions.

DEVELOPMENT: Once an oil field is discovered, it must be assessed or developed. The company's budget for development wells is participation in 172 wells, with a net of 109 wells. Again, the drilling will be in the Pacific Coast, Gulf, Central, and Glacier Divisions.

SECONDARY RECOVERY: Under an expanded secondary recovery program in the Pacific Coast, Central,

and Glacier Divisions, the company will have varying interests in the drilling of 142 wells—many for water injection—with a net interest of 46 wells. A major conservation step, secondary recovery employs advanced engineering techniques to produce oil from fields that may have been regarded as depleted in earlier years.

OFFSHORE: The changing character of drilling operations over the past few years is dramatized by the fact that 25 of the wildcats and 46 of the development wells as budgeted will be drilled on offshore prospects in the Gulf of Mexico and offshore California.

Although the 1964 budget calls for about the same number of wells as drilled in 1963, the cost will be higher this year. This is because offshore wells usually are deeper than onshore wells. Moreover, in many cases, the offshore wells require installation of expensive drilling and production platforms.

FOREIGN: Operations carried on during 1963 in Australia and the Philippines will be continued in 1964. The Moonie Field in Queensland, Australia, discovered in December of 1961, will go on production early this spring. A 190-mile long crude pipeline has been built from the Moonie Field to Brisbane. Construction of gathering lines and storage tanks is in the final stage of completion.

POOL CARS COME UP WITH NEW VERSION OF FILM TITLE

Slashing 54 days off a famous movie theme, the pool cars at Union Oil Center have come up with their own version of a film title: "Around the World in 26 Days."

This is the average traveling time it takes the 17 autos that make up the home office car pool to equal the

circumference of the globe. The figure is based on a rounded-out total of about 350,000 miles these vehicles travel each year.

Put another way, if you are an average motorist who puts 8,000 miles a year on "Old Bessie," it would take you more than 43 years to equal the mileage our home office pool drivers travel in a year.

Not included here are the several thousand miles put on rental cars engaged for short-term use. Because pool car useage varies from day-to-day, we keep the fleet trimmed to a minimum and rely on rental cars to satisfy peak useage. (This is why the dispatcher likes to know in advance of your trip.)

Besides serving the business transportation needs of home office folks, the home office car pool is an excellent proving ground for gathering expense and performance records on various makes of cars. This is helpful in establishing automotive specs that best serve most of our company-

wide automotive requirements.

Although driving a pool car is hardly as exciting as embarking on that dream trip around the world, relating the miles driven by our company cars to a global orbit might add interest to your next journey in a pool car. And we hope that dream trip comes true too.

76 PRODUCTS TO HELP BUILD WASHINGTON FREEWAY GRADES

Our Northwest marketing division has secured the petroleum requirements of Fiorito Brothers, a construction firm that has been awarded a \$7.2 million freeway grading contract by the state of Washington.

The contract will cover a three-and-a-half mile section of U.S. highway 99 between Seattle and Renton, Washington. The project involves construction of ten bridges, and is the largest freeway grading contract in the history of the Washington State Highway Department.

A delivery record, at least for the Southwest-Mountain Division, was established when transport No. 6032-6033 delivered 2,050,923 gallons of "76" products during September 1963. The transport, with a legal capacity of 8,510 gallons and operating 639 hours with 14 driver shifts a week, averaged a 3,209-gallon delivery rate per hour. Factors contributing to the record were light-weight aluminum tanktruck construction, fast loading at San Diego pipeline terminal, fast unloading through four-inch lines and hose, a favorable density of service stations in the delivery area, swift communications, and excellent rapport among drivers, terminal employees and dealers. A "2,000,000 Club" certificate was framed to commemorate the achievement. At the loading-rack ceremony were, from left, drivers Fred Cox and Wallace Chandler, manager of operations W. I. Havland, foreman-dispatcher Fred A. Myers, terminal superintendent Al F. Van Nest, drivers Howard Nash and Amos Schoneman.





Everyone knew John Rockfellow

MANY PEOPLE, including his nearest of kin, called him Phil. But to a host of Union Oilers he hired, squired and admired John P. Rockfellow was usually "John D" or "Rocky."

His working career with Union Oil Company began February 1, 1924, as a roustabout at Dominguez. Later he was truck driver, rotary helper, gas lift operator and personnel supervisor at Brea and Santa Fe Springs.

It was the "people" business that suited his talents perfectly and Union Oil quickly recognized that fact. After filling a personnel assignment at Los Angeles Refinery, beginning in 1930, Rocky moved to Industrial Relations at Head Office in 1933. Here he was active in personnel management, employee relations and recruitment.

Rocky retired to his beloved native Arizona in 1959. The only boast of his lifetime was that he was born a cowhand in Old Tombstone on December 3, 1898. From his chosen retirement city of Prescott came word of his death on January 14, 1964.

Writing of Phil's passing in a column of the Prescott Evening Courier, newspaperman Jim Garner expressed these sentiments on January 15th:

I've sat at this typewriter most of the morning silently cursing myself for not knowing the right words to say about an old friend, Phil Rockfellow.

Phil, who right now is making sure the angels understand the value of proper organization, passed away yesterday.

This world isn't blessed with too many Phil Rockfellows and it's a crying shame that we had to lose him.

Phil had lived here only five years but he was as much a part of this town as is Thumb Butte.

I loved the guy because he represented those things that made this nation what it is.

First of all, Phil was an honorable man. His word was all that anyone needed in any sort of agreement.

He detested wasted time. Although he knew his heart wasn't in the best condition, Phil never let up. I often accused him of never sleeping. No one who accomplished as

much as he did had time for sleeping.

Phil loved our free enterprise system, and this trend toward big government and the welfare state made him fighting mad.

Tackling jobs others said were impossible was what he really enjoyed. In 1960 he took the chairmanship of the Yavapai County Republican organization; it was the first time he'd been involved in politics.

I met Phil for the first time in 1962. He was busy trying to crack the Democrats' hold in this county and, as the November election results proved, he put one helluva dent in it.

He used to drop by my office once or twice a week. I enjoyed those visits as much as anything I've ever done.

"Jim, you sure did us some big favors during the campaign and I want you to know we appreciate them, but, on the other hand..."

And then he'd proceed to give me a verbal-hind-end kicking, and many times I didn't realize he had until later.

I got Phil boiling mad when I took a swipe at Gov. Fannin's Blue Ribbon committee which supposedly settled the Arizona Public Service-Salt River Project hassle over taxes.

Phil was on that committee and when I called the group something less than "Blue Ribbon," he fired a scathing letter to the editor.

He won a cup of coffee from it. Someone bet him we wouldn't print the letter. He knew we'd print it.

The last time I saw Phil was right before the City Hall dedication. There was some minor dispute between the city and the Centennial Commission.

It got pretty heated.

Phil, with his bum leg propped up on a chair, stopped the fireworks by simply telling both sides: "Now, listen, all we're talking about here is a mixup in communication. Figure out where it is and get on with the job."

Communication. Phil believed practically any problem (world, national or local) could be solved if people would only learn to communicate.

Phil loved the world of give and take. He enjoyed a good, clean fight.

I'll miss him and those weekly visits.

The whole town is going to miss him, too.

All I can say is that St. Peter had better be running a tight shop up there because Phil won't like it any other way.

THE END.

OPERATION RESCUE

MIDLAND, TEXAS

ON THE MORNING of December 21, a twin engine Convair prop jet owned by Union Oil Company was returning to Los Angeles from a business flight to Houston. Vice President Ray A. Burke of the Exploration and Production Department had important business at Union's Central Division headquarters in Midland, and the Convair was preparing to land at Midland-Odessa airport.

In the cockpit of the plane was a veteran crew. Headed by chief pilot Donald McKee who has more than 15,000 hours air time, the crew included co-pilot Jack Holder and first officer Arthur Urieta, all of Los Angeles.

Meanwhile, at Midland airport's U.S. Weather Bureau office, Texas Highway Patrol Sgt. Billy Smith was checking the weather. A blast of cold air had engulfed the Texas plains that day, laying down a drizzle of light snow. Visibility was less than two miles, and the ceiling was less than 350 feet. Sgt. Smith glanced outside at the sky.

From the airport, witnesses described the Convair's instrument landing approach as routine. The plane broke through the cloud barrier and appeared destined for a smooth touchdown.

Then it happened!

Without warning, the nose dipped and the plane crashed at the far end of the runway, two miles from the terminal.

Inside the ill-fated craft, Vice President Burke struggled loose from his safety belt. In moments, he was outside.

"We were lucky," Burke said. "There was a break in the fuselage behind the cockpit. Art Urieta escaped through that opening. I got out a side hatch."

First officer Urieta told the story in a little more detail:

"When I came to," he said, "I saw Mr. Burke. He was outside the plane, trying to get Jack Holder out of the cockpit window. I picked myself up and started looking for a way out. I realized I couldn't get out of the tiny cockpit window. Then I found a hole in the side of the plane, and crawled out.

"I went around to the front of the plane to help Mr. Burke pull Jack out of the window," Urieta continued, "but my chest hurt and I had to stop.

"He got Jack out and tried to reach inside for Don McKee," Urieta said, but the unconscious pilot was out of arm's reach.

"They put Jack and me in a police car to go to the hospital. I remember Mr. Burke yelling for an axe. The last I saw of him, he was swinging with the axe, trying to break



Ray A. Burke

the window on Don's side. He sure deserves a lot of credit; he's quite a man." (Editor's Note: Burke, a wartime U. S. Navy pilot, holds the Distinguished Flying Cross and Air Medal with five Oak Leaf Clusters.)

Eyewitnesses said the reinforced cockpit window refused to shatter. By then flames had engulfed the nose section and Burke, his trousers soaked with kerosene, had to move back.

Other help was on the way, however.

Sgt. Smith of the highway patrol, who had seen the fire from the Weather Bureau office, drove full speed to the crash scene. As he arrived, fire trucks with supplies of powerful fog spray drove up.

While firemen sprayed a protective coating of fog over Sgt. Smith, the highway patrolman picked up a fire axe and strode into the flames. He began beating on the right cockpit window.

"It was like a brick wall," Smith said.

By this time, flames were licking inside the cockpit. McKee regained consciousness and crawled across the cockpit to the open window. Sgt. Smith, under cover of the fog spray, raced around to the left side of the burning nose section and pulled McKee to freedom.

Although the plane was destroyed, everyone had been rescued alive. Admitted to the Midland Memorial Hospital, Ray Burke was treated for rib fractures and released. Don McKee was hospitalized with serious burns. Co-pilot Jack Holder suffered fractured ribs and back, and was in the hospital for three weeks. Art Urieta, who received a fractured breastbone, was home for Christmas.

Ray Burke, describing the rescue of pilot McKee by Sgt. Smith, said, "Smith ought to get a medal. Without his heroic aid, Don McKee might have been fatally injured."

Union Oil Company presented a check to Sergeant Smith for his heroism, and donated \$1,000 to the Midland Memorial Hospital "not only in recognition for the outstanding effort put forth following our plane crash in Midland, but also for the continuing service and excellent facilities provided for all residents of this area, including our own Union Oilers."

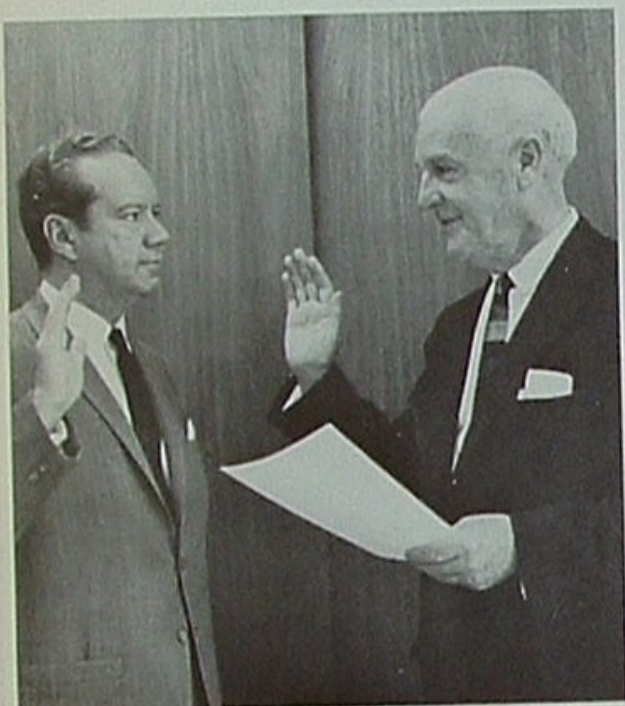
THE END



**IN
FOCUS**



The Lion's Club of Beatty, Nevada, annually sponsors a World's Championship Wild Burro Race. For the past three years Union Oil has chipped in with cash and advertising services to help attract an audience of some 5,000 house-trailer owners. Crowning event of the three-day festivity was of course the big race from Beatty to Furnace Creek. If the photo represents the winner's circle, we won!
from R. Brenchley



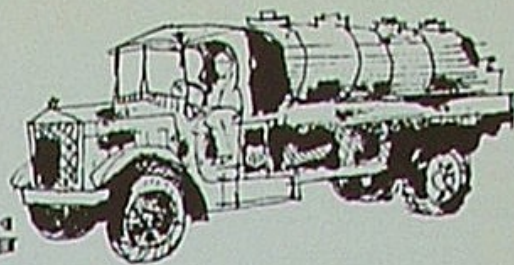
William H. Thompson, Jr., Union's man of many voices and faces, was his own serious self recently when Judge Emmet Daly, right, swore him in as commissioner of the California Delinquency Prevention Commission. Bill's artistry as a humorous speaker is matched by his effectiveness in several fields of youth leadership and crime prevention.

At "Ski-Swap," an annual winter sports promotion staged at the state fair grounds in Sacramento, a Union Oil booth was voted the outstanding display. Gifts for nearly 5,000 people who visited the booth included bottles of perfume for the ladies, maps and ski-resort brochures for the motorists, and credit-card application forms for everyone. The exhibit was handsomely staffed by, from left, George Tallmon, Gretchen Ainsworth, Sparkle Girl Regis Cochrum, Mary Spencer and Phil Jones.
from E. A. Melendez



Bill Myers, at left, son of plant operator Duke Myers at Santa Maria Refinery, is an astronomy lecturer at the age of 16. His services have been in great demand at several Santa Maria area schools and he recently addressed a teachers' institute at Cal Poly. Youngsters seen lining up to examine his homemade six-inch telescope are students of Pismo Beach elementary school. from George B. Snyder





TURNING BACK THE PAGES

40 YEARS AGO THIS MONTH: February 1924

The largest quantity of bunker fuel ever delivered to a ship in San Francisco was made recently by Union Oil Company to the 21,500 ton Canadian-Pacific luxury liner *Empress of Canada*. On a one-day stopover during her 16-nation, 30,000-mile world tour, 42,200 barrels of Union bunker fuel were put aboard the *Empress of Canada* by the fuel oil barges *E. M. Phelps* and *Santa Paula*.

* * *

The first full tanker load of specially made airplane gasoline ever shipped from California cleared the port of Los Angeles last month. It was manufactured to order for the British government by Union Oil.

(The company still distributes aviation gasoline by tanker to Hawaii, Portland, and Alaska. Jet turbine fuel, however, is the big aviation item today, and much of this is distributed by pipeline.)

20 YEARS AGO THIS MONTH: February 1944

An employee war bond drive to raise \$300,000 to build a B-17 bomber went far over its goal this month. A Flying Fortress bearing the name "Spirit of 76" soon will come off the assembly lines.

* * *

Los Angeles Refinery became the largest industrial "blood bank" in its Southern California area this month when 411 employees each contributed a pint of blood.

10 YEARS AGO THIS MONTH: February 1954

The exploration program for 1954 provides for the most extensive drilling of wildcat wells by Union Oil in some time. The experience of our company, as well as the oil industry, proves that the majority of wildcats drilled are dry holes. It is recognized also that an ever increasing number of exploratory holes have to be drilled for each discovery.

Aware of the increasingly larger amounts of money required for exploratory drilling, the Exploration Department is under constant challenge to see that the money is spent wisely and most economically. At the very least, a wildcat well is a search for knowledge with which to evaluate a prospect. When to test, when to core, when to abandon are questions of real money-saving importance.

A skillfully conceived wildcat well is not a total failure, even though a dry hole, if the information gained from it is properly used. It may point the way to subsequent drilling and the discovery of a new field.



Dr. Josip Pancic of Yugoslavia chose one of Arizona's hottest days to pay a sentimental visit to the grave of his father at Globe. Unaccustomed to the heat, the doctor became so ill that his hosts, Mr. and Mrs. John A. Pancic of Glendale, California, made an unscheduled stop at our Union Oil service station in Wellton, Arizona. Consignee J. L. Coleman and station operator Bob Salisbury (seen in photo) administered to the doctor for 2½ hours, or until he was able to continue the journey. Their kindness to a foreigner and two non-buying customers, who probably would have no chance to visit the station again, brought from Mrs. Pancic to our Public Relations Department a letter of most heart-warming appreciation. The "good neighbor" deed, she stated, made a deep impression on the Yugoslavian. *from D. R. Jessup*

Ray Snodgrass, our special representative handling railroad sales in the Seattle area, is a very proud father. His son John, appearing inches taller in the photo, recently received newspaper acclaim as a football star. With his team playing an underdog role against a strong high school eleven, John kept the opposition at bay with excellent punting and passing. His defensive play held one team to a scoreless tie and he scored the touchdown that resulted in a 7-7 tie with another strong team. His coach said of him, "John did everything but drive the bus to the field." *from W. I. Martin*





AWARDS

EXPLORATION & PRODUCTION

February 1964

35 YEARS

C. J. McDONOUGH Orcutt, California
EDWARD P. McLEOD Australia

25 YEARS

JAMES O. BAILEY Bakersfield, California

15 YEARS

LELLIS A. CURNOW Bakersfield, California
HOWARD F. ENGLISH Vinton, Louisiana
ROBERT J. HOYT Union Oil Center
GERALD H. RICKELS Bakersfield, California
WELLS WILLIAMS Midland, Texas

10 YEARS

ELIE COURVILLE Vinton, Louisiana
C. D. KOZLOWSKI Coalinga, California
R. D. McLENNAN Dominguez, California
ROBERT W. PUTNAM Union Oil Center
KENNETH J. STRACKE San Joaquin, California
MARGARET E. VINCZE Union Oil Center

CORPORATE DIVISION

February 1964

35 YEARS

DONALD H. RETTKE Union Oil Center

30 YEARS

CHARLOTTE MANN (January) ... Union Oil Center

20 YEARS

STANLEY J. BOARDMAN Research Center
ROGER J. KINSELLA Research Center
JO ANNE QUINTIN Union Oil Center

15 YEARS

DONALD E. BAHN Union Oil Center

10 YEARS

DOROTHY V. BUSALD Union Oil Center
MARY STEWART Union Oil Center

REFINING & MARKETING

February 1964

35 YEARS

FLOYD E. ANDERSON Los Angeles Refinery
GARRETT W. CASEY Los Angeles Refinery
WILLIAM J. COZAD, JR. Orange, California
ORVILLE TRUESDALE ... Kern District, California

25 YEARS

H. J. ACQUISTAPACE Fresno, California
DEAN HUMPHREY Cut Bank Refinery
D. C. MATTHYNSSENS Seattle
ARTHUR TALPT Cut Back Refinery

20 YEARS

ARVIN L. ALEXANDER Los Angeles Refinery
FRANK D. CHAPMAN San Diego
VIRGINIA B. HEAD San Francisco
VEREL C. PELLETIER San Francisco
EDWARD J. RHYNE Santa Paula District

MELVA G. SCALIA Union Oil Center
 ARA J. SMITH Los Angeles Refinery
 FRIEDA M. WILKERSON Union Oil Center

15 YEARS

GEORGE E. BALLERT Junction Stn., California
 JOHN L. BEIMA Union Oil Center
 DOUGLAS R. JESSUP Phoenix

10 YEARS

LLOYD R. CAIN Seattle
 GORDON B. DURHAM Union Oil Center
 EPHRAIM FORSBERG Los Angeles Refinery
 C. M. GABRYSIK Oleum Refinery
 JAMES O. JANUARY San Fernando, California
 HOYT L. JORDAN Los Angeles Refinery
 HANS E. MENTER Sacramento
 EUGENE I. MOTTE Oleum Refinery
 RICHARD M. PIATT Phoenix
 JAMES D. STRUBLE Los Angeles Refinery

DEALERS

February 1964

25 YEARS

K. F. KILLION Santa Barbara, California
 BOB WHITE SAFETY SERVICE Oakland, California

15 YEARS

FRANK BLACK Willow Creek, Montana
 FRED C. CASTRO and RALPH J. CASTRO Soquel, California
 CENTRAL MOTOR SALES Lewistown, Montana
 J. E. DeFRANCE Laurel, Montana
 W. L. DeVAULT dba DeVAULT MOTORS Livingston, Montana
 EVERETT O. HUNTER Livingston, Montana
 J. W. KALEM Seattle
 ED SHURR dba SHURR CHEVROLET Browning, Montana
 D. E. STEVENSON Anza, California

10 YEARS

B & E GARAGE Fortuna, California
 WILLIAM G. CERLETTI Napa, California
 OLIVER DERRINGTON Los Angeles
 BILL GARRETT Anaheim, California
 RALPH GLANCY Monrovia, California
 HARRY L. MOYER Portland

5 YEARS

WALT ADAMS BUICK COMPANY Glendale, Arizona
 CHESTER L. BAUGH Glendale, Arizona
 JOHN CARANCI Los Angeles
 MILO W. COWLEY Redding, California
 FIRESTONE STORE #7736 San Diego
 WILLIAM FOWKS Long Beach, California
 GUY FAUGHENDER Milwaukie, Oregon
 D. R. MODE and MINNIE MODE Independence, Oregon
 EMIL NAKAO Seattle
 OREGON GARAGES Portland
 DON SANDERSON FORD COMPANY Glendale, Arizona
 FRANK TORANO Newport Beach, California
 KEITH E. TOTEMEIER Santa Rosa, California
 VISTA ST. CLAIR CORPORATION Portland
 THOMAS WHITAKER Sterling, Alaska
 LESLIE L. WILLIAMS Oakland, California
 E. J. WISE dba JAMACHA JCT. STORE Spring Valley, California
 JEWELL A. WOOLMAN Eugene, Oregon

CONSIGNEES-DISTRIBUTORS

February 1964

40 YEARS

CARL EVJEN Lynden, Washington

35 YEARS

L. E. BUTTON Deming, Washington

20 YEARS

PIRL L. HOWELL Heppner, Oregon

15 YEARS

C. E. FELLOWS Great Falls, Montana
 R. L. FRANKLIN Caldwell, Idaho
 F. W. HERDON Miles City, Montana
 O. E. KEYES Bozeman, Montana

5 YEARS

DAVE GRAY Reardan, Washington
 J. D. SELLERS Oceanside, California

RETIREMENTS

January 1964

DOROTHY V. CONNOLLY Union Oil Center October 8, 1948
 ORIN L. DYER Los Angeles Refinery July 26, 1928
 ANTONE A. FARIA Oleum Refinery June 11, 1923
 ROBERT H. FLEIG Shandon, California May 10, 1918
 JOSEPH S. FURTADO Oleum Refinery October 19, 1925
 BERTA GILLESPIE Union Oil Center November 17, 1933
 EDWARD M. HALIBURTON Arroyo Grande, California June 3, 1932
 FRANCES K. HALL Union Oil Center December 30, 1945
 LA DENE HARGROVE Union Oil Center October 2, 1929
 WILLIAM L. HOBBS Avenal, California April 7, 1946
 MAURICE JEFFERSON Los Angeles Refinery February 14, 1951
 HERBERT J. JONES Los Angeles Refinery September 16, 1944
 JEAN L. McFARLAND Research Center October 1, 1945
 JACK B. MUZZALL Fullerton, California May 3, 1918
 CARL A. WALKER Los Angeles Refinery April 13, 1929
 RALPH M. WESTCOTT Brea, California April 10, 1926
 AUBREY J. WOOTEN Los Angeles Refinery January 16, 1943

IN MEMORIAM

Retirees:

OLOF W. EKSTROM Vista, California October 22, 1963
 SAMUEL G. RANKIN Oleum Refinery December 17, 1963
 CHARLES H. STANLEY Shandon, California December 3, 1963
 FLOYD M. STINE Whittier, California November 22, 1963

UNION OIL COMPANY OF CALIFORNIA
P. O. Box 7600
Los Angeles 54, California



Where We Work...

In Los Angeles, a Minute Man station at Jefferson and La Brea streets was in the path of December's Baldwin Hills reservoir flood, described elsewhere in this issue. At dealer C. H. Bailey's station, however, flood waters were less of a barrier to business than were the mobile units dispatched by police, television stations and the Red Cross. The station functioned as nerve center for much of the rescue and clean-up effort. Dealer Bailey's comment to one of his customers was, "Thank heaven we were offering help instead of asking for it."