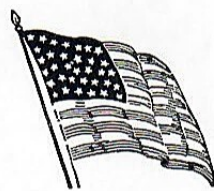


UNION OIL BULLETIN

THIRD QUARTER, 1940



“WHY I’M GLAD I’M AN AMERICAN”



Union Oil’s recent radio letter contest elicited many moving essays. Among them was this prize-winner from Mr. Hobart Franks of Phoenix, Arizona.

Today I picked up a clod from my yard, broke it, and as it sifted through my fingers I realized for the first time that this was more than just dust. This was a tiny piece of America. I owned a rare treasure. A bit of the only soil left in the world today where a man can stand free and unafraid. I was standing on a piece of America, a few feet around and a thousand miles deep.

Here alone, in all the world, could I build my future, knowing that it would be secure, and raise children with the knowledge that they, and their children, could enjoy that same security. I could stand on my tiny piece of America, think freely and say what I thought, do what I pleased, shrink from no man and call upon whatever God I chose.

Three deeds protect my land. One is locked in my strongbox, my purchase deed. The others are enshrined, and locked in the hearts of every American,—the Declaration of Independence, and the Constitution.

I am a fortunate man, the indisputable owner of my own life and the land on which to live it. I am an American!



U N I O N O I L B U L L E T I N

VOLUME TWENTY-ONE

THIRD QUARTER, 1940

BULLETIN NUMBER THREE

DAVID TAYLOR, *Editor*

UNION OIL COMPANY EXECUTIVE COMMITTEE* AND OFFICIALS

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*W. L. STEWART, JR.....	<i>Vice-President</i>
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EDITORIAL COMMENT

"STOCKHOLDERS are the real owners of business!" We quoted that statement by Leslie Gould in the last Bulletin but we feel that it is too important to leave without additional comment.

To a young company in its formative period, the stockholder meeting is of vital importance. The stockholder wants to know all about his company . . . is actively interested.

When a company has reached maturity, however, there is a tendency on the part of the stockholder to put his interest and ideas in the strong box along with his stock certificates.

This is equivalent to saying to management: "You go ahead and run the business. All I'm interested in is my dividends."

This type of stockholder is like the citizen who does not vote. He is not only denying the company his support, but is overlooking the privilege of helping a business of which he is an owner.

Union Oil Company, like any other company, solicits the cooperation of its stockholders. We believe stockholders should be boosters—for the company and for its products. That is simply a logical confirmation of the stockholder's reasons for owning the stock.

If you have any ideas or suggestions, we would appreciate receiving them. If you have any questions, we will try to answer them for you. We would like to have the benefit of your suggestions at any time.

SANTA PAULA CELEBRATES UNION'S 50TH ANNIVERSARY

A red letter day for some 5,000 Union Oilers was August 24, 1940. First thing was a presentation of keys to the city, and the unveiling of a dedicatory plaque at the original Union Oil Headquarters, still owned and used by the Company as a district office. This ceremony, broadcast over NBC's network, involved an interesting coincidence. Mayor Guy L. Hardison, son of W. L. Hardison who was a co-founder of Union Oil Company, presented the keys to Union's vice-president, W. L. Stewart, Jr., whose grandfather, Lyman Stewart, was the other co-founder. Following this opening formality, Santa Paula successfully accomplished the difficult feat of moving a rollicking three-mile parade down a one-mile course. As the parade finished, Union Oilers scrambled to spacious Steckel Park for a record-breaking barbecue, then scrambled back to Santa Paula's Rodeo Grounds to watch a swell bronco-busting, calf-roping soiree. Many Company employees provided periodic comedy relief in this otherwise professional event.



Union Oil's float carried three of the Company's prettiest girls and a comic quartette from our NBC show *Where and When*. These later sang barber-shop ditties.

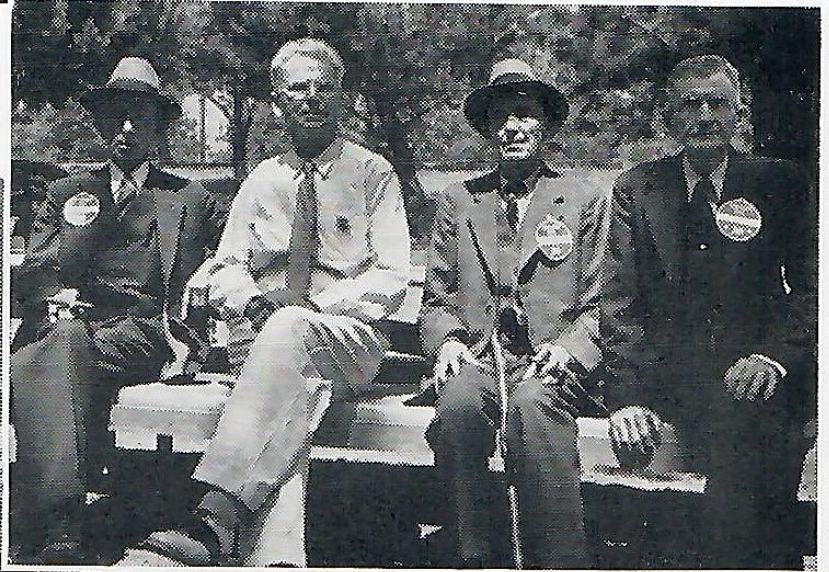
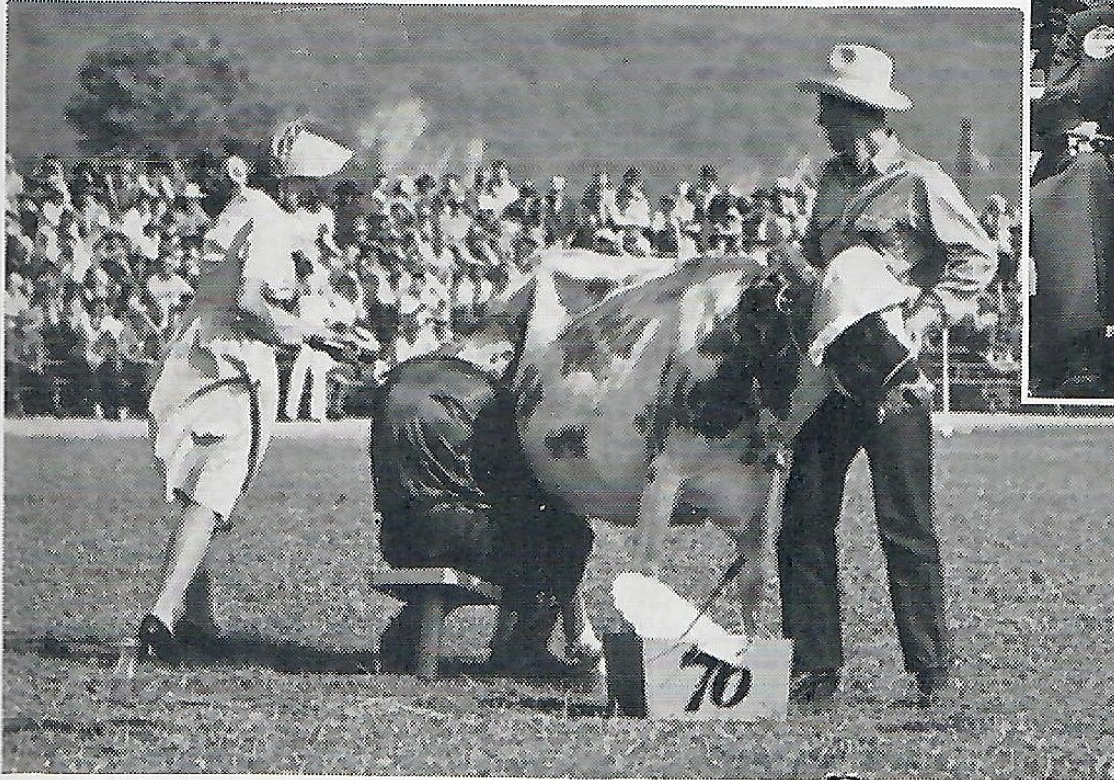


Not entirely comfortable in their rented costumes were these Union Oil lads who courageously essayed to play the "Spirit of 76" under Santa Paula's warmish sun.

In a 1902 Brush, pictured below, Union's chief automotive engineer, ex-racing champion Earl Cooper won a first prize cup.



Many a laugh was provided at the Rodeo when tenderfoot employees tried to milk cows and hog-tie calves.



Of particular significance was the fiftieth anniversary party to many old-time Union Oil employees, who thoroughly enjoyed themselves. In picture above are oldsters, Stein, McCray, Hardison, and Bercaw.

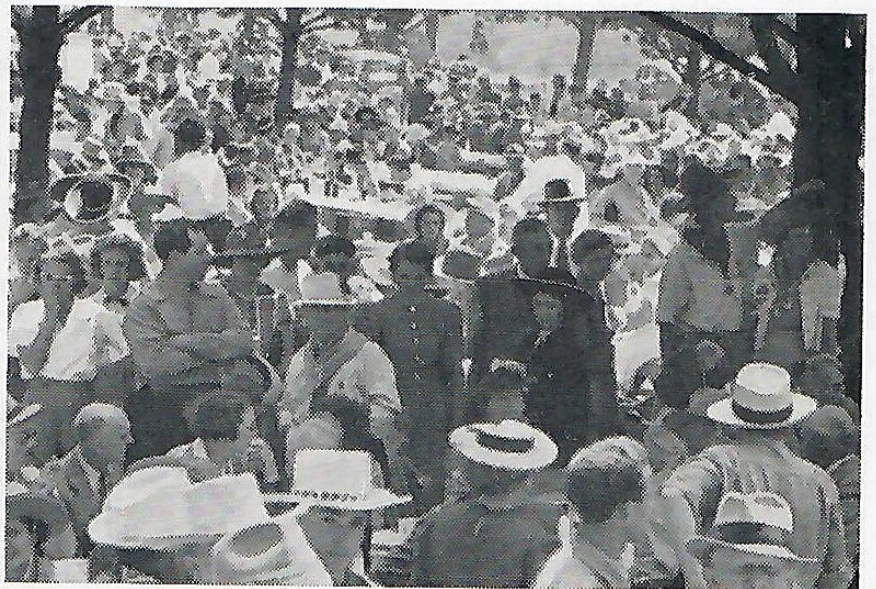
Below: The National Broadcasting Company and Radio News Reel "mikes" carry the story of Union's fifty years to thousands of listeners. Vice-president W. L. Stewart, Jr., glances over his radio script after receiving the keys to the City of Santa Paula while the City's genial Mayor "Guy" L. Hardison presents a bronze plaque commemorating Union Oil Company's birthplace.



Above: Union's first tank wagon brings back many a memory to the old-timers who flocked to Santa Paula to join in the fun.



Below: A few of the five thousand Union Oil Company employees who enjoyed the satisfying lunch served at Steckel Park.



EFFICIENCY IS KEYNOTE OF NEW BUILDING



OCTOBER 17th marked another episode in the growth of Union Oil Company, for on this date our new San Francisco home was officially opened. Built in the interest of efficiency and economy in housing the San Francisco staff, the new building is a modern concrete structure sufficiently large to handle the increasing business of central and northern California for years to come.

It is conveniently located, away from congested traffic, on historic Rincon Hill—alongside the San Francisco-Oakland Bay Bridge. The



new building, in sight of all bridge traffic and visible over a wide area about the Bay, will have a valuable advertising benefit to the Company.

The prominent 140-foot tower with its neonized "76" sign rises above three stories. Reflecting the latest type functional architecture, the main facade is surfaced with buff-colored terra cotta combined with glass brick. Approximate ground dimensions are 61 by 152 feet.

Above: The tower of the new building dominates the approach to the Bay Bridge and can be seen for miles. *Left:* San Francisco's Mayor Rossi officially opens the building while Company officials look on.

Within the building are all the Central Division offices, executive, sales, operations, accounting, credit and personnel. Representatives of head office departments also have office space—purchasing, traffic, foreign sales, comptrollers and auditors.

Taking advantage of ground slope, a convenient delivery platform is located in rear of the building adjacent to all storage rooms. Above the third story are housed telephone and air cooling systems in addition to a lounge for women employees. Ample parking facilities for employees and customers are being provided.

UNION OIL COMPANY OF CALIFORNIA

REPORT

*For the Nine Months
Ended Sept. 30, 1940*



TO THE STOCKHOLDERS OF UNION OIL COMPANY OF CALIFORNIA:

The following is a summary of the results of the Company's operations for the nine months ended September 30, 1940, and the financial position as of that date.



PROFITS (less all expenses and charges, including provision for income taxes) were as follows:

	<u>1940</u>	<u>*Per Share</u>	<u>1939</u>	<u>*Per Share</u>
Profit subject to depletion and depreciation	\$11,143,128	\$2.39	\$12,118,774	\$2.60
Provision for depletion and depreciation	<u>7,930,516</u>	<u>1.70</u>	<u>7,569,061</u>	<u>1.62</u>
Net profit for the nine months	<u>\$ 3,212,612</u>	<u>\$.69</u>	<u>\$ 4,549,713</u>	<u>\$.98</u>

*Calculated on 4,666,270 shares outstanding at September 30.

The net profit for the third quarter of 1940 amounted to \$1,198,232, or 26¢ per share, as compared with \$1,898,569 and 41¢ per share for the corresponding 1939 period, the decrease being due to lower gasoline and fuel oil prices prevailing throughout the third quarter.

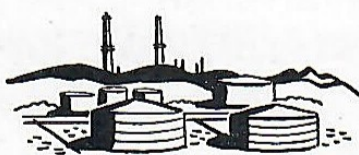
CURRENT ASSETS, consisting of cash resources, \$24,307,927, accounts and notes receivable, \$8,822,057, and inventories, \$24,327,821, amounted to \$57,457,805 at September 30, and were almost 7 to 1 of current liabilities of \$8,601,102, which includes the amount of the dividend declared September 30 for distribution November 9. Net current assets at the end of the third quarter amounted to \$48,856,703 as compared with \$48,600,877 at the beginning of the year. At September 30, 1940, the net current assets of foreign subsidiaries (chiefly Canadian) included above, amounted to \$2,018,450 U. S. funds.

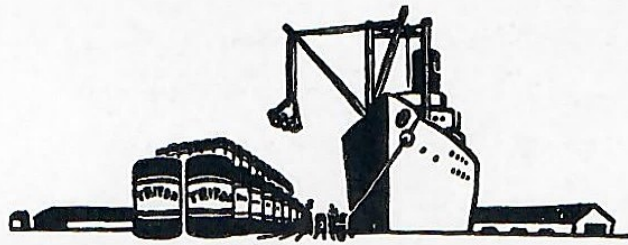
Oil inventories increased slightly during the third quarter and aggregated 24,998,000 barrels at September 30, 1940.

CAPITAL EXPENDITURES for the nine months ended September 30 amounted to \$8,755,450, consisting principally of new drilling, and the continued modernization of transportation, refining, and marketing facilities. During the third quarter, construction work was started on a distillation plant to reduce heavy oil to petroleum coke, which coke the Pacific Gas & Electric Company has contracted to purchase. This plant will effectively refine high sulphur bearing crude oils. During this same period, work was started on a catalytic cracking plant which will permit more economical manufacture of high quality gasolines. These facilities are expected to be completed during 1941.

PRODUCTION of crude oil, excluding co-owners' interests, but subject to royalty, increased 229,000 barrels during the third quarter as compared with the same period of 1939, the total for the nine months ended September 30 having aggregated 13,678,000 barrels and 12,926,000 barrels, respectively, in the two years.

EXPLORATION. The recently completed well on the Company's Louisiana properties is producing satisfactorily under curtailment, which production is being sold to the Gulf Refining Company. Two wells are now being drilled, which, together with additional wells contemplated, will assist in indicating the extent of the productive area.





SALES of crude oil and refined products amounted to 23,576,000 barrels and \$53,590,047 for the nine months, a decrease of 224,000 barrels and \$2,220,837 from the same period of last year. A substantial increase was reflected in the volume of domestic business, but it was offset by reduced shipments in the export market due to the unstable international situation and the partial embargo effected recently on petroleum products.

EARNED SURPLUS at September 30, 1940 was \$18,363,963, after deducting the cash dividend of 25¢ per share, which was declared on September 30 to be distributed November 9 to stockholders of record at the close of business October 10. Earned surplus as of December 31, 1939 was \$18,651,054.

NATIONAL DEFENSE PROGRAM. It is the sincere desire of the Company to cooperate with the Federal Government in every way possible in carrying out the emergency defense program. To that end the Company has guaranteed, within reasonable limits, to each employee who has completed at least a year of service with the Company and who volunteers or is called for the twelve-month period of military service, that he will be re-employed, without loss of seniority, upon satisfactorily completing his training period. Furthermore, the Company will pay to such individuals, for a period of three months, the difference between Company pay and Government pay, and, at its expense, will keep in full force during the entire training period the non-contributory group life insurance. Provision also has been made for such individuals to continue to participate in the contributory group life insurance and retirement plans.

By Order of the Board of Directors,

REESE H. TAYLOR

A handwritten signature in cursive script that reads "Reese H. Taylor".

President

M. G. KERR

A handwritten signature in cursive script that reads "M. G. Kerr".

Comptroller

Los Angeles, California
October 28, 1940



Major requirements in conservation are power and speed. Basin listing machine shown at left might save three to four times area treated before next winter's rains set in.

Mr. Rountree interviews farmers, inspects damaged areas, and sees that plans are made to prevent further damage while reclamation is under way. He shows farmer groups and service clubs moving pictures of flood control work, fire prevention, and different conservation projects. He serves on the committees of various chambers of commerce as well as on county planning boards in the different conservation districts. Mr. Rountree is chairman of the Arroyo Grande Flood Control District, director of nine conservation districts, and serves on the committees of four water conservation districts.

Reclamation of farm lands and orchards entails considerably more work than merely putting damaged farms and orchards back into production. Hundreds of acres beyond the immediate lands to be reclaimed must be worked over. Terraces and run off ditches must be made to break the force of flood waters before they reach the farms.

OUR BATTLE AGAINST EROSION

Helping Western Farmers Fight an Age-Old Enemy is Creating New Union Oil Consumers

ONE of Union Oil Company's least known activities is that of assisting farmers whose farms and ranches have been damaged or destroyed by flood and erosion.

The purchasing power of this consumer group has been considerably reduced in recent years since thousands of acres of valuable farm lands have become waste lands of little or no value.

About a year ago the Company recognized that considerable good-will as well as new sales markets could be developed by helping these farmers to organize conservation districts.

Organizing a conservation district is a complex matter requiring the services of a man thoroughly acquainted with farmers and farming problems. Union Oil Company engaged R. F. Rountree who had organized the Arroyo Grande District for this work.



The loss of natural cover crop on nearby hills resulted in the destruction of this orchard.



View showing adjacent orchards separated by a run-off ditch. The orchard on the left has been properly terraced and has suffered no loss of top soil from the heavy rains. The orchard on the right shows the network of ruts that will eventually become gullies.

Cover crops must be planted to replace the natural cover crop torn away by floods or destroyed by forest fires. Catch basins and overflow ditches have to be built to assist the natural contour of the land to shed water.

It is an interesting fact that asphalt, in a great many cases, is replacing the cement heretofore used for lining these ditches, catch basins, and storage reservoirs.

The program of returning waste lands to productivity has been even more successful than was expected. The conservation work necessary to save and reclaim ranch and farm lands results in hundreds of acres, never before under cultivation, becoming valuable property.

Each organized district, besides being reclaimed, has increased in value by the addition of acreage that had never been worth more than a few dollars at most.

During the past year seven of these districts have been organized — comprising 12,000 ranches covering over two and one-half million acres. Mr. Rountree's reports show that there are 40,000 additional ranches in need of conservation assistance.

As each district is organized, and power equipment obtained, our local agents are put in touch with the farmers to assist and advise them on their petroleum requirements.

This has resulted in the creation of much good will between the farmers and the Company. No direct selling has been attempted and our local agents act solely in advisory capacities.

The complete story of this reclamation work will probably never be told. Part of it, however, will be told in the increased consumption of our products by those farmers who, one year ago, had ceased to be consumers, but who today are fast becoming Union customers.

ANOTHER FIRST FOR UNION OIL!

LAST month Union Oil Company added another "First" to its considerable list of innovations and achievements.

This was the orange paper towel now being used in conjunction with our Minute Men Windshield Service.

The orange paper towel, besides doing a better job of windshield cleaning, is less expensive than the old cloth method. The new paper towel does its glass cleaning in less time, and the saving of man-hours in a service station is of considerable importance.

Customer reaction to the new service is decidedly favorable. Seated behind the wheel, the driver sees a fresh, clean, towel pressed against the windshield and the invariable result is that the driver questions the service station salesman about it.

Thus, the salesman has an added opportunity to tell our customers about our service and products, and when the customer compares our paper towels with the oft-used and frequently soiled rags and cloths used by other service stations, his or her appreciation of Union Oil Company Service rises considerably.

New methods and processes had to be tried and tested by one of the nation's largest paper towel companies before Union's specifications



could be met. In addition to being dyed orange, the paper had to be more absorbent than the usual paper towel; to thoroughly clean insects from the glass, the paper had to be abrasive without scratching; and added to this was the stipulation that the orange towel, when wet, had to be less tearable than the ordinary wash-room variety.

These specifications were met and the new towels were tried in several service stations over a three-month period. The results were more than satisfactory and motorists on the Pacific Coast are now aware of a better, faster, and individual windshield cleaning service obtainable only at Union Oil Service stations.



ORGANIZATION

Dr. Seeley G. Mudd Elected to Board of Directors

AT A MEETING of the board of directors of Union Oil Company held in Los Angeles, October 28, 1940, Dr. Seeley G. Mudd was elected a member of the board.

Dr. Mudd is well known in financial and mining circles both here and in the East.

A resident of San Marino, California, Dr. Mudd has done much important research for the California Institute of Technology.

In his capacity as a member of the board of directors he brings to Union Oil Company valuable technological and business experience.

VOICE OF THE STOCKHOLDER

"Letters are the Ambassadors of the Mind . . ."

JAMES HOWELL.

Editor:

I want to congratulate you on your last Bulletin . . . As a small stockholder I want to disagree with any stockholder who thinks the company should reduce advertising expenditures and increase dividends. I have been a constant user of 100% Union Oil products for forty years!

Yours very truly,

R. H. K., Oregon,

Glad to have your opinion. Glad too that you like our products.—Editor.

Gentlemen:

Once again I write to thank you very much for the Bulletin you publish . . . Myself and family greatly enjoy it . . . We admire your fine service stations and the courteous treatment we receive from them all . . .

Sincerely,

Mrs. S. H. C., Los Angeles.

Editor:

Please accept my sincere thanks for the booklet, "How to Reduce Traffic Nerves" . . . it is my opinion that this booklet should be in the hands of every driver.

Cordially yours,

H. A. W., Chicago.

Editor:

So that we may evaluate your editorial opinions, etc., won't you tell us something of your experience, etc. How long have you been in the oil business? Are you related to Reese H. Taylor? What happened to the previous editor? We thought he was pretty good. You answered one stockholder's letter, so please answer this one.

A Stockholder (no address).

Ye Ed. has always looked down his nose at unsigned letters. Our first reaction was not to answer this one, but you do raise some points of interest to stockholders, so here goes . . .

Experience? The past twelve years spent in the advertising business. Writing and editing copy; handling public relations; writing and producing radio shows.

About fifty percent of this work on petroleum accounts, the balance from automobiles to soap.

The oil business? Three years operating my own service station—at a profit.

I am not in any way related to the president of the Company, and am only one of the many Taylors working for Union Oil (there are 34 Taylors).

The previous editor quit to go into business for himself. We too thought him pretty good and we knew him well.—Editor.

Editor:

May I take this opportunity to congratulate you on your first issue of the Bulletin . . . You have succeeded in personalizing the company and its progress over half a century, shown what it is doing today in a technical, sales and financial way in such a manner that everyone receiving it should find something of interest . . .

Yours very truly,

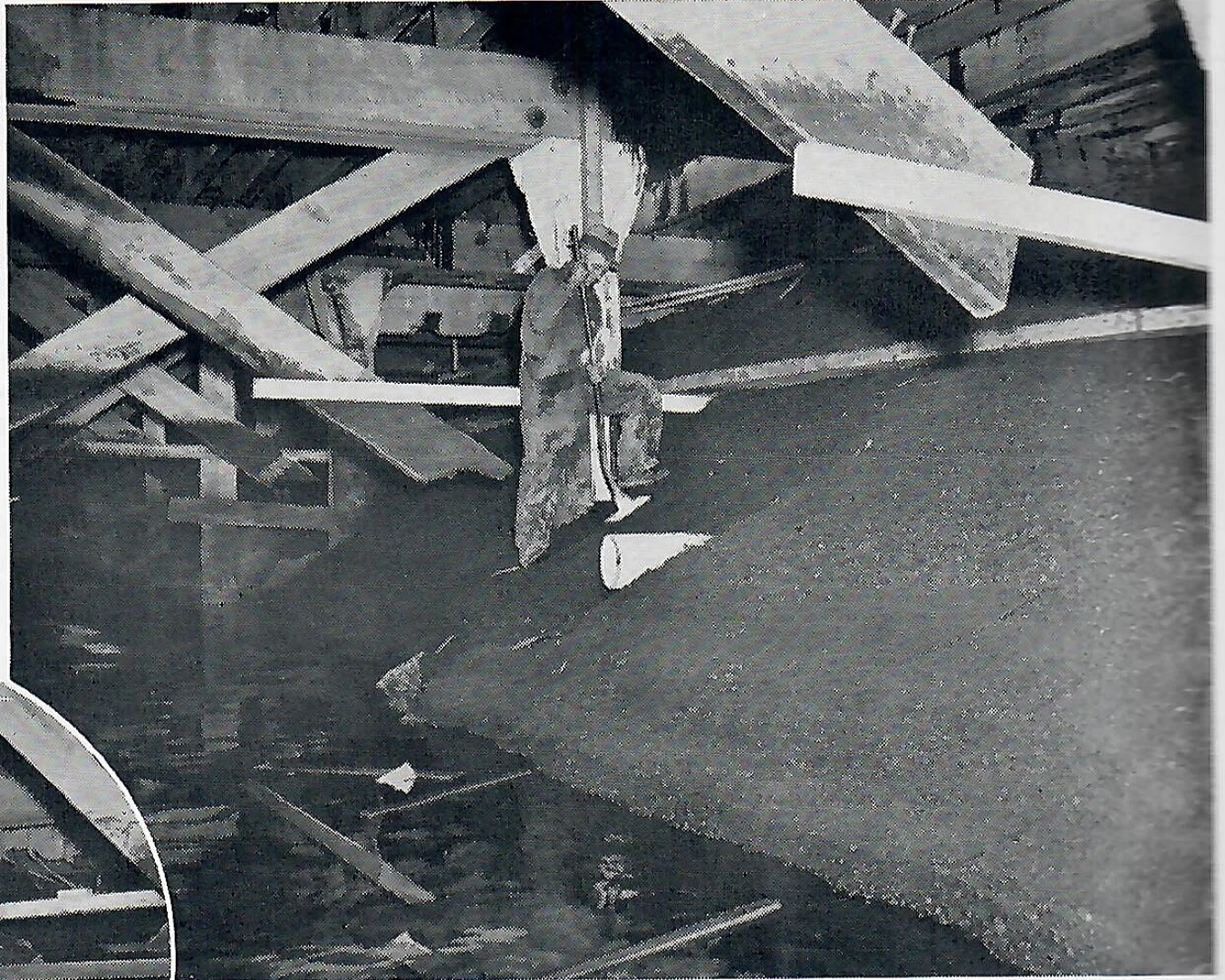
R. H. M., Chicago.

THIS MONTH'S COVER

"Old Faithful" might well have been the caption for this month's cover illustration. Still producing in Torrey Canyon near Santa Paula, Old Faithful's construction detail identifies it as one of the first wells drilled when the petroleum industry was in its swaddling clothes. Old Faithful's life span parallels that of the industry itself. It has seen the science of geophysics replace the "doodle bug"; has seen that orphan child "gasoline" become the pride of the petroleum family; and it has been witness to the growth of one of the greatest independent companies in the West.

Right: A section of the finished asphalt monolith rising out of the water.

Below: Part of the riprap destroyed by the heavy sea thrust against the piling.



UNION ASPHALT COMBATS HEAVY SEAS

Petroleum's Most Versatile Member is Now Employed to Build Sea Walls

ASPHALT, one of the un-sung products of the petroleum industry, has recently been employed to new advantage in repair and reconstruction of riprap at one of the major wharfs in Los Angeles harbor.

Seriously damaged as a result of storms in 1937, the Outer Deck and Wharf Company's wharf had lost much of its riprap and as a result, the foundations were becoming unstable. Normal technique in replacing riprap, which usually consists of large rocks, would call for dumping it off barges onto the desired spot. Because of the pilings and the fact that the wharf was in daily use, this was not possible. Equally impossible was construction of a cement bulkhead.

Union Oil engineers suggested an asphaltic concrete bulkhead, and this was first tried in 1939. Successful from the start, the experimental bulkhead withstood the winter storms so well that last August the whole damaged

section was topped with an asphaltic concrete cap which rises three feet above mean high tide.

Union Paving Asphalt, sand, and rock were mixed and preheated, then hauled to the dock and dumped through the dock flooring onto the riprap. The 350 feet of bulkhead was capped in the record time of three days by the Sully-Miller Construction Company, Long Beach. Despite the repair work going on, there was no delay in normal handling of cargoes on the dock.

Asphaltic concrete for protection against the action of the water has been used during the past decade on the banks and levees of the Mississippi river, in the Puget Sound area, and at Galveston harbor. It has been extensively used for lining debris basins and other flood control devices in Los Angeles county. Similar uses give promise of a widening market for Union asphalt.

REFINED AND CRUDE

By Richard Sneddon

We have just discovered that gasoline costs eighty cents a gallon in Africa. No wonder the natives have to go without clothes.

And while we are on the dark continent, it might be of interest to our readers to learn that at the present time there is practically no demand for tiger skins—excepting among the tigers.

On the subject of clothes, a Scotchman points with pride to the fact that his wife has worn the same dress for twenty-five years. The feeling with which his wife points to him has not been disclosed.

Incidentally, when it comes to being fussy, the hen with one chick has nothing on the girl with one pair of silk stockings.

And a girl with a run in her stocking rarely sees a mouse.

It is also announced by an eminent bacteriologist that the crown animalcule, a species of Rotifera, is so delicate it is sometimes killed by the click of a camera shutter. We wouldn't be at all surprised. We have known big strong humans to become seriously ill after seeing the result of the click.

The wink of an eye is very similar to the click of a camera shutter, but if you have your wife with you it is much more difficult to explain.

Wherewith we change swiftly to another phase of biology: We were invited to make an after dinner speech one evening last spring before a local service club, and at the conclusion of a somewhat lengthy dissertation were presented with a lovely bouquet of California poppies. The significance of the gift only became apparent later when we learned that the California poppy always shuts up at sundown.

Showing once more the wisdom of that old proverb, "A nod to an after dinner speaker is as good as a wink to a blind horse."

And we were thrilled to death the other day to find out that Noah was a United States citizen. Yes sir, he was a New Ark man.

Speaking of religious affairs, a good church worker asked one of the boys at the office if he wouldn't come out to a service on the following Sunday. "No chance," was the response, "there are too many hypocrites in the church for me." "Aw, come on," pleaded the missionary, "one more won't make any difference."

Veering off at a tangent again, our neighbor on the left side was visiting in his home town back east, when all of a sudden the fire engine ran clanging into the street. "Where is the fire?" he asked excitedly, and imagine his surprise when he was informed that the boys were just going to run around town for a while to charge up the battery.

Which reminds us of the following naive report that was issued by a small concern after a large conflagration: "The fire originated in a defective flue, as business had been bad for some time."

Now we are told that our old friend Angus McBagpipes made a social call last week, and the conversation that ensued was something like this:

Host: "Will ye have a cup o' tea?"

Sandy: "No — there's no occasion for tea."

Host: "Will ye have a glass o' milk?"

Sandy: "No — there's no occasion for milk."

Host: "Weel, whut about some Scotch and soda?"

Sandy: "Och! There's no occasion for soda."

And we have often wondered why some acquisitive individual hasn't filed a claim on one of the beaches and set up an organization to provide refills for hour glasses.

All of which ends another interesting seance. Remember, when you hear the sound of the ping it's time to use Triton.

And time may be the great healer, but it is certainly no beauty operator.

DID YOU KNOW THAT?

On the Road to Mandalay, the Old Moulmein Pagoda looks down on trucks hauling the deposits that contain the famous Burmese rubies and sapphires? These trucks use Triton to change ping to purr. For several years past the Rangoon Electric Tramways has also used Triton.

If you have a car with an internally lubricated water pump, you should, if you haven't already, have your radiator checked. If the radiator is contaminated with rust, oil, or grease, it should first be cleaned with Union Radiator Flush and then Union Stop Rust applied.

In far off Singapore, seventh most important port in the world, power stations operated by the

Royal Air Force are using our Red Line Marine Diesel Engine Oils.

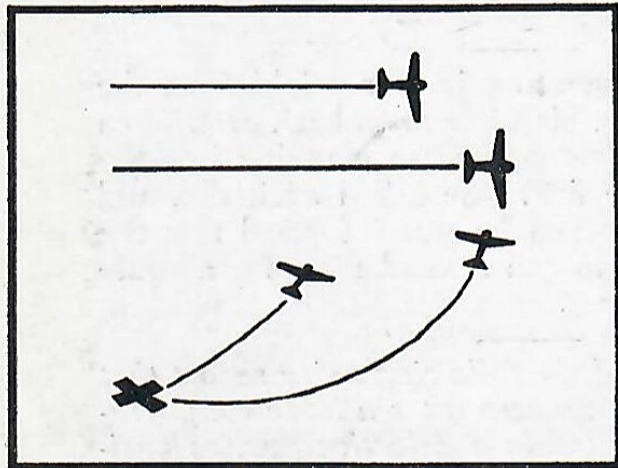
If the lustre on the family car seems to be fading as quickly as the autumn leaves, an application of Union Auto Polish will work wonders. Faster, easier to apply, it dissolves traffic scum and leaves a hard, smooth wax-like gloss ready for easier waxing. Since one good turn deserves another, Union Auto Wax is the best way to do yourself a good turn.

Next time you see Shanghai in a movie news reel, those thousands of two-toed slipper sandals may be pattering along roads made of Union asphalt.

HOW TO AVOID WAR

Aggressor nations attack only when they think they can win. Here are some facts that should discourage such ambitions toward the United States

The same bomber can fly 30% faster and farther in the United States than in Europe. It can carry 20% to 30% more bombs; it can climb above anti-aircraft fire 25% quicker and its engines will last almost twice as long.



Why? Because in America we can make aviation gasoline just that much better than any other country.

We manufacture 100 octane aviation gasoline *in quantity*—something no other nation can do!

Our refineries turn out 2,000,000 gallons of this 100 octane gasoline *every day*—enough to fuel *five times as many military planes as we now have in service*.

But that's only half the story. America's oil companies can expand their refineries to provide aviation fuel for 50,000 planes, or even more, *faster than the planes can be built*.

Now, the surest way to avoid war is to make our defenses strong. And aviation gasoline is just one example of how the petroleum industry is doing *its part* to make America strong. There are many others.

A 65,000 Gallon Tank in Every Back Yard

Can it provide enough crude oil? Yes, there's no danger of running out of oil to make aviation gasoline or *any other petroleum product*.

Thanks to the industry's *voluntary* conservation program, wells on the Pacific Coast are operating far below potential capacity. Production could be doubled on short notice.

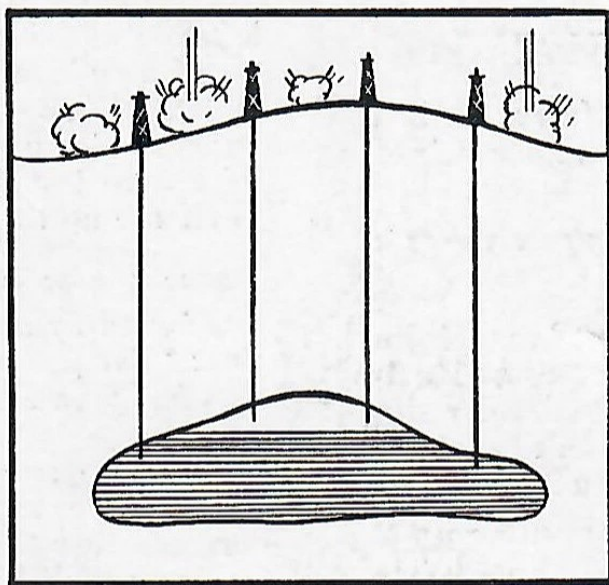
Those wells tap proved oil reserves of 3½ billion barrels—a 65,000 gallon tankful for every family on the Pacific Coast. And to date new fields have been discovered faster than the old are exhausted.

Bomb Shelters Two Miles Deep

No imaginable swarm of bombers could wipe out these oil resources. In 58 Pacific Coast fields, there are

enemy could destroy three out of four wells, the remaining ones could then be operated at full capacity to supply the need.

In fact, should the necessity arise, oil could be stored back down in the wells. Petroleum engineers are already storing natural gas in this manner.



A bomb as big as the Washington Monument could never get to these natural storage tanks, completely protected by a mile or more of earth.

An Army Marches on a "Steel" Stomach

It used to be said that "an army marches on its stomach," but today, it marches on a steel tank...filled with gasoline!

During World War I it took about 4,000 horsepower to run a division, but today it takes 187,000...for tanks, trucks, motorcycles, guns, and cannon.

No other country in the world can even begin to support such a mechanized force on its domestic production of petroleum. But the United States can, because we have over half the proved oil reserves of the world.

The Pacific Coast by itself can supply the Navy—even a two-ocean Navy—with all the fuel oil, diesel oil and highly specialized greases it will ever need.

Incidentally, many of the 60 tankers which the industry operates on the Pacific Coast have been built to U. S. Navy specifications, are speedy enough to keep up with the Fleet. Tankers and their trained Naval Reserve crews are ready for enlistment, when called.

Rubber and Explosives from Oil

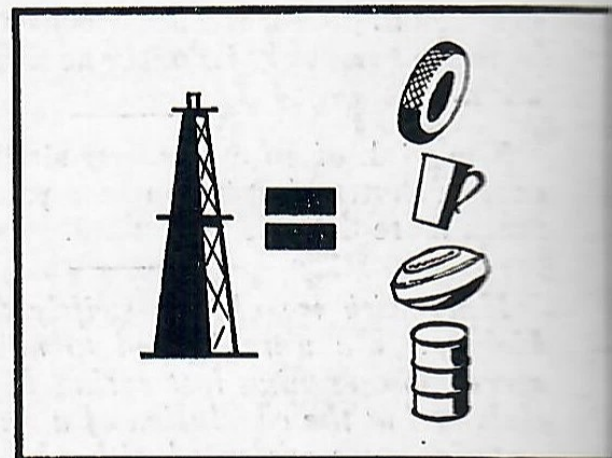
The petroleum industry is ready for its part in the nation's defense, but it has not stopped there. The National Defense Advisory Commission recently announced:

"Instead of having any bottleneck of its own, petroleum is now being called upon to help eliminate bottlenecks in other industries."

Significant are two developments of recent weeks:

1. Synthetic Rubber, developed by petroleum research chemists, is now being produced in commercial quantities in cooperation with the large rubber manufacturers. Before our present supply of natural rubber is exhausted, the U. S. can be made 100% self-sufficient with rubber made from oil.

2. Explosives. The petroleum industry has signed contracts with the War Department to produce 60,000,000 gallons a year of *toluene*, the basic ingredient of TNT. *Glycerine* is being made in even greater quantities. Production of both these vital materials can be expanded to meet the requirements of new explosive plants *as fast as the plants can be built*.



The list of what is being done with petroleum goes on and on. Fuels, lubricants, rubber, TNT, soap, grain alcohol, sulphuric acid, plastics, drying oil for paints, disinfectants, and anesthetics.

Nature has provided oil in plenty and research has developed the means of using it for almost every conceivable purpose.

The way to avoid war is to make America self-sufficient—make America strong.

The petroleum industry, *on its own initiative and without government subsidy*, has prepared itself to do its part *without delay* in a national emergency.

America's defense will never be "grounded." Petroleum will never let her down.

A report to the public on the

Pacific Coast Petroleum Industry

Three-quarters of a million people in all parts of the Pacific Coast depend for their living