

Incident over the Pacific

IT HAPPENED ON a sleek jetliner at 32,000 feet over the Pacific. F. K. Cadwell, president of Unoco Limited, our overseas subsidiary, was flying to Los Angeles from his headquarters in Hong Kong. He had some last minute work to do, so he opened his briefcase. On top was a small pocket album with photos of his wife and daughter. An elderly American lady seated next to Cadwell seemed to pay no attention.

After a couple of hours, Cadwell closed his briefcase and settled back to enjoy the trip.

It often happens on international flights that passengers strike up conversations; Cadwell was no exception.

The woman seated next to him, it turned out, was Genevieve Caulfield, the aunt of the movie star, Joan Caulfield. A few minutes conversation revealed that she was flying to Washington, D.C., to receive an award. The reason? Since 1938 she has operated a school for blind children in Bangkok, the capital of Thailand.

"That's a coincidence," Cadwell said. "My wife and daughter in Hong Kong work with blind children. They teach conversational English at the Ebenezer School."

The woman turned to Cadwell and said, "I think that's wonderful." Suddenly, Cadwell reached for his briefcase, extracting the album of family photos.

"Would you like to see some pictures of my wife and daughter? They were taken at the orphanage."

The American lady from Bangkok smiled and said, "Thank you very much. I'd love to, but I can't. You see, I'm blind too."

Visibly shaken, he rocked back.

"Oh, I'm terribly sorry," he said. "If I'd only known. I didn't mean to embarrass you."

Again she turned to him. This time she smiled and said, "Please don't apologize. You see, Mr. Cadwell, you've just paid the greatest compliment to a blind person that is possible."

When this incident became known, SEVENTY-SIX magazine asked the Cadwells to share with our readers scenes at the Hong Kong orphanage denied to the lady from Bangkok.

THE END



Candace Cadwell gives a boost to 3-year old Mak Yau-kai, an orphan at the Ebenezer School in Hong Kong. Miss Mak wants to "see" what Joeko, the stuffed monkey, looks like. Candy is the daughter of F. K. Cadwell, president of Unoco Limited.



Mrs. F. K. Cadwell and her daughter, Candace, spend much of their spare time in Hong Kong volunteering their services as conversational English teachers for blind orphans. Here Mrs. Cadwell and Candy chat with an orphanage staff member, himself blind. Kem Cadwell tells his version in the accompanying article.



Two blind Chinese orphans at the Ebenezer School learn at first hand what a lion is like. The three main causes of blindness in children at Ebenezer are malnutrition, glaucoma, and cataracts. The 131 orphans range in age from six months to eight years.

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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.

OUR COVER—We have four pictures on this issue's cover hinting of articles in this issue on Unicracking, Happi Hats, fly tying and an orphanage in Hong Kong.

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At left, derrick operators prepare to lift one of six reactors into place on the Unicracker site at Los Angeles Refinery. Lifting is shown on cover.

Why build a Unicracker?

*Union's \$22 million refinery project
will have some happy consequences for oilmen*

TAKE A LOOK at the West Coast's future? What do you see? People—at least if you live in California. There's no denying the vast migration to the West. In sheer numbers, today's population explosion in California makes the Gold Rush seem a mere trickle.

These new people are driving cars, and this means a growing gasoline market. On the surface, this sounds like a made-to-order situation for refiners. The more people, the more cars. The more cars, the more gasoline sold. Sounds fine. Dig a little deeper, however, and there's a flaw.

This flaw is in Nature's supply and the public's demand. As for supply, most California crude oils contain a high proportion of fuel oil. We're not talking about the light heating oil used to warm people's homes. We're talking about the heavy, residual, bunker oil used to fuel ships and fire the furnaces of industry. Such California crude oils simply have too much fuel oil to be ideal.

As for demand, the market today screams for more gasoline, more jet fuel, and more diesel—not fuel oil. The refiner's problem is to match the supply with the demand. The answer seems simple: squeeze more gasoline out of a barrel of oil. Squeezing this barrel is not so simple, however.

Admittedly, there's been progress. Back in the early

days of this century, for example, the best a West Coast refiner could expect to produce was 20 barrels of gasoline from every 100 barrels of crude oil. When thermal cracking was introduced, the refiner increased his gasoline output to 30 barrels a hundred. With catalytic crackers, he could count on 40 barrels. Other techniques boosted the limit to about 45 barrels, but it seemed to level off there.

Despite this progress, something new was needed. That something new is here, now, and it's called hydrocracking.

Hydrocracking is a general term for a process that promises relief for the refinery business. The *Oil & Gas Journal* recently had this to say about it:

"Keep an eye on the West Coast refining industry. It's changing personality. Refiners are looking for ways to increase gasoline yields, to upgrade middle distillates into (lighter) premium fuels, and at the same time trim fuel oil production."

The *Journal* said hydrocracking is "expected to play a key role in boosting a gasoline yield. This is because the (gasoline) increase from hydrocrackers can be made without increasing the crude (oil) charge."

Another source with considerable authority in this field is Joe Byrne, Union's manager of refining development in our Planning and Development Department. Says he: "The stage is set for rapid change in processing."

continued

Unicracker *continued*

In general, Byrne was speaking of hydrocracking processes. But specifically he was talking about the Unicracker-JHC. This is the commercial hydrocracking process offered for license jointly by Union Oil Company and the Esso Research and Engineering Company, a subsidiary of Jersey Standard.

A major advantage of the hydrocracking—or Unicracking-JHC—process is that it converts marginal or low-value stocks now used principally as fuel or heating oil into high value gasolines, diesel fuel and jet fuel.

Moreover, Unicracking-JHC leaves no residue of heavy ends such as residual fuel oil, no tars, no coke that must be processed or disposed of. Previously all gas-oil conversion processes, including cat cracking, left some residual fuel oil.

Unicracking-JHC, in fact, performs its tasks so efficiently that for every 100 barrels of feed stock entering the unit, more than 120 barrels of product is returned. Of this, all can be gasoline, or part can be jet fuel and part can be gasoline.

As might be expected of anything from Union's Research Center, the Unicracker-JHC yields only the finest products. Its gasoline fractions are free of unwanted olefins, the unsaturated molecules banned by smog laws in some areas. The Unicracker's premium fuel, unlike other cracked products, contains no nitrogen or sulfur impurities that must be removed before blending.

From every angle, the Unicracker looks like a winner. It has the muscle to make gasoline. It gives the refiner flexibility to meet market demands.

No wonder people are saying the Unicracker will have as dramatic effect on the refineries of tomorrow as the cat cracker did yesterday.

Conservation and the Unicracker

OTHER CONSIDERATIONS aside, the hydrocracking process may play an important role in the field of conservation. A hydrocracker such as the Unicracker-JHC can conserve one of our nation's most vital natural resources, crude oil.

With the Unicracker being installed at Los Angeles Refinery, for example, Union Oil can do one of two things. It can make the same amount of gasoline from less crude oil, or it can make more gasoline from the same amount of crude. Let's look at the first choice.

Had we a Unicracker in 1963, for instance, we could have produced the same annual volume of gasoline and other high value products and at the same time reduced annual crude oil purchases by some 4.5 million barrels. In effect, this is equivalent to finding and producing an oil field with an output of 12,000 barrels a day.

But that's the static picture. Let's now look at the second choice.

"We're in a growing gasoline market," says Union Oil President A. C. Rubel, "and a growing market for mid-barrel products such as jet fuel. The new plant will enable us to participate to a degree in some portion of this growth without additional purchases of crude."

In California, where no major oil field has been discovered since 1948, the effect a Unicracker will have on refiners can be looked upon as an important conservation measure.

THE END



A horseshoe (lucky omen, no doubt) was unearthed during excavation work for the new Unicracking Unit under construction at Los Angeles Refinery. Surmising as to the shoe's era of service, Union Oilers Martin Michaud, Max Parkin and Ralph Sangster concluded that the refinery's stable once occupied this site. As a link between the two ages of horsepower, it was suggested the shoe be polished and returned to service—as a paperweight.



what is an American?



*An American
is a man
who...*

Yells for the government to balance the budget and then takes the last dime he has to make the down payment on a car.

He whips the enemy nations and then gives 'em the shirt off his back.

He yells for speed laws that will stop fast driving and then won't buy a car if it can't make 100 miles per hour.

He gripes about the high prices of things he has to buy but gripes more about the low prices of things he has to sell.

He knows the line-up of every baseball team in the American and National Leagues . . . and doesn't know half the words in "The Star Spangled Banner."

An American will get mad at his wife for not running their home with the efficiency of a hotel and he'll get mad at the hotel for not operating like a home.

He'll spend half a day looking for vitamin pills to make him live longer and then drive 90 miles an hour on slick pavement to make up for the time he lost.

An American is a man who will fall out with his wife over cooking and then go on a fishing trip and swallow half-fried potatoes, burnt fish, and gritty creek water coffee made in a rusty gallon bucket and think it's good.

An American will work hard on a farm so he can move into town where he can make money so he can move back to the farm.

When an American is in his office, he talks about baseball, football, or fishing, but when he is out at the games or on the creek bank, he talks about business.

He is the only fellow in the world who will pay 50 cents to park his car while he eats a 25-cent sandwich.

An American likes to cuss his government but gets fighting mad if a foreigner does it.

He is never ready for war but he has never lost one.

We're the country that has more food to eat than any other country in the world and more diets to keep us from eating it.

We're the most ambitious people on earth, and we run from morning until night trying to keep our earning power up with our yearning power.

We're supposed to be the most civilized, Christian nation on earth but still can't deliver payrolls without an armored car.

In America we have more experts on marriage than any other country in the world—and more divorces.

But we're still pretty nice folks. Calling a person "a real American" is the best compliment you can pay him. Most of the world is itching for what we have, but they'll never have it until they start scratching for it the way we do.

THE END.

*A total energy plant plus Monopower
and Petronics Divisions adds luster to Algas Industries*

'New look' at

CITY OF INDUSTRY, CALIF.

WALK INTO THE new Algas Industries plant in this Los Angeles manufacturing suburb and it looks like any other light industrial plant. Maybe a little shinier.

But you wouldn't get ten feet past the front door before one of the 60 employees would point out the fact there are no electric power lines leading to the building.

To be sure, there is ample evidence of electricity: witness dozens of fluorescent lamps, electric-powered lathes, drill presses, and assorted sheet metal cutters and benders. Each attests to considerable use of wattage.

No, the power lines aren't buried. There simply aren't any. The electricity comes from a Total Energy System at the Algas plant. It's an Algas adaptation and an Algas design. The new plant has a single source of energy—natural gas.

"It's the first industrial plant on the West Coast to use natural gas as its only source of energy," says C. Haines Finnell, president of Algas.

Heart of the Total Energy System is in a room with three

natural gas-fueled, internal combustion engines. They drive generators to supply the plant's electrical needs. What's more, heat formerly wasted is salvaged to provide steam heat, air conditioning, even hot water.

At the formal opening of the new plant on January 21, Dr. Neil H. Jacoby, dean of the Graduate School of Business at UCLA, had this to say about the prospects for the Total Energy Concept.

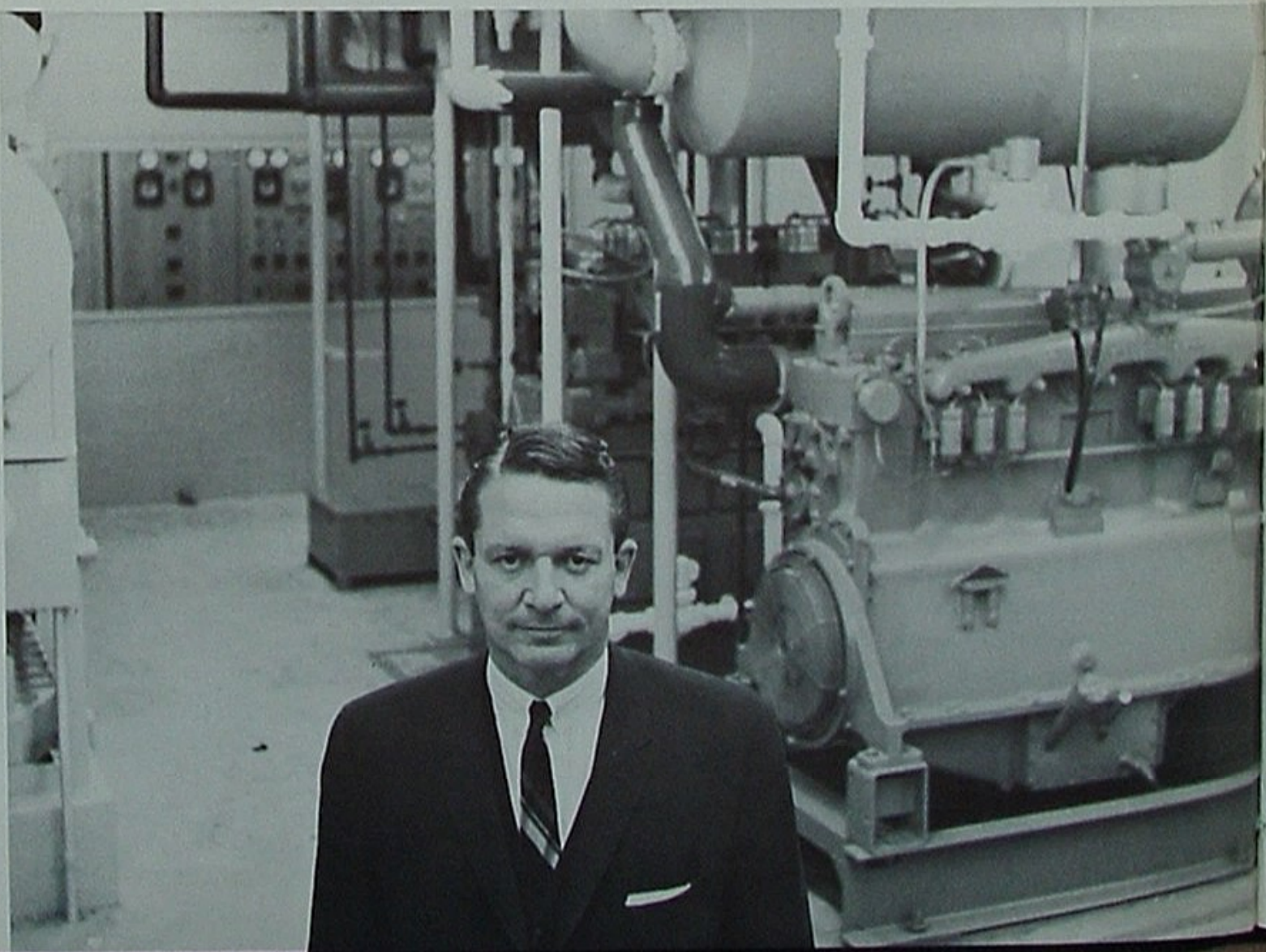
"This has all the earmarks of becoming a new and dynamic stimulus to the healthy, vigorous competition between the hydrocarbon and electrical industries."

What's the concept behind this Total Energy System? Here's how Algas describes it:

"Take the most economical fuel available, natural gas, fuel oil, diesel oil. Use this as the sole energy source. With plant equipment, convert this fuel at maximum efficiency to useable energy. Use this energy to meet all electricity needs. Then recover the waste heat for use in air conditioning, space heating and, where required, factory power."

Two years ago, when Union Oil acquired American

*Posing in front of three
natural gas engines that
are the heart of the
Total Energy System is
C. Haines Finnell, presi-
dent of Algas Industries.*



Algas

Liquid Gas Engineering and Equipment Company (since renamed Algas Industries), the firm was engaged in producing carburetors, mixers, vaporizers and such. Products ranged from carburetors used on trucks and tractors fueled by liquid petroleum gas (LPG) to big vaporizer units used to supply stand-by LPG to industrial plants in case of a natural gas shutdown.

Algas today still makes LPG equipment, a field described as "going nowhere but up." And today there's more. The 'new look' at Algas now includes two new divisions. Here's a glimpse at them:

MONOPOWER DIVISION: This is a consulting group offering guidance, nationwide, in promoting the Total Energy Concept. Clients may range from builders, architects and city planners to natural gas utilities. Monopower recently began work on a \$300,000 total energy plant for a motel-restaurant complex.

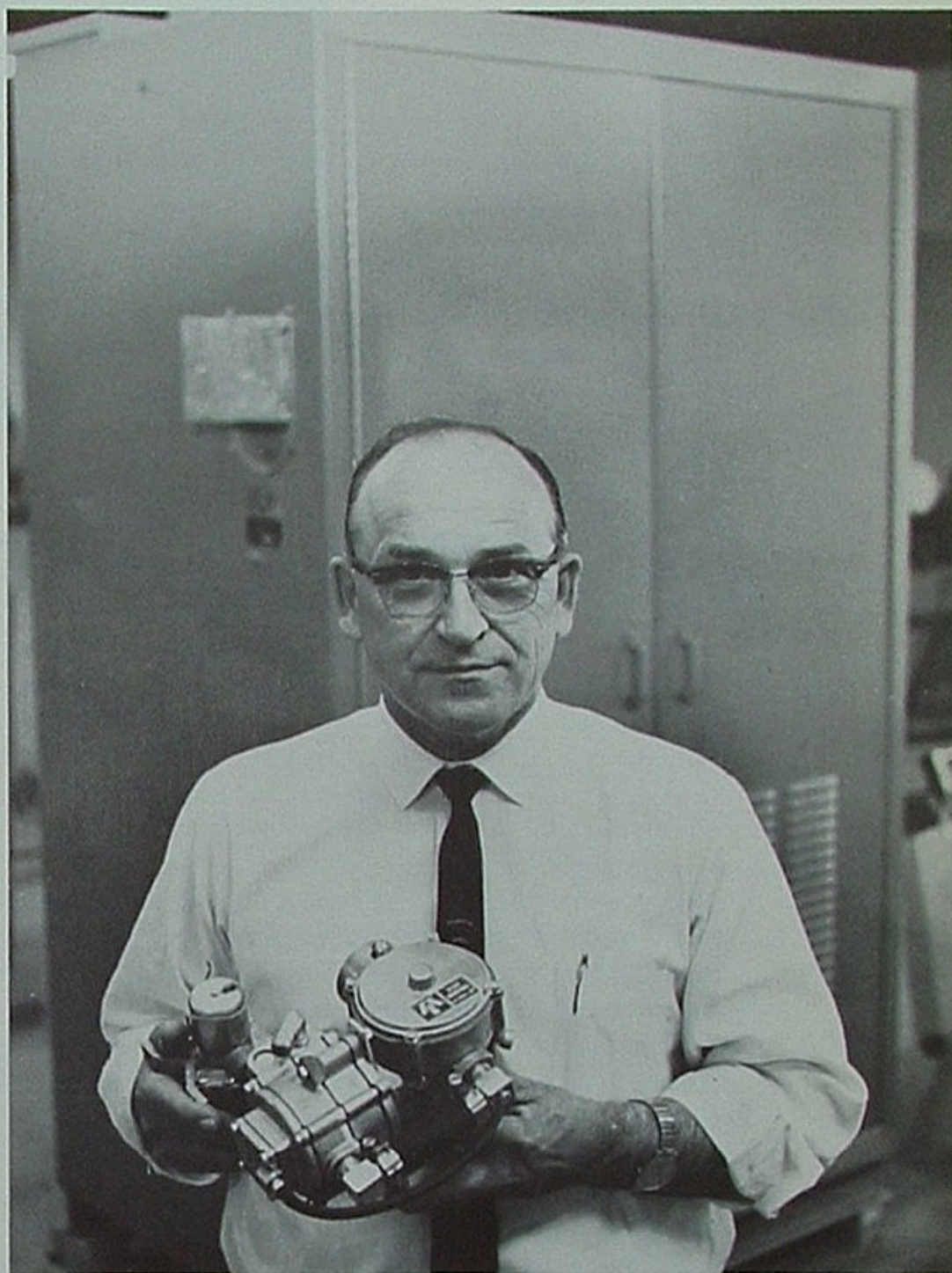
PETRONICS DIVISION: This newly acquired subsidiary designs and manufactures oil field metering equipment. Algas President Finnell described the acquisition of Petronics, Inc., as "a major step in Algas's planned diversification into automated controls for oil fields and offshore oil wells." (For an example of Petronics Division's products, see "A New Lease on Life," SEVENTY-SIX, July, 1963.)

Briefly, that is the 'new look' at Algas Industries.

As a working laboratory for Monopower and its Total Energy Concept, the new Algas Industries plant in the City of Industry is a showcase for the industry.

"After all," says Finnell, "it's an 'all gas' plant—pun intended."

THE END



Algas Industries products range from carburetors to big vaporizer units used to supply standby fuel to industrial plants. Plant Superintendent Gene Karnowski holds Algas carburetor.

Monopower— 76 per cent efficient

Gasoline and diesel engines normally achieve an efficiency of 30 per cent. The Total Energy plant at Algas Industries' new factory hopes to achieve an efficiency of 76 per cent. Here's how:

At 125 kilowatt hours (KWH) output, energy input per

KWH is 12,140 British thermal units (Btu). From this, 3,415 Btu are used to generate electric power, 3,700 Btu are reclaimed from engine jacket water, and 2,100 from the exhaust.

This totals 9,215 Btu—or 76 per cent energy efficiency. (The other 24 per cent is lost through heat radiating from engines, waste exhaust and engine oil.)

"Based on an eight-hour, five-day week," says C. Haines Finnell, Algas president, "we estimate yearly savings of \$7,000. The system should pay out in seven years."

Mrs. W. W. Orcutt



'I Remember When...'



(The Santa Paula mentioned in this interview is about 70 miles from Los Angeles, then—as now—an agricultural-oil community. Today, Coalinga is a city of 6,000 in California's San Joaquin Valley. W. L. Stewart was a president of Union Oil Company, as was his father, Lyman—a co-founder of the company.)

HEAD TOWARD the ocean from Los Angeles on the traffic-choked Ventura Freeway. Take a turn-off about 20 miles from civic center, where the hills rise out of the west end of the flat San Fernando Valley. It's a short drive, a drive right into yesterday.

The flood of homes that has engulfed the valley is just beginning to lap against the hills. Horses still graze there; cows wander into the town of Canoga Park to feed on dichondra lawns; there still are white-fenced fields and typical, old-time California eucalyptus windbreaks. And there is the rancho Sombra del Roble.

Sombra del Roble, "Shade of the Oak:" that's the name Mary and William Orcutt gave their home when they drove through the barley fields to its new white gates in 1919. He—director of exploration for Union Oil and soon to be a vice president—was already one of the West's truly great oil hunters. She . . . "We were partners for forty-four years," Mrs. Orcutt says.

Last month, we went out the freeway, around the edge

of the hills, and through the same white gates to talk to Mrs. Orcutt. She had, a few days before, celebrated her ninety-first birthday. We'd heard she was one of the company's early employees, perhaps one of the few people who remembered California and Santa Paula, Union Oil's birthplace, before there *was* a Union Oil Company.

We listened rather than talked. Because here was a keen, articulate woman, a lady who wore her years with the same grace she wore her pearls. Bright-eyed, white-haired, sitting in a blue wing-chair beside an enormous fireplace—February afternoons are cool in the valley: it was hard to visualize her 65 years ago as a young mother working over a wood stove in Coalinga.

"How did I get to be a Union Oil employee?" she asked.

"Well, Mr. Orcutt and I met when we were both in the eighth grade at the Santa Paula Academy. That was the first secondary school in Ventura County; later it became the high school. There were many New Englanders in Santa Paula and they believed in education.

"In 1891 William went to Stanford University and I went to Pomona College. He was in the first class they enrolled. He studied civil and hydraulic engineering. He loved geology, but he didn't think he could make a living at it. He took the other courses because he had to; he studied geology because he wanted to."

(The man who "didn't think he could make a living at geology" later formed the first geological department in

the West for Union Oil Company. During his lifetime, he would find oil by the hundreds of millions of barrels. Three, alone, of his and his men's discoveries—Dominguez, Santa Fe Springs, and Santa Maria Valley—will yield more than 300 million barrels of crude oil.)

"We were married in 1897," Mrs. Orcutt says. "Mr. Orcutt had an engineering and surveying office on the second floor of the Union Oil building in Santa Paula. The company also had two or three rooms there.

"At that time, we lived diagonally across the street from the Stewarts. W. L. Stewart and my husband were very close friends.

"Union Oil was looking for someone to take charge of its San Joaquin Valley division. W. L. told his father, 'Bill Orcutt is a likely lad. Why not send him?' There had been 10 dry years around Santa Paula and business was bad; so my husband took the job and we moved to Coalinga.

"Coalinga was just a wide spot in the road then, in 1899. The company provided a four-room house, a horse, and a buggy. The office was right in the house.

"The groceryman came by once a month. We had a wood stove. I baked the bread, did the cooking, washing and ironing, took care of our six-week old daughter—and made \$30 a month keeping books for another oil company.

"In the Spring of 1901, Union Oil wanted to put a pipeline from the valley to the coast. Mr. Stewart asked my husband to survey the route and told him to get someone to take care of the office while he was gone.

"I told him I could do it; so for three months in the spring of 1901 while Mr. Orcutt was on the survey, I worked for Union Oil in charge of its Coalinga office. Does that make me your oldest former employee?"

Union Oil had production at Oil City, nine miles from Coalinga. Once a day, a train came from Hanford, where the main line goes through the San Joaquin Valley. When there was oil to be shipped, Mrs. Orcutt received a telegram from Los Angeles telling her how many cars to fill. She phoned the instructions to the loader.

As the train neared Coalinga—it ran on a loose schedule—the engineer blew his whistle.

"When I heard the whistle," Mrs. Orcutt says, "I'd take my waybills, put the baby in the buggy, and go down to the tracks. The train was a long string of oil cars with a passenger coach at the end.

"While the train pulled on to Oil City to be loaded, the conductor and I'd take care of the paper work. Then baby, buggy, and I would go back to the office again."

The Orcutts spent two years in Coalinga. Out of those years, Union Oil's geological department was born.

For his own amusement during the long evenings, Or-

cutt made the first geological map of the Santa Maria Valley, where Union had extensive holdings. He showed it to W. L. Stewart who passed it along to the board of directors. Their reaction, Mrs. Orcutt says, was, "Bill's got something here. Tell him to come on in and open up a geological department."

That was late in 1901, and by now the company headquarters had been moved from Santa Paula to Los Angeles. The Orcutts "came on in" with \$1,500 they had saved and bought a home. For the next forty years while exploration man Orcutt followed the oil trail, they lived "a wonderful, adventuresome life."

"We were together on Norway's North Cape and in the bottom of Culebra Cut before the water was turned into the Panama Canal. Did you know Union supplied the oil for the canal?"

"He was a Viking, my husband," Mrs. Orcutt says. "He slept on the ground in Alaska until his hat froze to his head. In South America, he walked in the wet jungles until his shoes fell off his feet."

And he found oil. By 1920, when the low adobe at Sombra del Roble was finished, Orcutt had built up Union's geology department to one of the country's finest. Already, he was known as "the father of modern geology." A huge, calm man, he was able to inspire younger geologists who later became top-flight oil hunters—among them today's company president, A. C. Rubel.

Aside from oil, one of Orcutt's discoveries electrified paleontologists, scientists who study the ancient life of the globe, as much as the world's greatest gusher would have aroused the oil hunters.

In 1902, while scouting the La Brea tar pits in what is now the Wilshire District of Los Angeles, Orcutt spotted a mosaic of bones on the surface of a pool of asphalt. He had stumbled on the skeleton of an extinct giant ground sloth, a prehistoric creature that had roamed the earth millions of years ago.

In his search of the pits, he excavated many rare specimens, among them the first complete skull known to science of the sabre-tooth tiger. Universities and museums picked up where oil man Orcutt left off to study his discovery, the richest paleontological bonanza so far found.

Mrs. Orcutt was widowed forty years ago. She says, "I suppose I've reached an age when I should just fold my hands and wait." But she says it with a laugh. She still manages her business affairs—"they're mostly charity now." And a wallful of testimonials and awards speaks for the activity of those hands in their ninety-first year.

As for her age, she isn't impressed. "Anyone," she told us, "can achieve ninety-one—if they have enough time."

THE END

*These new arrivals
are our challenge
for the future.
We're meeting this challenge with...*



A harder hitting Sales Organization

ONE DAY a few weeks back a 36-year old Philadelphia electronics engineer, his pretty blond wife and their 7-year old son stepped off a jetliner at Los Angeles Airport. They rented a car, checked into a motel and began house hunting. Meanwhile the husband reported to work at his new aerospace job.

Multiply this picture by some 300 a day and you have an idea of the population explosion in California. People come by airplane, car, train and bus. Regardless of how they come, many of them settle in the Los Angeles-Orange County population complex. This population growth—a thousand a day for all of California—is creating problems of how to cope with this growth. To be sure, these are happy problems, but problems none the less.

At Union Oil Company, for example, a recent survey disclosed evidence of this. More than one third of the company's sales was accounted for in the California South Coastal Division, the marketing organization serving Southern California. Among the seven geographical marketing divisions in the West, each—theoretically—should account for roughly 15 per cent of sales. The sales organization established in 1960 was growing lopsided.

Rather than let this situation grow even more lopsided, it became apparent that it would be better to have eight geographic sales divisions, instead of seven, to cover our western states, each accounting for about 12 to 15 per cent of sales.

A practical benefit from this was that with two divisions in the Southern California area the managers would have a better opportunity to handle the day-to-day problems that crop up in any organization.

As a result, in February the California South Coastal

Division was split up into two divisions. One division, extending from central Los Angeles northward to Paso Robles, is called the California Mid-Coastal Division. The other, also headquartered in Los Angeles, extends south to San Juan Capistrano and retains the name of California South Coastal Division.

A. R. (Oz) Ousdahl, former manager of marketing services, was named as manager of the new California Mid-Coastal Division. C. C. (Clay) Petray, former supervisor of real estate in the old California South Coastal Division, was named manager of the new California South Coastal Division.

While the people in Refining and Marketing Division were at it, they simplified some other marketing boundaries. For example, geographical adjustments have eliminated overlapping division lines across the Oregon-California and Oregon-Nevada borders. Our marketing divisions headquartered in San Francisco, Sacramento and Portland now are more nearly partitioned by state boundaries. In Idaho, the extreme eastern counties have been transferred from Oregon's sales supervision to that of the Southwest Mountain Division headquartered in Phoenix.

Back in the home office, the promotion of Ousdahl to division sales manager left vacant his position as manager of marketing services. T. E. (Ted) Luke, formerly of Phoenix, was named to that post.

Other significant steps were the reorganization of the Planning and Development Department into a new Planning Department under the managership of James McDonald, and the establishment of a Merchandising Department managed by former California South Coastal Division Sales Manager E. (Ned) Kendall Jr. Manager



McDonald reports to Senior Vice President John W. Towler of the Refining and Marketing Division. Manager Kendall reports to Vice President C. E. (Ted) Rathbone of the Marketing Department.

Let's look at the new Planning Department first.

In contrast with the former Planning and Development Department, which both conceived and installed new plans and programs, the new Planning Department will concentrate principally on longer range studies and recommendations. Development of marketing programs will be left up to the Merchandising Department and the marketing divisions.

In essence, the new Planning Department will take a long look at the general market picture, then figure out ways for Union Oil to win more customers. In a changing economy, planning can be of vital importance. The fact that by 1970 half the U.S. population will be under 21 years of age is indicative of the changes in store for us. It is the Planning Department's task to find ways of winning this group to Union Oil as loyal customers.

But that's only part of it. The planners will be considering our refining needs for the future. There will be a multitude of problems in distribution. Getting oil from the field to the refinery and then to the customer is a big job. The planners must find ways to do this even more economically in the days ahead.

In today's world it takes a lot of money just to stand still—say nothing of getting ahead. This holds true for

Union Oil Company as well as for you. The Planning Department will have to find ways of employing our capital in the Refining and Marketing Division to its best advantage. The planners will have to look into a crystal ball of statistics, revenue rates, sales charts and expense ratios to plot a course for the future. Part of this will be the economic evaluation of new ideas. After all, a shiny new refinery unit is no bargain if it doesn't make money for the company.

To provide basic information for the planners, a market research group will study trends, techniques and economic factors influencing marketing operations now and tomorrow. It's a big job.

Turning now to the Merchandising Department, we see Ned Kendall coming off the firing line of sales to develop new, hard-hitting merchandising programs in both commercial and retail sales. This will be a specialized and concentrated effort.

As a long range goal, an important part of the merchandising program will be training new salesmen, dealers and consignees.

On a more day-to-day basis, the Merchandising Department will keep close touch with field offices to help achieve sales goals. Of interest is the fact that certain classes of business (manufacturing, mining, construction, agriculture, transportation and car dealers) will be made the merchandising responsibility of specific individuals in the Merchandising Department.

As is true of most organizational changes at Union Oil Company, this one is largely a regrouping of personnel as a step toward future growth and progress. It is evidence that a corporation never grows old as long as it remains flexible. It foretells our intention of growing even larger in the dynamic industrial complex of the West. It is Union's way of winning as customers many of these people moving to California from the Midwest and East. THE END

E. Kendall Jr.



James McDonald



A. R. Ousdahl



C. C. Petray



Van Nuys coed
Diane Stanley
balances a stack
of Happi Hats



Happi Hats

SPRING IS THE season for new fashions—especially for hats. And while the bonnets pictured here may not win a grand prize at the Easter Parade, they could become the latest word on the teen-age hit parade of fashions.

The conical bonnets featured on these two pages are called Happi Hats. They're light as a zephyr, stick to your head like glue, come in a rainbow of colors, and easily mold into a hundred shapes.

Happi Hats made their fashion debut late

in March at the third annual Teen-Age Fair at the Hollywood Palladium. Like Davy Crockett coonskin caps and hula hoops, Happi Hats are expected to become the fashion hit of the teen world, as evidenced by the wearers on these pages.

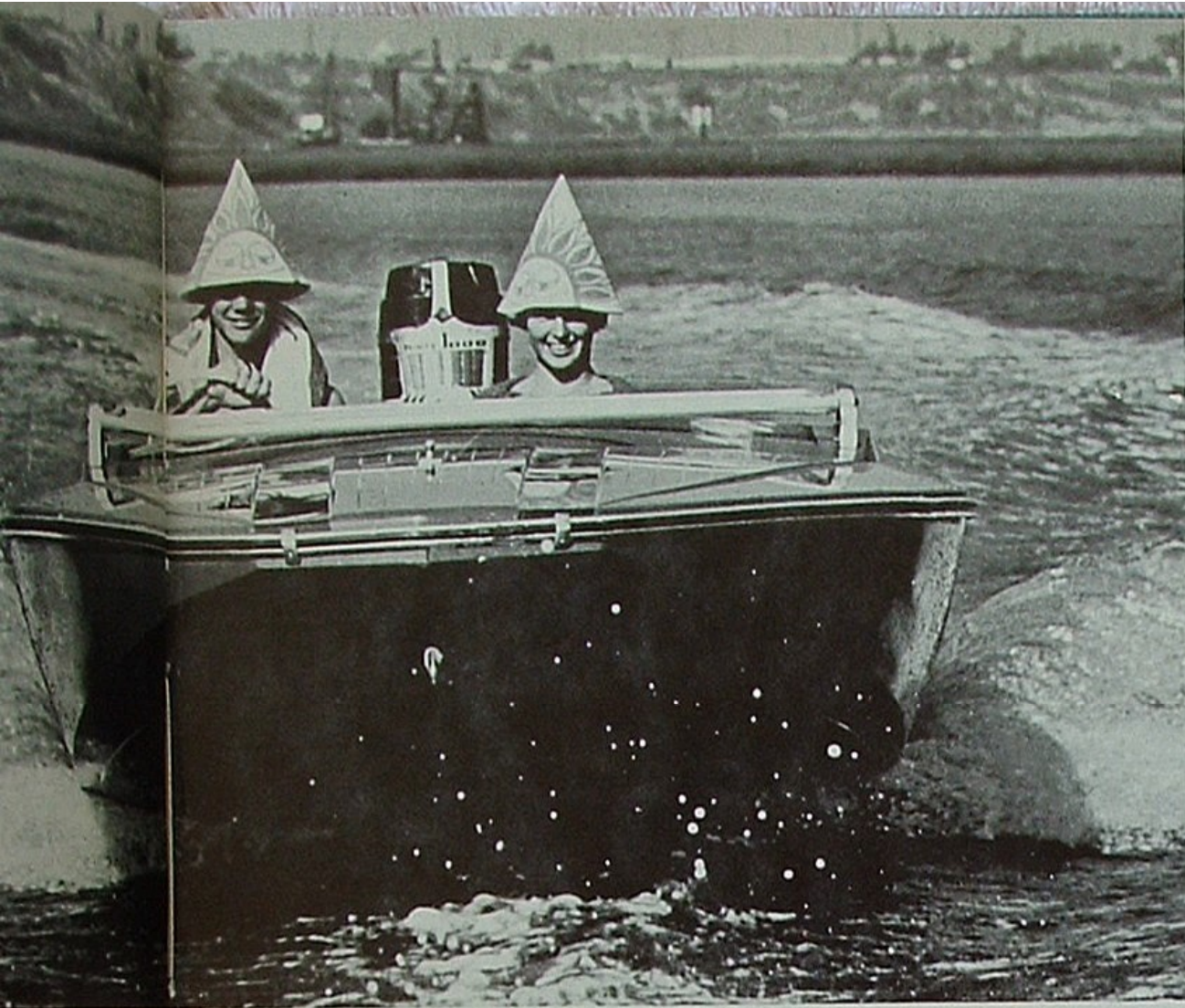
If you happen to live on the East Coast, you'll have to visit the New York World's Fair to get a Happi Hat. More fortunate are those in the West, for Happi Hats will be on sale at almost any Union Oil station.

The Lennon Sisters
choose contrasting Happi Hats



Pam Colbert tries
polka dot with a tuck





For California outboard enthusiasts, the hats keep sun out of eyes. If lost overboard, hats float

'Fun,' say Welk dancers Boylan & Burgess



ts

Teen-Age Fair
m. Like Davy
hula hoops,
become the fash-
evidenced by

he East Coast.
york World's
e fortunate are
Hats will be on
station.



TV starlet Eileen O'Neill, who shares honors on our cover, poses fetchingly in pony tail

Even the moppet set gets happier in a Happi Hat



When business drops off, he ties flies—

Bob Bell of Independence

by RUSS HALFORD

INDEPENDENCE, CALIFORNIA

IF EVER a man found the occupation of his heart's desire it's Union Oil Dealer Bob Bell.

As a businessman he prefers to eat regularly by selling "76" products just east of the High Sierras. But a lull in business, which is as regular as winter in those parts, is never thought of as slow or inopportune in this man's mind. He makes hay while the sun *doesn't* shine. Factually he seizes the idle moment to make some of the West's most sought after fishing lures. In the words of the Isaac Walton league, he *ties flies*.

Bob, like many others among us, tried a dozen occupations and places to make a living during the first 47 years of his life. In the big city of Los Angeles he worked for eight years as a credit manager, 14 years as a life insurance agent, four years as a service station owner and operator. He served a military hitch in the Philippines and Okinawa.

In looking back over those busy years, Bob one day realized he was rarely doing what he really liked to do. The few exceptions were weekends and annual vacations. Then he'd invariably load his wife and two daughters into the family car and head for the hills.

The "hills" were California's High Sierras in the vicinity of Mono Lake and Lone Pine. The town that seemed to draw the Bell family like a magnet was Independence. They usually stayed at the Eckert Motel there while Bob explored beautiful mountain country with gun, rod and reel.

As summer drew toward a close in 1959, the Bells began to ask themselves some straight questions: With the two daughters grown and married, why continue being city folks when they wanted to be mountaineers? Why not live in the country and vacation in the city? What town



in the world offered better freedom prospects than Independence?

Fortunately the Bells were not long in finding a suitable business opportunity. The Eckert Motel where they had stopped so many times was for sale, along with a service station next door. All they needed, after buying both properties, was to make everything home-like and decide on what brand of petroleum products to sell.

Bob quickly chose Union's "76" line because, in his own words, "There's none better. Do you know the gasoline has its own patent number? That cuts some ice in this country! And Union people are good to do business with. As long as the products are tops I'll buy them." Bob Bell, all 230 pounds of him, is a good man to have on your side.

That first winter in the High Sierras—and most winters since—was more than a businessman usually bargains for. With the opening of schools, the busy tourist season was gone. By the holidays, gone also were the fishermen and hunters. Their places were taken only by fewer numbers of winter sports devotees and visitors to Death Valley.

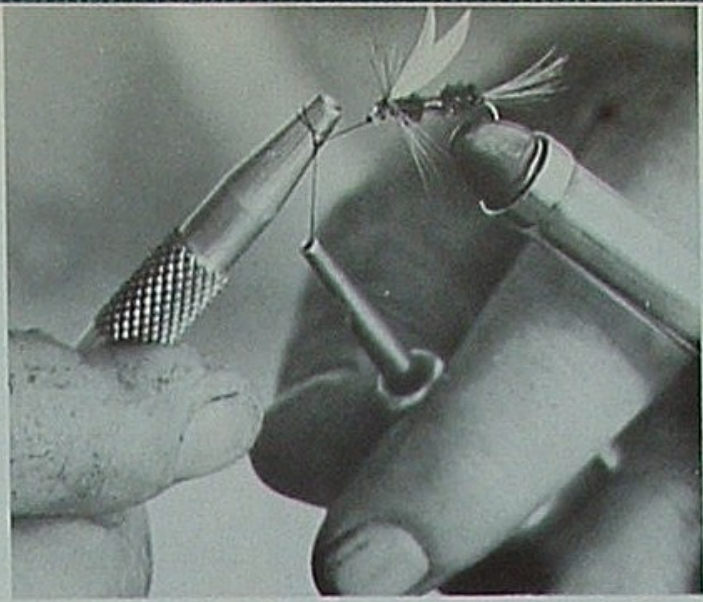
But Dealer Bell wasn't a bit dispirited by the lull in business. Between customers he got out a small vise, bobbin, hand grip and scissors. Round the tools were placed top-quality bird feathers, hooks, thread and shellac.

In comparison with these delicate tools and materials, Bob's muscular hands seemed much too big for the job. Still, 25 years of experience at fly-tying had developed surprising dexterity. Like a ballet ensemble, the fingers danced a gentle, twisting motion around a steel hook. Magically bits of feather and floss were caught in the moving thread, emerging as the wings and body of an insect. With a deft knotting of silk thread, Bob removed from the vise a perfect Royal Coachman trout fly, which fish are prone to mistake for a red ant. The whole tying operation had consumed only about 90 seconds.

That first winter, Bob tied only a few dozen flies during his spare moments. Just enough to supply himself and a few friends when the season opened; and just the particular varieties of flies he knew from long experience were irresistible to trout of the High Sierras. He also tied several pair that were irresistible to Mrs. Bell, who occasionally wears them as ear rings.

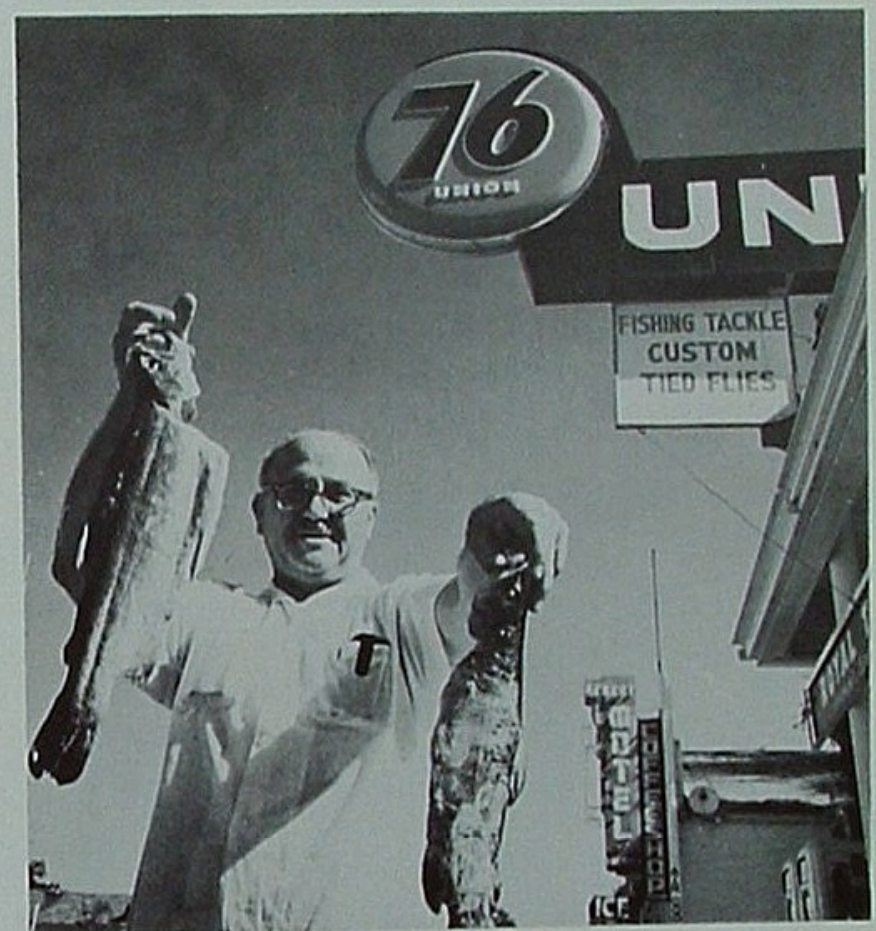
With the coming of trout season, however, the unexpected happened. Bob went fishing along his favorite streams and always came back with a good catch or the lawful limit. He was the type of rod-and-reeler who could walk up a stream and catch rainbows while most other fishermen were catching nothing but cold. Many fished right beside him in a vain effort to match his casting style and his luck. They concluded finally it must be those flies Bob was using.

Along one of the High Sierras streams they like most, Bob Bell and his dog Pal try their luck at fly fishing for rainbow trout.



PHOTOGRAPHS BY RUSS HALFORI

Fly tying is an art as well as a knack. The hook, sheathed with floss, thread and feathers, must move through the water in perfect imitation of a trout's favorite tidbits. Bob, seen below with proof of his artistry, combines fly tying, "76" service and fishing into a life of happy, successful mountaineering.



Out of those brookside studies developed a migration to the Bell service station in Independence. At first, Bob practically gave the hooks away—especially to fellow townsmen or neighbors. Then his fame spread. Traveling fishermen by the score were directed to "that 76 station over there." One man placed an order for 18 dozen flies a year. Sporting goods stores offered to dispose of his wares like hotcakes. Soon Bob was tying 500 dozen flies each winter season—just to keep the peace in Independence.

Of course you'll probably never see a trout-fly factory rise out there in the mountain country. Bob is too confirmed a sportsman for that. But if ever you'd like to meet a big, quiet man who enjoys what he's doing, drop in at the sign of the "76" in Independence. Whether it's gasoline, fishing or flies you're looking for, he'll provide you with the finest.

THE END

Business



Highlights

AIM FOR FAME CONTEST SEES 13 MEN SHARING TOP PRIZES

The Aim for Fame commercial lube oil contest for 1963 ended with 13 Union Oilers splitting up a \$9,000 melon in the first prize category.

One salesman, two sales supervisors and three resident sales managers came off with \$1,000 first prizes. Five salesmen and two sales supervisors shared \$1,000 first prizes. The latter arrangement came about because men were promoted or transferred during the year; the prize money was parceled out according to the number of months the individual was in the running.

The Aim for Fame contest, designed to boost lube oil sales, offered monthly, semi-annual and year-end cash prizes to those who produced the largest gain over pre-established quotas. The contest was open to salesmen, sales supervisors and commercial sales supervisors, and to resident sales managers. To equalize competition between urban and suburban territories, each category had three winners.

NOTICE TO EMPLOYEE SHAREHOLDERS

It is hoped that all employees will want their Union Oil stock represented at the April 27 Annual Shareholder's Meeting. One way to accomplish this is to promptly sign and mail the proxy card recently sent to you. This will help assure maximum representation at the meeting.

R. F. Niven, Secretary

The prizes announced here are for year-end winners. Mid-year winners were announced in the October issue of SEVENTY-SIX. In addition, monthly winners were announced by newsletter.

The year-end winners included:

FIRST PLACE

SALESMEN

William J. Kirby of Coos Bay, Oregon, \$1,000. Don Macaulay and R. R. Jarrett of San Francisco received \$500 each, based on six months apiece. The third \$1,000 prize was divided up this way: For C. C. Row of Portland, Oregon, \$500. Portlanders G. L. Phillips got \$333.33, and R. C. Uphoff, \$166.67.

SALES SUPERVISORS

Checks for \$1,000, went to E.W. Bollinger of Elko, Nevada, and W. F. Orr of Long Beach, California. The third \$1,000 award was split—with \$750 to Elmer E. Edwards and \$250 to R. Spradling, both of Phoenix.

RESIDENT SALES MANAGERS

Three men won \$1,000 first prizes. They are C. D. Bartholomaeus of Vancouver, Washington, J. B. Kaye of Sacramento, California, and Raymond Hoffman of Oakland, Calif.

SECOND PLACE

Second place awards of \$500 each went to six men:

SALESMEN

J. D. Hampton of Colton, California, C. Stanley of Bakersfield, California, and J. L. Campagne of Los Angeles North.

SALES SUPERVISORS

Arthur G. Crocker of Colton, California, N. S. Buvick of Coos Bay, Oregon, and M. L. Crowe of Portland, Oregon.

THIRD PLACE

Third prizes of \$200 were awarded in the salesman category to three men. They are M. G. Ekberg of Los Angeles South, G. Zimmerman of San Diego, and Howard Huenergardt of Oakland, all in California.

In announcing the winners, Vice President C. E. (Ted) Rathbone of the Marketing Department said, "I know my congratulations will pale into comparative insignificance beside some of these checks, but I want you to know that I am proud of your accomplishments."

Not piling into comparative insignificance was the fact that Rathbone extended the lube oil contest, with modifications, into the first six months of 1964.

CONTEST WINNERS DESCRIBE SECRETS OF SELLING IN '63

First place winners in the Aim for Fame commercial lube oil contest were asked to describe how they made sales gains in 1963. Here, briefly, is what they had to say:

William J. Kirby of Coos Bay, Oregon: "Don't forget the small ones; single barrel orders add up."

"Sell yourself and the quality house image," said Don Macaulay of San Francisco.

Said R. R. Jarrett of San Francisco: "Knock on every door."

"Concentrate on target accounts," said C. C. Row of Portland, Oregon.

C. D. Bartholomaeus of Vancouver, Washington, insisted, "Don't be denied—not by competitors, not by stubborn prospects, nor by rivals."

"Knock on doors," said R. C. Uphoff of Portland, "and ask people to buy."

"Concentrate," said J. B. Kaye of Sacramento, "on the largest gasoline, diesel, lube oil and grease customers."

E. W. Bollinger of Elko, Nevada:

AIM FOR FAME CONTEST

1963 Year-End Winners



W. J. KIRBY
Coos Bay



DON MACAULAY
San Francisco



R. R. JARRETT
San Francisco



C. C. ROW
Portland



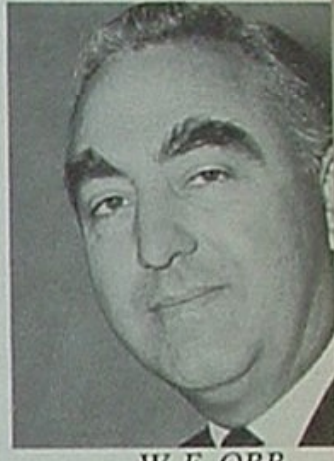
G. L. PHILLIPS
Portland



R. C. UPHOFF
Portland



E. W. BOLLINGER
Elko, Nevada



W. F. ORR
Long Beach



E. E. EDWARDS
Phoenix



R. SPRADLING
Phoenix



C. D. BARTHOLOMAEUS
Vancouver



J. B. KAYE
Sacramento



RAY HOFFMAN
Oakland

"Concentrate on the largest competitive accounts."

"Emphasize the most profitable and the *finest*," said W. F. Orr of Long Beach, California.

"Work on the truck and trailer accounts," said Raymond Hoffman of Oakland, California, "and acquire what the customer describes as 'our competitor's fair share.'"

DEFENSE FUEL SUPPLY CENTER AWARDS UNION 4 CONTRACTS

The Defense Petroleum Supply Center has changed its name to the

Defense Fuel Supply Center (DFSC). The DFSC also has awarded Union Oil Company four contracts. They call for:

—900,000 barrels of navy special (ship's boiler) fuel oil for delivery from Los Angeles Refinery during the six months that began January 1;

—23,037,000 gallons of jet fuel for delivery during a six month period beginning April 1, also from LAR;

—76,692,000 gallons of jet fuel, grade JP-5, during a 30-month period from April 1, 1964, to September 30, 1966, from LAR; and

—11,340,000 gallons of diesel oil (low pour point Arctic grade) for delivery during the first six months of this year from Oleum Refinery.

NEARLY HALF OF OUR CRUDE COMES FROM OUT-OF-STATE

Our exploration and production operations in areas outside of California—namely the Gulf, Central and Glacier Divisions, and Canada—are really paying off. An indication of this comes from the fact that almost half of the crude oil and condensate

continued

Business Highlights *continued*

produced by Union Oil Company in January came from these areas.

Last year the company achieved the highest net production in its history, 38,965,533 barrels. (This represents crude oil actually owned after subtracting lessor and partner interests.) Of this 38 million barrels, 17,063,000 came from out-of-California areas, accounting for 43.8 per cent of our 1963 production.

Looking back over the years, we find that out of a production of 38,616,040 barrels in 1950, only 7,283,824 barrels—or 18.8 per cent of the total—came from outside of California. Here is the record since 1950:

YEAR	OUT-OF-STATE PRODUCTION
1950	18.8%
1955	21.1%
1960	33.1%
1963	43.8%
1964 (January)	47.9%

EVEN AN OIL SHALE TABLE DOESN'T STUMP THIS BUYER

The office furniture buyer for Union Oil Center recently received an unusual request, to say the least. "Wanted: one table containing seven gallons of oil."

Although the story goes back millions of years geologically, it was not until additional furnishings were

needed for the main lobby at Union Oil Center that such a table was thought of. It seemed fitting that such a table should bear some relation to the oil industry. But how? Then someone recalled that oil shale from Colorado had been used to make novel cuff links. Could the shale serve as a table top?

The idea caught on, and soon two large shale boulders weighing 14,000 pounds were bound for Los Angeles.

A new problem cropped up. Who could cut the boulders into nine pieces 16 by 26 by 1½ inches? Few lapidaries had heard of oil shale; none had worked it. Finally a headstone cutter was called in.

Meanwhile a specially designed stainless steel table frame was fabricated to accommodate the shale table top. Total weight is about 800 pounds.

To add a final touch, an engraved plaque was ordered with this message:

"THIS TABLE TOP IS COLORADO OIL SHALE TAKEN FROM UNION OIL COMPANY'S PROPERTIES ALONG PARACHUTE CREEK ON THE WESTERN SLOPE OF THE ROCKY MOUNTAINS. OIL SHALE IS POTENTIALLY ONE OF THE WORLD'S GREAT SOURCES OF ENERGY. UNION'S SHALE HOLDINGS ARE ESTIMATED TO CONTAIN FIVE BILLION BARRELS OF

OIL. SEVEN GALLONS OF OIL CAN BE PRODUCED FROM THIS TABLE TOP."

MARKETING KEEPS ITS EYE ON THE TEEN AGE WORLD

Ever stop to ponder the impact of the war babies on our economy? They are teen agers now, becoming adults at the rate of more than a million a year.

Recognizing the present and future buying power of this group, part of Union's promotional efforts are being directed at the teen-age world.

Union Oil will, for example, televise the annual Southern California Science Fair for high school students. The fair is being held in May and will be taped for subsequent telecasting on station KTTV in Los Angeles. Later, films will be sent to high schools for use in science classes.

Another case in point. Through an exclusive arrangement with Legend City amusement park in Phoenix, Union Oil dealers in Arizona are offering student certificates for reduced admission prices. Union Oil also will sponsor the midget sports car ride in this newly built, desert version of a Disneyland.

OLEUM REFINERY INSTALLS NEW 1,000 H.P. COMPRESSOR

At Oleum Refinery workmen have installed a new centrifugal compressor in the Coking Plant. It replaces four older reciprocating compressors.

The new compressor is driven by a dual fuel engine—the engine runs on fuel gas and diesel oil used simultaneously.

Increased efficiency of the new compressor should result in considerable reduction in operating and maintenance costs. An indication of the size of the new unit may be gained from the fact the engine is rated at 1,000 horsepower.

Irene Carnal, receptionist in the Union Oil Center lobby, tidies up the reception area in the lobby. The table in front of her is made of nine pieces of oil shale from Colorado. Article describes construction.



EVER WRAP A HOLE?

Union Oil wraps its holes in the ground with miles and tons of steel pipe

IF THERE'S ONE thing Union Oil's exploration and production people are experts on it's holes in the ground.

For the past 74 years, they've gone around drilling holes in the ground from Alaska to Australia. At the moment, they have more than 5,000 very desirable holes—holes with gas or oil on one end and pipelines on the other.

These are expensive holes, too valuable to leave lying around unprotected.

Now there are a number of things you can do with a hole to protect it and to make it useful. Wrap a hole in rubber and you've got a Minute Man tire. Or wrap it in cardboard treated with Unowax and you've got a milk carton. Union Oil wraps its holes-in-the-ground with steel—steel by the mile and by the ton.

Take the high-pressure gas wells our Gulf Division people dig near Houma, in southern Louisiana. Those holes are very highly prized. They're 15,000 feet deep—nearly three miles. And they have more than 11 miles of pipe in them: pipes inside of pipes inside of pipes, each smaller than the other. Eight different sizes and kinds. That's more than a million pounds of expensive steel.

Some of the pipes—casing—are there to protect the sides of the hole, to keep it round and hollow. Some have valves at the top end so we can control the flow of gas from the well.

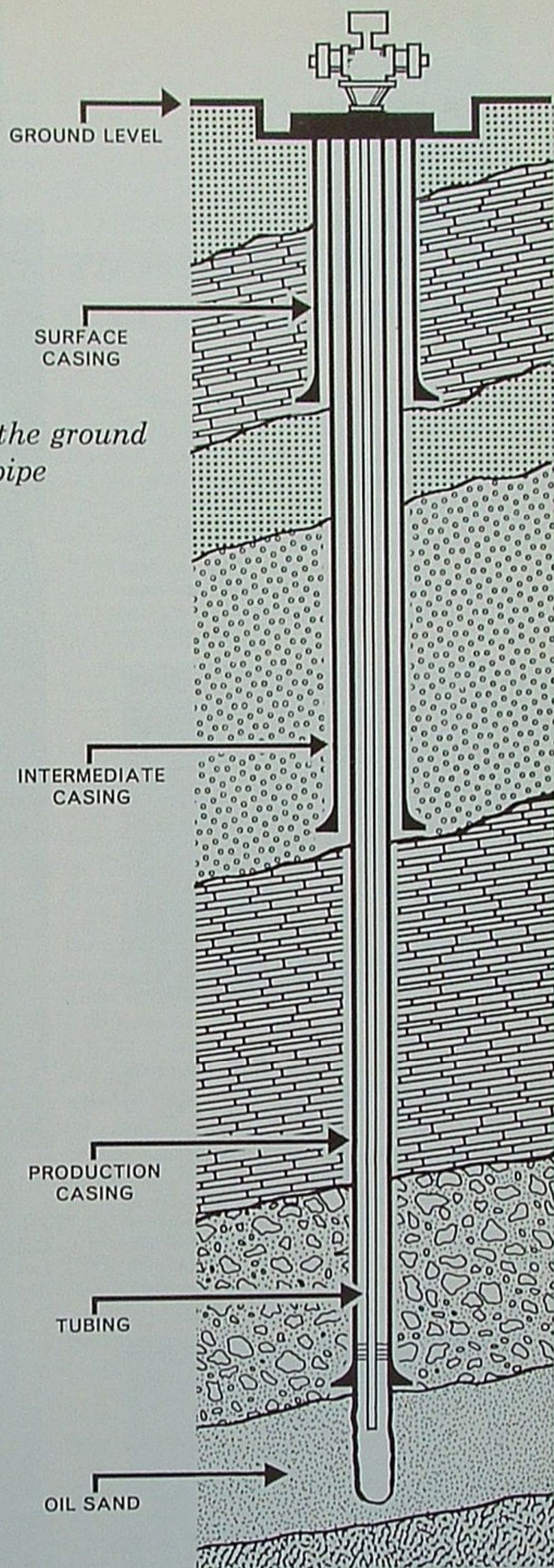
The biggest pipe is the casing, the steel sheath that lines the inside of the hole. At the top of a Houma well, the casing is 16 inches across, almost exactly the same size as this magazine when you open it up.

The final string of pipe, the tubing that gas comes out through, is slightly more than an inch across. That's about the right size for a small brown mouse to crawl down without tickling his whiskers. Or, to put it another way, a fifty-cent piece would just fit inside the pipe.

If you had the money and the patience to sit there dropping 50-cent pieces down the tubing, you'd need 1,849,535 of them to fill it.

And for that amount—provided you had an extra \$75,230.50 in small change—you could drill exactly two gas wells at Houma. Pipe and all.

THE END.





**IN
FOCUS**

JACK CADDY, right, our dealer in Kellogg, Idaho, is the recipient of an engraved belt from Cal Bowen, state president of the Idaho Junior Chamber of Commerce. The belt inscription names Jack as the outstanding Jaycee for 1963 by virtue of his excellent work as chairman of the "Keep Idaho Green" committee. He also is a member of the Kellogg city council.

from John Kirkland



MORE THAN A HUNDRED new Union customers were acquired by Al Greenburg, center, manager of finance and insurance for Phil Hall Buick Co. of Southern California. Al's employers, a 100 per cent Union Oil account who do a large monthly volume of changeover business to Minute Man tires, are currently completing a million-dollar agency facility in Los Angeles. While President Charles A. Speight of the auto firm beams his approval, I. J. Monroe, left, Union's car dealer sales supervisor, presents Al with an engraved pen-and-pencil set—appropriate tools for carrying on the fine credit-card campaign.



W. I. MARTIN, division sales manager at Seattle, has been appointed 1964 campaign chairman of United Good Neighbors in that city. The Seattle Times photo shows him, at left, with president Maxwell Carlson of the charity association at the Seattle Hearing and Speech Center, watching as a deaf child is taught to overcome the handicap.



THE PORTLAND TERMINAL boasts four members of the Red Cross Gallon Club, namely from left, Richard J. Cowing, Kenneth Skeels, Jack W. Powell and John H. Moore. Over the years, this quartette has responded to donor appeals by contributing 10½ gallons of blood.

from Marguerite Kamper

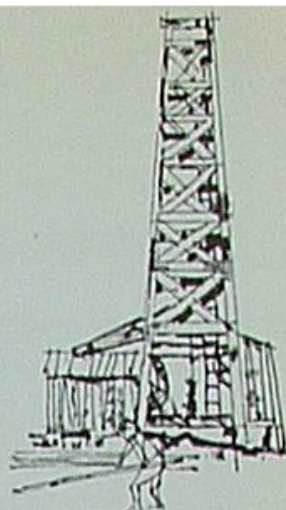




MALCOM KIRK CARTER, commercial sales engineer in our California South Coastal division, is now commissioned a "Kentucky Colonel with all the rights, privileges and responsibilities thereunto appertaining." His commission arrived from the office of Kentucky's Governor Bert Combs about last Christmas. The colonel's first reaction to the high honor was to stand ramrod straight and add a polite "sir" or "ma'm" to his casual vocabulary.

HEMPHILL OIL COMPANY of Portland is a reseller of Union heating oils. Accordingly it invited Union Oil employees to cooperate with it in obtaining new accounts. A happy result of the joint venture was the awarding of prizes to the leading business getters. In the photo President Robert G. Hemphill, left, is seen expressing his company's gratitude to grand prize winner G. L. (Dave) Phillips, Union's commercial salesman in the Portland area.

from Marguerite Kampfer



TURNING BACK THE PAGES

PICO CANYON in northwest Los Angeles County is the birthplace of the California oil industry. And there still stands in Pico Canyon today the crumbling remains of an oil derrick built in 1884. If you were to visit this particular site today, you would see little evidence of oil, for Star No. 1 never was a really great producer.

Yet this well stands in high regard in the archives of Union Oil Company, and rightly so. It was in 1884 that W. L. Hardison and Lyman Stewart joined forces for the second time as partners; the first time had been in Titusville, Pennsylvania.

• • •

LYMAN STEWART was optimistic. Other wildcatters had found some success with shallow wells, but Stewart believed the real bonanza was down deeper. Hardison and Stewart had begun drilling on Christian Hill in Pico Canyon. Hill No. 1 was dry. So, too, were Hill Nos. 2, 3, 4, and 5.

They moved to Tar Creek and spudded Smith Farm No. 1. All it produced was sulfur water. They moved to Santa Paula Creek. Santa Paula No. 1 was a duster too.

"It looked as if the whole structure we had labored to build up was about to be destroyed," Stewart later said. In desperation he called on a wildcatter friend who had struck oil in shallow drilling. Stewart asked for a small lease.

"The Star lease in Pico Canyon looks good," the friend said.

• • •

IT WAS THEIR last chance. Stewart took a sublease. If they failed, they were bankrupt. They spudded Star No. 1.

Racing against time, they watched the bit as it chopped away. Finally, at 1,620 feet, they hit oil.

The well came in for 75 barrels a day.

True, they had oil, but not success. Lacking funds to produce Star No. 1, they sold it to pay debts and raise capital for another try.

Hardison and Stewart were to wildcat for many years before they found financial success, but Star No. 1 had saved the day.

"Without Star No. 1," California historians say, "Union Oil might never have been founded."



AWARDS

REFINING & MARKETING

March 1964

40 YEARS

LEONARD J. ANDERSON Union Oil Center

35 YEARS

HILDA R. BILLS Portland
 WEBSTER FRANCIS Los Angeles Refinery
 H. L. GLENDENNING Colton, California
 ANDREW D. GRAY Union Oil Center
 ALIENE STIRLING Union Oil Center
 NOEL WINDES Santa Paula District,
 California

30 YEARS

LEO E. BALDWIN Oleum Refinery
 WILLIAM BERGVELT Los Angeles Refinery
 JAMES DONALD BOWIE Oleum Refinery
 REGINALD BRENCHLEY Phoenix
 MICHAEL F. HUGHES Oleum Refinery
 SAMUEL R. NEELY Oleum Refinery
 FRANK C. NUZMAN Oleum Refinery
 JOSEPH PROLA Oleum Refinery
 CHARLES W. THOMPSON Oleum Refinery
 EUGENE R. TYLER Oleum Refinery
 HAROLD S. WILLIAMS Union Oil Center
 HAROLD N. WILSON Los Angeles Refinery

20 YEARS

FORD A. ANDREWS Los Angeles Refinery
 CHARLES V. BAKER Santa Maria District,
 California
 MYRTLE GRANT Los Angeles Refinery
 JOHN W. GROESCH, JR. Union Oil Center
 LE ROY R. KELLER Los Angeles Refinery
 EDWARD F. MILLER Oleum Refinery
 KENNETH L. TUCKER Los Angeles Refinery

15 YEARS

WILLIAM P. BARBER Oleum Refinery
 C. O. BRANDVOLD Cut Bank Refinery
 S. T. CROSBY, JR. Union Oil Center
 EARL H. GROVE Avenal District, California

10 YEARS

DONALD A. AMBLER Chico, California
 JOHN A. BLANCHE Union Oil Center
 LOUIS R. CARGO Oleum Refinery
 WILLIAM L. COCHRAN Boise, Idaho
 RICHARD A. COPELAN Cut Bank Refinery
 DONALD E. DUECK Richmond, California
 MIKE FIORENTINO Oleum Refinery
 WILLIAM D. HUTCHISON Los Angeles Refinery

DICKSON W. LOGIE Redwood City, California
 GAYLE L. LOTT Oleum Refinery
 F. F. MARCELLAS Orange, California
 HAROLD L. REYNOLDS Los Angeles Refinery
 THOMAS L. SHERIDAN Cut Bank Refinery
 LEONARD G. SOUZA Oleum Refinery
 JOHN M. TAYLOR Los Angeles Refinery

April 1964

35 YEARS

CHARLES E. RATHBONE Union Oil Center
 OTHIR R. RUSSELL Oleum Refinery
 KENNETH F. SIX Los Angeles

30 YEARS

EARL R. FORDEN Oleum Refinery
 JAMES V. GRAY Oleum Refinery
 ELMER E. JOHNSON San Francisco
 ESTEL B. LITTELL Edmonds, Washington
 WILLIAM S. MARTIN Roseville, California
 BERLE T. MURRAY Oleum Refinery
 ARTHUR G. PARKER Portland
 D. G. von der HELLEN Portland
 JACK F. WREN Oleum Refinery

25 YEARS

CLARENCE W. BASTEN Oleum Refinery
 R. R. BEYERSDORF Seattle
 LEONARD H. SAUNDERS Oleum Refinery

20 YEARS

J. V. BARDIN Stewart District, California
 WILLIAM W. ESTRADA San Luis Obispo, California
 CHESTER W. FINSTAD Union Oil Center
 JOHN S. KENT Sacramento

15 YEARS

HARRY E. ANDERSON Edmonds, Washington
 DONALD L. COMEGYS Portland
 RALPH C. HURLBERT Great Falls, Montana
 MARSHALL MASON, JR. Berkeley, California
 VIVIAN L. SMITH Union Oil Center

10 YEARS

M. M. ARDIZZONE Redwood City, California
 D. T. AREA Phoenix
 ANDREW L. BARONE Sacramento
 R. H. CONGELLIERIE Los Angeles Refinery
 RICHARD K. GROSS San Diego
 G. O. GULLICKSON Hoquiam, Washington
 ANNETTE E. HOLMES Union Oil Center
 WALTER A. PETERSON Los Angeles Refinery

EXPLORATION & PRODUCTION

March 1964

35 YEARS

DON E. McFADDIN Union Oil Center

30 YEARS

O. CLIFTON SIMONSON Brea, California

25 YEARS

SILVY J. VALENSUELA Coalinga, California

20 YEARS

CLELL C. McFARLAND Brea, California

15 YEARS

WILBUR E. BONN Gordon Field, Texas
 EVERETT W. GREEN Houston, Texas
 HENRY J. PAULSEN Coalinga, California
 GORDON R. SAUNDERS Roswell, New Mexico

10 YEARS

CLAUDE D. CRAMER Coalinga, California
 EDGAR DAVIS Midland, Texas
 JUANITA F. HOLLIS Santa Fe Springs, California
 EVELYN W. SMITH Union Oil Center

April 1964

40 YEARS

LISLE H. NICHOLLS Union Oil Center

30 YEARS

JOHN R. ANDERSON Bakersfield, California
 RALPH W. COBINE Dominguez, California

25 YEARS

JAMES R. DABNEY Manila, Philippines
 DOUGLAS S. HENLEY Coalinga, California
 GLENN A. HESS Coalinga, California

20 YEARS

LAWTON D. ATKINS Cat Canyon, California
 JACK L. LUMMUS Orcutt, California
 WANN L. WILKS Del Valle, California

15 YEARS

STEPHEN BROUSSARD Abbeville, Louisiana
 HUGH O. POST Midland, Texas

10 YEARS

HARRY T. CHEADLE Orcutt, California
DONALD R. MALONE ... Las Cienegas, California
ROY L. WATTS Guadalupe, California

CORPORATE STAFF

March 1964

35 YEARS

CHARLES W. LINDSEY Union Oil Center

20 YEARS

EDWARD C. ATTANE, JR. Research Center
WILLIAM C. SCHAEFERMEYER ... Research Center

15 YEARS

HELEN RUTH ARVIN Union Oil Center

10 YEARS

JOHN H. BALLARD Research Center
ROBERT L. HILLIARD Research Center
MARGARET MATNEY Union Oil Center

April 1964

35 YEARS

KENNETH F. ALLEN Research Center

30 YEARS

ARTHUR S. WELD Union Oil Center

20 YEARS

CRESTON M. HARNOIS Union Oil Center
ROBERT B. SPRATT Research Center

15 YEARS

BERNICE A. TAYLOR Union Oil Center

DEALERS

March 1964

40 YEARS

J. T. BROCK Los Angeles

35 YEARS

UNIVERSITY CLUB GARAGE Los Angeles
WARNER'S GARAGE Forks, Washington

20 YEARS

RUSSELL SAGE Auburn, Washington

15 YEARS

CAPITOL MOTORS, INC. Helena, Montana
SAKAE HATAKEYAMA, dba HATAKEYAMA
SERVICE STATION Kapaa, Kauai
A. KOUPARITAS Weed, California
FRED MONROE Elsinore, California
CHARLES A. POTTER Kingman, Arizona

continued on page 24



Edmund F. Welton

PERFECTLY RELIABLE

ON DECEMBER 20, 1928, a young production superintendent in our Dominguez oil fields named Cy Rubel (he's now president of Union Oil) sized up a 19-year-old job applicant and promptly hired him.

That was the beginning of an astonishing record of dependability and punctuality. The newcomer worked for a few months in the oil fields, then was transferred to Los Angeles Refinery. During his more than 35 years of continuous company employment, he never once failed to report for a scheduled *tour* of duty or refinery shift. Not once was he late for work or "ahead of the gun" at quitting time. He never asked for sick leave or any other kind. Like Ol' Man River, Edmund F. Welton just kept rolling along.

The only hint of imperfection on this man's time sheet occurred, he believes, in 1952. Even that day he reported to work on time and voiced no complaints. But his foreman, noticing that Ed looked a little pale or below par, sent him to the refinery dispensary. The medic on duty sent him home and to bed. But next morning, Welton was back on the job—right on time—and feeling fine. He hasn't missed a working minute since.

In questioning Welton about his many years of good health and perfect reliability, we received some rather surprising advice. Said he:

"Like everybody else, I've had a few cuts and bruises—all minor—nothing serious. Never had a lost-time injury on or off the job. Never had a serious auto accident. Just lucky, I suppose.

"My living habits? Well, about the only thing a health faddist would want to remember about me is that I'm not a tobacco user. I'm not much of a drinker either, but I don't claim to be a tee-totaler.

"On the other hand, I'm a worrier—you know, the nervous type who lets all kinds of things annoy him. I love to eat—anything, everything, and lots of it—but fortunately I don't gain weight. I don't get enough exercise, and they say I work too hard.

"Guess I'm quite a disappointment if you're looking for something inspirational to say."

Not so, we assured him. A 35-year performance of his kind more than speaks for itself.

THE END

SERVICE EMBLEM AWARDS

continued

10 YEARS

BRUMFIELD-TWIDWELL Montesano, Washington
 AL N. CEFARATTI Phoenix
 JOE P. CEFARATTI Phoenix
 WALTER GIBBONS Eureka, Montana
 H. H. HEISLER Beatty, Nevada
 WILLIAM B. PEDERSEN Eugene, Oregon

5 YEARS

VIC BOWMAN Oregon City, Oregon
 J. M. DANNO Reseda, California
 BEN FUJITA Los Angeles
 RALPH AND NORMAL GILBERT, dba
 GILBERT'S SERVICE Helena, Montana
 JACK HILL Alamo, California
 JESUS A. MARTINEZ, dba
 KYRENE STORE Tempe, Arizona
 JOSEPH T. LEWIS Walnut Grove, California
 W. D. MONTGOMERY Reseda, California
 GEORGE THOMAS Cottonwood, Arizona

April 1964

35 YEARS

M. E. JAECKEL Glendale, California
 J. P. MIRANDA San Francisco

30 YEARS

H. K. CONRAD Gila Bend, Arizona

25 YEARS

MRS. VIRGINIA COLLINS Pomona, California

20 YEARS

RAY NOBLE North Bend, Washington
 R. B. EVERSOLE Canby, Oregon

15 YEARS

GORDON ANDERSON—
 January Bridger, Montana
 NICK BABILUK—
 January Silver Gate and Cooke City, Montana
 CLAUDE BLAKELY—
 January Roscoe, Montana
 EDWARD GLASS Canoga Park, California
 ALVEN HENSLEY Priest River, Idaho
 J. R. JAMIESON—
 January Red Lodge, Montana
 SAM KLING (Dealer and
 Consignee) Sidney, Montana
 MOUNTAIN CHEVROLET—
 January Red Lodge, Montana
 ROBERT W. PHELPS Wickenburg, Arizona
 DARREL ROYAL dba ROYAL'S
 REPAIR—January Red Lodge, Montana
 H. THORPE Los Angeles
 LLOYD WEGNER St. Helens, Oregon
 R. M. WHITE Indio, California

10 YEARS

H. J. COLLINS Sun City, Arizona
 J. H. AHO Eureka, California
 MARGIE GUYOTT Goldfield, Nevada
 LA MOILE HARRIS Hyde Park, Utah
 HOWARD HEINE Corvallis, Oregon
 HOWARD LUTZ Wren, Oregon
 ELMER PRICE Modesto, California
 GUNNAR E. SKOG Fremont, California
 BOB THOMAS Sutherlin, Oregon
 ED WALTER Modesto, California
 CZESLAW WASAK San Francisco

5 YEARS

CHESTER ALLEN Capistrano Beach, California
 EARL ANDERSON Klamath Falls, Oregon
 GREGORY ANTUNANO, JR. Calistoga, California
 D. E. BLANCHARD Mercer Island, Washington
 JOHN D. FRIEND Corte Madera, California
 DALE E. GEARING Rio Vista, California
 ALEXANDER JENKINS Los Angeles
 D. A. PHILLIPS Los Angeles
 MARGARET REICHENBACH Woodburn, Oregon
 ROBERT REICHENBACH Woodburn, Oregon
 FORT RICHARDSON POST EXCHANGE Alaska
 DAVE SMITH, INC., dba
 MALAGA TRUCK STOP Fresno, California
 JOE SPENCER Bell Gardens, California
 B. J. WARE Los Angeles
 NORMAN KELLER Kalispell, Montana

CONSIGNEES-DISTRIBUTORS

March 1964

35 YEARS

W. H. HEATH Grants Pass, Oregon
 NEW ENGLAND FISH COMPANY
 Noyes Island and Chatham, Alaska
 W. B. RAMAGE Willows, California

30 YEARS

C. J. STULL Anaheim, California

25 YEARS

D. D. BEAUCHAMP Redding, California

15 YEARS

CLAIR HUGHES Mesquite, Nevada
 R. D. PERRY Deer Lodge, Montana

5 YEARS

GEORGE H. THOMAS Cottonwood, Arizona

April 1964

35 YEARS

D. F. SHOVELIN Battle Mountain, Nevada
 W. H. WORDEN Chelan, Washington

30 YEARS

W. M. GOBBY Hollister, California

20 YEARS

LEO FRANKLIN WILKIE Lakeview, Oregon

5 YEARS

LEON FLEMING Oroville, Washington
 LEON KOLCZ Raymond, Washington
 THEODORE PRIOR Raymond, Washington

RETIREMENTS

February 1964

ADOLPH B. BERTELSON
 Cut Bank, Montana October 8, 1942

OSCAR S. CHAPLIN
 San Luis Obispo, California January 26, 1926
 RICHARD J. CHOWEN
 Los Angeles Refinery January 8, 1923
 EDWIN G. DELEREE
 Los Angeles Refinery September 21, 1923
 EARL W. GOODLOE
 Long Beach, California June 3, 1944
 FLORENCE L. JACKSON
 Millbrae, California August 17, 1947
 HOOPER LINFORD
 Fullerton, California June 1, 1932
 PAUL R. SWANSON
 Oleum Refinery June 17, 1931
 WILLIAM J. WALKER
 Los Angeles March 1, 1932
 MICHAEL J. WARD
 Cut Bank, Montana July 15, 1932

March 1964

MANUEL J. COSTA
 Orcutt Refinery April 1, 1946
 HAROLD M. FOSTER
 Santa Maria, California August 27, 1924
 FRED B. KNOWLES
 Long Beach, California October 1, 1929
 ARCHIE C. OWSLEY
 Grover City, California July 7, 1944
 ATILANO M. RAZO
 Orcutt Refinery April 1, 1946

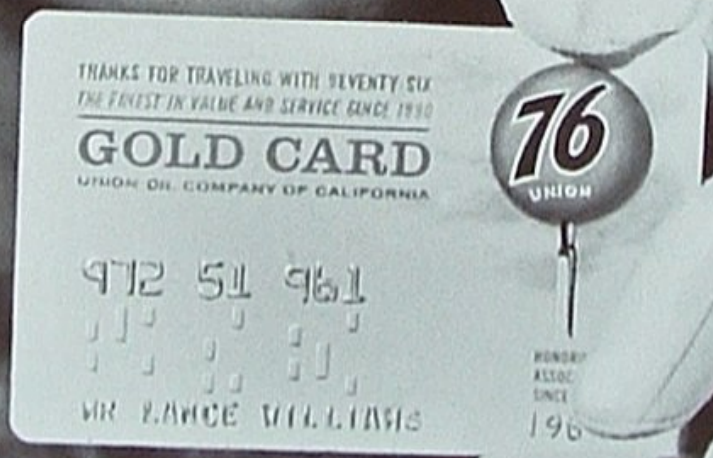
IN MEMORIAM

Employees:

HENRY EVANS
 Los Angeles Refinery January 24, 1964
 EMILY L. LEMKER
 Los Angeles December 25, 1963
 VALERIO RIZZOLI
 Santa Margarita, California December 24, 1963
 LLOYD M. VINCENT
 Abbeville, Louisiana December 26, 1963

Retirees:

ARTHUR P. BARBER
 Long Beach, California January 28, 1964
 RAYMOND A. COLLINS
 San Francisco January 18, 1964
 SHERMAN DOTY
 Van Nuys, California December 18, 1963
 JOHN J. FLADUNG
 Riverside, California December 25, 1963
 EDWIN L. KELLY
 Los Angeles Refinery December 24, 1963
 WILLIAM F. O'NEILL
 Oleum Refinery February 12, 1964
 JOHN Y. QUAYLE
 Arcadia, California January 24, 1964
 JOHN P. ROCKFELLOW
 Prescott, Arizona January 14, 1964
 LYLE P. RUSSELL
 Fullerton, California February 9, 1964
 CASPER SIPKEMA
 Los Angeles Refinery February 5, 1964
 GEORGE STUBBY
 Los Angeles Refinery December 31, 1963



THANKS FOR TRAVELING WITH SEVENTY SIX
THE FINEST IN VALUE AND SERVICE SINCE 1960

GOLD CARD
UNION OIL COMPANY OF CALIFORNIA

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MR. LAWRENCE WILLIAMS



MEMBER
ASSOC.
SINCE
1960

it's a credit to you

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



How We Work...

Every day automation is bringing new character to our work. At the Stewart Station southeast of Los Angeles, station operator Pat Brown gets acquainted with the electronic equipment for remote control of the installation. Similar equipment is being installed at pipeline stations in Norwalk, Santa Maria, Santa Paula, Piru and Torrey so pumping may be controlled from Union Oil Center. Brown is learning to maintain this equipment.