ON TOUR

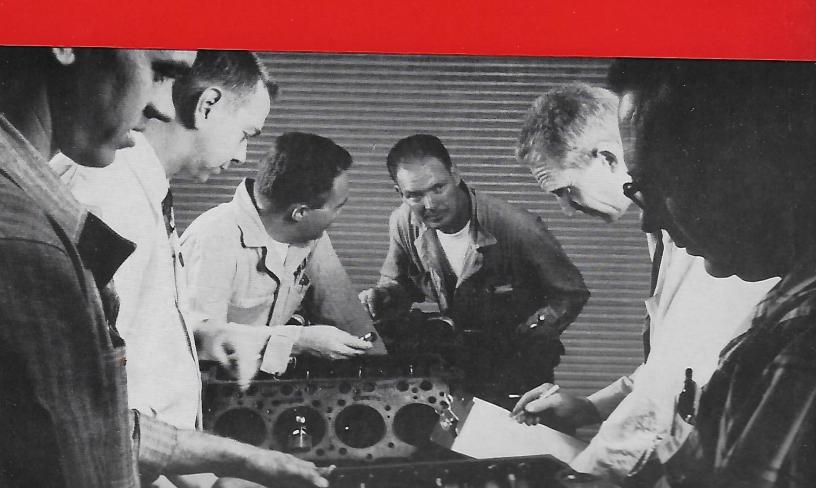
with Union Oil Company of California

FEBRUARY 1957



from
Union Oil
research
and refining
comes

NEW



ROYAL TRITON 10/30

the oil that complements horsepower

There's a lot of horsepower tucked away under the hoods of those sleek new 1957 automobiles. Yesterday's 100-horsepower achievements are hardly in the race. Most new-car salesmen now speak in terms of around 200 horsepower. Or, if you're interested in luxury motoring, there are a few models available in the 300 class.

All this horsepower adds up to exciting motoring. Power that easily reels off hundreds of miles of cross-country in a single day. Power that ignores steep mountain grades. Power for a variety of extras—brakes, steering, seat adjustment, window control, heating, cooling, ventilation, lights, signals, radio. Power that whisks you out and around a slow-moving vehicle before danger has time to threaten. And power to spare.

However, the engineers who designed these high-powered creations also designed, inadvertently, a few knotty problems for themselves and the oil industry:

Most of us Americans buy our cars with long vacation trips or mountain jaunts in mind, then turn out to be *city drivers*. Daily we drive 5 or 10 miles to work—the same distance back home again—run a few short errands in the

neighborhood—maybe drive to a nearby beach or golf course over the weekend. The remainder of the time—more than 95%—the car just sits—in the garage, in a parking lot, or at the curb.

Here's the trouble: A car engineered to develop even as little as 100 horsepower seldom uses more than 15 or 20 of its *horses* during normal city driving. In a short run of less than 10 miles, water in the cooling system is just about warmed up to its proper operating temperature. But oil in continued



Idle cars, like idle people, often invite trouble



Project leaders (l-r) Bob Altman, Bill Kent, John Buckmann and Supervisor "Dinty" Moore engage in one of their numerous seminars, "skull sessions"



Dr. Jim Fogo equips test car with a tachometer chart for recording time, speed and acceleration

the crankcase may still be cool and viscous—somewhat too sluggish in its circulation to the engine's vital parts.

It is during this warm-up operation of a motor that troublesome factors develop. Moisture, always condensing at low temperatures in a crankcase, is picked up by the churning body of oil. Also during the warm-up, relatively larger amounts of soot, raw gasoline and exhaust fumes find their way past piston rings from combustion chamber to crankcase.

Normally, if the oil temperature reaches its proper height, moisture and gasoline are evaporated and vented out of the crankcase. Detergents in the oil also become more active as they become heated. Condensation of moisture ceases. Or, in brief, the warm oil better handles the responsibilities placed upon it by a modern internal-combustion engine.

But if the oil remains cool, the foreign substances, including mositure, are churned together into an ugly compound known as *sludge*. Once formed, sludge remains in the crankcase in large blobs, defying even heat to remove it.

Motor's Enemy No. 1

Sludge is one of the worst enemies of a motor. It plugs some of the small screens intended for straining particles of dirt and metal from the lubricant, thereby slowing or stopping the flow of oil to certain moving parts. It clogs oil lines and the oil filter, reducing the latter's effectiveness in removing abrasive particles picked up by the oil stream.

The piston rings of a car are equipped with narrow slots through which oil, wiped off the cylinder wall with each stroke of the piston, can flow back into the crankcase. Sludge plugs these drainage slots, forcing oil into the combustion chamber. Not only is oil consumption increased, but ignition becomes faulty when oil fouls the spark plugs.

Scientists and automotive engineers have found that sludge rarely develops during the heavy-duty operation of a passenger vehicle. It occurs most frequently in cars being driven short distances—using a small fraction of their maximum horsepower—and hardly ever getting warmed up.

Corrosion, Enemy No. 2

The moving parts of a motor are machined to mirror-like smoothness. Parts that intermesh, revolve around or slide past each other have to fit perfectly, allowing only a thin film of oil to separate their surfaces. When the parts are perfectly made and perfectly lubricated, they function as their designers intended—quietly and efficiently.

Generally, the motor that is well lubricated and kept working at its proper temperature has no corrosion troubles. The parts stay clean and highly polished. But in a car that stands cold and idle 95% of its time, there is chemical mischief afoot. Moisture condenses on the polished surfaces, causing rust and other forms of corrosion. The polished surfaces begin to tarnish, corrode, and wear away. Soon the motor has need of overhaul or repair.

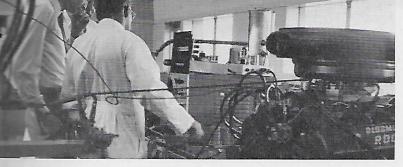
Hydraulic valve lifters are particularly vulnerable to corrosion. Subjected to low-temperature operation day after day, these exactly-fitted mechanisms announce with noisy hammering protests the inroads of corrosion.

Far from solving either sludge or corrosion problems, most of the high-powered automobiles merely accented them. It is obvious that a 200-horsepower motor with its higher-capacity cooling system takes longer to warm up than does a 100-horsepower job. Yet, the new car of the average city driver travels no farther nor faster than its predecessor, and probably spends a larger percentage of its time in low-temperature idleness.

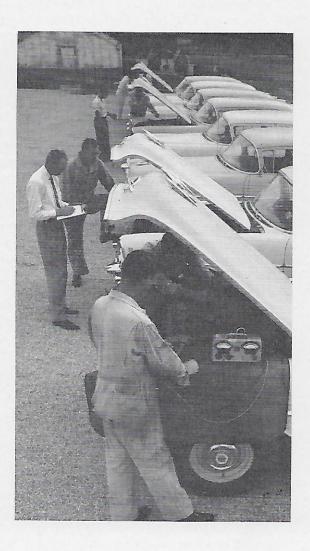
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Among some 50 Research employees cooperating in the "family road test" were, from left, Dick O'Connell, Harry Worth, Guy Waller, Ted Eifert, Jean McFarland, Colleen Douglass, John Duir, Randy Emerson, Dr. Frank Seubold





By means of the engine lab's acceleration scope, scientists study the relationship of experimental oils to fuel pre-ignition or "ping"



Below, Ken Trader measures cylinder wear at the conclusion of a test

Lower photo, Bob Tanner exhibits a type of sludge developed under low-temperature operating conditions

At left, the fleet of Research road-test cars undergoes inspection









Using new Royal Triton 10/30 in the crankcase, Merl Shores finds a lab engine none the worse for wear or corrosion after a simulated city-driving test

Mindful of what was taking place in the auto engineering field, our Research Department started a new series of oil experiments about two years ago. Already having developed some of the world's best heavy-duty oils—Triton, Royal Triton, T5X and Guardol—their aim was to produce a lubricant additionally ideal for light-duty, low-temperature operation. Now the needs of the city-driven passenger car were to take precedence over the needs of trucks.

It was one of Union Oil Company's most exhaustive quests. Tests equivalent to hundreds of thousands of miles were run, comparing the best of older lubricants with a number of experimental oils. These tests were made both with laboratory engines and with a fleet of high-powered, hydraulic-valve-lifter-equipped cars on the open road. Every effort was made, in the lab and on city streets, to simulate all extremes of car usage and idleness.

Meanwhile, Brea's research scientists were engaged in a search for better additives—compounds which, when added to the best paraffin-base lube oil stocks, would provide maximum protection against sludge, corrosion and all other motor ills. Their search embraced additives developed by

Union Oil as well as those being tried or used elsewhere.

The process of selection, blending and testing went on for many months. Finally the research team knew they had it—an exclusive combination of base oil and additives—a product that gave an unprecedented performance in every test.

In comparison with the best of yesterday's products, the new oil:

Reduced low-temperature sludge by half.

Dispersed crankcase impurities—the components of sludge—into sub-microscopic bits too small to clog oil lines, filters, screens or piston ring slots.

Showed no hydraulic-valve-lifter sticking in cars of popular design whose lifters had been failing within the first 10,000 miles.

Gave utmost oil film protection to piston rings, cylinders and valve trains—parts that generally bring about a car's major overhaul.

Stood up faultlessly in heavy-duty service—a field where some of the older compounded oils have been giving most satisfactory service.

"Family Road Test"

Like good scientists everywhere, the research men were not entirely content with their personal findings and closely supervised tests. They wanted to know how the product would perform in the market place. So, for a final examination of their new oil, they organized a unique experiment.

The more than 400 Research Center employees represent a very good cross-section of American motorists. They just about run the gamut of driving habits and skills. A few travel long distances daily; the majority are city drivers. Their cars are of all makes, models and mileages. Here was an ideal opportunity to pre-test public acceptance of the new product.

Approximately 50 representative cars were tabbed in the Research parking lot, and their owners were offered free oil changes. The drivers were told to follow their normal patterns of daily diving; they could go where, when and how fast they chose. Nothing was rigged or prescribed to make the oil look good. In fact, a number of drivers were urged to give it the severest city or country tests imaginable. Research merely asked the privilege of taking periodic oil samples from each crankcase.

The Result

New Royal Triton 10-30, by means of every test, has proved itself to be an expert hand with horses—either the 15 or 20 horses used in city driving or the 200 to 300 horses called into harness during a trip over the Sierra Nevadas. It minimizes the problems of low-temperature sludge and corrosion. It provides excellent lubrication from start to stop, regardless of how short or long the journey. If used and changed in accordance with the recommendations of car manufacturers and Union Oil Company, it will prolong the peak performance and life of any automobile.

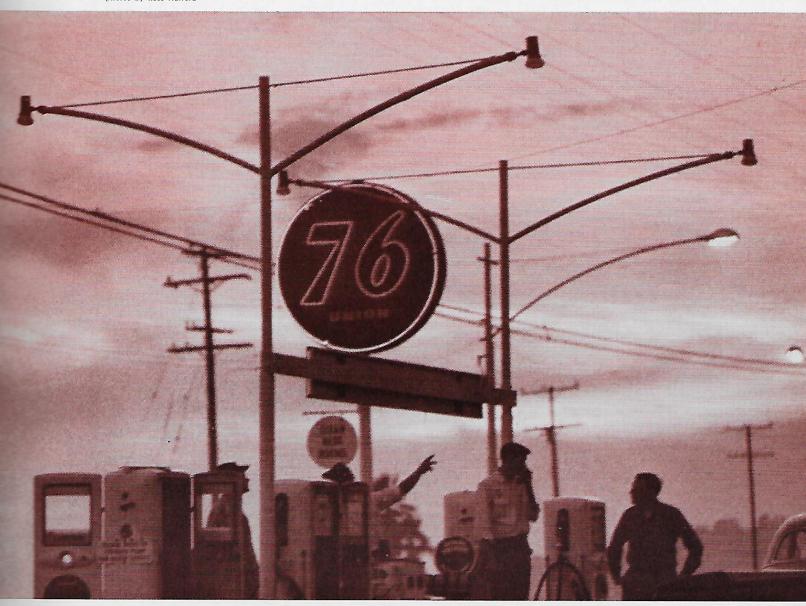
We sincerely believe it is the *finest* motor oil available—anywhere.

Union Oil dealer

John Dahl...

doused fire with gasoline

photos by Russ Halford





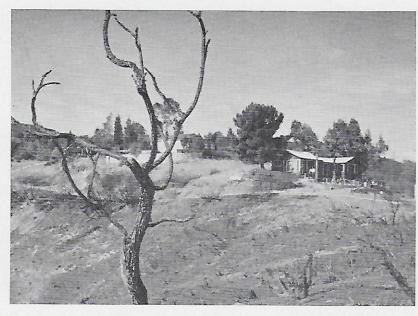
December 26, 1956 started out with no likelihood of being a profitable day for Union Oil Dealer John Dahl. Arriving on the job at 8 a.m., he found the service station locked. His six o'clock man, Bob Killinger, was nowhere to be found, nor was Tom Hill, the man who generally came on at seven. John wondered if any Union Oil supervisors had driven past and observed the tardiness; then, discover-

continued

John Dahl's service station, left, serves the Malibu Beach area, California. On December 26, above, it was a key point in the battle to save hundreds of homes from fire.



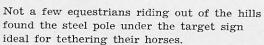
Beyond fire trucks lining up at the pumps for gasoline is a hill blackened by wind-driven flames. Somehow the station survived.



Spared also, by a slender margin of 30 feet, was John's hilltop home, five miles from station.



Less fortunate residents of the Malibu Hills rolled in with a few hastily loaded belongings and waited hopefully in line for gasoline.



ing he had no keys debated whether to saw the lock or go next door for a cup of coffee.

The missing keys turned up in the coffee shop. Bob had left them for Tom, and Tom had left them for John. Both missing service station men were off in the hills somewhere fighting a brush fire. That was John's first news of the recent Malibu fire disaster.

Business continued less than so-so throughout the morning. A lot of police and fire apparatus swept by down the Pacific Coast Highway. But John's regular customers suddenly became irregular. A motorcycle officer suggested that police barricades a few miles north and south might be keeping the regulars out.

But by mid-afternoon of that same day, a strange whirl-wind of activity began to thunder into the small 76—identified cove. Now the fire trucks came in instead of screaming by. Their crews were soot-covered, thirsty, red-eyed; their gasoline tanks were nearly dry.

One of the power company supervisors came in to arrange for the servicing of maintenance trucks during the fire emergency. Salvation Army equipment obtained similar fueling assurance. The County of Los Angeles asked for plenty of gasoline—said nothing about government price. And between fire engines and trucks came an unending stream of passenger cars—filled with a motley collection of pets, household goods and worried people. Everybody said, "Fill 'er up!"

John Dahl pressed four men into pump island service. His wife came in to report the fire stalking their home on a nearby hill. Pretty soon, she too was pumping gasoline or trying to improvise a credit system. It seemed like everybody had forgotten to bring their credit cards or wallets.

Past closing time and on into the night the pump-island rush continued. But near midnight an untimely dawn began to redden the overhead pall of smoke. Fine ash, even glowing embers, rained into the cove. Firemen, seeing the wall of fire approaching within 300 yards, told John to "Shut down and get the hell out of here!"

Despite exhaustion, neither John nor Mae Dahl could sleep—in their little camping trailer on Malibu pier. A nightmare of being burned out of home and business was their nearest approach to rest. Three hours of this was enough; they headed back for the station.

Strangely the 76 target sign loomed up in its rightful place. A big fleet of trucks and fire engines was congregated in the cove. The service station building, even if blistered, was intact. Somehow the fire had changed its mind just beyond a flimsy hedge of green trees.

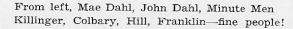
Grateful, the Dahls unlocked and started two of the biggest sales days in their history. One big U.S. Government tanker bought 379 gallons of Royal 76 and 6 gallons of Royal Triton the first time in; and returned next day for 360 gallons more. Los Angeles County promised to foot the bill (but are now asking for Federal disaster relief funds, John reads uncomfortably in the newspapers). Local residents lined up between the fire trucks. Four gasoline pumps whirred night and day. Not a few equestrians riding out of the hills found the steel pole under the target sign ideal for tethering their horses.

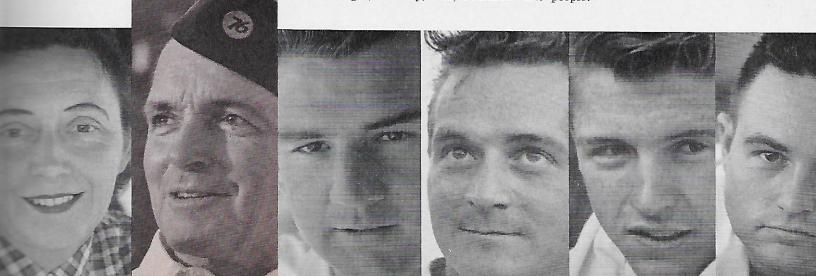
Once again, at midnight of the second night, fire returned to close down the command post and give the Dahls several more nightmarish hours. They rose before dawn—found another patch of the cove blackened—and their service station miraculously untouched.

All in all, the story of these unselfish and courageous Union Oil people had a happy ending—or had we better say a happy continuance. Their modest home on a hill overlooking the Pacific was saved—from a fire that was stopped short by only 30 feet. They may have lost a few dollars to bad credit, but they made a host of new friends. And they did something we never dreamed could be done with 76 Gasoline—doused a fire with it.

Next time you're in the vicinity of 26035 Pacific Coast Highway, stop a few minutes. Meet the Dahls and their crew. Really fine people.

/THE END







The track announcer, Joe Hernandez

At seven each Saturday morning, the TV crew checks in at Santa Anita. Four heavy cameras have to be stationed, adjusted, checked. Cables are strung to a coordinating center, then linked to telephone company lines. Cameramen rehearse their technique on six preliminary races. Two video men and an audio mixer fuss with images and sound inside the remote truck. The announcer reads, studies, memorizes the script. The technical director rises from an early stage of nervousness to one of clenched-fist tension. Now everything is in readiness. Union Oil Company—the makers of Royal 76 Gasoline and Royal Triton Motor Oil—bring to millions of Television Viewers

feature race at SANTA





The press section



Surprise winner, Blen Host with Don Lewis "up"

ANITA





The judges



On roof, a micro-wave transmission link



Track Director Dr. Charles H. Strub and TV Announcer Gil Stratton



The way out

"why
quit
our
owr

David Stone year in

("Farewell Address" was printed in September, 1796, at the conclusion of George Washington's 45 years of dedicated service to our country. The address—written by Washington, possibly embellished with a few views by Madison, polished by Hamilton and John Jay, and finally re-drafted by Washington—has stood for more than 161 years as one of the foremost literary blueprints of American freedom. It is well worth reviewing in its entirety; but the following excerpts demand present-day attention. They infer the errors of our present political ways and suggest the course of American conduct toward other freedom-loving or freedom-seeking nations.)

"... It is important, likewise, that the habits of thinking in a free country should inspire caution in those intrusted with its administration to confine themselves within their respective constitutional spheres, avoiding in the exercise of the powers of one department to encroach upon another. The spirit of encroachment tends to consolidate the powers of all the departments in one, and thus to create, whatever the form of government, a real despotism ... If in the opinion of the people the distribution or modification of the constitutional powers be in any particular wrong, let it be corrected by an amendment in the way in which the Constitution designates. But let there be no change by usurpation; for though this in one instance may be the instrument of good, it is the customary weapon by which free governments are destroyed ...

"As a very important source of strength and security, cherish public credit. One method of preserving it is to use it as sparingly as possible, avoiding occasions of expense by cultivating peace, but remembering also that timely disbursements to prepare for danger frequently prevent much greater disbursements to repel it; avoiding likewise the accumulation of debt, not only by shunning occasions of expense, but by vigorous exertions in time of peace to discharge the debts which unavoidable wars have occasioned, not ungenerously throwing upon posterity the burthen which we ourselves ought to bear . . .

"Observe good faith and justice toward all nations. Cultivate peace and harmony with all. Religion and morality enjoin this conduct. And can it be that good policy does not equally enjoin it? It will be worthy of a free, enlightened, and at no distant period a great nation to give to mankind the magnanimous and too novel example of a people always guided by an exalted justice and benevolence. Who can doubt that in the course of time and things the fruits of such a plan would richly repay any temporary advantages which might be lost by a steady adherence to it?



"Toward the preservation of your Government and the permanency of your present happy state, it is requisite not only that you steadily discountenance irregular oppositions to its acknowledged authority, but also that you resist with care the spirit of innovation upon its principles, however specious the pretexts."

GEORGE WASHINGTON

stand on foreign ground?"

Can it be that Providence has not connected the permanent felicity of a nation with its virtue? The experiment, at least, is recommended by every sentiment which ennobles human nature. Alas! is it rendered impossible by its vices? . . .

"Against the insidious wiles of foreign influence (I conjure you to believe me, fellow-citizens) the jealousy of a free people ought to be constantly awake, since history and experience prove that foreign influence is one of the most baneful foes of republican government. But that jealousy, to be useful, must be impartial, else it becomes the instrument of the very influence to be avoided, instead of a defense against it. Excessive partiality for one foreign nation and excessive dislike of another cause those whom they actuate to see danger only on one side, and serve to veil and even second the arts of influence on the other. Real patriots who may resist the intrigues of the favorite are liable to become suspected and odious, while its tools and dupes usurp the applause and confidence of the people to surrender their interests.

"The great rule of conduct for us in regard to foreign nations is, in extending our commercial relations, to have with them as little *political* connection as possible. So far as we have already formed engagements let them be fulfilled with perfect good faith. Here let us stop.

"Europe has a set of primary interests which to us have none or a very remote relation. Hence she must be engaged in frequent controversies, the causes of which are essentially foreign to our concerns. Hence, therefore, it must be unwise in us to implicate ourselves by artificial ties in the ordinary vicissitudes of her politics or the ordinary combinations and collisions of her friendships and enmities.

"Our detached and distant situation invites and enables us to pursue a different course. If we remain one people, under an efficient government, the period is not far off when we may defy material injury from external annoyance; when we may take such an attitude as will cause the neutrality we may at any time resolve upon to be scrupulously respected; when belligerent nations, under the impossibility of making acquisitions upon us, will not lightly hazard the giving us provocation; when we may choose peace or war, as our interest, guided by justice, shall counsel.

"Why forego the advantages of so peculiar a situation? Why quit our own to stand upon foreign ground? Why, by interweaving our destiny with that of any part of Europe, entangle our peace and prosperity in the toils of European ambition, rivalship, interest, humor, or caprice?

"It is our true policy to steer clear of permanent alliances with any portion of the foreign world, so far, I mean, as we are now at liberty to do it; for let me not be understood as capable of patronizing infidelity to existing engagements. I hold the maxim no less applicable to public than to private affairs that honesty is always the best policy. I repeat, therefore, let those engagements be observed in their genuine sense. But in my opinion it is unnecessary and would be unwise to extend them.

"Taking care always to keep ourselves by suitable establishments on a respectable defensive posture, we may safely trust to temporary alliances for extraordinary emergencies.

"Harmony, liberal intercourse with all nations are recommended by policy, humanity, and interest. But even our commercial policy should hold an equal and impartial hand, neither seeking nor granting exclusive favors or preferences; consulting the natural course of things; diffusing and diversifying by gentle means the streams of commerce, but forcing nothing; establishing with powers so disposed . . . conventional rules of intercourse, the best that present circumstances and mutual opinion will permit, but temporary and liable to be from time to time abandoned or varied as experience and circumstances shall dictate; constantly keeping in view that it is folly in one nation to look for disinterested favors from another: that it must pay with a portion of its independence for whatever it may accept under that character; that by such acceptance it may place itself in the condition of having given equivalents for nominal favors, and yet of being reproached with ingratitude for not giving more. There can be no greater error than to expect or calculate upon real favors from nation to nation. It is an illusion which experience must cure, which a just pride ought to discard. . . . '



"The two dozen of us who walked self-consciously across the street were probably a cross-section of most juries."

at least I have learned about... JURY DUTY

by JERRY LUBOVISKI

The envelope had that distastefully official look about it that you instinctively associate with tax bills or license fees or court summons or something equally unpleasant.

It wasn't quite that bad. It was a court summons—of a kind. The letter said my name had been drawn for Los Angeles County Superior Court jury duty. This was the kind of a thing that, when it happened to someone you knew, you clucked "Isn't that a shame!"

Jury duty, to me, always had a sort of "hurry up and wait" connotation. People who had done their time—in a manner of speaking—generally complained about rush, rush—and then a lot of sitting.

Now I'm not unfamiliar with courts. As a newspaperman in Los Angeles, I'd "covered" criminal and civil courts many times, knew lots of judges and lawyers. I guess I reflected a sort of professional cynicism about jurors that came from these contacts. The mental picture I retained of jurors consisted (1) of scurrying over-age men and women bewilderedly looking for a courtroom, and (2) a dozen of these same citizens sitting drowsily in a jurybox determining the issues of a case in a decision with which no one ever seemed satisfied. And now I was about to be one of them.

It was Union Oil Company policy, I knew, that one tapped for jury duty was expected to serve. During 1956, approximately 50 people from Head Office alone—including W. L. Stewart, Jr., vice chairman of the Board—had served on various juries. In the Gulf Division, nine employees were on juries during the year. The Company makes up the dif-

ference between the jury fee and the employee's regular salary. So there is no question of jury service creating an extra financial burden.

Jury selection procedure varies from area to area. In Oregon, for example, jurors are selected from lists of registered voters or property tax payers, at the discretion of the county clerk. In Washington and Texas they come from property tax payer lists only.

In Los Angeles County, as in most of California, jury panels are made up from registered voter lists. Each six months between 4000 and 4500 names are drawn by lot for a master panel of prospective jurors large enough to take care of the 47 civil and criminal superior courts in Los Angeles' Civic Center.

Prospective jurors are examined for physical efficiency, including hearing and eyesight, as well as for ability to understand English and follow instructions regarding testimony and evidence.

From the master panel, 400 to 500 new jurors are drawn each month for actual service of at least one calendar month. I survived to the finals.

So, on Monday morning, October 29, I reported to Department 48 of the Superior Court of the state of California, in and for the County of Los Angeles. I was one of a couple of hundred who crowded into the high-ceilinged turn-of-the-century-looking courtroom on the eighth floor of the Hall of Records for instructions in jury service.

Carl W. Raggio, chief assistant jury commissioner, who's been in the jury commissioner's office since 1929, gave no hint of staleness or boredom because of his long tenure in that one spot. He was forthright and brisk in a welcoming talk, highlighting a theme that was to be reiterated constantly by judges and lawyers—"Jury duty is a civic responsibility that makes you proud to be an American."

Superior Judge Paul Richards, who was presiding in the courtroom, explained the function of a jury and some of its responsibilities. He pointed out that, in effect, a jury is a second judge. The judge on the bench has the sole responsibility for determining the law as it may apply in a particular instance, while the jury has the sole responsibility for determining the weight of the evidence.

He explained that in a civil action it is the preponderance of the evidence which should be considered in arriving at a verdict, while in a criminal case the State must prove guilt beyond a reasonable doubt.

Over and over he stressed the responsibility and challenge that faced us as jurors. If what he said could be sloganized, it might come out as:

"Be alert. Be honest. Be conscientious. Be fair."

The indoctrination over, holdover jurors joined the group and Commissioner Raggio began drawing names from a small wheel. Usually 24 names are drawn in a panel to be sent to a courtroom for selection of the 12.

I was lucky. My name was called with the second panel to be picked. The courtroom I was sent to was on the 14th floor of the City Hall, across Spring Street.

The two dozen of us who walked self-consciously across the street and then waited in Department 16 for jury selection to begin and the trial to get underway, were probably a cross-section of most juries. Glancing casually around—I didn't want to look too much like a freshman—the group seemed to me to comprise a reasonable ratio of men to women, youth to maturity, beauty to homeliness.

I was to learn the tired way that there would be much sitting and waiting like this before each trial and a great deal more during it. The 10 a.m. starting time seemed like a waste of much valuable time until you learned civil judges handled two default divorces and other matters each morning before the continuing trial resumed, and that much additional time was required by the judge in reading and researching as the trial progressed.

Eventually the Judge took the bench and the court clerk began drawing names to fill the jury box. I was No. 12.

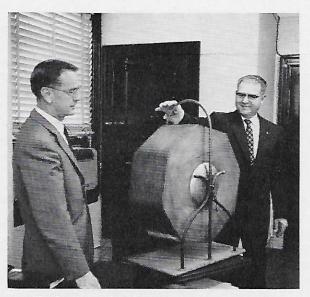
The case was a personal injury suit filed by an elderly woman against the city of Los Angeles and a contractor for injuries suffered when she fell crossing a downtown street that was being repaired. In an effort to weed out jurors who might be biased one way or another because of the nature of the suit, because of a similar experience or because of any one of a hundred quixotic reasons, attorneys representing each side questioned the prospective panel. They dwelt on personal matters relating to our lives, employment, experience, and all kinds of things, many of which seemed—and perhaps were—irrelevant.

A couple of jurors were challenegd—each side has a certain number of peremptory challenges, depending on the nature of the case, through which prospective jurors may be dismissed without a stated reason—and then suddenly the plaintiff's attorney said:

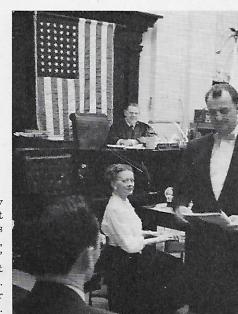
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"I was one of a couple of hundred who crowded into a Hall of Records courtroom for instructions as to what this jury service was all about."



"In Los Angeles County, jury panels are drawn by lot from registered voter lists." Presiding Superior Court Judge Roy L. Hendon and Chief Assistant Jury Commissioner Carl Raggio here spin a wheel containing the names.



"The attorney
(Monta W. Shirley) dwelt
on personal matters
relating to our lives,
employment, experience."
Listening were Court
Reporter Genevieve M.
Madell and Superior
Judge Samuel R. Blake.



"'How come you were elected foreman?'
my wife asked as wives have a deflating way of doing."

"Your honor, we accept the jury as presently constituted." The defense attorney concurred.

"Swear the jury, Mr. Clerk," the Judge said. And I was a juror.

The case took a week. At each recess—four times a day—the judge admonished us that we were not to come to any conclusions or decisions and we were not to discuss the case at all with anyone until it was finally submitted to us. It makes it a little tough conversationally at home in answer to that question:

"And what did you do today, dear?"

The evidence all in, the arguments concluded, the judge having instructed us as to the law, the decision was now ours to make. The 12 of us were herded by a bailiff to a deliberations room and locked in with our thoughts, our evidence and our arguments. First we elected a foreman and then we began to deliberate.

It took most of the day for us to reach a decision and then it was 9 to 3. In civil suits only nine votes are required as compared with an unanimous decision in a criminal action.

As far as I was concerned, a lot more came out of those deliberations than a verdict. More about that later.

That night I hurried home bursting with details on what had been happening all week. I managed to slip in the fact that I had been elected foreman.

"How come you were elected foreman?" my wife asked as wives have a deflating way of doing.

"Natural leadership," I said modestly.

After 17 years of marriage you'd think I'd know better—but it was the way she asked it.

For the next several days I reported each morning to the jury assembly hall where jurors met each day while awaiting assignment. For three days I sat from 9 a.m. until late afternoon, never once hearing my name called. There were lots of us in the same boat. During my tenure I did a lot of sitting and some thinking. Eventually I was called out on a couple of cases but didn't get into the box. Once I got on a jury and was excused.

Then I spent a week on a criminal case. The night before the case was submitted to us I didn't sleep a wink. Next day, during deliberations, most of the other jurors confessed to the same thing.

The county fed us lunch that day, as our deliberations ran from early morning to late afternoon. Accompanied by a man and a woman deputy sheriff, we were shuttled down the jail elevator—felony criminal trials are held on the eighth floor of the Hall of Justice, below the county jail—into a bus and to the Mayfair Hotel about two miles away. It was hard to look nonchalant as we paraded, two by two, into the dining room with a uniformed deputy front and rear. It was hard to enjoy lunch, too, with the omnipresent knowledge of the decision yet to be made weighing like a stone in one's stomach.

Before I finished my tour of duty, I spent two weeks on a condemnation action, determining what landowners should receive for property taken in conjunction with the building of the Ventura Freeway. When it was all over, I discussed the case and my impressions of jury duty with "Cy" Rubel. He had served on a federal jury two years previously and one of his cases had concerned itself with condemnation.

"That's the kind of a case where a good foreman makes all the difference in the world," he reminisced. "Did you have a good foreman?"

"The best," I said modestly.

I still hadn't learned.

But I DID learn some things. Seriously.

The jury system is not efficient. But it could not and should not be otherwise. Democracy is not designed as a so-called "efficient" form of government. It is a just form, a rewarding form, a form of government conscious of man's strength, his frailties, his conscience, his belief in God, in liberty, in justice.

Trial by jury is an original right of Americans. Individually we may be smart and dumb and crafty and slow-witted and honest and larcenous, some fat and some skinny. We may be old and young and black and white and yellow, some short and some tall. But collectively, take any 12 of these Americans and put them on a jury and I'll risk my property or my neck with them, assured that they will do the right thing.

To be a part in the earnest and sincere deliberations of 12 people thrown together by lot, to be a part in their honest and conscientious effort to reach a fair and equitable verdict, is to appreciate America, to understand America, to love and respect her people, and to be unembarrassedly proud of our heritage.

/THE END

"To be a part in their honest and conscientious effort to reach a fair and equitable verdict is to appreciate America, to understand America, to love and respect her people."



departmental reports bring you...

BUSINESS HIGHLIGHTS OF THE MONTH

- Bridge Area grows in production importance.
- Six Gulf wildcats drilling below 10,000 feet.
- . New Stationery Warehouse to be built.
- Shale rock is nearly ready to roll.
- We're 10 times safer on the job.

Manufacturing

The Research Department has transferred all pilot plant activities, which were located at the Los Angeles Refinery, to Brea Research Center. Land formerly occupied by these facilities, comprising several acres, is now being developed into sites for fuel oil tankage.

A very thorough study is being made of the tankage requirements for all refineries. Results of this study will be correlated with results of similar studies being made by other operating departments of the Company. Thus, better utilization of raw material and tankage can be attained.

A new laboratory building is planned for Oleum Refinery to replace old facilities. Located in an area southwest of the present Administration Building, it will incorporate the latest improvements for industrial petroleum laboratories and house all functions under one roof.

The monthly production of Aristowax at Oleum Refinery reached a new high recently, due mainly to improved feed stocks and increased plant efficiency.

from K. E. Kingman

Transportation & Distribution

Construction was started early in January of the San Joaquin Valley-Oleum crude oil pipe line project. It is anticipated that all pipe will be in place to

permit operation of the line on a limited basis by May, 1957. Completion of booster pump stations and storage tanks required for full operation of the line is scheduled for August, 1957.

At request of the Defense Department, the United States Coast Guard recently authorized deeper loading of ocean-going tankers on United States coastwise voyages, provided the vessels were approved as to strength by the load-line assigning authority. This move was made to help relieve the world-wide shortage of tankers resulting from closing of the Suez Canal. Six tankers being operated for the Company have been approved for loading to the tropical loadline on such voyages, or 7½ inches higher than the former loadline. This change has increased the fleet cargo capacity approximately 3%, and will produce a significant saving in marine transportation expense.

from E. L. Hiatt

Production

The Bridge Area, located on the north flank of South Mountain Field, Ventura County, California, has developed rapidly into an important source of crude production for the Company. A major part of the producing area underlies leases held by Union Oil and The Texas Company. The two companies have pooled certain of their holdings, which are being drilled by The Texas Company for the joint account. There are

now 14 producing wells on the pooled acreage and, in addition, one well has been completed by Union Oil on its adjoining mineral fee property. Our share of production from the 15 wells has reached 2,900 barrels a day. The oil, of 32° gravity, is of excellent quality. Production is obtained from the 8,000 foot Pico sands below the Oakridge Fault, which is the geologic feature of this area. Development of the field will continue throughout 1957, probably calling for the drilling of 24 additional wells, 21 under the joint agreement and 3 on Union's mineral fee lands.

from Dudley Tower

Exploration

Industry's ever continuing search for more oil has resulted in the deeper and deeper drilling of wells. Thirty-three years ago, Union Oil's Gardena No. 1 was drilled at Dominguez to a depth of 7,319 feet, establishing a world's record. Today the deepest well is bottomed at 22,570 feet in Louisiana. This trend toward deeper drilling and deeper production is exemplified in our Gulf Division. We have no new wells projected beyond this record depth; however, our Gulf Division daily drilling report indicates that six wildcat wells are drilling below 10,000 feet and two of these are drilling below 12,500 feet. Where geological conditions justify, the trend in prospecting is toward deeper drilling. from Sam Grinsfelder

Purchasing

Plans are well developed for establishing, by the middle of 1957, a new and modern stationery warehouse adjoining Los Angeles Terminal. The present warehouse at 1324 Palmetto Street, Los Angeles, has served the Company since 1933. The building prior to that date housed a foundry-a fact that became apparent when one of our forklift trucks broke through a thin layer of concrete flooring into an old foundry pit. Old timers recall many other problems encountered while adapting certain features of the building to printingpress work. The new warehouse, hopefully, will eliminate pitfalls while providing a greatly improved service in printing forms and distributing office supplies.

from C. S. Perkins

Research

Equipment deliveries are complete, permitting final phases of retort field assembly and shakedown tests at the Shale Demonstration Plant near Grand Valley, Colorado. Oil shale rock was successfully pumped vertically upward through the retort, confirming this part of the retort's design specifications. Operating personnel are busy learning their new jobs, checking details and operating equipment on a planned schedule. Considerable snow and continuous below-freezing weather is not seriously interfering with activities. A stockpile

of crushed shale rock, containing 30 gallons of oil per ton, is available for retorting, therefore mining operations will stop until spring.

Union's Unifining process for removing sulfur and other impurities from raw gasoline, diesel and gas oil fractions is available under license to industry. The Delhi-Taylor Corporation of Corpus Christi, Texas, the Dorchester Corporation of Amarillo, Texas and Tidewater Oil Company are our latest licensees.

The Chemical Research Division, one of eight divisions in the Research Department, provides technical service and research on new chemical products for manufacture by the Company, and in particular by Brea Chemicals, Inc. Dr. I. D. Webb of our staff is the newly appointed manager responsible for this activity. To enter the plastics field successfully, experimental facilities are required to determine the quality, workability and use of each new product. Plastics application equipment, such as molding presses, extrusion devices, etc., is now on order to meet the marketing needs of the new polyethylene venture. from Fred L. Hartley

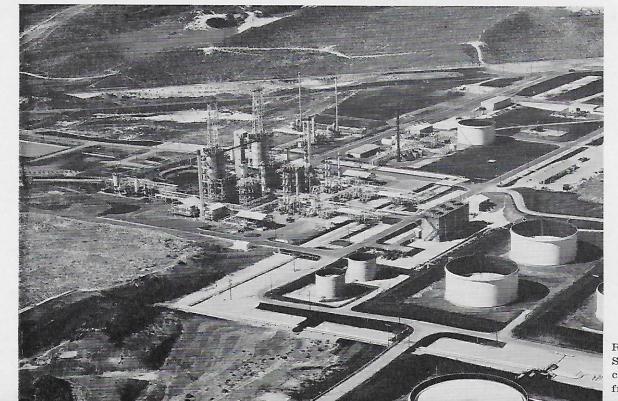
Comptrollers

The Company's internal auditing staffs recently completed their annual verification of crude and refined oil inventories and operating and maintenance stocks.

This year-end responsibility also includes tests and confirmation of selected customers' accounts receivable.

In addition to these annual verifications, in which independent public accountants actively participate, the Marketing, Field and Refinery internal auditing staffs conduct continuous audits, which also are coordinated with the work of public accountants to supplement coverage in certain areas and to avoid duplication of work. This program includes review of accounting records and procedures, related operating data, internal controls, and financial transactions in the various offices throughout the Company. Audits range from reviewing the records and stocks in our most remote marketing and field operations to verifying product handling controls at our terminals and refineries. Audits include the verification of costs and expenditures from field joint ventures operated by other companies, and of charges by contractors under the Company's expanding construction programs.

The major purpose of audits of Company books and records by independent public accountants is to provide a professional opinion that the financial information being furnished stockholders, prospective investors, bankers and others is reliable and properly reflects actual assets, liabilities and operating results. On the other hand, the Company's internal auditing staff provides





Recent airview shows Santa Maria Refinery clean and shipshape from ground up

management with a continuous verification of activities, as they affect the preservation and safekeeping of assets, and checks adherence to policy.

from Max Lorimore

Marketing

Eastern Continental Territory reports continued sales progress, their output during the months of November and December having exceeded 1,000,000 units. A net gain during 1956 of 45 new distributors in the 40 states comprising this territory contributed to the sales.

New marketing outlets include:

A beautiful new service station in the Stanford Shopping Center on Stanford University Campus. The high-gallonage unit is specially designed to harmonize with campus architecture.

A new 2-canopy, 4-island, 4-bay service station, built by Master Service Stations, Inc., our Salem, Oregon distributor, near the Oregon State Capitol building. A brick planter and new display window design help to preserve an atmosphere consistent with nearby state buildings. Master Service Stations also have two Type 140 units under construction in Salem.

The Pomona Marketing Station, opened in 1914, is being completely rebuilt with underground storage.

The new Colton Terminal was placed in operation January 1, 1957, consolidating three marketing stations at San Bernardino, Riverside and Redlands.

Increasing industrial activity on the Mojave Desert has justified the opening of a wholesale consignment agency at Trona under the direction of James H. and O'Dell Baker. Trona is located on Searls Dry Lake and is 20 miles west of Death Valley National Monument. The outlet is convenient to the Naval Test Station at China Lake, the American Potash and Chemical Company mines as well as various commercial and retail outlets in the area.

All Tournament of Roses floats were fueled this year, as in the past, by our Pasadena Marketing Station under supervision of the Pasadena Fire Department. City officials have commended our drivers for their safe and efficient performance of the assignment.

Management organization changes in the Marketing Department on December 1 will permit a more aggressive development of business at both wholesale and retail levels. To provide specialization in an intensively competitive market, two sales-manager positions were created in Home Office. R. H. Rath was named sales manager dealer sales, W. L. Spencer sales manager direct sales. This separation of activities is further reflected in the position of territory manager. In the Northwest, Central and Southwest Territories, positions of territory manager dealer sales and territory manager direct sales have been created. In other territories the territory

managers will handle both dealer and direct sales.

from Roy Linden

Industrial Relations

The number of disabling work injuries in Company operations declined in 1956 to a new low of 90, compared with 120 in 1955 and 91 in 1953, our best previous years.

Off-the-job injuries continue to be a substantial problem, of concern to individual employees and the Company. According to EMP records, there were 896 off-the-job injuries in 1956 requiring the attention of a doctor. A sizeable number of these injuries resulted in one or more days of absence from work, and five were fatal. Principal causes of these injuries were slipping on various floor surfaces and straining ligaments or fracturing bones; falling from ladders or from unsafe substitutes; lifting heavy objects in unsafe posture; handling pets; and participating too vigorously in sports.

The cost of such accidents to the working force and the Company is exemplified by the experience of one of our large refineries. During 1956, the refinery sustained three disabling injuries, causing a total of 55 days lost from work. During the same period, 30 off-the-job injuries caused the refinery employees to lose 470 days from work.

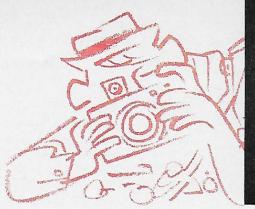
from W. C. Stevenson





One of our newest tanktrucks, constructed at Emeryville, makes its initial delivery to the Honolulu service station of Charles Iwai

Nearing completion at Los Angeles Refinery are new Unifining and Platforming Units



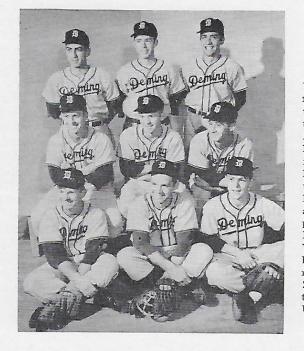
IN FOCUS





From left, City Recorder Harry B. Evans administers the oath of office to Howard Giger and Virgil Giger, brothers recently elected councilmen for the city of Canby, Oregon. Howard is a service station lessee and Virgil the local consignee for Union Oil Company. The popular brothers were among eight candidates.

FROM THE CANBY HERALD, OREGON



Yessir, in the Jacob Zender family of Deming, Washington there are enough boys-nineto comprise a baseball team. And a very good one it is, too! Last season the brothers, playing in uniforms of the Deming Loggers, were champions of the Northwest Semi-Pro League, and took second place as well as most of the trophies in the National Semi-Pro Tournament held in Wichita, Kansas. During and between baseball seasons they run and practically man the Zee Brothers logging operation in Washington, a valuable Union Oil customer.

FROM L. E. BUTTON



A. Dermott O'Toole, Company consignee at Tenakee, Alaska, accepted a most unusual appointment recently—that of marriage commissioner to solemnize only one marriage. The Tenakee bridal couple, after going to Juneau for a marriage license and blood tests, were obliged to return to Tenakee before the three-day waiting period had expired. Then they discovered nobody in the remote village had proper authority to marry them. O'Toole explained their predicament via letter to authorities in Juneau, and was subsequently deputized to tie the knot. There's no limit to "76" service.

FROM J. W. WHITE



The success of Portland's Junior Chamber of Commerce Toy & Joy Campaign during Xmas was attributed to the chairmanship of Union Oiler Bill Phillips, right, seen with Chief Eddie Boatright and Cub Scouts Alan Humbard and Michael Wachter. Bill mobilized 10,000 Cub Scouts in house-to-house solicitation for toys. Part of his remaining time, gleaned off-hours from his Credit Department job, was devoted to the Youth Welfare Committee, which he serves as secretary.

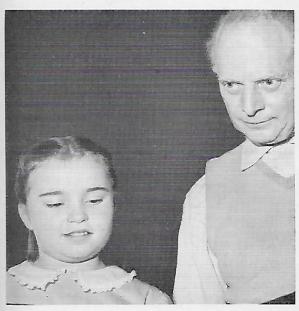
FROM W. S. NEWTON







Union Oilers wound up 1956 with the best Xmas ever. At Los Angeles Refinery, Santa Claus, or one of his confederates, came down out of the sky in a candy-striped helicopter to help entertain a crowd of 800. At Oleum Refinery, another audience of 800 saw a rib-tickling stage performance. And the Home Office Girls Club, represented by (from left) President Dottie Green, Jean Davis, Jerry Batesole, Helen Nickleson, Olga Wohlgemuth and Collette Egan, distributed a carload of toys at Children's Hospital.



Carol Jaenson, 10, checks the score with Conductor Francis Aranyi during a rehearsal of the Seattle Youth Symphony Orchestra. Already a composer and veteran of five years at the piano, Carol performed as guest piano soloist with the orchestra on December 7, 1956. She also has appeared on church, talent show and television programs, and has received a "superior" rating in the National Piano Auditions. Among her proudest admirers is her grandfather, Auditor Burr Chandler of Union Oil in Seattle.

FROM OLIVER LEEDY

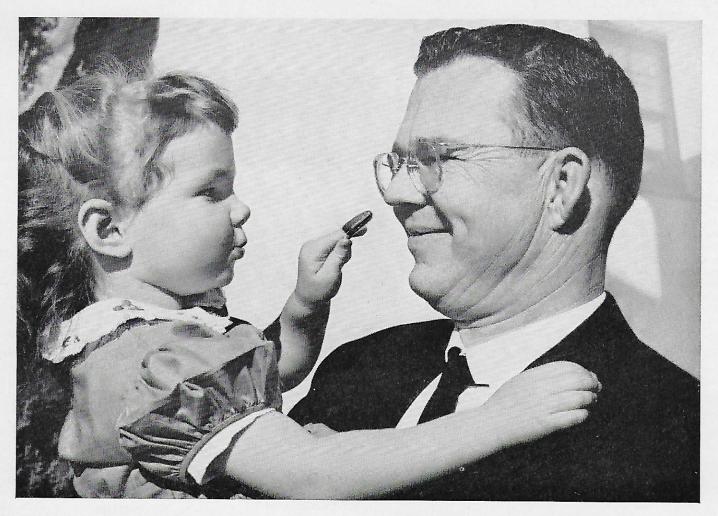
SERVICE BIRTHDAYS February 1st

EXPLORATION & PRODUCTION	LIONEL R. EDWARDS, Los Angeles 20
WILLIAM A. B. NOTT, Orcuft40	ROBERT B. FRANKS, Long Beach15
JOHN J. SHANAHAN, Whittier35	MILTON E. SANDERMAN, Seattle15
JESSE J. MIKESELL, Whittier30	ALICE L. ALLEN, Los Angeles10
ERNEST H. ADAMS, Orcutt25	VIRGIL COMSIA, San Francisco10
LAWRENCE K. MORRIS, Los Angeles_20	MARY F. MANTHEY, San Francisco10
FRANK C. BALL, JR., Colorado15	WILLIAM F. MESSICK, Stockton10
ROBERT F. BAUER, Los Angeles15	HARRY A. MILLER, San Francisco10
L. W. CHASTEEN, Home Office15	ALEJANDRO M. RUIZ, Costa Rica10
DANA B. BRAISLIN, Los Angeles10	HARRY E. SCHMIDT, Utah10
JAMES S. BUCHANAN, Louisiana10	PIPELINE
ARCHIBALD DAWSON, Texas10	
HUNTER H. EWING, Whittier10	HUGH H. JONES, Santa Fe Springs30
MARTHA J. LYDICK, Orcutt10	ELDON J. BLACK, San Luis Obispo10
MORRIS N. MATSON, Colorado10	ALBERT D. CLARK, Santa Fe Springs10
LESTER D. PROCTOR, Dominguez10	SAMUEL E. FEATHERS, Santa Fe Spgs. 10 PAUL J. GAZELEY, JR., Santa Fe Spgs. 10
JAY B. STANTON, Bakersfield10	LLOYD R. HAMEL, Santa Fe Springs10
JOSEPH M. WALSH, Santa Fe Springs 10	ROY O. NORICK, San Luis Obispo10
MANUFACTURING	nor of remain, our consponent
	RESEARCH
HARRY W. DENNIS, Oleum35	BEN T. ANDERSON, Brea25
FRED HERROD, Oleum 30	EUGENE M. EDWARDS, Brea 20
J. RAY WYCOFF, Wilmington30	GEORGE H. HEMMEN, Brea20
WILLIAM E. FEENEY, Wilmington25	HENRY C. MEINERS, Brea15
RAYMOND A. HILL, Wilmington25	HARRY J. WORTH, Brea15
EUGENE A. McKEE, Wilmington20	
DAVID G. HUTCHINSON, Wilmington 15	COMPTROLLERS
WILLIS J. KIRKPATRICK, Oleum15	LESLIE A. BOWLES, Sacramento25
FORREST R. WATTS, Wilmington15 ROMEO J. CALIGARI, Orcutt10	EVELYN L. EATON, Home Office10
ELIAS H. HOLSTINE, Orcuff	INDUSTRIAL RELATIONS
ELIAS H. HOLSTINE, OFCUT	M. GENEVIEVE CLAY, Home Office 25
AUTOMOTIVE	WILLIAM F. WILFLEY, Home Office10
CLIFFORD R. CAREY, Portland35	
CITTORD K. CHICL, TOMANG.	TREASURY
MARKETING	WM. U. FLORENCE, Home Office25
JOHN W. GRAHAM, Panama30	PURCHASING
LEE E. S. WASSER, Edmonds 30	JACK R. BOLTZ, Bakersfield10
ROSCOE J. SUIT. Seattle 25	DOROTHY H. BERGER, Home Office 10

RETIREMENTS February 1st

	SERVICE DATE
HAROLD B. ASHTON, Central Territory	November 20, 1923
HAROLD E. BRANT, Field Department	December 10, 1927
DEWEY T. DAHL, Southwest Territory	May 10, 1923
JOSEPH M. PHILLIPS, Oleum Refinery	January 15, 1923
HARVEY M. PULLEN, Los Angeles Refinery	August 4, 1928

IN MEMORIAM	
EMPLOYEES	
RENE J. LORETTE, Central Territory	December 26, 1956
JOSEPH L. HOBBS, Los Angeles Refinery	January 2, 1957
MICHAEL HURLEY, Northwest Territory	January 18, 1957
RETIREES	
ARTHUR L. JUDD, So. Division Field	December 22, 1956



Varren Buell

His child-like yours-came into the world owing \$1,625

 $Y_{
m ou}$ know how you always want your children to have it a little better than you did? It's a normal and natural desire.

"Yet I wonder, sometimes, if we aren't short-changing the generations coming up when I see how we're running the national 'store.'

"Back in 1915 our national debt amounted to \$11.84 per person. Today your child comes into the world owing \$1,625.

"Private debt is ballooning, too—from 154 to nearly 450 billions since 1945.

"What about inflation? Measured by what a dollar bought in 1945, a 1956 dollar was worth only 67 cents.

"Our annual tax bill is something, too. Today, one out of every four days you work goes for taxes.

"Sure we have to pay for wars we've fought. And America's responsibilities as a world citizen are very expensive.

"And in spite of all I've said, we're all living better than ever.

"But part of this increased standard of living is being bought on the installment plan. The average American family today owes 13.6% of its annual income for things it has bought on credit-compared to 6.8% in 1948.

"So it seems to me that all of us might be doing those future generations a real

service by taking a long and careful look down the road we're traveling."

Warren Buell's concern for the future begins at home: he has two daughters.

As a United States citizen and a Supervisor of Economics for Union Oil, he has a right to be concerned about the future.

For each of us has the responsibility to do what he can to safeguard the principles that have made this country prosperous and free.

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

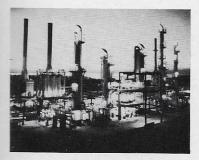
Union Oil Company of CALIFORNIA

MANUFACTURERS OF ROYAL TRITON, THE AMAZING PURPLE MOTOR OIL

ON TOUR

FEBRUARY 1957

Volume 19 Number 2



Cover photo by George Strock

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"ON TOUR" pronounced "on tower," is an oil field expression meaning at work or on duty. Our magazine by that title is published monthly by Union Oil Company of California as a means of keeping Union Oil people informed regarding their company's plans and operations. We invite communications from our readers, whose interests and opinions are carefully weighed in determining editorial policy. Address correspondence to ON TOUR, Union Oil Building, 617 West Seventh Street, Los Angeles 17, California.

C. HAINES FINNELL
Director Public Relations
THIEL D. COLLETT
Editor
ROBERT C. HAGEN
Assistant Editor

learn to say "NO!"

by Bruce Catton

Editor of "American Heritage," Pulitzer Prize Historian and Author of "This Hallowed Ground"

Toward the end of his tragic, devoted life, General Robert E. Lee attended the christening of a friend's child. The mother asked him for a word that would guide the child along the road to manhood.

Lee's answer summed up the creed that had borne him, through struggle and suffering, to a great place in the American legend.

"Teach him," he said simply, "to deny himself."

To deny himself...unexpected words, coming from a great soldier. One wonders how the young mother felt, hearing them. Even more, one wonders how this advice would strike the average parent of today.

We don't emphasize self-denial very much these days, either for our children or for ourselves. Instead we concentrate on our wants. We seem to have the notion that the world owes us all manner of good things, and we feel abused when we don't get them. Self-discipline is a bore; and as a result we are perilously close to winning an unwelcome fame as a land of spoiled children and discontented adults.

To learn to get along without—to realize that what the world is going to demand of us may be a good deal more important than what we are entitled to demand of it—this is a hard lesson. We have not been working very hard at it in recent years. Instead we have developed a moral and intellectual flabbiness that could be fatal to us as individuals and as a nation.

For the world itself is really no easier now than it was in General Lee's time. It offers rich opportunities, but above everything else it offers a struggle; a struggle that will never be won by the self-indulgent. More than anything else, we need to re-learn General Lee's lesson.

To deny ourselves: that way we miss a good many of the nice, easy things that it is so pleasant to have. But we end up serving something bigger than ourselves. We can finish by attaining greatness.

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Competing with the brilliance of a San Francisco Bay sunset are Oleum Refinery units, where the finest gasoline stocks are manufactured. Now from this same refinery comes the basic lube stock for a great new motor oil—Royal Triton 10-30—the oil that complements horsepower.

