

# SEVENTY Working SIX

FEBRUARY 1959

### SEVENTY® Unlon Oil Company of California SIX

Volume 3, Number 2

### FEBRUARY, 1959

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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 Editors, SEVENTY-SIX, Union Oil Center, Los Angeles 17, California.

### EDITORIAL BOARD

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M ILLIONS of television watchers and an estimated 1,500,000 paraderoute spectators were on hand January 1 to view Pasadena's famed Tournament of Roses. Crisp air in the early morning, a blue sky and bright sunshine provided ideal atmosphere for what was undoubtedly the most beautiful parade in 70 years of Tournament history.

A sponsor continuously since 1929 of beautiful commercial-division floats that have won 10 major prizes, Union Oil this year entered a floral masterpiece depicting "The Adventures of Marco Polo." The scene was a Siamese temple, roofed and walled with three varieties of chrysanthemums and outlined in Vanda orchids. A stairway of roses led down to a chrysanthemum-covered courtyard wherein were a flowing fountain and strutting peacock, both made of Vanda orchids and paper-white narcissi. A huge fan behind the temple repeated the delicate orchid-narcissus floral theme.

To create the exquisite spectacle required 40,000 Vanda orchids, 7,000 roses, plus unnumbered quantities of chrysanthemums, white narcissi, Catalya orchids, gardenias, maiden hair fern, pearl ginger and torch ginger.

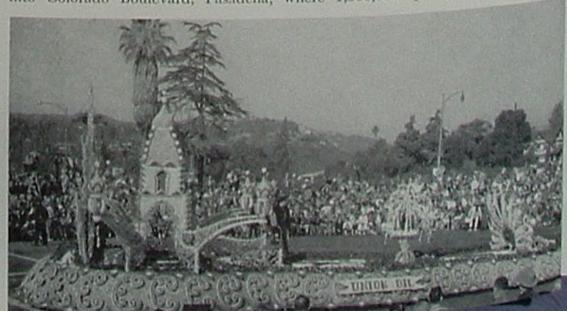
Marco Polo, impersonated by Jack Veazey, appeared as an ambassador of Genghis Khan to the Court of Siam. He was welcomed by the Princess of Siam, a blond beauty better known in her native California as Joni Barr. The float was designed and built for Union Oil by Dr. Sam Coleman.

The tensest moment to thousands of people who design, build and sponsor these beautiful floats comes less than a half-hour before the parade begins. Judges have been quietly grading each entry since the break of dawn. Finally their score cards are gathered and the results are compiled. Then a Tournament official, accompanied by two young men and their award banner, begin marching down the long line of waiting floats. Not a word is spoken. No one knows which float is a prize winner until the two young men and the banner take their positions in the parade line.

On January 1, 1959, a banner labeled "Judges' Special Trophy" swung into position ahead of the Union Oil entry. Veteran observers knew then, as many had guessed earlier, that "The Adventures of Marco Polo" was a major prize winner among commercial floats.

At least one Union Oiler played a prominent role elsewhere in the parade. Division Manager H. W. Bragg of Pasadena was official host to the Grand Marshal, U. S. Senator E. L. Bartlett of Alaska. As such, he escorted the Senator, Mrs. Bartlett and their daughter Sue to start the parade on its two-hour march of grandeur.

Union Oil's 1959 Tournament of Roses float (on the cover in color) is seen turning into Colorado Boulevard, Pasadena, where 1,500,000 spectators applauded it.



Union Oil entry in 1959 Tournament of Roses

# Wins Judges' Special Trophy



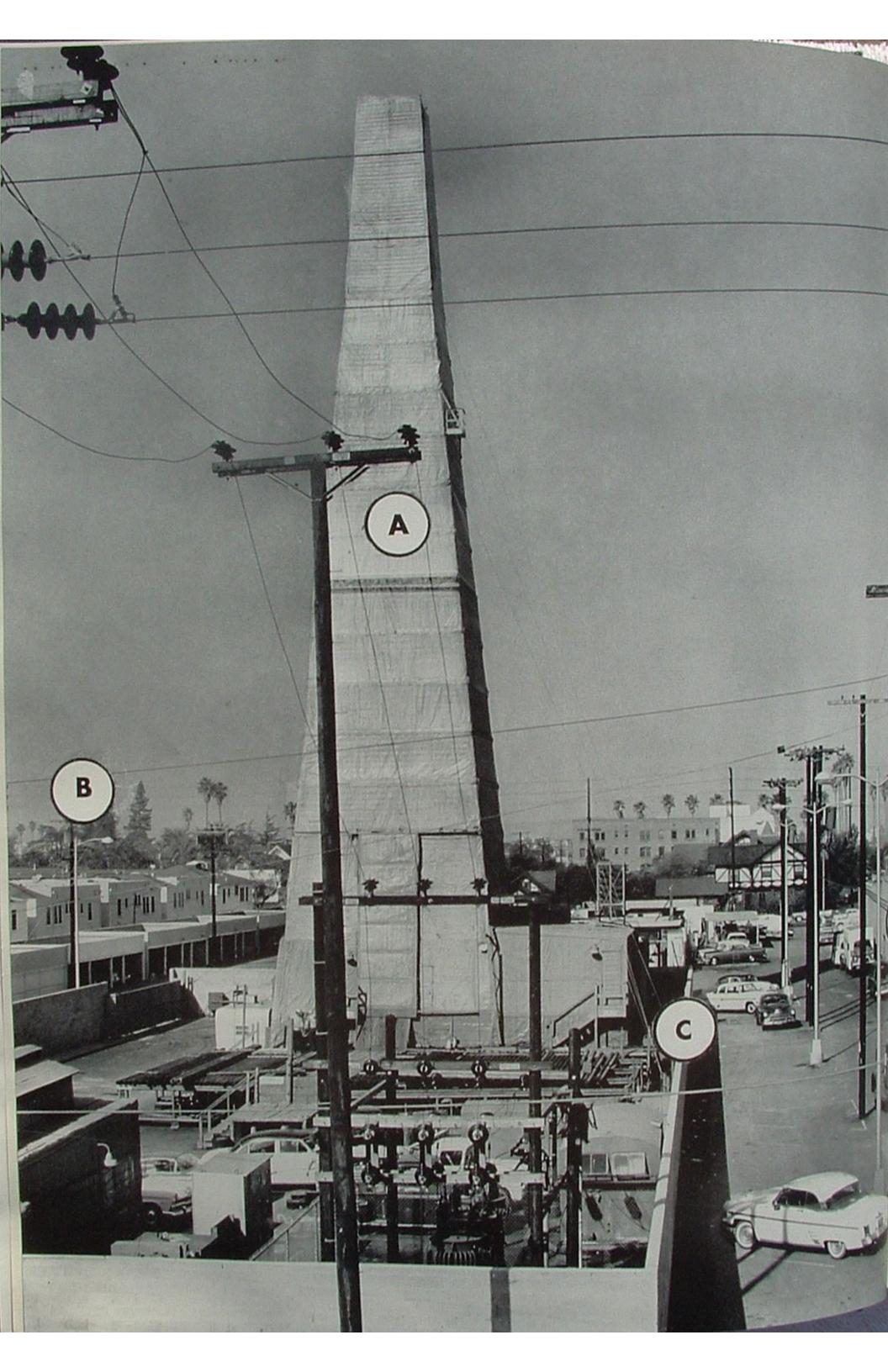
Vanda orchids and paper-white narcissi were used to create a colorful, strutting peacock at front.

Union Oiler H. W. Bragg, at wheel, was officialhost to Senator E. L. Bartlett and family of Alaska.



Theme of the floral display was adventure of Marco Polo (Jack Veazey) to Court of Siam, where Princess (Joni Barr) bade him official welcome.





(The following story and pictures appeared in the Los Angeles evening HERALD EXPRESS of January 24, 1959. To the publishers of that newspaper and their reporter, Robert Krauch, we are grateful for reprint privileges.)

Seek 'Black Gold' silently as neighborhood sleeps

# Drilling blankets

### L.A.'s quiet wildcat

partment house dwellers who sleep within 130 feet A of a new oil rig near Venice boulevard and Western avenue may be learning here for the first time that drilling operations are underway!

It's not that Santa Fe Drilling Co., and Union Oil

have kept their activities a secret, however.

The reason nearby residents might be unaware that round-the-clock drilling has been in progress for eight days is that there's relatively little noise in this operation.

In fact, city officials agree that Union Signal Texam U-19-1, the newest oil rig to "spud in" within Los Angeles City Limits, is the most quiet, safest, and most attractive ever erected.

"It's very expensive to drill in the city because of our rigid requirements to avoid neighborhood disturbances," according to William L. McCoy, assistant city administrative officer in charge of petroleum administra-

Here is the city's newest and most quiet wildcat oil rig ever to "spud in" in metropolitan Los Angeles. A 6 to 8-inch soundproofing blanket was necessary to cover the entire derrick (A) and muffle noise from apartment house bedrooms 100 feet away (B). An 8-foot concrete block wall (C) adds to safety and soundproofing and separates drilling activities from Western Plaza Shopping Center stores 130 feet to right (D), located at Venice and Western.

"It may cost Union Oil and their partners over \$500,-000 before they're through, but they are meeting and sometimes bettering every safety and noise-abatement requirement we've stipulated."

Union and the oil administrator are particularly concerned about safety and disturbance factors because this rig is at 18th street and Manhattan place on one corner of the Western Plaza Shopping Center parking lot-less than 100 feet from a dozen two-story apartment units on the west and the Safeway food market on the east.

### Lease Apartment for Sound Tests

To assure this is the "quietest rig," Union has even leased an apartment closest to the drilling operation, where Dr. Orville L. Polly, acoustical engineer, has set up elaborate equipment to test for noise and vibrations.

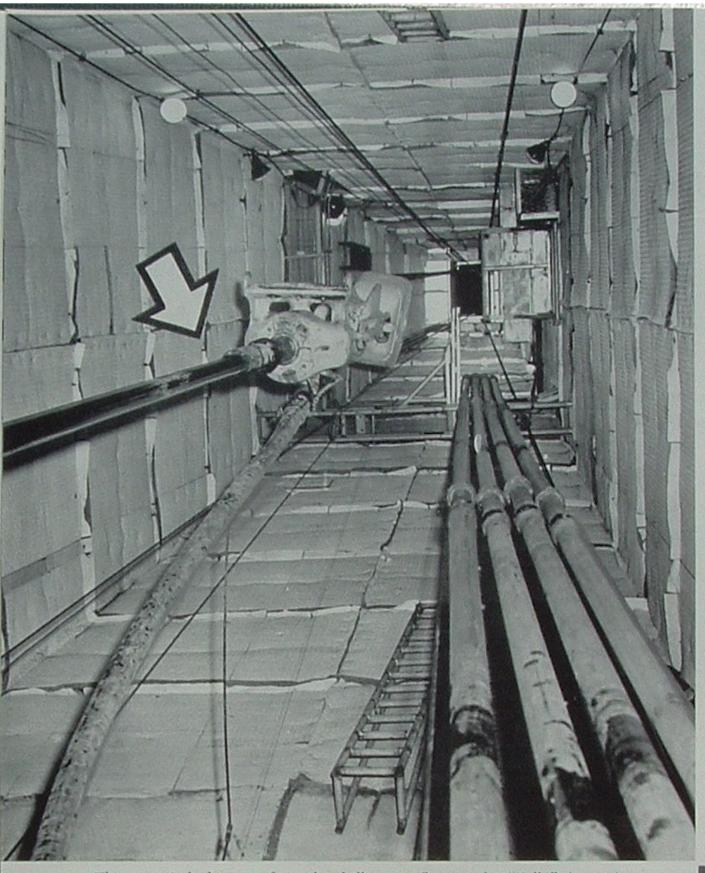
Tabbed the "super snooper" by drillers, Dr. Polly has made 24-hour recordings both before and when drilling began this past week to be sure operation noises are not audible to apartment house dwellers.

If the acoustics expert detects any untoward noises, he is empowered to shut down drilling until the noise can be corrected, even if the shut-down means additional expense to Union Oil.

A rugged Texas oilfield rigger would hardly recognize this "urbanized" drilling operation after it is made

Dr. Orville L. Polly, acoustical engineer for Union Oil, points to strain gauge recorder which records noise and vibrations of strain gauge; and behind is audio-tape recorder.





This view is looking up from the drilling rig floor at the "Kelly" (arrow), a square-faced section of hollow pipe that is gripped by the rotary table at floor level and through which special mud from the long hose is forced under pressure to the drilling bit thousands of feet under ground. Note complete soundproofing covering rig, which veteran crews call "blankets." At right are 90-foot sections of hollow drill pipe.

Fred B. Sevy, City Fire Bureau of Prevention inspector, checks the double safety of two blowout preventors, Upper is Hydril, which closes on round or square drilling pipe. Lower is a Shaffer, which will close on extremely high pressures. At right is James G. Schaeffer jr., superintendent.

### Drilling in Blankets-continued

SHEEDER FEWERING SEED IN STA

specially-trained rotary crewmen call it "drilling in blankets" because of the six- to eight-inch thick fiberglass padding applied to the entire 140-foot rigging, inside and out, with a dead-air space in-between.

### Quietest Equipment Installed

This method is not new to the city, McCoy explains, but re-designed rigs, improved equipment, methods of drilling and soundproofing techniques enable this to be the most quiet yet installed.

On a tour of the half-acre drilling site, enclosed by an 8-foot-high concrete block wall, Drilling Superintendent James G. Schaeffer jr. pointed out more than a dozen safety and noise-cutting features used by Union to protect nearby residents and the workers.

"Hollywood has built up the public's idea of a gusher," Schaeffer said, "but it's almost a thing of the past."

He explained how two different blowout preventors (costing \$38,000) which operate hydraulically are capable of shutting off a "gusher" if such



freak pressure should build up.

Los Angeles City Fire Prevention Bureau Inspector Fred B. Sevy was on hand to make one of his frequent inspections of the elaborate safety equipment and to see that all the fiber-glass coverings are properly fire-proofed.

"The cost to wildcat (any drilling in an unproven field) in a city area such as this will run from a quarter to half-a-million dollars, maybe more," according to Supt. Schaeffer. "This is three to six times more expensive than most wells in unpopulated areas."

### Area Returned to Former State

If oil is not located, he explained, the entire area must be returned to its previous condition-including destruction and removal of a 12-inch-thick reinforced concrete "cellar" measuring 8 by 8 by 30-ft.

The concrete-block wall is landscaped on the outside; there are two 40-ft. metal rolling gate entrances which have been sprayed with sound-proofing. Both large housing areas for mud pumps and the electric converters are doubly fire- and sound-proofed.

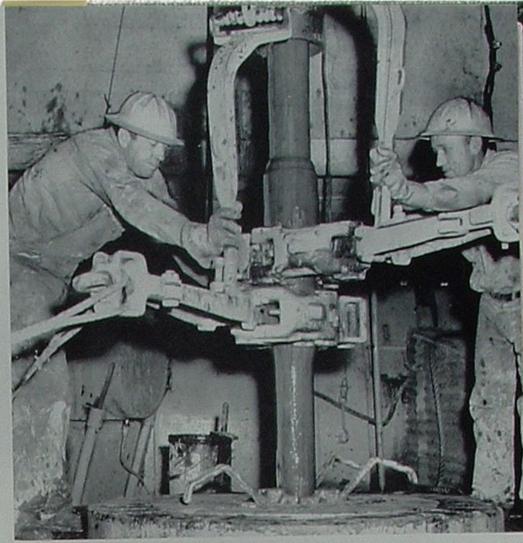
To avoid sleeper disturbances, deliveries by truck must be made only during the daylight hours from 8 a.m. to 6 p.m.

"We're particularly proud of the camouflaging job which covers the outside rigging blankets," Schaeffer said.

He explained that this rig was the same Union used at the Paramount Studio site, where a professional studio scene painter devised "look alike" colors to match surrounding buildings and, on the top half, to match the sky.

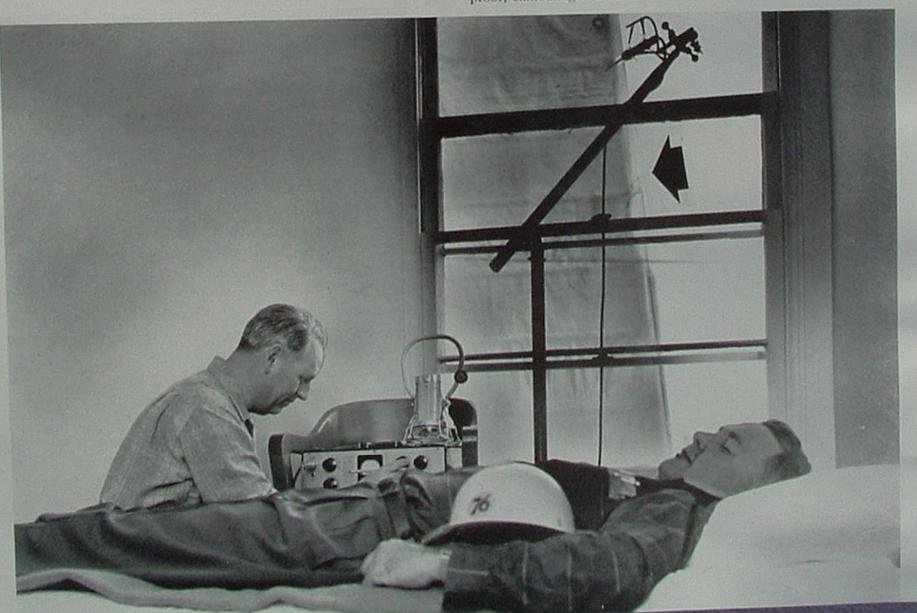
The Union Signal Texam wildcat in the metropolis is

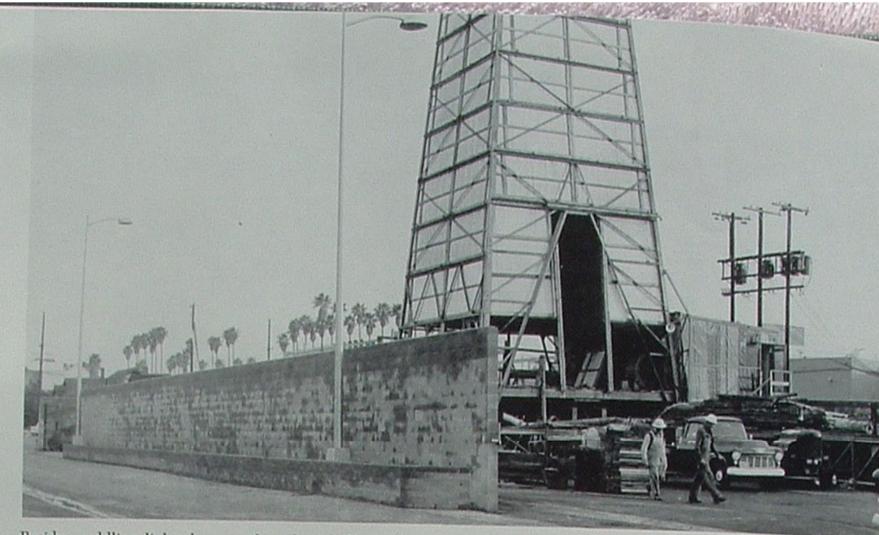
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R. L. Dorsey, derrick man, and P. D. Pitchford, rotary helper, are part of the hand-picked skilled crew which is drilling inside the city's newest, most quiet and safest oil rig. They're making connection for new 90-foot section of drill pipe.

Inside apartment only 100 feet from oil drilling rig, Dr. Orville L Polly, with soundscope, checks for drilling noise. James G. Schaeffer jr., Union's drilling superintendent, finds he can sleep easily, undisturbed because of soundproof methods. Arrow shows soundproof, camoufiaged derrick not far from window.





Besides coddling light sleepers, the urban drilling program hides both sight and sound of work behind concrete-block wall.

(Photos on this page, though not used in original newspaper story, were offered for our use by the Herald Express.)

Searching the neighborhood for signs of unrest, the Herald Express reporter found none: drillers were drilling in blankets.



### Drilling in Blankets-continued

being held up as an example to other oil companies and drilling concerns, who seek oil leases and special drilling districts, and then hope to "strike it rich" under urbanized areas, according to Huber Smutz, Los Angeles Zoning Administrator.

### Project Unproven Bonanza

But wildcatting in the city has yet to prove the bonanza that was originally anticipated after the success of Universal-Consolidated Oil Co. on the 20th Century Fox Studio lot nearly five years ago. At least two ventures have tried and failed in the past year.

The Signal-Richfield combine in the Rancho Park and Hillcrest Country Club appear to be good finds, while six others drilling within the city are still unknown, the experts said.

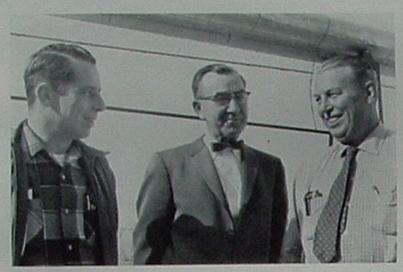
In leasing an apartment and setting up a sound lab, "Union has gone beyond city requirements," according to Smutz.

"They have been meticulous in meeting all our demands and they are extremely careful to prevent any disturbance in the area," he stated.

"We admit our regulations safeguarding a residential community are costly, but if an oil company hits a field as prolific as the one at 20th Century Fox, their efforts are more than paid for."

/THE END

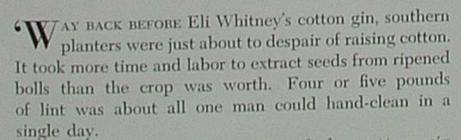
Ranchers of San Joaquin Valley have hit a cottonfield gusher



From left are Superintendent E. D. Hudson, Union Oiler Herm Isheim, and General Manager Earl J. Cecil of Ranchers Cotton Oil. At right, a truck brings seed to plant as another loads with cottonseed oil for export.

# They grow oil fit to eat

from Herm Isheim



Of course Whitney's invention of the cotton gin changed all this and made cotton an important commercial crop. But quite a few years passed before men recognized any value in the extracted seeds themselves. Today the money a rancher receives for his cottonseed oftentimes means the difference between profit and loss.

Ranchers Cotton Oil of Fresno, a cooperative of many growers in the San Joaquin Valley, operates the most modern cottonseed crushing plant and refining operation found anywhere in the United States. Modernly



equipped, mechanized to a high degree, and expertly run, the plant is handling 450 tons of seed a day, 125,000 tons per year.

Consider for a moment the present-day value of cottonseed and the importance of this one plant alone:

Seed saw-combed from the bolls in a cotton gin is coated with a seemingly worthless layer of lint. Yet Ranchers have machines that shave every fiber from the seed. These short cuts are baled like long-staple cotton and sold to other branches of industry for the manufacture of mattresses, felt, upholstering materials, cellulose, paper, rayon, photo film, etc. Large quantities are compressed into high-density bales weighing 750 pounds each and exported to chemical plants in Japan. The Ranchers plant alone annually produces 15,000 tons of lint from 125,000 tons of seed.

continued



Gasoline-powered blowers circulate air through a 13,000-ton storage unit to aerate seed and prevent its deterioration.

### They Grow Oil - continued

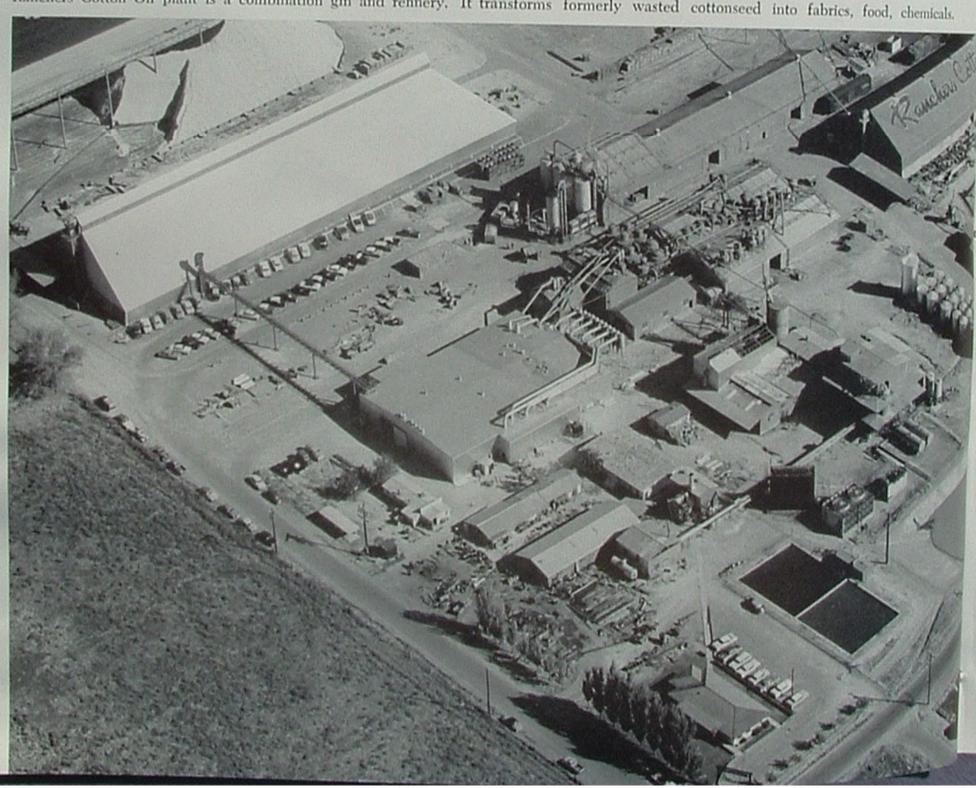
The de-linted hull of the cottonseed is next cracked and removed, producing 60,000 tons yearly of roughage, an ingredient now being used extensively in mixed feeds

Meats of the cottonseed are first cooked to release their oil content, then run through a series of presses and refining steps to separate the liquids and solids. The resulting cottonseed meal, amounting to 60,000 tons annually at Ranchers, is valued as a high-protein feed for cattle and, during the past year or two, has met with heavy demand as a poultry meal.

Cream of the annual production at Ranchers is 22,500 tons of cottonseed oil. When purified through an elaborate solvent-refining process that employs hexane as the solvent, this oil emerges in a condition fit to eat. In fact it is eaten daily by most Americans. After being purchased in tank-truck lots by large food processing plants, it becomes the chief ingredient of salad oils, margarines and shortenings.

The outstanding success of this Fresno cooperative is attributed, by the farmers who own it, to their plant managers and operators. The General Manager, Earl J.

Ranchers Cotton Oil plant is a combination gin and refinery. It transforms formerly wasted cottonseed into fabrics, food, chemicals.



Cecil, claims to have been nearly weaned on cottonseed oil and has been a key figure for many years in San Joaquin Valley's big cotton industry. Ranchers Cotton Oil is the happy climax of his enthusiastic career.

A young Michigan State mechanical engineering graduate joined Ranchers about 14 years ago and promptly committed himself to designing the most efficient cottonseed plant to date. The Fresno layout with its nearly automatic storage and conveying systems—its efficient delinters, cleaners, dryers, separators, cookers, presses and its excellent oil refinery—is largely an automation tribute to General Plant Superintendent E. D. Hudson.

These two men, with a small and carefully selected staff of plant foremen, mechanics and operators, are the toast of countless cotton growers. For their achievements during the past five years have meant an increase of nearly \$20 per ton in the value of each growers' cottonseed.

Union Oil Company's pride in the Ranchers success stems from the fact that our products and research services are performing remarkably well for these cotton men. It takes lots of "76" rock oil to make "Best in the West—Bar None—Cottonseed Salad Oil." What's more, under the conditions of heat, moisture and lint encountered in such an operation, it demands ingenuity to keep the machinery properly lubricated.

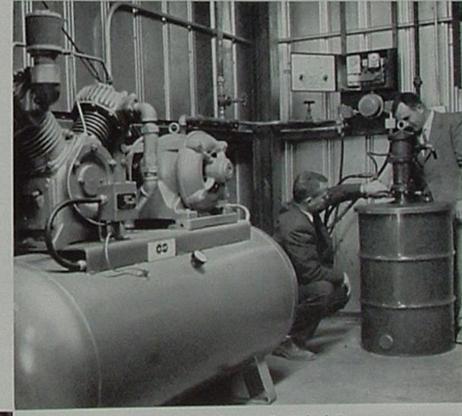
Thanks to a completely inclosed automatic lubrication system installed throughout the entire Ranchers plant, manual greasing has been largely eliminated. Compressed air forces the lubricants through metal tubing to thousands of bearing surfaces—every 15 minutes round the clock. The completeness, frequency and dust-free nature of such lubrication pays big dividends in addition to reducing labor costs. Maintenance men at this plant cite a great reduction of bearing failures. Many of their machines are found to be in perfect operating condition after a service period that formerly called for extensive overhaul.

Oil is where you find it. Ranchers are finding in cottonseed valuable chemicals, materials for the warmth and comfort of all humanity, high-protein feed for the livestock industry—and an oil that is fit to eat!

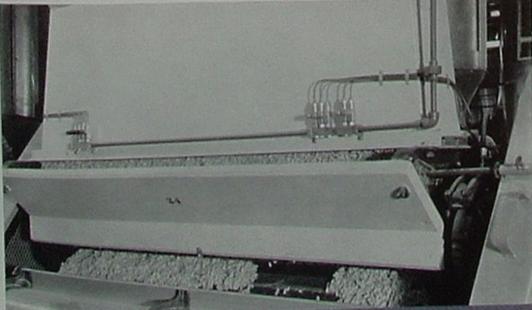
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Lint from the seed is pressed into high-density bales, weighing 750 pounds, for shipment to distant markets.



Union Oilers Mike Ryan and Pat McConnel of Fresno take studious interest in the plant's automatic lubrication system. Lubricants applied every 15 minutes via tubing, shown on delinter at left, have greatly increased the service life of bearings and machines.





## you're safer

### with seat belts

"It's a cinch you'll live longer and happier," says Elizabeth Lavers of Home Office, "if you always fasten seat belts before takeoff."

from John T. King

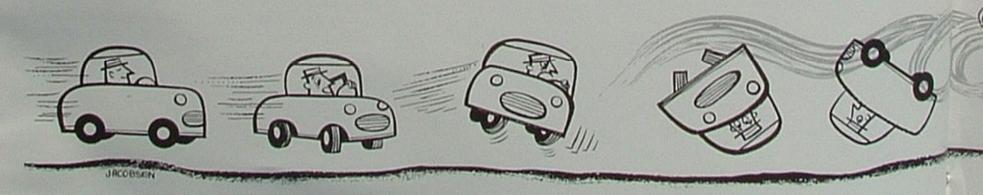
W HAT are the facts about seat belts? Do they actually reduce accident severity and save lives? Should they be used in city traffic or only on high-speed freeways and highways?

Two years ago, Union Oil Company installed seat belts on a dozen vehicles driven by employees who volunteered to give the safety devices a test. The enthusiastic reaction of these drivers, supported by safety research findings on a national scale, quickly prompted the installation of belts on all pool cars and, if the drivers requested, on other lightweight vehicles used for Company business.

Our experience during the past two years with pool cars leaves no doubt in the minds of Union Oil's Safety Board as to the value of seat belts. The record shows cases wherein employees, with seat belts fastened, have emerged from bad auto crashes either unharmed or less severely injured than beltless victims of the same accidents. Drivers who habitually fasten their belts on entering a car stand the least chance of being injured. And seat belts are credited with at least six "save" cases that otherwise might have brought fatal injuries to Union Oil people.

It is of vital interest that four of these "saves" occurred at city street intersections at comparatively low speeds; two occurred on open highways at legal speeds. One was a head-on crash of the type that might easily catch the most careful and skillful driver.

The head-on crash occurred when a Union Oil driver,

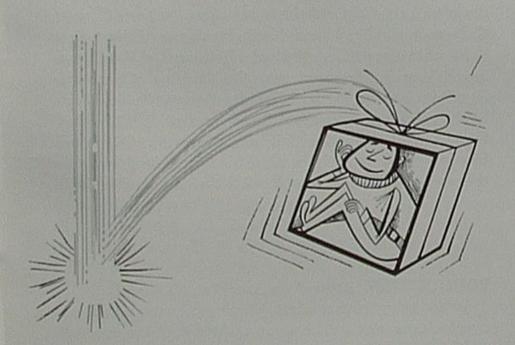


traveling 55 miles per hour on a two-lane highway, saw an approaching vehicle suddenly swing out and attempt to pass a slow-moving truck. Because of a concrete abutment and drainage ditch, both drivers were discouraged from leaving the road. Instead each applied his brakes and slowed to a speed of about 35 miles per hour, or an impact velocity of 70 miles an hour. The two cars were demolished beyond repair. But the drivers, both using seat belts, walked away from the crash with relatively minor injuries. A highway patrol investigator who examined the wreckage stated that an identical collision in his district the week before had resulted in two fatalities—neither driver had a seat belt.

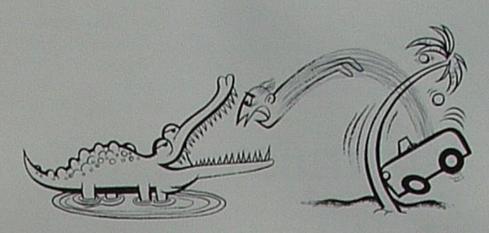
Authorities do not claim to have found a panacea for preventing all traffic injuries. However, Company experience with seat-belt-equipped cars involved in collisions is in harmony with findings of the Cornell Crash Injury Research Project.

The Cornell "packaging" theory, based on the analysis of 10,000 automobile injury cases, holds that the "package" of an automobile provides some protection to occupants against injuries in the majority of auto collisions. However, the occupants must be held in their seats and the interior "package" must be as clear as possible of unyielding objects.

Or, to explain it more simply, eggs will better survive a drop when packaged securely in a carton.



Cornell found that 14% of the occupants of cars involved in injury-producing accidents were completely ejected from the cars; many others were ejected partly. Ejection was found to multiply the risk of dangerous or fatal injury five times.



Injuries resulting from striking objects inside the car such as the steering column, instrument panel, windshield, mirrors, door handles, etc.—are also minimized by seat belts.

About the only persons objecting to these safety devices are a few who feel that being strapped to the seat might hinder their fast exit from the car in case of fire. Actually anyone with enough strength to leave a car can release the easily-manipulated buckles in a second.

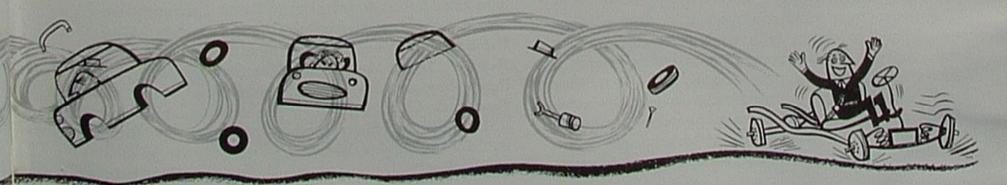
On the other hand, experienced belt users have found that being strapped to the seat gives them better control of their cars either under normal driving conditions or when the vehicle begins spinning or skidding during an emergency.



Besides Cornell and your own Safety Committee, practically everybody who has made a study of traffic safety endorses seat belts. Inquire at the nearest police station or of any highway patrol unit; these men are adding to the statistical proof daily. Ask at your Union Oil Service Station about installation charges; the belts are a low-cost assurance. Or contact your division safety supervisor; he'll advise you regarding approved types and installations.

When the seat belts are installed, be sure to use 'em. On long trips. On short errands. Everybody. Always.

/THE END



### Business Highlights of the Month

RESEARCH Never satisfied.

Five years ago the first Unifining unit for the removal of sulfur, nitrogen and other deleterious substances from raw kerosene was put into operation. The product was so clean and pure that our licensees' specification referred to this highly refined kerosene as WTWW (whiter than water white). Since then we have applied Union's patented process, for adding hydrogen to oil in the presence of a catalyst, to the upgrading of many petroleum products, including gasoline, jet fuel, diesel fuel and benzene.

Never satisfied, our scientists have recently developed a modified, more active catalyst for promoting the desired chemical reactions. It is 30% to 40% more effective than previous catalysts and therefore permits the refiner to process more barrels through his unit and/or further improve product quality.

from Fred L. Hartley

PURCHASING You name it, we buy it.

The Company's continued expansion daily brings our purchasing representatives new responsibilities, new challenges, and stimulating experience:

For seismograph crews now working in Argentina, we were obliged to obtain fully equipped, self-sustaining house trailers. The rebuilding and enlargement of Union's terminal at Ketchikan, Alaska, calls for a wide assortment of construction materials. Several new retail outlets in the Hawaiian Islands, a new dock for supertankers in the Los Angeles outer harbor, and a new asphalt plant at Oleum Refinery-each demands extensive purchases of pre-tested materials plus tanks, valves, fittings and pipe of the right type and size. Complicating some of the jobs are contractual obligations to local governments-finding the most economical method of transportation-avoiding adverse weather-and getting everything to the job site exactly on time. Oftentimes, buying the right goods at the right price is only a brief preliminary to the total purchasing chore.

from C. S. Perkins

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#### EXPLORATION 1958 in review.

The beginning of another year is also an appropriate time for oil men to assess their exploratory activities during the preceding 12 months:

During 1958 the Company drilled 85 exploratory wells, resulting in 25 new discoveries, of which 5 were gas, 13 were oil, and 7 were gas-condensate. Because our concentration of exploratory drilling activity was centered in Louisiana and adjacent offshore areas, 13 of these discoveries were in the Gulf Division. In addition, the Company had participating interests in 14 wells drilled by other operators, resulting in 4 other discoveries.

It is believed that at least 9 of the discoveries made by Company-operated wells will develop production and reserves of major importance. The most significant of these include the Canfield Ranch Area in Kern County, California; Caillou Island, North Freshwater Bayou, Lost Lake, and South Deer Island, all in coastal Louisiana; South Vacuum Prospect near the Carlsbad Caverns in New Mexico; the SE Sinc-Roberts Prospect in the Texas Panhandle; our Boundary Block in British Columbia, Canada; and the Irvin Well in northwestern Oklahoma. Several wells currently being drilled indicate discoveries that will probably be completed in the early part of 1959. from Sam Grinsfelder

### PRODUCTION Around our world in 83 hours!

As we move farther afield in our exploration and production operations, it becomes quite a problem to cover all the bases. We are now laying the groundwork for drilling programs in Argentina and Alaska, the latest additions to our widespread operations.

As a matter of interest, we had Captain Stevenson, our senior pilot, plot the course he would follow if required to fly one of the Company's Convairs to all of our major areas of operation, using the shortest routes. His flight plan from the air terminal at Burbank, California, would provide stops at Anchorage, Alaska; Calgary, Alberta; Cut Bank, Montana; Denver, Colorado; Tulsa, Oklahoma; Houston, Texas; New Orleans, Louisiana; Panama; Lima, Peru; Buenos Aires, Argentina; San Jose, Costa Rica; Guatemala City; Midland, Texas; and home to Burbank.

A total flying distance of approximately 20,250 miles and a flying time of 83 hours.

from Dudley Tower

### TRANSPORTATION Survival of the fittest. AND SUPPLY

Bareboat charter parties on the tankships PAUL M. GREGG and A. C. RUBEL have been terminated and the vessels have been redelivered to their owner. Both small vessels had been laid up for several months due to lack of work. With world-wide tanker rates at a depressed level, neither could be operated profitably on charters to other companies. The remaining coastwise tankers now operating in our service are the LOMPOC, SANTA MARIA and AVILA.

On December 16 the SS SANSINENA arrived in Los Angeles Harbor with her initial cargo—445,000 barrels of crude oil—enough to fill 1,870 standard tankcars—the equivalent of a railroad train over 15 miles in length.

The SS TORREY CANYON, sister ship of the SANSI-NENA, was delivered at Newport News, Virginia, on January 9. She departed the following day via the Atlantic to load crude oil in the Persian Gulf for delivery to Los Angeles Refinery.

To provide additional storage for residual fuel oil, we have repaired and returned to service two 750,000 barrel reservoirs at Wilmington Tank Farm.

New 65-foot antenna masts have been installed at three microwave relay stations in San Joaquin Valley, to permit the use of diversity receiving equipment. The equipment consists of two 10-foot-diameter receiving antennae spaced 30 feet apart on towers. When atmospheric conditions cause the incoming microwave beam to "bend," resulting in a weak signal in one antenna, the equipment automatically picks it up in the other antenna. Installation of the diversity equipment to accomplish the automatic switching has been completed, well in advance of the warm season when most of the signal bending occurs. It will further increase the reliability of communications to San Joaquin Valley and San Francisco bay area points.

from E. L. Hiatt

### MARKETING Now let's try for 51%!

Success of our Phoenix Direct Sales Division's selling efforts is reflected in information recently published by the Arizona Highway Department. Out of 52 highway jobs contracted in that state, approximately 50% were using Union lubricating oils and greases.

We have been awarded the City and County of San Francisco's purchase of paving asphalt for the year of 1959, amounting to 3,200 tons. Also, the City of Eureka, California, will patronize Union Oil for their 1959 paving-asphalt requirements, totaling 1,200 tons. It is the first time in several years that we have been successful in annexing this business.

Union Oil's long and pleasant business relationship with New England Fish Company of Alaska, which dates back to the mid 1920's, was commemorated in a

pre-holiday luncheon sponsored by our Seattle Division. Guests of Company personnel were many of New England's managers—men who process and store a large percentage of the halibut, salmon and other northern fish consumed in America.

During early January, Union Oilers W. L. Spencer, G. S. Smith, E. L. Hiatt, R. C. Riehl and R. S. Bond visited southeastern and western Alaska to study marketing facilities and sites for future expansion. Temperatures of 50-below and winds of 85 mph were prevalent in some areas during their visit.

Opening of the Company's newest and most modern marketing station took place at Lancaster, California on January 13. Joining Union Oilers Roy Linden and H. W. Bragg in an inspection tour of the plant were Chamber of Commerce Manager D'Arcy Chisolm and Honorary Mayor Dr. Stanley Harris of Lancaster. At a special luncheon for consignees and resident managers, Consignee Grady Paine of Lancaster received a 34-year pin honoring his long association with Union Oil Company.

from Roy Linden

### MANUFACTURING Less platinum being spent.

From our catalytic reformer units, which we identify as "Platformer" units, we obtain two by-products—hydrogen gas and carbon. Hydrogen gas is valuable as a treating agent in Union's desulfurization process known as "Unifining." Here the sulfur compounds present in gasoline stock are combined with hydrogen gas to form gaseous hydrogen sulfide. Further processing converts this gas to pure sulfur, a marketable product.

Carbon, on the other hand, is an unwanted material. This carbon is externally deposited on the catalyst particles during processing. As this deposition increases, the catalyst becomes less and less able to perform its function of increasing the knock rating of the feed stock being treated. Finally the catalyst, no longer effective, must be replaced with a fresh catalyst charge of approximately 28 tons. Heretofore, the spent catalyst has been returned to the vendor for regeneration.

Recently Los Angeles Refinery has been successful in regenerating their spent reformer catalyst in place in the unit. This accomplishment improves the plant's operating efficiency, increases the catalyst's life, and reduces the amount of costly platinum-bearings catalyst that must be kept in inventory. Substantial dollar savings being realized at Los Angeles Refinery will be extended when similar regeneration operations are installed at Oleum.

During January a heater tube failed in the Unifiner Unit at Los Angeles Refinery, resulting in the first material fire damage here since December 1956. There were no injuries and material damage was confined to the heater itself.

from J. W. Towler

### Two Millon for LAR!

Los Angeles Refinery helped themselves to two of the finest Christmas presents imaginable — 2,000,000 manhours without a lost-time, onthe-job injury—and two years without any fire damage in the entire refinery.

Considering the size and industrial activity of this busy



Los Angeles Refinery's greatest Christmas gift—2,000,000 manhours without a lost-time injury—is praised by President A. C. Rubel, at left of microphone, as he presents an A. P. I. safety citation to Refinery Manager W. T. Jameson.

Addressing a representative delegation of refinery employees, the chief relayed full credit to "you men who made the record."



This triumph over accidents of course inspired one of the biggest cakes to date—and a warning from one of the guests:
"Now careful — don't cut yourself!"



petroleum refining plant, both records are astounding. Occupying 400 acres in the Wilmington area of Los Angeles, Union Oil's largest refinery processes over 100,000 barrels of crude oil daily-a task involving extreme pressures and heat, the handling of acids and other dangerous chemicals, the operation and maintenance of some of the heaviest equipment known to industry. Yet the more than 1,000 people who keep the refinery on stream 24 hours a day and every day of the year came through without an accident serious enough to keep anyone off the job a single day. Their prevention of fire damage for two successive years was no less remarkable.

At appropriate ceremonies held in the cafeteria on December 23, President A. C. Rubel expressed Union Oil Company's congratulations. From the American Petroluem Institute came an award extolling the accomplishments. On behalf of the refinery employees "who did the work" Manager Walter T. Jameson accepted the commendations. To everybody who took part it was a "Merry Christmas and a Safety New Year." /THE END



Dealer Ray Tolle of Pismo Beach, California, uses flowers to delight his customers-ladies especially!



### Bouquets by and to **Dealer Tolle**

Dear Editor:

A year ago, my wife and I stopped at the first Union Oil Service Station you see when entering Pismo Beach from the north on Highway 101. Besides encountering courteous service and a well-maintained station, we were treated to something new in Minute Man service; in the women's room my wife found a vase of beautiful carnations with a card underneath saying, "Take one."

The friendly gesture pleased us so much that on our next trip south we went miles out of our way to patronize Dealer Tolle. This time there was a bouquet of roses, again with an invitation to "Take one."

May we recommend a doffing of the sombrero to Mr. R. L. Tolle of Pismo Beach?

(Signed) G. B. Stone Oleum Refinery

You may, Mr. Stone, with our sincere thanks.

We, too, drove miles out of our road, to patronize the dealer and add a few details to your report:

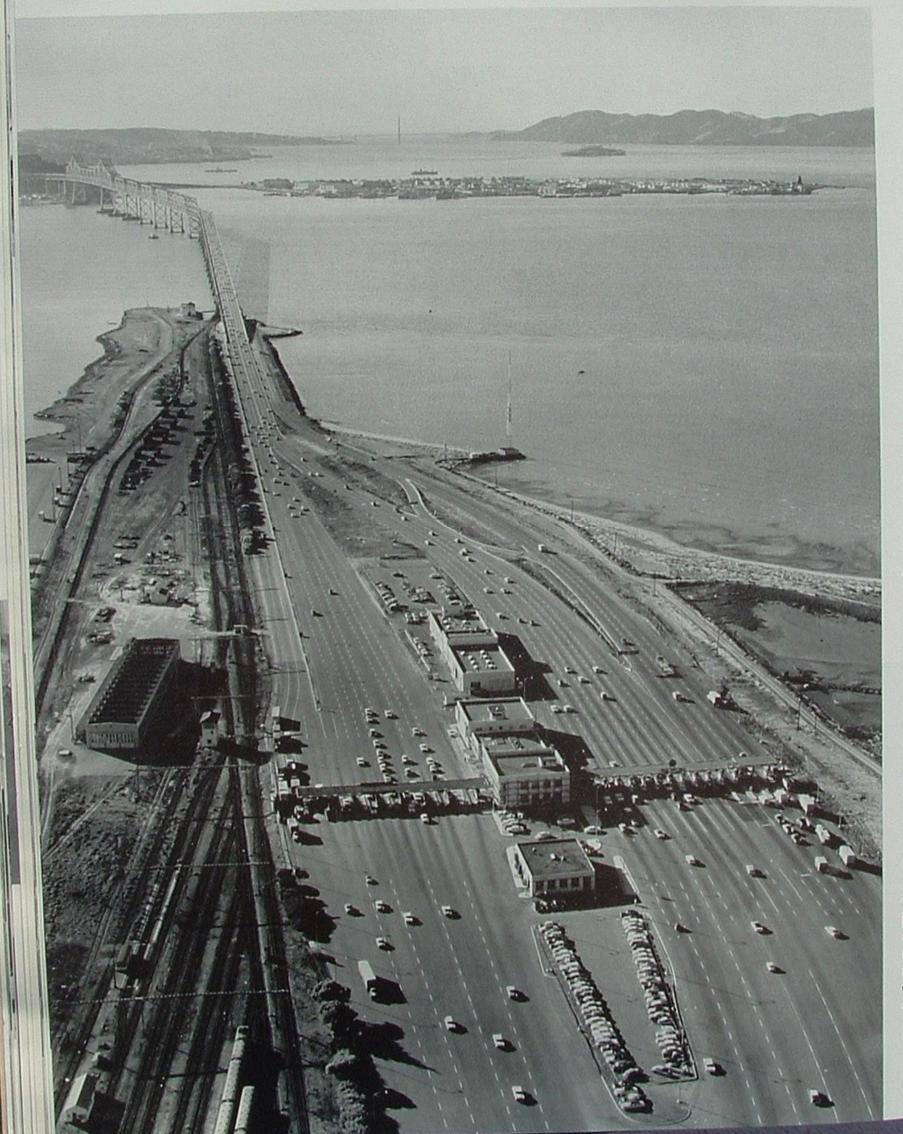
Ray Tolle was very modest about accepting credit for the original idea. In fact, he insists the suggestion first came from a neighbor and customer who had observed flowers in the women's room of another Union Oil station in California. She not only passed the hint along to Ray, but has many times helped him out with a generous contribution of flowers from her own garden.

The dealer at first arranged his bouquets in a beautiful vase. However, several customers misinterpreted his invitation to "Take one" and carried away the vase as well as its contents. Now his vase is a Royal Triton can of the handsome 10-30 variety.

Compliments are expressed by hundreds of women customers who patronize this Pismo Beach service station. Many tourists have even written letters of appreciation from their home states. It's probably the oldest way in the book of life to win and hold a lady's heart-but it works!

/THE END

### We're rolling out the



The asphalt toll plaza leading toward San Francisco's Bay Bridge is typical of many great improvement projects requiring immense yardages of black carpet.

### he black carpet

During 1958, approximately 20,000 miles of paved roadways were added to the highway systems of the United States. Being nearly equivalent to building a single highway entirely around the earth, this represents one of the greatest construction achievements in the history of mankind.

Now in 1959, the work is continuing at such a pace that all former road accomplishments are likely to be exceeded. Old highways are being widened and resurfaced. Numerous state highways are being divided and more than doubled in traffic-carrying capacity. Throughtraffic is being diverted around hundreds of American towns and cities. Railway crossings and other intersections are being engineered out of the modern highway picture. The immense federal system of transcontinental highways undoubtedly will be pushed ahead to its maximum construction pace. In addition, most of America's great airports are having their landing strips broadened and lengthened to accommodate large jet airliners now going into commercial service.

All of this means stimulated activity in the petroleum industry. It will take millions of barrels of fuels and lubricants to keep the construction machinery rolling. And a large percentage of the highways and landing strips themselves will be built of asphalt-magic carpet of a transportation age that nearly surpasses imagination.

Aboard the black carpet today, any American may choose his destination and be there within a few minutes or hours. In the West it is quite common for families to start at the ocean, cross a mountain range, see the desert, and return home in a single day. Their car offers push-button power, music and air-conditioning. They can follow the black carpet hundreds of miles without encountering a bump or a puff of dust. Their day exceeds the Arabian Nights!

Anticipating the magnitude of highway and airport development during the next few years, our Union Oil operations are already geared to the gigantic undertaking. Available at a day's notice to any contractor in the West are stores of gasoline, Diesol, lubricants and other products consumed by road-building machinery. From refineries in Montana, Washington and California can be sent steady streams of asphalt and road

lt toll plaza

ard San Fran-

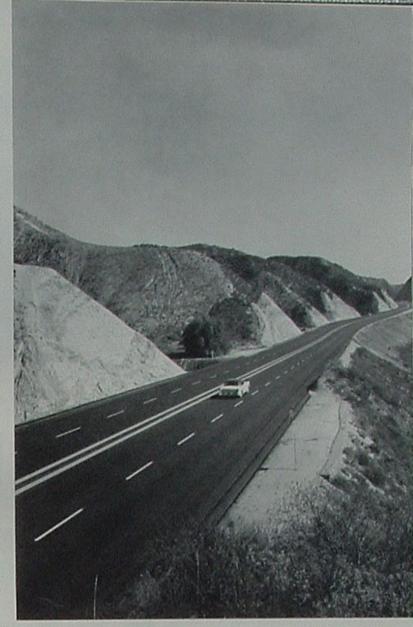
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rpet.



Knifing through some of the West's most rugged terrain, smooth asphalt roads are offering motorists better rides than were dreamed of in Arabian Nights.

oil in all of their various grades. And at Oleum Refinery, where asphalts have been manufactured for over half a century, a fine new asphalt plant is nearing completion.

When it goes on stream April 1, the new Oleum asphalt plant will be capable of producing 125,000 tons or more per year of Union's premium paving asphalts, cutback asphalts and road oils. In 14 stock and products tanks at the blending site it will have a total storage capacity of 42,000 barrels. Eight additional refinery tanks will provide base stock storage and supplemental cutback asphalt storage totaling 125,000 barrels. At two loading racks served by separate delivery pipelines, four truck and-trailer units may be loaded simultaneously. Two proportioning blenders, a new control house and plant office building, and a pneumatic-tube sample connection with the Control Laboratory will assure our customers the very finest of products and services.

So Union Oil continues a service that has been important to our corporate success since 1890. We're rolling out the black carpet for the greatest transportation advancements in human history.

THE END



"Mike" Morrasy

Marvin Morrasy



# The marked family regulated. Mighty Morrasy Midgets

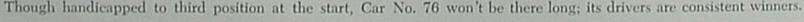
find in quarter-midget driving circles. They are the Morrasy brothers, Marvin and Mike, whose father is the Union Oil consignee at McKittrick, California.

Though neither boy entered competitive quarter-midget racing until 1958, each now

SEVENTY-SIX is proud to introduce this month one of the hottest driver teams you'll

arter-midget racing until 1958, each now has won 12 trophies, all except two having been awarded for first place. Their car has never failed to qualify for the trophy dash, which is limited to the four fastest cars in the race. Most of their driving is done on the Delano track; however, Marvin holds the record for stock quarter-midgets at Bakersfield—a full lap in 8.05 seconds.

This rapidly-growing sport for young competitors and their sometimes nerveracked families is very strictly ruled and regulated. The tracks are asphalt, 1/20th





of a mile or 264 feet, fenced at the turns with bales of hay. Drivers are forbidden to weave in and out, bump, shove or crowd -on penalty of receiving the white disqualification flag and having to leave the track. Contestants are timed over three laps and placed according to the fastest lap of the three. The sport stresses driving and mechanical skill rather than breakneck daring.

Being in the oil business with their dad, the Morrasy boys probably hold the "inside track" in respect to fuels and lubricants. They know the advantage of keeping Unoba grease in wheel bearings, Royal Triton 10-30 in the crankcase, and Royal 76 gasoline in the power compartment.

And to some 1,500 to 2,000 spectators who view each race, both boys are acknowledged to be two of the best ambassadors in our "76" advertising bag.

THE END

The champions are 100% Union Oilers-even their father-mechanic is our consignee at McKittrick.



### In our Xmas mail:

a Monsieur Fred L. Hartley Vice President, Union Oil Company Research Department Dear Sir:

I beg to inform you that Gilbert (Editor's note:-The story of Gilbert Ritzenthaler was told in our December issue) returned home on Thursday, October 30th.

He embarked on October 12th in Montreal, called in Lisbon and Gibraltar and left the ship near Marseille on October 29th.

His radiant mien testifies that he benefited at the best from his travel in the U. S. A., which was besides a full success.

It is sure, dear Mister Hartley, that you concurred in a large measure to the success of the traveling scholarship of my son.

I express you for your help, material and moral, my best thanks and assure you all my gratitude. They made us a great pleasure.

I hope heartily that the experience you make in the Rocky Mountains succeeds and that it assures, in the future, prosperity and honor to you and the Union Oil Company of California.

I thank you also very much for the gifts which were destined to us and entrusted to Gilbert.

Also best wishes of health.

(Signed) Albert Ritzenthaler Colmar, France

PS-My translator being home, I can write you in English.

Dear Editor:

At a Union Oil truck stop I had the occasion to read your article, "East Meets West."

I think it is one of the most fascinating editorials ever written . . . That outside look from India and the editor's response are facts that-if I had my way-should be impressed on the mind of every kid in America.

As long as we recognize and honor men with vision and ability in this country, our kids will have vision and faith in their own ability.

(Signed) L. E. Lafferty Portland, Oregon

The Editors of "76":

I certainly appreciate receiving "76" every month. Many thanks and all good wishes for Christmas and the New Year!

(Signed) Jack Hatchard Holmes Motor Company (Salt River) (Pty.) Ltd. Cape Town, South Africa

### Shall we drop those pistols?

AMERICANS—particularly Westerners—have a superabundance of one commodity seldom listed in statistical comparisons—guns. Old frontier muskets hang from our walls. Dad and the older boys have shotguns and rifles —not always too carefully stowed away behind locked doors between hunting seasons. And in many households a revolver or automatic pistol rests in a top drawer —handy in case of a prowler.

If an organized military force ever succeeded in invading this country, it would be met by the best-armed guerillas ever to defend native soil.

Nobody wants to interfere seriously with this old American privilege. Nor with the wholesome recreations of shooting and hunting. Nor with the constitutional right of American citizens to keep and bear arms.

But like most other liberties, this one might wisely be subjected to a few limitations:

Every year, it seems, there is an alarming increase in the number of gun accidents, many of them caused by inquisitive little hands getting hold of that six-shooter in the top drawer. Adolescents are winging each other right and left with sidearms—unloaded—except for an overlooked bullet in the barrel. Too many persons, momentarily distraught by anger or other passions, are grabbing at a pistol to solve their problem the tragic way.

Law-enforcement officers perhaps are paying the heaviest toll. Because of their reluctance to shoot first, they are often at a disadvantage against the concealed-weapon-carrying criminal. Seldom can they arrest a suspect because he is found in possession of a gun. The conviction of a gun-carrying gangster is difficult to obtain.

These officers claim that concealable guns are too easily available to hoodlums, dope addicts, potential young criminals, and to many reformed criminals who, in moments of weakness, are tempted to lawlessness.

What is America's answer to the problem of concealable weapons? Should stricter laws be passed prohibiting or limiting the sale and possession of such guns? Or would a program of public education in the proper storage of firearms achieve better results?

What is your opinion?

As a public service, SEVENTY-SIX will publicize any recommendations of merit on the subject sent to us by readers of this magazine. Address your letters to the Editors, SEVENTY-SIX, Union Oil Center, Los Angeles 17, California.

/THE END

### Mora



Hostesses at Los Angeles Refinery had no difficulty communicating with their guests through the universally-expressed medium of refreshments.

At Union Research Center where this plo was made, the visitors proved to be all scientists and talented entertainers. Among them are people of many nationalities, to ligions and political beliefs—all dedicated honesty and unselfish service.

### Re-armament

UNDOUBTEDLY the most colorful and cosmopolitan group ever to tour Union Oil properties were approximately 40 delegates of a Moral Re-Armament assembly that convened in Los Angeles during the Holiday season.

They represented most of the leading free nations and spoke at least a dozen different languages. Yet all had one ambition in common—to offer an answer for the confusion, conflict and suffering that are afflicting peoples everywhere.

Moral Re-Armament, a crusade initiated in our times by Dr. Frank N. D. Buchman and endorsed by many prominent thinkers, is a challenge to the individual. According to its leaders, it is not new, not a religion, not a political movement, not a money-raising campaign. Simply, it seeks to reduce the world's ills by persuading individuals to embrace four absolute standards—honesty, purity, unselfishness, love. People impelled by these standards, MRA contends, not only bring rich happiness into their personal lives but provide the type of leadership for which all nations are groping.



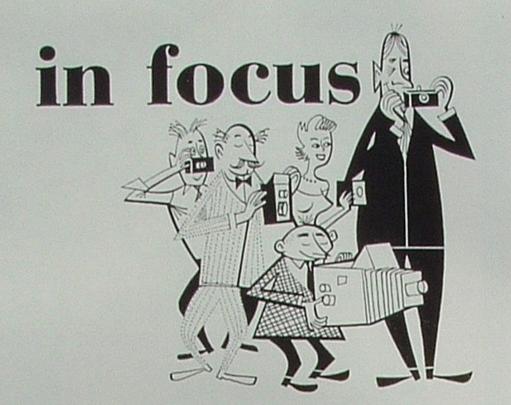
Dressed in their native attire, Moral Re-Armament delegates from Africa, Korea, Indonesia and Japan add exotic color to refinery.

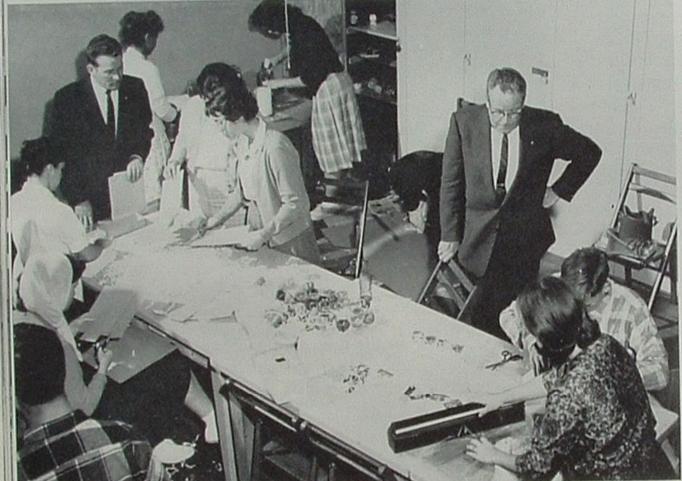
Touring the world with a series of plays and films dramatizing some of the accomplishments of Moral Re-Armament, the highly gifted and intelligent performers are attracting capacity audiences.

They proclaimed Union Oil Company a generous and sympathetic host.

/THE END









DESIGN-O-WAX is the name of a Junior Achievement firm sponsored by Union Oil people in San Francisco. The 19 teenagers involved decided on wax candles and centerpieces as a business project and are reported to have made "shining" profits during the Christmas holidays. In the above photo are, from left, Stanley Howes, Jack Steinberg, President Burke Pease, Jack Cavan and A. C. Rubel. President Pease counts three of the Union Oilers as the best Junior Achievement advisors in the land and is proud to have Mr. Rubel as a 5-share-maximum stockholder. At left, the weekend shift is putting in some overtime to achieve their quota.

from Pat Clark



BRISK SALES east of the Rockies are credited to, from left, F. J. McCarthy, W. L. Theisen, J. S. Kenney, M. L. Lipson, Paul J. St. Pierre, F. K. Cadwell, P. E. Hewitt, Wm. Schoellkopf, T. F. Gaffney, T. G. Nasca, D. G. Zenk and E. D. Herr—employees who are carrying the "76" ball throughout most of the United States.



NATIONAL CHAMPIONS of the Sports Car Club of America rallyists are Joe and Celia Bechtel, good credit-card customers of Union Oil. They out-pointed the cream of sports-car drivers and navigators in a nationwide 11-event schedule. They prefer and buy Royal 76 gasoline for their Porsche Speedster wherever available.

from Melva Scalia



BERNICE V. ARCHER of our Denver office has been elected president of her local Desk and Derrick Club for 1959.

from Eileen Kulhanek



THE AUTO SHOW at Anchorage, Alaska, in late November found Union Oilers Doug. Hulen, Harry Gordon and Eddie Holt in a booth selling the oil best suited to any automobile in any climate.

from T. S. Argyle



FRANK MATZ, right, consignee at Olympia, Washington, became the charter president of Civitan when his city recently was granted a charter through Aubrey Wilson, left, international vice president from Altadena, California. Though a relative newcomer to Olympia, Mr. Matz has become very active in civic affairs.

from J. W. White



IRVING HANCOCK, former treasurer of the Company, examined a fly rod with some suspicion at his recent retirement party in Los Angeles. Some of the stories just previously recounted by his associates gave him reason to wonder whether "this too might be loaded." He has concluded 43 years of outstanding Union Oil service.



DRIVER GLENN DALEY of Tampa, Florida, proudly carried Royal Triton advertising astern his racer in the Soapbox Derby finals of 1958. He was clocked at the third fastest time in the race.

from Ferman Chevrolet Co., Tampa



MR. AND MRS. NISHIHARA (kneeling and at right) have entered five Minute Men and a Minute Maid in the Young Buddhists Association bowling league, Hawaii. Sponsors and bowlers are all excellent representatives of Union Oil both in business and in sports.

from James H. McGee



AT WASHINGTON STATE DAIRYMEN'S FEDERATION convention held in December, Union Oilers G. F. Williams, left, and Bob Inman, center, discuss petroleum products with Secretary Leonard A. Zink of the Federation. The oil men displayed a number of Union Oil products designed to serve the dairy industry, and Mr. Inman served as toastmaster at a Vancouver Chamber of Commerce luncheon for the visitors.

from J. W. White



YOU'RE INVITED—to the event at right—by (clockwise from left) Jean Farrar, Pat Richardson, President Dorothy Busald, Gloryn McKee and Shirley Brundage, officers of the Union Oil Girls Club, Los Angeles. The fun starts at nine and may never end!

#### RETIREMENTS

Service Date February, 1959 BLOIS BARTLETT Coast Division Field December 1, 1943 DEWEY A. BOOTH Los Angeles Refinery November 3, 1944 PETER N. GERZ

ALAN E. HOLROYDE Dealer Sales-Hawaii

Oleum Refinery

June 24, 1924

July 19, 1927

ALFRED PAGET Purchasing

LEE E. PICKENS

April 10, 1931

Los Angeles Refinery

November 12, 1929

JOHN Y. POLLARD Los Angeles Refinery

August 12, 1930

LOUIS A. QUIGLEY

June 21, 1923 Oleum Refinery

JOHN P. ROCKFELLOW

Industrial Relations February 1, 1924

BERNARD V. TICEHURST

Los Angeles Refinery April 10, 1931

### IN MEMORIAM

#### Employees:

ROSS J. GAROFALO Research Department

December 21, 1958

EDWARD C. BABBITT

December 24, 1958 Oleum Refinery

CLAUDE E. LIVINGSTON

Exploration-Gulf Division

December 26, 1958

#### Retirees

EDWIN STAUB Oleum Refinery November 20, 1958 JOHN L. SHAFER Oleum Refinery November 22, 1958

ARTHUR H. PORLIER

Oleum Refinery December 18, 1958

HORATIO MAHON

December 21, 1958 Los Angeles Refinery

ARTHUR S. DANA

Oleum Refinery December 27, 1958

### SERVICE

### BIRTHDAY

### AWARDS



### **EMPLOYEES**

### February, 1959

35 YEARS

JOHN P. ROCKFELLOW Industrial Relations-Home Office

30 YEARS

FLOYD E. ANDERSON.....Los Angeles Refinery GARRETT W. CASEY.....Los Angeles Refinery WM. JOHN COZAD, JR.....So. Region Distribution IDUS F. EVANS.......Distribution-Honolulu CLARENCE J. McDONOUGH.......Coast Div. Field EDWARD P. McLEOD......Valley Div. Field DONALD H. RETTKE......Comptrollers-Home Office ORVILLE TRUESDALE No. Div. Pipeline

25 YEARS

BENJAMIN C. LEDBETTER.....So. Div. Pipeline WESLEY H. WINTER Direct Sales-Portland

#### 20 YEARS

HENRY J. ACQUISTAPACE. Direct Sales-Sacramento JAMES O. BAILEY......Valley Div. Field DEAN HUMPHREY......Cut Bank Refinery DeROY C. MATTHYNSSENS....No. Region-Distribution ANTON J. MIKLICH......Cut Bank Refinery ARTHUR TALPT......Cut Bank Refinery

15 YEARS

ARVIN L. ALEXANDER.....Los Angeles Refinery STANLEY J. BOARDMAN.....Research Department JESSE BOURQUE Gulf Div. Field KATHERINE L. BRUCE ..... Dealer Sales-Seattle FRANK D. CHAPMAN......So. Region-Distribution VIRGINIA B. HEAD.......Comptrollers-San Francisco ROGER J. KINSELLA......Research Department WESLEY C. MERRILL .....Research Department VEREL C. PELLETIER......Direct Sales-San Francisco JO ANNE QUINTIN Treasury-Home Office EDWARD J. RHYNE.......No. Div. Pipeline MELVA G. SCALIA......Manufacturing-Home Office ARA J. SMITH.....Los Angeles Refinery FRIEDA M. WILKERSON. Sales Services-Home Office

10 YEARS

DONALD E. BAHN......Comptrollers-Home Office GEORGE E. BALLERT......No. Div. Pipeline JOHN L. BEIMA......No. Region-Distribution WILLIAM D. CONNOLLY.....Exploration—Canada JAMES A. GAYLE ...... Distr. & Traffic-Home Office ROBERT J. HOYT ...... Purchasing-Santa Fe Springs RAYMOND W. HUDSON....Comptrollers-Home Office DOUGLAS R. JESSUP...... Direct Sales-Home Office GENE F. MacDONALD.....Direct Sales-San Francisco GERALD H. RICKELS.... Exploration-Santa Fe Springs HAL STRATTON.....Field-Offshore WELLS WILLIAMS Comptrollers—Texas

#### DEALERS

#### January, 1959

15 YEARS BILLY HUFFER......West Covina, California 10 YEARS ROBERT BORWICK Sepulveda, California

5 YEARS DEWEY AVE. GARAGE.....Los Angeles, California ROBERT FAWCETT......Venice, California JIM FOSTER, JR......Riverside, California EIVEN OLSEN Buellton, California P. G. PALERMO Blythe, California BOB STORMS......Ontario, California K. E. STRICKLAND......Indio, California

#### February, 1959

40 YEARS NORMAN REED......San Francisco, California 30 YEARS YUEN CHONG COMPANY....Walnut Grove, California 20 YEARS

ROBERT D. WHITE .......Oakland, California

15 YEARS ART & JACK HENDRY Bremerton, Washington

NORTON SEIP & H. C. HANSEN Centrailia, Washington

10 YEARS

F. C. & R. J. CASTRO Soquel, California J. W. KALEM.....Seattle, Washington LOMBARDI MERCANTILE COMPANY Portola, California

RAY W. MARTIN ...... Redondo Beach, California RALPH MINOR MOTORS ...... Monroe, Washington LINUS TENBRINK Patterson, California

5 YEARS

B & E GARAGE Fortuna, California V. P. CARDINALLI & A. T. SANCHEZ Seaside, California WILLIAM G. CERLETTI......Napa, California GEORGE R. MATTHEWS.....Long Beach, California M. A. PROUT......Tracy, California TED F. PRUSS Bellevue, Washington

### CONSIGNEES—DISTRIBUTORS

### February, 1959

35 YEARS C. B. EVGEN......Lynden, Washington 30 YEARS L. E. BUTTON ...... Deming, Washington 15 YEARS 

10 YEARS R. L. FRANKLIN, JR......Caldwell, Idaho

HILGER CHEVROLET COMPANY.....Glendive, Montana JAMES L. SULLIVAN......Anaconda, Montana WESTERN PRODUCTS, INC.......Firebaugh, California

## Frank Liggett

The real test is to compete with yourself

"If you've ever used our top grade gasoline—Royal 76—you know it as 'The West's most powerful premium.' It comes honestly by its name.

"Royal 76 lets you start a miserably cold engine in a wink without warm-up. We proved this in the snow country working at temperatures of 20° below zero.



"We took it into the hottest desert heat and blended it against vapor-lock, too.

"You can see our problem was clear cut when we decided to make Royal 76 even better: we had to compete with our own product to come up with a really significant advance for customers. Something more than just another octane increase, although we did that, too.

"We had just finished developing NR76, a superior gasoline additive that is remarkably efficient in keeping your carburetor clean, and reducing engine maintenance. We put it in.

"We wanted more yet. So we kept at it, and improved our method of fresh-blend-



"YOU HAVE TO KEEP IMPROVING YOUR PRODUCTS TO KEEP CUSTOMERS."

ing our gasoline for each climate and area in which it is sold.

"Now all of these things cost money. But if you're going to keep your customers and attract new ones, you have to continually improve the quality of your products and services.

"So when our new formula satisfied us (the customers must be satisfied, too, because they are taking all we can refine) we announced New Royal 76 at no increase in price."

Frank Liggett is a Senior Research Chemist in our Research Department.

His story points up again the advantage of being a customer under America's free enterprise system.

For so long as companies have to please you to stay in business, you will continue to have your choice of constantly improved products at competitive prices.

YOUR COMMENTS ARE INVITED: Write: The Chairman of the Board, Union Oil Co., Union Oil Center, Los Angeles 17, Calif.

