SHELL NEWS

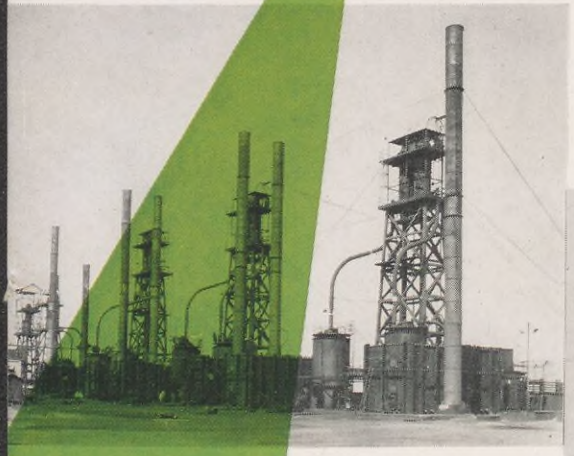
SEPTEMBER 1954

Martinez Refinery Research Laboratory, 1916

Tacoma, Washington, Bulk Plant, 1913

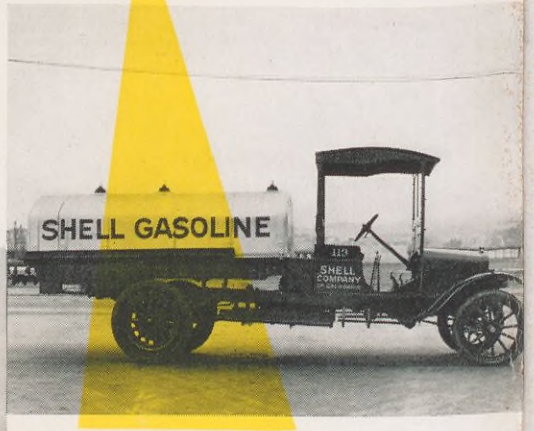
San Francisco Service Station, 1923

Shell's share in oil



Wood River Dubbs Units, 1925

Cable Tool Rigs, Drumright, Oklahoma, 1916



Tank Truck in California, 1921

K— OCTOBER 10th-16th

progress

FROM October 10th through the 16th, when the nation takes note of Oil Progress Week, a comparatively young industry can be justly proud of the immeasurable contributions it has made to the growth and development of America. To realize the significance of oil in the year 1954, one needs only look around. The nation's transportation system, its mills, mines, factories and farms are to a large extent dependent upon the power, heat, light and other aids derived from petroleum—and the latter-day miracles of petrochemistry. It is not unrealistic to assume that everything the average American eats, wears or does this year is in some way related to the oil industry.

Yes, the oil industry is making rapid progress. In 1900 oil supplied roughly 8 per cent of the nation's energy. This year, in spite of a five-fold increase in energy needs, oil supplies almost 64 per cent of the total. About a fourth of all the chemicals currently being used are petrochemicals. Within the next decade, according to reliable forecasts, petrochemicals will supply fully half the nation's annual demands.

For the last 42 busy years Shell has been part and parcel of this progress. From a meager beginning, with a tanker load of "motor spirit" and a dozen employees, Shell has advanced to a position among the 25 largest industrial organizations in the nation. Some of the intermediate stages of this progress are pictured in the old and yellowing photographs reproduced on the opposite page.

Today, Shell is the nation's third largest producer of crude oil. It has five large refineries capable of providing one barrel of refined products each year for every man, woman and child in the country. A sixth refinery is under construction. There are seven Shell chemical plants, with an eighth under construction. There are numerous laboratories, seven of which deal with basic research and development. More than a million barrels of Shell crude oil and products are transported daily, many of them through thousands of miles of Shell owned and operated pipe lines. Over 500 terminals and bulk plants supply Shell products to industrial, aviation, marine, agricultural and consumer accounts, and to more than 23,000 Shell service stations. The products serve more than 16 million individual customers.

Last year alone, through the efforts of 34,000 employees, Shell drilled more wells, produced more oil, accumulated more oil and gas reserves, refined and sold more products than ever before in its history. Shell sales reached a record high of more than one and a quarter billion dollars.

SHELL NEWS

VOL. 22—No. 9 **SEPTEMBER, 1954**

Dedicated to the principle that the interests of employees and employer are mutual and inseparable

Employee Communications Department
New York, N. Y.

contents

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NEVADA'S FIRST OIL WELL

Among its other rich resources, the Silver State has now turned up oil, becoming the 29th producing state in the nation. This month's cover shows the Shell wildcat, Eagle Springs Unit No. 1, that became Nevada's first oil well. An article about the discovery begins on page 6.

The Los Angeles Division's Retail Accounts Receivable Section, above, handles a total of more than 145,000 credit cards.

Tabulating Section Supervisor William Kerr operates an electronic calculator which helps handle the Treasury Dept.'s volume of work.

and 3) how to cut costs and boost efficiency.

The result was the formulation of a policy to market only where Shell's transportation costs are comparable to those of its competitors and where a reasonable and steady profit can be obtained. The idea was to concentrate on sales in chosen areas.

This policy has been tried, tested and reappraised, for Shell's Marketing Department is constantly gauging the effectiveness of its operations. There have been minor adjustments, of course, but the general policy has stood up with eminent success—attested by the fact that Shell sales last year reached their highest point in the Company's history.

The Marketing Department does its job by combining three principal and complementary functions: Sales, Operations, and Treasury. These functions are most clearly defined at the Division level, for, like the command posts of an army in the field, Shell's 18 Marketing Divisions in the United States and Hawaii are charged with the physical reality of receiving, storing, selling and distributing the whole line of Shell products.

The Division Sales organization, for example, is responsible for selling Shell products to customers. The wide range of these products means that sales personnel are busy on service station accounts, jobber accounts where products are received in bulk and redistributed and sold to the jobber's own customers, industrial accounts, aviation accounts, marine accounts, and sales directly to the consumer in his home and on his farm.

Division Operations handles the design, construction, maintenance and operation of Marketing properties and equipment. This may include operating big compounding and canning plants like those at Dayton, Ohio; Chicago, Illinois; and Willbridge, Oregon; or helping design a small neighborhood service station. It also includes the numerous vehicles used by the Division, ranging from big 10-wheel tank trucks down to fork-lift carton handlers in warehouses.

Another highly important function of the Operations organization is the movement of Shell products among the Division's facilities and from them to customers and jobbers.

As the name implies, the Division Treasury organization handles accounting and credit matters, plus many other financial aspects of Marketing activities.

Each of Shell's Marketing Divisions operates within the general range of activities prescribed by its three major functions. But since each Division must adapt its functions to a more or less "local" situation, there are often minor variations on the theme. The Los Angeles Division, for example, is situated in the nation's greatest per-capita concentration of automobiles and as many as 100,000 credit cards are honored in a month. This means that a great deal of the Division's work in capturing and holding its potential market is concentrated on gasoline sales. Because of the climate, there is less of a market for heating oils.

But the territory of the Los Angeles Division is so large—covering parts of five states—that about every type of motoring, flying, sailing, railroading, manufacturing, merchandising, farming, housekeeping, and vacationing customer is available to be served. Every conceivable type of petroleum product can be sold within the Division's boundaries.

Naturally, the competition is intense. There are 35 refineries in Southern California alone. Seven major oil companies, a dozen large independents and a host of smaller independents are jockeying for position with more than 100 brands of gasoline.

The Los Angeles Division meets this tough competition in a number of ways. As a basic policy, many responsibilities are decentralized in the Division's seven District offices, leaving the Division management more time for mapping strategy and

Chief Dispatcher Frank Greer takes a customer's order telephoned in the Los Angeles Terminal.

planning sales campaigns.

Another important factor, pointed out by Division Manager R. D. Stetson, is "selective selling by specialized salesmen." Selective selling permits pin-point sales effort with a minimum of waste motion; and specialists who know their customers' needs can give them better service. Under the system, dealer salesmen, who are specialists in retail business, have ample opportunity to promote and develop service station sales and service. Industrial sales specialists, for example, are usually engineers as well. They know a manufacturer's needs. Commercial salesmen are sometimes engineers, but more often they are men of long experience and wide knowledge of Shell products and their application.

Another way in which the Division maintains a good competitive position is through "direct delivery," which pares distribution costs. Direct delivery is accomplished by by-passing bulk plants, delivering products direct from Shell's Wilmington Refinery to customers in large-volume trucks. A products pipe line connects the refinery with the Los Angeles bulk terminal and direct deliveries are also made from here. The capacity of the Division's tank trucks making direct deliveries goes as high as 7,200 gallons. They travel as much as 180 miles to make a delivery.

This is not to imply that the Los Angeles Division has little use for bulk plants. There are five operated by Shell employees—at Los Angeles, San Diego and Wilmington in California, and at Tucson and Phoenix, Arizona. There are also about 85 jobber and commission distributor bulk plants supplied by the Division.

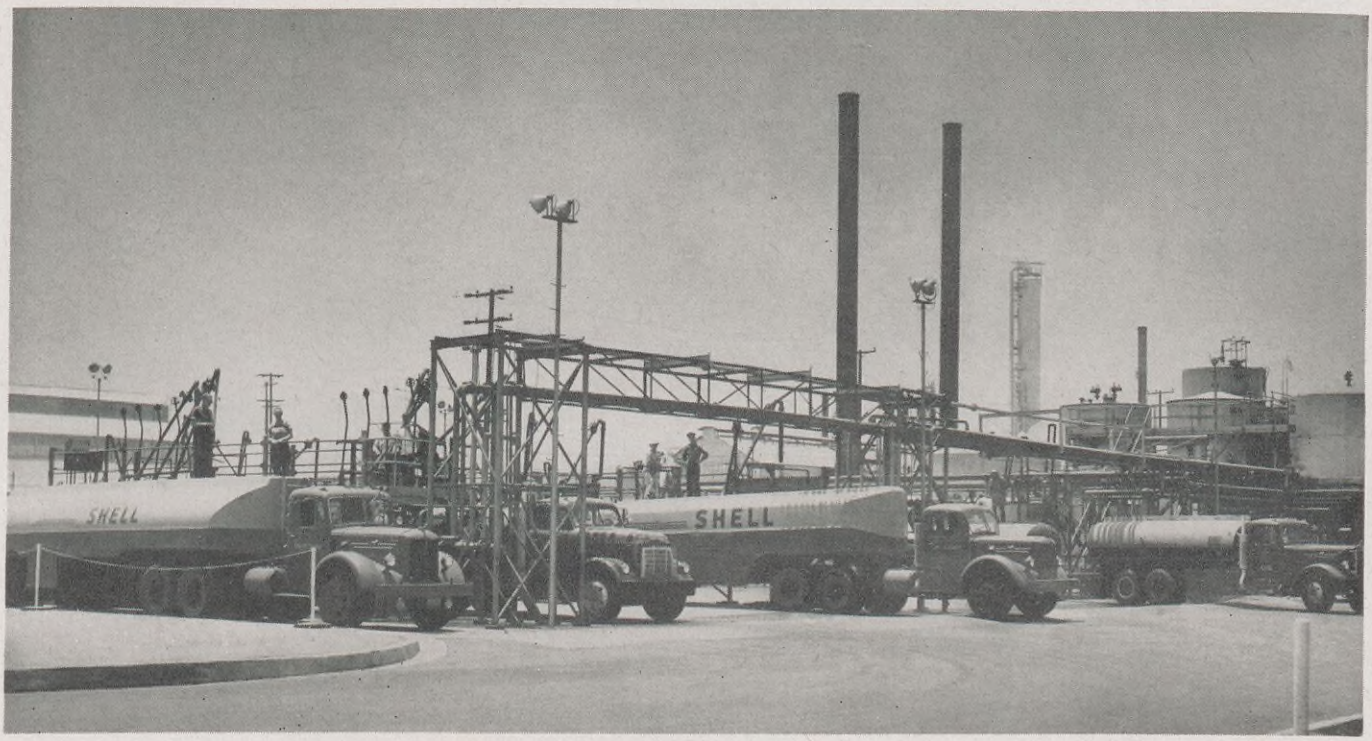
The fact is, each time a new name joins the growing list of Division customers, a careful study is made as to the best way to supply him. All types of transportation and methods of handling the account are considered. Freight charges are sometimes computed to as much as one-thousandth of a cent per gallon before a decision is made.

All this requires teamwork, which the Los Angeles Marketing Division has in abundance. And the results bear this out. The Division's gasoline sales have doubled in the last five years, it has the highest volume of motor oil sales of any Shell Marketing Division, and sales are steadily increasing to industrial, commercial, government and agricultural accounts.

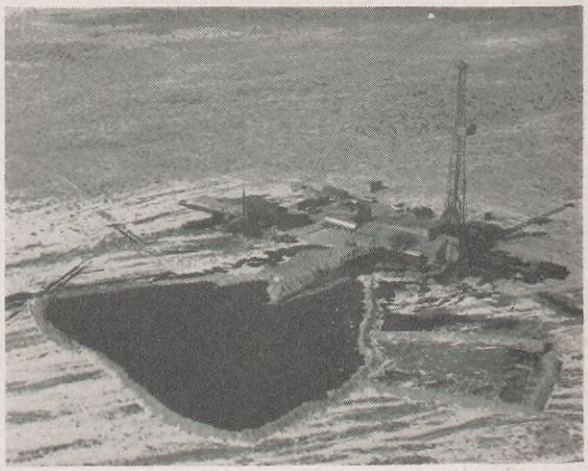
Said one Division veteran:

"We've got enthusiasm."

Marketing Division trucks take on products at the Wilmington Refinery for "direct delivery," thus by-passing extra product handling. It cuts delivery costs.



Nevada's Governor Charles H. Russell made an official visit to the discovery well. Here, assisted by Shell Drilling Foreman William Thompson, he tries his hand on the drilling controls.



After a series of drill stem tests in February, oil in the slush pit, above, indicated that Eagle Springs Unit No. 1 had added Nevada to the nation's list of oil producing states.

Another

For the Second Time in

Huge pump, left, heater treater and storage tanks now mark the site of Nevada's first oil well. The crude must be kept heated before and during shipment to make it flow.

Far out on the flat floor of barren Railroad Valley, a lone drilling rig marks where a Shell wildcat venture paid off. Fourteen dry holes had already been drilled in the region.

Kind of Payoff In Nevada

e in Less Than a Year Shell Adds a New State to the Nation's Growing List of Oil Producers

THERE'S a new twist to an old saying in Nevada, the state where games of chance are legal. It's: If you don't succeed the first 14 times, try once more.

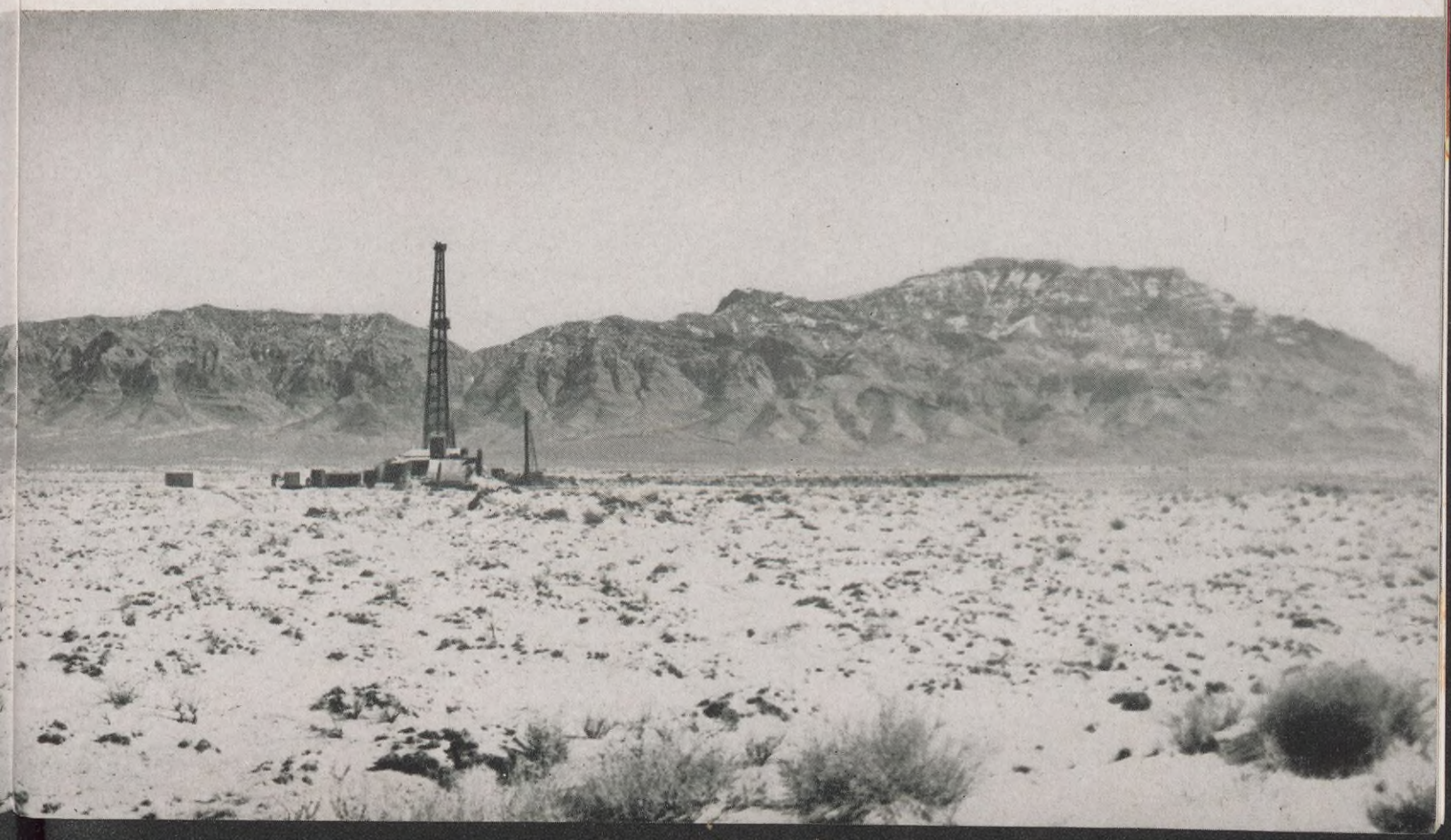
The statement didn't originate over a gaming table. It popped up in a barren valley in Nye County as Shell brought in a successful wildcat well called Eagle Springs Unit No. 1. It was the first commercial oil production for Nevada, making it the nation's 29th oil producing state. Shell also added the 28th to the list—South Dakota—late last year.

Contrary to experience in oil exploration, the successful wildcat was Shell's first drilling venture in the state. What's more, 14 dry holes had already been drilled in the area by other companies, most of whom had given up trying in eastern Nevada.

Despite this, Shell's seismic work indicated a promising spot to prospect, and the Company decided to drill. The Eagle Springs discovery was basically planned as a stratigraphic test to obtain detailed geological information although, naturally it was hoped that it would hit oil. The result was both oil *and* information: Oil pumping at the rate of 330 barrels per day; and information sufficient to plan other wells.

The Eagle Springs well is in parched Railroad Valley, 55 miles southwest of a colorful mining town called Ely. The general area of the discovery is in a geological province called the Great Basin, one of the largest sedimentary basins in the country. It covers almost all of Nevada and sparsely populated western Utah. The Basin includes the Great Salt Lake, Bonneville Salt Flats, and more than 100,000 square miles of rugged mountain ranges, sage brush valleys and arid desert land.

The Eagle Springs Unit in which Shell's well was drilled is made up of more than 58,000 acres, most of them on federal land. Shell holds leases on

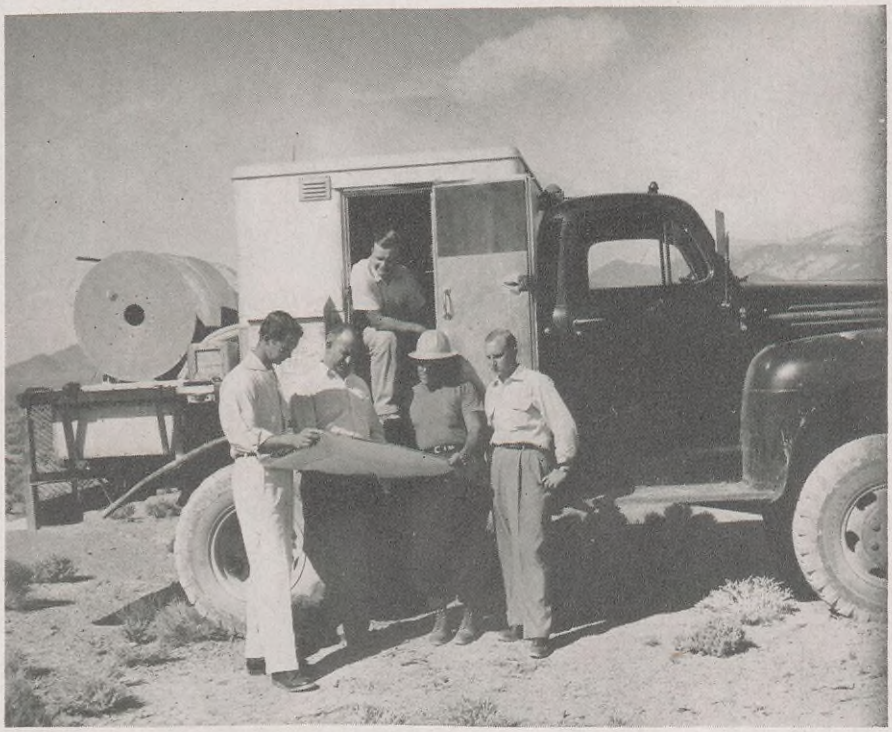


all of the unit. Over 1,800 acres of them are in small tracts of fee land.

The well produces from a 280-foot interval bottomed at 6,730 feet. The formation is volcanic, which amounts to something like a wild card in the geological deck since oil is usually found in sedimentary beds. Oil-bearing volcanic formations exist in only a few places in the world. At some distant time in geological history, the producing zone was hot volcanic ash. It is porous and therefore favorable for the accumulation of oil. But the crude oil had to migrate there from some sedimentary bed. From just where is a question calling for further exploratory study. A second Shell test, drilled five miles from the discovery, produced no oil but plenty of additional information. Two seismic crews and four surface mapping parties are also at work in the vicinity.

Another unusual thing about the discovery well is the molasses-like quality of the crude it produces. The oil has a "pour point" of 80° Fahrenheit, which means that even on a mild summer day it congeals into a soft, waxy mass. Studies are under way to determine the best way of handling it. In the meantime, the temperature of the crude is maintained at 160 degrees at the wellhead. It is then trucked 310 miles to Salt Lake City and sold to a refinery there. The tank trucks are well insulated and the crude loses only 10 to 20 degrees of heat in the 10-hour trip. When it reaches the refinery, it can still be pumped from the tank. But just in case of unforeseen delays, each tank truck is equipped with steam coils.

Interest in the Great Basin as an oil producing area originated early in 1948 when Nevada's first major wave of oil leasing took place. It mounted steadily for a year, then tapered off in direct proportion to the number of dry holes that were drilled. Meanwhile, Shell still believed in the area's potentialities and continued exploration work. When the Eagle Springs test was finally spudded in last January 12, oil men generally displayed little interest. Some of them had already surrendered more than 3 million acres of leases in the area.



Shell's Seismic Party 15, above, did the field work that produced the evidence of a promising structure under Railroad Valley. Left to right are Surveyor H. A. Wilkinson, Party Supervisor R. V. Payne, Instrument Operator Daniel Long, Shooter Fred Dean and Party Chief Wayne Morford. Two seismic crews and four surface mapping parties are now studying the area for Shell. Important geological information was also obtained when a second test was drilled.

Drilling at Eagle Springs progressed rapidly and trouble free. In a month's time the contract crew was coring in what turned out to be the producing formation. When a show of oil was reported, Shell ordered a series of drill stem tests. Made on February 13, they looked good.

This posed a problem: To increase Shell lease and optioned acreage holdings in the vicinity of the oil discovery before competitive oil scouts got wind of the news. Enlisting the cooperation of the contract drilling crew, Shell clamped strict security on what was going on at the rig while Land Men of the Pacific Coast Exploration and Production Area made preparations to file leases on preferred locations. It was a tense time, for little signs were there that could tip off a well if an oil scout saw them. One was the fact that the drilling crews came off shift with more oil on their work clothes than seemed natural. On the day following the drill stem tests a service station attendant in Ely called the attention of a Shell man to a streak of oil across the back of a Company car. It was crude oil, but the Shell man kept a poker face and the attendant wiped it off none the wiser.

Nature cooperated by whipping up a blizzard in the mountain passes leading into Railroad Valley. Even if rumors had leaked out, it was impossible for interested or casual observers to reach the well.

Four days after the drill stem tests, with leases secured, Shell could let out the news that its wildcat showed promise of becoming Nevada's first producer. The reaction was immediate. "In a matter of hours," as one ob-

Among Shell men whose efforts contributed to success at Eagle Springs are, above left to right: Salt Lake City Division Exploration Manager Galen Sturgeon, Ely District Geologist Walter Smith, and Geologist Ryland Dempster.

server noted, "we began to see geologists and oil scouts pouring into Ely." Some of them had been there before. All over the state people suddenly became interested in oil leases. In a masterful understatement, the manager of the Nevada Land and Survey Office in Reno reported he was doing a "land office" business.

Shell didn't stop drilling at the producing formation. Keeping to its original intent, the test went on down to 10,330 feet. Then, with a store of new geological information in the files, the well was plugged back to the oil-bearing formation and was completed there.

Shell's policy since completion of the Eagle Springs discovery has been one of complete frankness about well information. The idea is to work up an exchange of data with other companies for the general benefit of the oil industry, the state, and the future oil reserve picture.

This rig, which drilled the discovery well, is shown as it drilled a second Shell test five miles away. The second drilling venture produced no oil but revealed plenty of valuable information, thus fulfilling its main purpose.

An Ill Wind Blows

THE old expression "Dynamite comes in small packages," is an apt reference to mercaptans, pungent liquid compounds sometimes present in crude oil and natural gas condensate. For in practically any quantity, they give off a genuinely jolting odor—an overpowering, garlicky smell. It is this foul aroma that makes mercaptans a paradox in the oil industry: they must be removed from some products before they are marketable and put into others before they are sold.

Mercaptans' chemical makeup is similar to alcohol, except that in them sulfur takes the place of oxygen. They usually are found in the equally disagreeable company of hydrogen sulfide, which, as anyone who has ever been around an amateur chemist knows, smells like a bad egg. The two, either singly or together, are what give the name "sour" to crude oils and gasoline. "Sour" is a gross understatement of their actual odor.

It was partly because of mercaptans —or rather the lack of them—that Shell got off to such a good start when it first started marketing gasoline in the United States in 1912. At the time, much of the West Coast gasoline had a disagreeable odor—caused by mercaptans. The relatively sweet smell of Shell's fuel was a big selling point.

On the credit side, the odor of mercaptans is valuable when a distinctive aroma is needed for oil products that otherwise have little or none. Natural gas, for example, has only a faint odor in its pure state and would be hard to detect in a leaky kitchen stove or an unlit burner. For safety's sake, mercaptans are added before the gas goes to the consumer. Just under a half pint is enough to odorize a million cubic feet of gas. For the same reason, mercaptans are added to liquefied petroleum gases like butane and propane when they are destined for home use.

A more unusual use to which mercaptans have been put is in the manufacture of a livestock feed supplement. One of the compounds, the methyl mercaptan, goes into the production of methionine, a synthetic amino acid. Amino acids help build animal tissue. Added to livestock feed, they step up the conversion of feed into meat and result in heavier and healthier livestock. Among other lines of methionine research is its use to supplement commercial dog food. It improves the animals' coats of hair and reduces shedding. It also has been tested with mink. The result was a better pelt.

A tank truck of a special processing company loads 3,600 gallons of mercaptan concentrate at Shell's Houston Refinery. After further processing by the Natural Gas Odorizing Company, Houston, the mercaptans will be sold to utility companies scattered through all 48 states.

s Some Good

Mercaptans, the Smelly Compounds Once as Unpopular As Uninhibited Skunks, Are Now Finding a Welcome Place in Industry

A little smell goes a long way. The pound can of mercaptans, held above, will odorize one million cubic feet of natural gas. Other mercaptans are for use in liquefied petroleum gases.

A pharmaceutical grade of methionine has shown promise in direct application to human needs. Experiments are being made as to its effectiveness in the prevention and treatment of liver and kidney damage resulting from low protein and high-fat diets, and in treatment of toxic poisoning. It also has shown promise in the treatment of peptic ulcers and cases of human starvation. Under study also is its ability to counteract hardening of the arteries and to minimize radiation injury.

Compounds containing mercaptans also are used to detect hot bearings on railroad car journal boxes (heat melts a mercaptan container, releasing them into the air), to locate leaks in refrigeration piping and as a warning in air circulated mines.

The oil industry has developed various methods to remove mercaptans or convert them into unobjectionable disulfide compounds. A popular removal method is the Shell Solutizer Process, a patented technique used at Company refineries and licensed to other companies for removing the heavier series of mercaptans. Another frequently used process suitable for lighter mercaptans is the regenerative caustic soda treatment. After mercaptans are recovered by any process they must be further refined before they can be added to natural gas or put to any other use.

Malodorous mercaptans have had a tough, uphill fight for respectability since the beginning of the modern oil industry. For a time "even their friends wouldn't tell them," but now they're being accepted in polite and useful society.

Large utility companies and manufacturers usually buy mercaptans in drum-size containers. The drum, above, is destined for Madison, Wisconsin. Others may go to European countries.

After loading a tank truck with mercaptans at the Houston Refinery, Operators Olin Roberts, left below, and B. G. Hayes take a sample of the compounds for testing in the control laboratory.

Shell People in

Personnel and Industrial Relations

R. J. SORENSON

J. R. MORRISON

H. A. DOHRENWEND

R. J. SORENSON has been appointed Manager, Marketing Personnel Administration, and will report to the Manager of the Head Office Organization and Salary Department. Mr. Sorenson will continue to assist with the installation of Personnel Managers in Shell Oil Company's Marketing Divisions and will have general coordination and liaison responsibilities with respect to personnel administration for the Marketing Department. Mr. Sorenson has served as Assistant Manager of the Head Office Industrial Relations Department since 1946.

J. R. MORRISON has been appointed Assistant Manager of the Head Office Industrial Relations Department. Mr. Morrison joined Shell in 1938 at the Houston Refinery, and subsequently served in various technological and administrative positions there prior to coming to the Head Office Personnel Department in 1948. He was made Manager of the Policy and Training Division of that Department in 1951.

H. A. DOHRENWEND has been appointed Manager of a realigned Policy and Benefits Division of the Head Office Personnel Department. Since joining Shell in its Secretarial Division in New York in 1930, Mr. Dohrenwend has acted in various administrative capacities for the Company and for the Provident Fund and Pension Trust. In 1950 he was appointed Special Assistant—Retirement Program, in the Head Office Personnel Department.

In keeping with the above changes, the Head Office training function, and representatives involved, have been joined with the present Employee Publications Department to form a realigned Employee Communications Department.

Manufacturing

J. B. DUNLAP has been appointed Assistant Superintendent of the Martinez Refinery. Mr. Dunlap came to Shell Oil Company in 1928 as a Gauger at the Arkansas City Refinery and subsequently served in various positions there and at the Wood River and Norco Refineries before being appointed Manager of the Cracking Department at the Houston Refinery in 1940. He was named Assistant Superintendent of the Norco Refinery in 1946.

J. B. DUNLAP

J. D. DAVIS has replaced Mr. Dunlap as Assistant Superintendent of the Norco Refinery. He joined Shell Oil Company as a Laborer at the Martinez Refinery in 1934 and was made Manager of the Cracking Department there in 1945. Four years later he moved to the Wilmington Refinery as Manager of the Catalytic Cracking Department, and in 1952 to the Norco Refinery in the same capacity.

J. D. DAVIS

H. A. LE BLANC, JR. has replaced Mr. Davis as Manager of the Catalytic Cracking Department at the Norco Refinery. Mr. LeBlanc joined Shell Oil Company in 1936 as a Gauger at the Norco Refinery and has since served in various posts at that location. He was named a Senior Engineer there in 1952.

H. A. LEBLANC, JR.

the News

Exploration and Production

C. I. WARREN has been appointed Special Assistant to the Vice President, Calgary Exploration and Production Area. Mr. Warren joined Shell Oil Company in 1927. After serving in various Exploration and Production posts in Oklahoma, California, Colorado and Wyoming, he was made Land Manager of the Calgary Area in 1952.

R. N. GADBOIS succeeds Mr. Warren as Land Manager, Calgary Area. Mr. Gadbois began his Shell career in 1937 and has served in various Exploration and Production positions in California, Wyoming and Colorado. He moved to Calgary as Area Land Agent earlier this year.

C. I. WARREN

R. N. GADBOIS

Transportation and Supplies

F. F. DEAVER

F. F. DEAVER has been appointed Assistant Manager of the Head Office Crude Oil Department. Mr. Deaver has been with Shell Oil Company since 1927 and served in Manufacturing posts until he began his Transportation and Supplies experience in 1941. He was named Assistant Manager, Supplies Department—Mid-Continent Operating Section, in 1949.

S. B. KIESELHORST

S. B. KIESELHORST replaces Mr. Deaver as Assistant Manager, Supplies Department—Mid-Continent Operating Section. Mr. Kieselhorst came with the Company in 1934 and subsequently served in various Marketing and Transportation and Supplies posts. He was appointed Assistant Manager, Supplies Department—Program Section, in 1949.

G. F. FREEMAN

G. F. FREEMAN has replaced Mr. Kieselhorst as Assistant Manager, Supplies Department—Program Section. Mr. Freeman, who joined Shell in 1937, worked in various technological positions at the Wilmington Refinery before moving to Head Office in 1951 as Administrative Assistant to the Vice President—Transportation and Supplies.

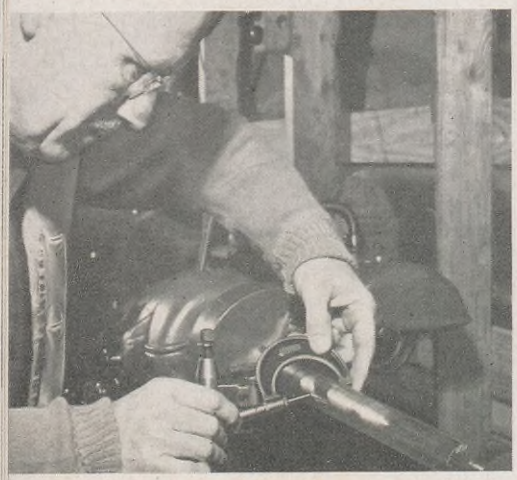
J. F. JOHNSON, JR. has been appointed Superintendent of the North Products Pipe Line. Mr. Johnson joined Shell Oil Company in 1936 and was made Superintendent of the East Line in 1949. In addition to his new duties as Superintendent of the North Line, Mr. Johnson will be responsible for Wolverine Pipe Line Company operations.

R. A. HARVEY has replaced Mr. Johnson as Superintendent of the East Products Pipe Line. Mr. Harvey joined Shell Oil Company in 1940 and was made Superintendent of the Toledo, Ohio, Terminal in 1951. He was appointed Assistant Superintendent of the East Line in 1953.

J. F. JOHNSON, JR.

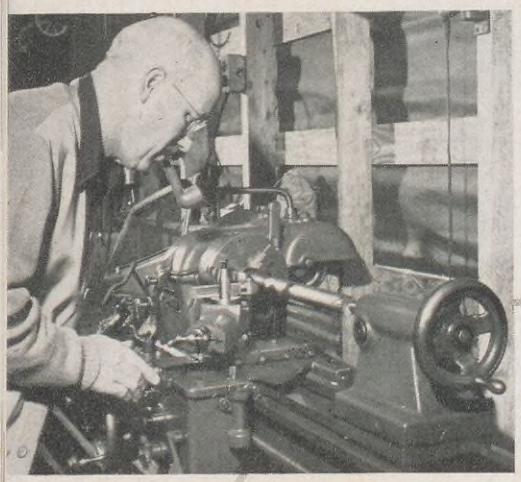
R. A. HARVEY

GUNS



Gunsmithing requires precision machine work. A micrometer measures a part to its nearest half-thousandth of an inch.

Heid has equipment for reloading various caliber shells—an electric furnace for casting bullets, reloading machine, powder measures and bullet moulds.



In "roughing," first step in making parts, a steel bar is turned to an approximate size. Tempering and bluing follow.

Stock is checkered for decorative purposes and to give it better grip. A meticulous process, checkering takes infinite patience and about two days' work.

GEOLOGIST Gordon Heid of the Houston Exploration and Production Area is no stranger to life in Dutch East Indies jungles, where a man finds it useful to be handy with a gun. He is no stranger, either, to gun lore or the intricate task of transforming an ordinary rifle into a hunting piece. Gunsmithing, he has found, is a nearly perfect hobby for a man whose job requires that he move about frequently.

"A geologist can't collect guns," says Heid. "He has to move around too much and hasn't any way of keeping them."

Instead, in a well-fitted workshop, Heid remodels Army rifles into sporting guns. To date, he has completed and sold about 20 such remodeled rifles, using the profit to buy additional workroom tools. Thus, even though Heid finds it impractical to collect guns and rarely takes time for hunting, gunsmithing affords him pleasant recreation.

His interest in firearms began at 18 when an uncle gave him a Mexican rifle of the Spanish Mauser type, reportedly a relic of Pancho Villa's raid on Columbus, New Mexico, in 1916.

It was stimulated during an eight-year assignment, beginning in 1928,

Geologist Heid makes a final inspection of a new rifle. With little opportunity for hunting or collecting, he enjoys the painstaking craft of remodeling guns.

SMITH

Craftsmanship and Patience Help a Shell Geologist in His Hobby of Remodeling Firearms

as an oil company field geologist in the East Indies, with headquarters in Batavia, Java. Heid often worked in the jungle, away from camp for four months at a time while heading a field crew which included a native engineer and some 20 natives to pack and care for supplies and equipment.

For Heid, hunting in the jungle was a matter of survival—food or protection—rather than sport. Wild boar, for instance, was a real delicacy on the jungle menu of rice, peas, dried fish and tinned goods. And well-handled rifles also often took care of snakes and crocodiles.

With his overseas service behind him, Heid joined Shell in 1937. He returned to the Far East, however, in World War II as an Air Force officer attached to OSS, rejoining the Company when his military career ended.

For several years after the war, the U. S. Government sold surplus Army rifles at low cost to civilians to promote interest in marksmanship. These were the weapons Heid began to remodel into sporting pieces.

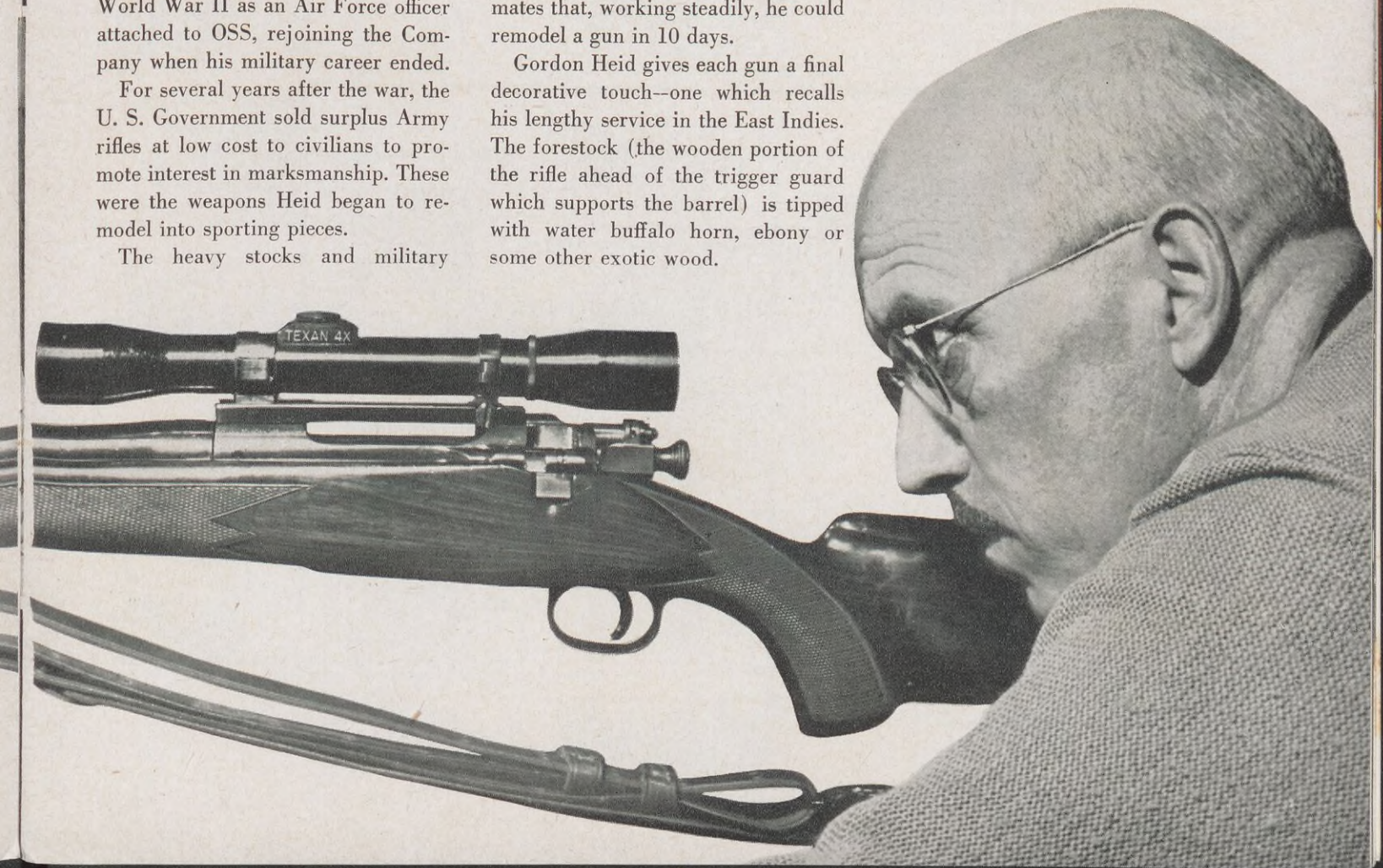
The heavy stocks and military sights on Army rifles are not so good for hunting, Heid says, but the barrels and actions are excellent.

He builds a custom-made stock, shaped and hand-carved for individual fit, and checkers it both for decoration and for better grip. Heid's favorite woods for gunstocks are walnut, myrtle wood and birdseye maple. To accent grain in the wood, the stock is darkened by repeated applications of linseed oil and much polishing. Then, several coats of thin varnish are applied with the fingertips and the wood is sanded with fine sandpaper.

Heid shortens the barrel, puts on new sights, hand-polishes and blues the metal parts, and finally assembles the handsome, finished rifle. He estimates that, working steadily, he could remodel a gun in 10 days.

Gordon Heid gives each gun a final decorative touch—one which recalls his lengthy service in the East Indies. The forestock (the wooden portion of the rifle ahead of the trigger guard which supports the barrel) is tipped with water buffalo horn, ebony or some other exotic wood.

Hand-fitting a metal part in the trigger mechanism, as Heid is here, is an exacting job.



The eleventh and twelfth in a new series of organization charts

Shell Oil Company

September—1954

ST. LOUIS MARKETING DIVISION ORGANIZATION CHART

Manager

R. S. Mitchell

Operations Manager

M. Bogstahl

Sales Manager

F. H. Staub

Treasury Manager

C. F. Abbott

Marketing Service Manager

J. H. Wagner

Personnel Manager

F. E. Fisher

Real Estate Manager

W. G. Walsh

Division Engineer

E. A. Stobbe

Superintendent Distribution

J. W. Schaper

Asphalt Manager

E. E. Scholer

Aviation-Commercial Manager

F. X. McAdam

Fuel Oil Manager

L. B. Sullivan

Lubricants Manager

C. W. Kuhlman

Chief Accountant

J. L. Fosher

Credit Manager

R. W. Mautz

Div. Rep. Public Relations

R. B. Fisher

Tax* Representative

G. A. Loehr

Purchasing-Stores Supervisor

T. F. Kremer

Retail Manager

N. K. Schuermann

Shellane Manager

J. A. Felder

Special Products Manager

J. K. Dixon

District Manager Cape Girardeau

W. S. Mantle

District Manager Columbia

E. W. Mellor

District Manager Decatur

P. A. Houser

District Manager St. Louis

J. F. Lewis

District Manager Wood River

R. P. McAlpin

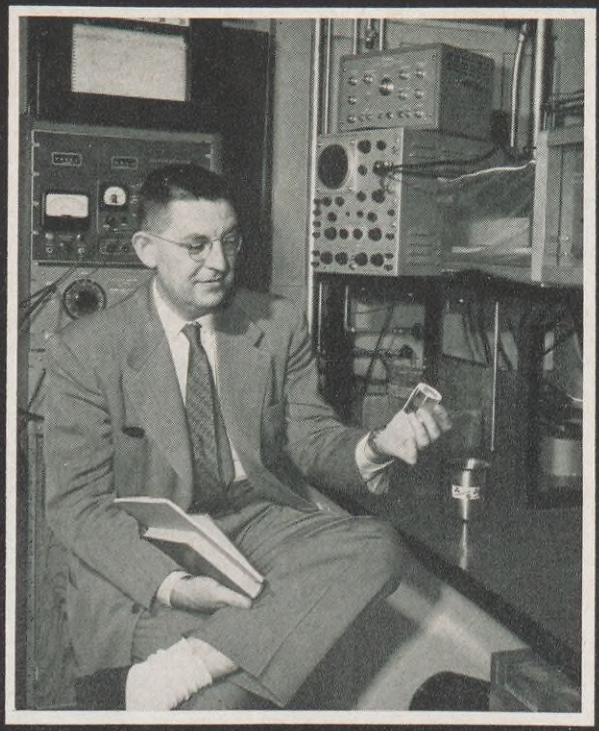
*Also serves Wood River Refinery, Indianapolis Division & Products Pipe Line

SEATTLE MARKETING DIVISION ORGANIZATION CHART

Danger—Invisible Hazard

A New Kind Of Safety Program At Emeryville Protects Personnel Working With An Atomic Age Research Tool—The Radioisotope

Amount of radiation coming from contaminated laboratory glassware is measured by Safety Inspector R. J. Shreve, of Emeryville's Safety and Industrial Hygiene section, with an ionization chamber.



David P. Stevenson, head of Emeryville's Chemical Physics Department and a member of the Radiological Safety Committee, inspects a plastic scintillator used in radiation counting apparatus.

PINNED to the lab-coat lapels of 50 researchers working with radioactive materials in Shell Development's Emeryville Research Center are unimpressive little badges. They contain strips of film no bigger than a dental x-ray—but each strip is a safety device as important to laboratory personnel as a "hard hat" is to an oilman in the field or refinery.

The film is sensitive to invisible radiation from radioisotopes, by-products of atom fission, with which these people work. When developed, the film strip is a gauge of how much radiation may have been absorbed by each person's body during the previous week. In the long run, this enables the laboratory to restrict use of radioisotopes to well within the limits of safety.

Film badges such as these, Geiger counters and lead bricks are only a few protective devices that have become common in post-war chemistry laboratories with the widespread use of radioactive materials. They are symptomatic of the peacetime applications to which products of the Atomic Age, including radioisotopes, have been put. At the Emeryville Research Center, radioisotopes are used largely as "tracers." Small amounts of them, introduced into various substances, may be traced through growing plants, chemical processes, or experimental animals to yield valuable scientific data.

But laboratory use of radioisotopes is not without its dangers. In fact, Emeryville's whole radioisotope program has been put in the hands of a three-man Radiological Safety Committee which reviews, approves and limits all proposed research work.

The reason is this. Prolonged exposure to excessive amounts of radiation can be harmful to the body. It may damage blood cells and perhaps cause anemia or other disorders. Everyone, whether or not he is working with radioactive materials, is exposed to moderate amounts of radiation from cosmic rays, naturally radioactive materials, and radioactive isotopes normally present in the human body.

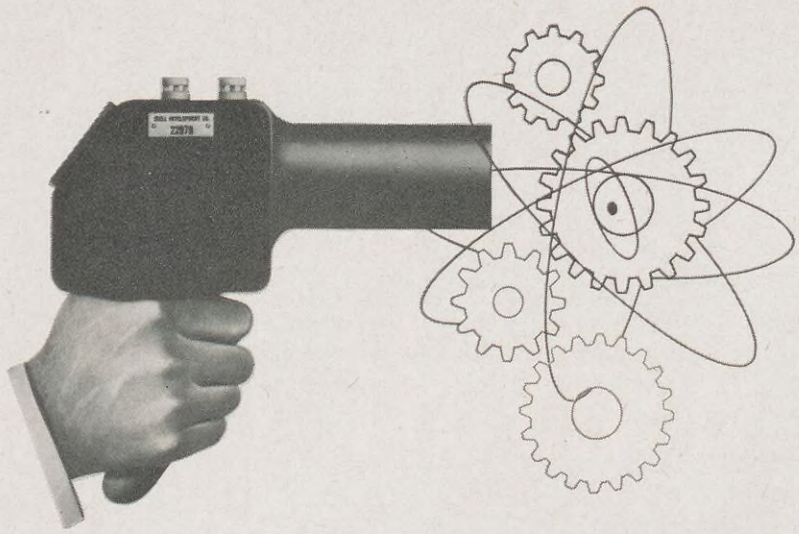
Thus, the problem of guarding against exposure to *excessive* radiation is one of degree. Many states have laws setting maximum amounts of radiation to which the human body may be exposed in a work environment. They are measured in roentgens, a unit expressing an amount of high energy radiation. In California, home state of the Emeryville Research Center, the limit is 300 milliroentgens a week—identical to recommendations made by the International Commission on Radiological Protection. This is an almost negligible fraction of the amount known to cause injury—25,000 milliroentgens for a detectable injurious effect, about 500,000 for a lethal effect.

Ordinarily, exposure at Emeryville is kept well below the maximum level

Jean C. Kennedy, shown with F. C. Younger, mails badges to processers who phone unusual readings.

Chemist V. P. Guinn, with an ionization chamber, monitors an incoming shipment of radioisotopes, determining the radiation level outside the package before it is sent to the laboratory.

Shreve and Safety Engineer W. A. Price monitor radiation from the shipment before it is stored in the laboratory's concrete vault.



Material is Stored In a Concrete Vault

permitted. Most film badges, which are collected weekly, developed and tabulated by a processing firm in Palo Alto, California, show exposures of less than 30 milliroentgens. The largest cumulative exposure during a 12-week period last spring was only 210 milliroentgens. This allows a very large margin of safety.

Helping enforce these regulations is a series of devices that *minimize further* the danger of irradiation. Among them is the ionization chamber, a gun-shaped apparatus nicknamed the "cutie pie," which measures quantities of radiation by means of a gas-filled chamber in its barrel. Thick lead bricks, weighing about 25 pounds apiece, are used to block off radiation. Special handling gadgets, including long-handled tongs and pipetting devices, are used to move radioactive materials at safe distances from the body.

The Radiological Safety Committee insists on cleanliness as the cornerstone of its program, even to the point of lessening free-floating dust in the air, on laboratory tools and on furniture. To prevent radioactive particles from getting inside the body, precautions forbidding eating and smoking in laboratory areas are stringent. Geiger counters are used to monitor personnel and instruments, registering small radioactive particles that may contaminate clothing or tools.

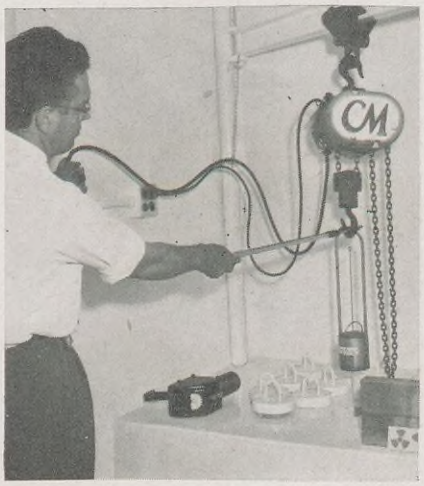
Laboratory benches are lined with a highly absorbent paper that picks up spilled radioactive liquids. Waterproof backing keeps the liquid from seeping through to benches. Printed tapes clearly label areas where radioactive materials are being used or equipment that has been contaminated.

Further, radiosotopes are shipped to the laboratory in lead cases which are stored in a concrete block vault the size of a large chest-type freezer. Ventilation in the radiochemical laboratory is closely regulated so traces of radioactive gases can be eliminated quickly.

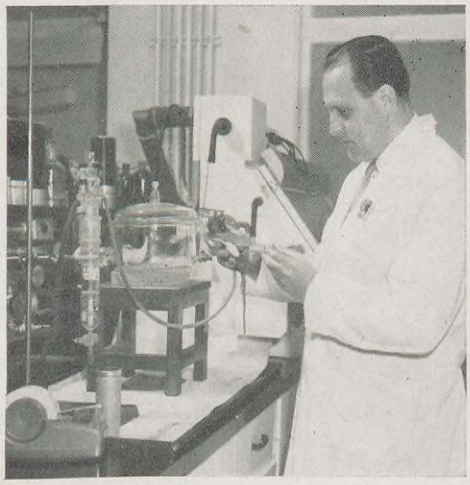
Personnel must meet high health standards before they are permitted to work with radioactive materials. And Shell Development Company's consulting toxicologist periodically examines all personnel who work with radioactive materials.

Thus, radioactive materials used with maximum safety at the Emeryville Research Center help Shell to learn more and more about its products and processes—and open up new ways in which they can be improved.

Chemist C. D. Wagner, wearing gloves, opens the outer container of the radioactive shipment. Lead bricks in front reduce the radiation.



By means of an electric hoist, C. D. Wagner lowers the "hot" shipment into the vault. The lead bricks, front, reduce the radiation.



Dr. Charles H. Hine, Emeryville's consulting toxicologist, experiments to determine the rate of excretion of radioactive substances from the system.

Hunting Oil In Seven League Wading Boots

With a New Type of Portable Drilling Platform

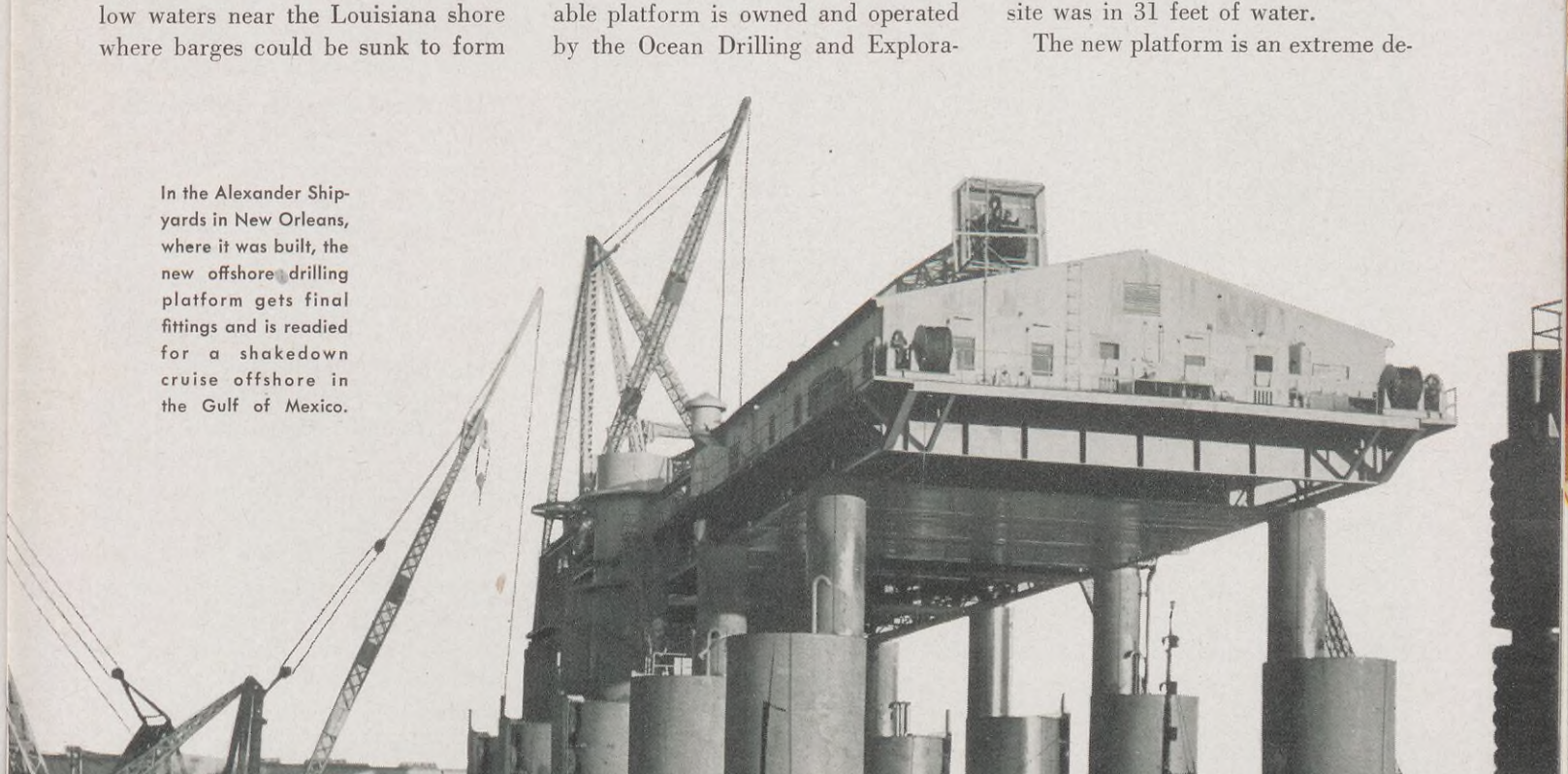
Under Contract, Shell is Going Farther Out and Deeper Into the Gulf

LIKE Hop-O-My-Thumb, who outdistanced the ogre with his seven league boots, Shell, too, is taking giant steps in the Gulf of Mexico with a new means of getting about.

For some years now, Company drilling operations have lingered in shallow waters near the Louisiana shore where barges could be sunk to form stable bases for drilling rigs. Now, however, thanks to the design and construction of a huge drilling platform mounted atop a barge on tall columns, Shell is moving farther out into the Gulf in search of oil.

The revolutionary type of moveable platform is owned and operated by the Ocean Drilling and Exploration Company (ODECO) of New Orleans. It was tested in the Gulf during the latter part of June, then was promptly moved to an offshore location to drill a Shell wildcat test in South Pass, Block 27, near the mouth of the Mississippi River. The drilling site was in 31 feet of water.

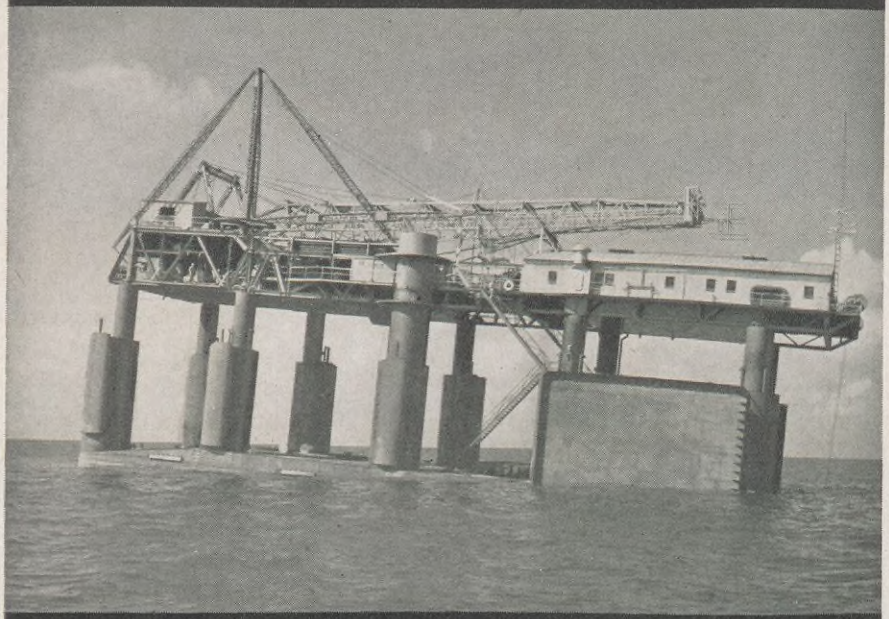
The new platform is an extreme de-



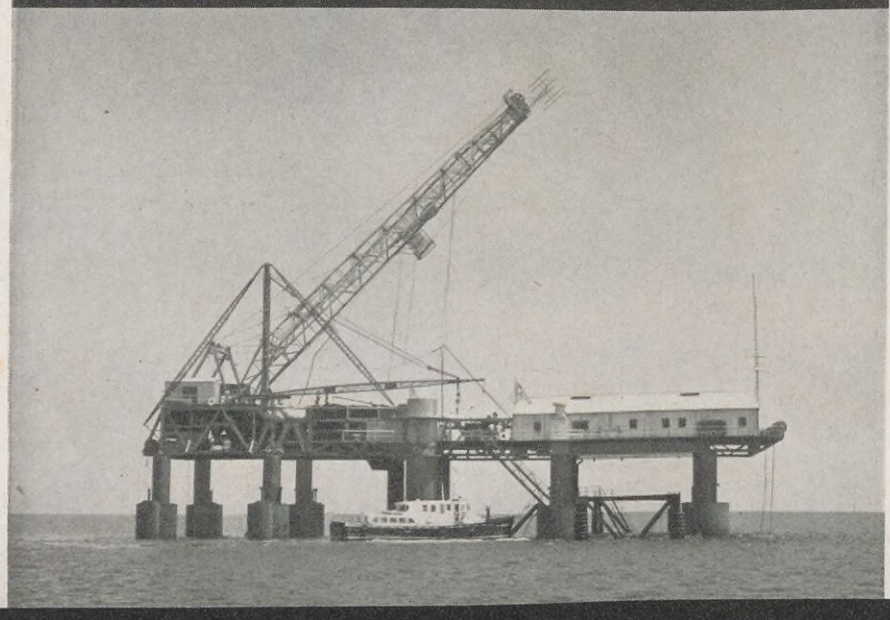
In the Alexander Shipyards in New Orleans, where it was built, the new offshore drilling platform gets final fittings and is readied for a shakedown cruise offshore in the Gulf of Mexico.

NOTHING SUCCEEDS LIKE SUCCESS. On its first drilling assignment, the huge new ODECO offshore drilling platform described on these pages brought in a successful new wildcat well for Shell near the mouth of the Mississippi River. Called Shell, State Lease 1011 Well #1, it is located in South Pass, Block 27, more than 3 miles offshore. On drill stem test the discovery flowed at a daily rate of 265 barrels of 30° gravity oil with a tubing pressure of 1140 pounds on a 10/64 inch choke, and a gas oil ratio of 547 cubic feet per barrel of oil.

Down to the sea on stilts. With one tug pushing in the drilling slot and another pulling, the ODECO rig heads for a Shell lease in South Pass, Block 27, to drill its first well. The derrick is folded down while the barge-mounted platform is afloat.



By carefully controlling ballast in the barge, the rig is slowly sunk, above, at the drilling site. Note hinged pontoons under the crew quarters. Below, with pontoons folded out, the rig rests in 31 feet of water and the cantilever derrick is being raised.

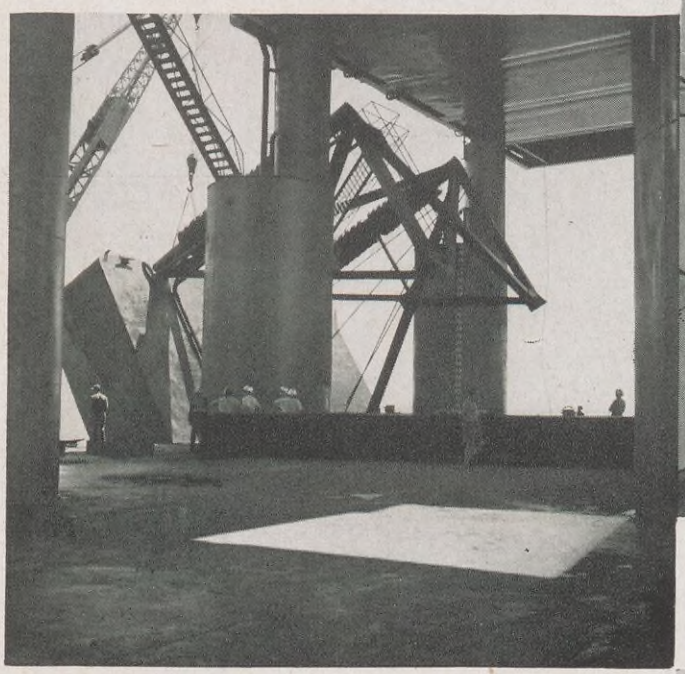


parture from moveable offshore rigs formerly and presently used by Shell. Though many successful wells have been drilled in submerged lands from converted LST's and special barges, the height of the converted craft limited their usefulness to water of not more than a dozen feet in depth. The ODECO rig, on the other hand, can safely submerge in 40 feet of water, which means it can go many miles out on the Continental Shelf or to hitherto inaccessible inshore locations. The ten stationary columns which support the platform raise the drilling floor 64 feet above the Gulf floor—leaving a safe margin above the waves even in rough weather.

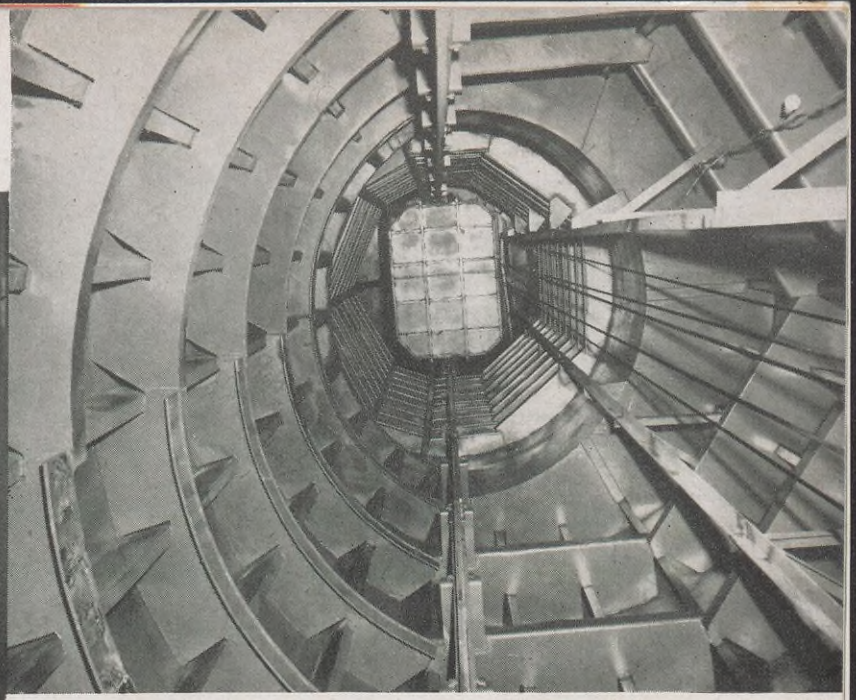
A unique feature of the ODECO rig is its underwater engine room inside the 74 by 220 foot barge that forms the rig's base. The room houses two 1600 horsepower diesel engines which generate electricity for the drilling equipment, pumps, lights and other utilities. An elevator running through one of the platform's hollow columns connects the engine room and the drilling floor.

Fuel and ballast tanks are also built into the base barge. Two steel pontoons are hinged to the base barge to give it stability when it rests on the Gulf floor. The pontoons are folded inboard when the barge is afloat, but when filled with water they automatically fold out to form a larger base. Superstructures on the pontoons provide platforms and stairs for loading and unloading the small boats which serve the rig while it is operating offshore.

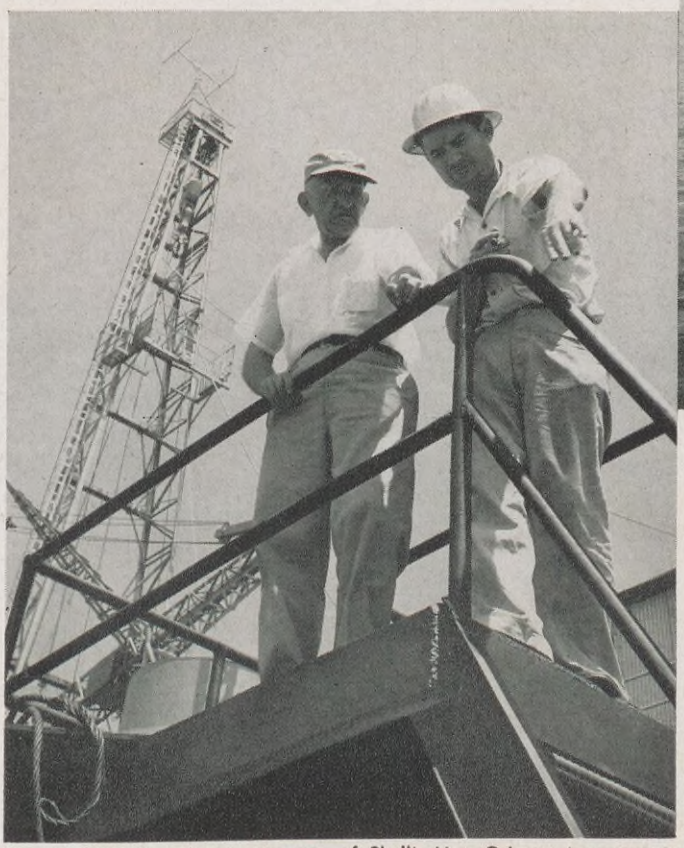
The split-level drilling platform, high above the water, supports a 140-foot cantilever derrick, draw works and other drilling, mud mixing, loading, and storage facilities. The 40-man, air-conditioned crew quarters also on the platform, has, in addition to sleeping quarters, a spotless galley, a large dining room, and a wood-panelled recreation room complete with television.



At the shipyard before the platform went into service, one of the stabilizing pontoons, above, is hinged to the barge. Barge displaces 3,700 tons, and the weight of the platform is distributed over 16,280 feet.

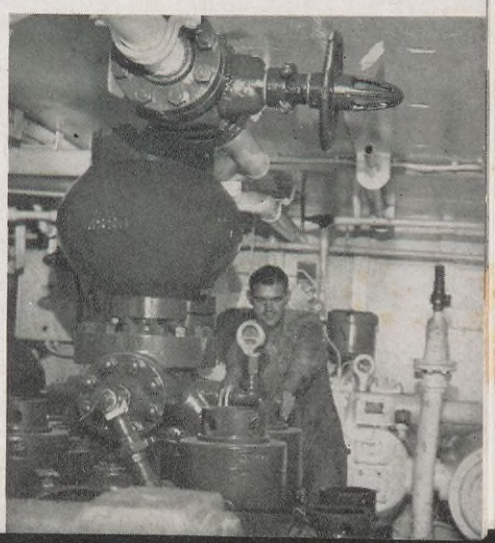


An elevator, running up and down in one of the ten hollow columns which support the platform, connects the drilling floor with the underwater engine room 64 feet below inside the barge. Rig also has its own hoisting and pile driving equipment mounted on the upper deck.

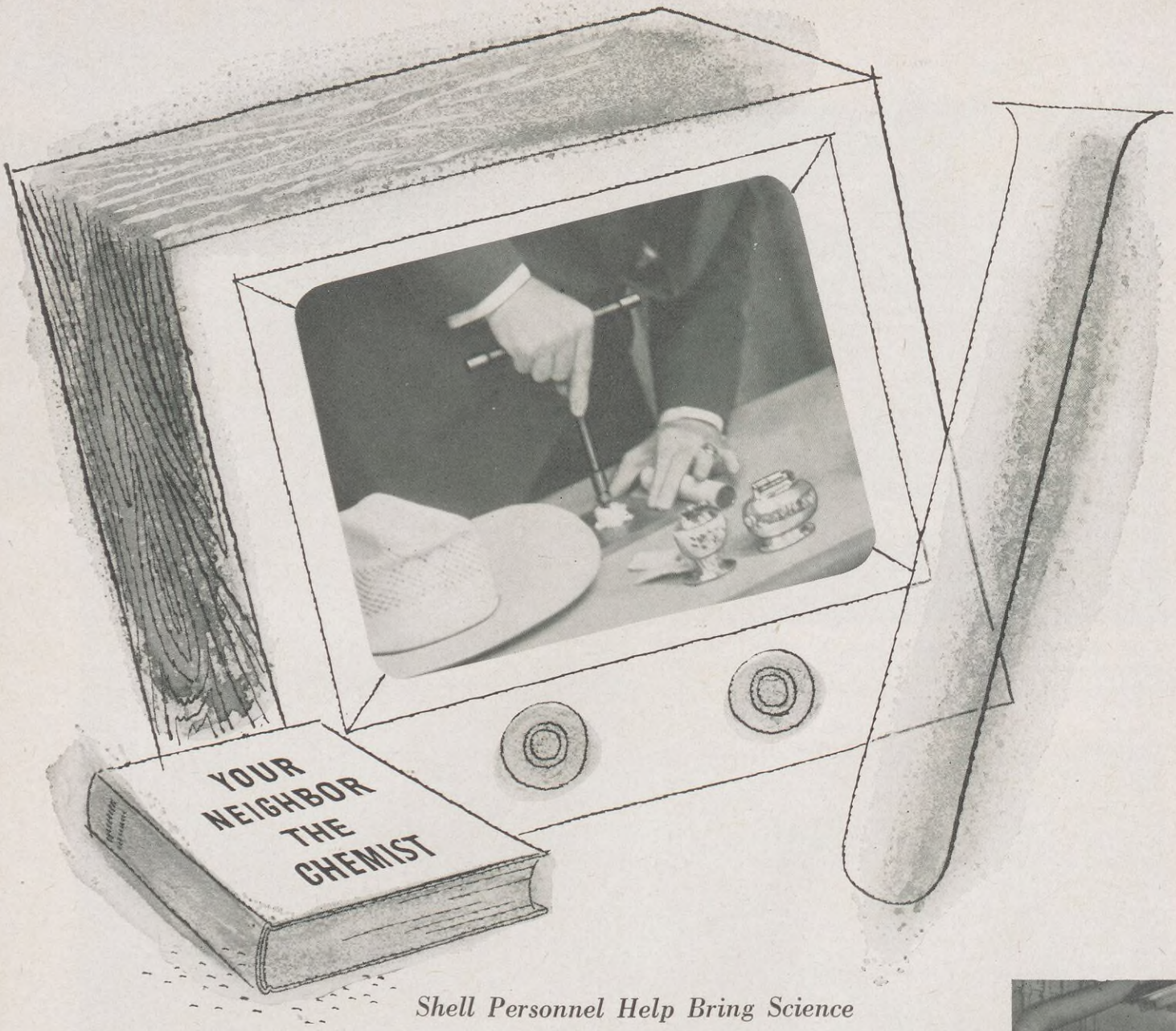


Captain E. R. Vorenkamp, Manager of Shell's New Orleans Area Marine and Automotive Department, above left, talks about the platform with A. J. Laborde, President of ODECO, owner and operator of the revolutionary rig.

Four special vessels serve the offshore platform when it is drilling. Above is the Pelican Driller, which hauls drill pipe and heavy equipment. Other boats which are smaller, carry personnel and light supplies.



In the submarine engine room housed inside the barge, right, an ODECO employee checks a mud pump. Two diesel engines and electric generators are the room's main installations.



Shell Personnel Help Bring Science To the Public as 'Starless' Television Begins in Houston and San Francisco

EDUCATIONAL TV

Program ideas for KQED-TV's by emcee G. J. O'Donnell, S.

EVEN as favorite stars show their high-priced talents before the cameras of large commercial TV stations, a wholly new idea in nonsponsored, starless telecasting has been quietly developing in a number of U. S. communities. On slim budgets, eliminating costly scenery and actors, and focusing their attention on public service presentations, seven educational TV stations have begun operating. The Federal Communications Commission has approved 22 others.

As two of the earliest educational stations, in Houston and San Francisco, began regular programming, Shell people helped pioneer this new field by readying and taking part in shows intended to simplify science for general audiences. Among other things, they illustrated how science helps find oil, how EPON® resins give exceptional bonding qualities to protective coatings, or how simple laboratory experiments are conducted.

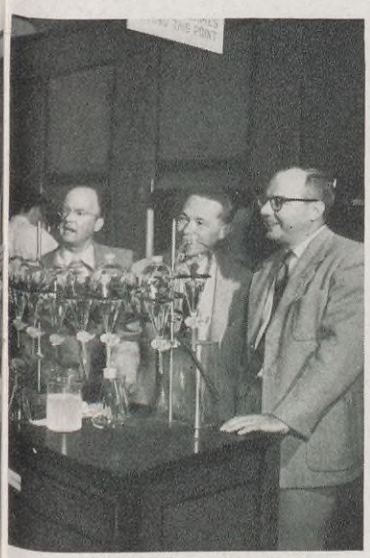
First, and perhaps typical, of the educational TV stations is KUHT, licensed to the University of Houston. A workshop for Radio-Television Department students, it is run with a minimum of salaried staff members and telecasts 40 hours a week. Non-university professional people donate their services. On its varied schedule are actual college courses, news, fine arts, social and physical sciences, and public service programs.

A 36-week series called "Your Neighbor, The Chemist," arranged by the American Chemical Society, was produced, directed and emceed by Senior Chemist D. R. Lewis of Shell Development's Exploration and Production Research Division in Houston. A 15-minute show, it acquainted the public with many scientific developments affecting their daily lives. It was hoped that it would interest high school students in science careers.

Shell personnel took part in three of the programs, with scripts written by the Houston Public Relations staff. W. R. Purcell, Chemical Department Head of Shell Development's E & P Research Division, told how oil is discovered and produced, and demonstrated uses of drilling mud. Senior Research Chemist G. F. Johnson of Shell Chemical's Houston Plant described some applications of EPON, smashing a toothpaste tube to show how EPON-based enamels adhere even to crushed surfaces. Elmond L. Claridge, Assistant Chief Research Chemist in the Houston Refinery's Research Laboratory, explained refining techniques with the aid of a film and a model cat cracker. He also discussed the many products manufactured from oil, with special emphasis on those made of wax.

For San Francisco's KQED, community-sponsored educational TV outlet which began telecasting to the Bay Area this spring, several Shell people have contributed to a projected young people's series, "Tempest in a Test Tube." Chemist D. B. Luten, Supervisor in Shell Development's Emeryville Research Center, previewed the series in May. The full series, arranged also by the American Chemical Society, will be presented by Chemist G. J. O'Donnell of Emeryville, once the station develops its permanent operating schedule, probably this fall.

His ACS co-workers at Shell Development will write the show and work with the KQED staff in its production. They include Committee Chairman F. H. Stross, Research Supervisor of Emeryville's Analytical Department; Chemist H. A. Benesi of Catalysis and Surface Chemistry and Physicist S. T. Abrams of the Instrumentation Department. Mrs. Gwendolen Nixon, wife of Lubricants and Fuels Research Supervisor A. C. Nixon, local ACS president, and M. D. Taylor, head of the Process Development Department, also are assisting with this program.

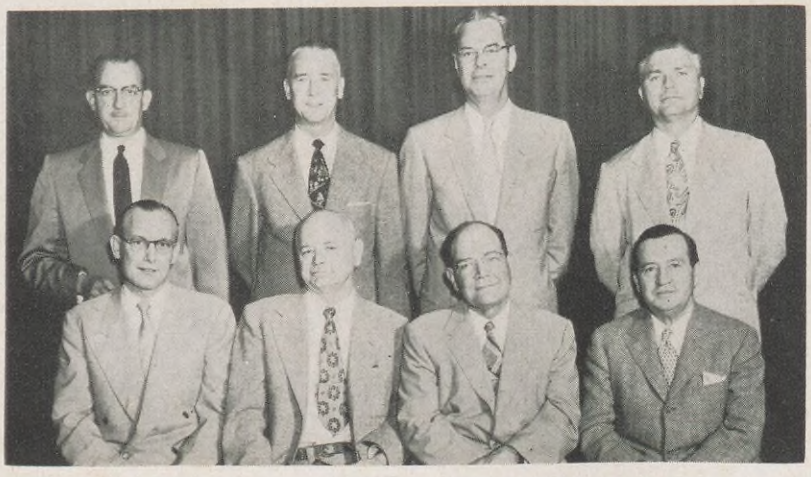


"Tempest in a Test Tube" are discussed T. Abrams, F. H. Stross and H. A. Benesi.

On KUHT-TV's "Your Neighbor, The Chemist," G. F. Johnson, r., demonstrates EPON resins while emcee D. R. Lewis looks on.

Lewis, Houston show's originator, interviews W. R. Purcell, right, who told some ways science helps find oil.

coast to coast



Land executives of Shell's Exploration and Production Areas and Head Office recently held a conference in Calgary, Canada, to discuss common land problems and policies. Attending were (seated, left to right) R. L. Trott, C. I. Warren, B. L. Ryan, W. M. Johnson, (standing, left to right) R. N. Gadbois, R. H. Blakeley, W. S. Henry and J. V. Lindsey.

C. J. Taylor, Shift Foreman, Houston Refinery, recently was off sick for two days, marking the first time he has missed work in his 25 years of Shell service.

Every Thursday evening, a group of golfers from Shell's Sewaren, New Jersey, Plant play at the Oak Ridge Golf Course in Clark Township, New Jersey. Among them are (left to right) A. J. Ruska, J. A. Hmieleski, D. L. Hickey, C. P. Ferraro, K. J. Trstensky, J. L. Soya, R. M. Demoreski, Albert Marenchik, J. E. Murphy, Alex Nagy, Jr., R. S. Konkol, J. A. Kloos, T. A. Crain, E. C. Carstensen, J. W. Devald, L. A. Eilbacher and W. K. Smith.

Prize-Winning Goats

P. C. Holmes of Shell's Houston Refinery, and also vice president of the Gulf Coast Dairy Goat Association, not only collects blue ribbons for his herd of goats but also collects nine quarts of milk each day for family consumption.

Goat's milk is palatable, nourishing, and, being easily digested, is especially good for infants and sick people. The Houston City Council has ruled that goat's milk is so pure it does not need pasteurization. Because of the heavy demands of the Holmes family—wife, four husky sons and three collie pups—the goats are unable to supply enough milk for home use. Holmes supplements the supply with a quart or two a day of cow's milk, proving, he contends, "That I have nothing against cow's milk."

Goats are easy to take care of and an hour a day is all that is required to tend his herd.

The Shell Midland Employees Club, Midland Exploration and Production Area, recently elected a new president and four new directors. They are, left to right, Pauline McKenzie and Freda Lou Prince, directors; Louis Smith, president; and Jo Nell Jenkins and W. E. Schultz, directors.

E. H. Small, Public Relations Representative, Boston Marketing Division, left, receives from Alan Lydiard, vice president of the Greater Boston Film Council, an Award of Merit Certificate. The award was won by Shell Oil Company for its film, "The Fossil Story" during a recent Boston Film Festival. "The Fossil Story" was called one of the country's best industrial pictures in a recent issue of "Fortune" magazine.

They Have Retired

L. AARON
Houston Refinery
Utilities

G. O. ALLEN
Wood River Refinery
Engineering

D. M. BIROTH
San Francisco Div.
Treasury

T. B. BOWERS
Wilmington Refinery
Dispatching

J. E. CONKLE
Houston Area
Exploration

W. B. COURTRIGHT
Pacific Coast Area
Production

A. M. COWAN
Indianapolis Div.
Sales

W. F. FAUCHEUX
Norco Refinery
Dispatching

D. GRUELLE, JR.
Head Office
Transp. & Supplies

F. JONES
Pacific Coast Area
Production

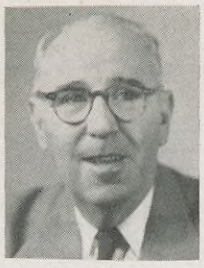
L. H. MATTHEWS
Indianapolis Div.
Operations

R. M. McFARLAND
Pacific Coast Area
Purchasing-Stores

E. H. NEWBY
Tulsa Area
Production

W. E. NEWMAN
Wood River Refinery
Engineering

E. M. OWEN
Shell Pipe Line Corp.
West Texas Area



E. J. REID
Midland Area
Gas

J. ROYLE
Sewaren Plant
Control Laboratory

L. W. SCHROEDER
San Francisco Div.
Operations

L. L. SERVISS
Tulsa Area
Production

S. S. SMITH
Head Office
Transp. & Supplies

L. S. STIVERS
San Francisco Div.
Operations

J. E. WAGNER
Shell Pipe Line Corp.
Head Office

F. M. WALGE
Products Pipe Line
East Chicago, Ind.

Service Birthdays

Thirty-Five Years

I. W. ALMOND
Martinez Refinery
Engineering

R. B. CULLEY
Pacific Coast Area
Production

U. J. LAURENT
Norco Refinery
Thermal Cracking

Thirty Years

L. C. BECK
Pacific Coast Area
Production

P. J. BES
Pacific Coast Area
Production

R. CASEY
Tulsa Area
Gas

C. C. CROSBY
San Francisco Office
Pers. & Indus. Rel.

R. F. DAWES
Pacific Coast Area
Production

J. A. DUFFY
Chicago Division
Operations

H. H. HARRON
Shell Chemical Corp.
Martinez Plant

W. KIRKLAND
Shell Development Co.
Houston

G. B. LORENZ
St. Louis Div.
Operations

W. K. LUCK
Wilmington Refy.
Alkylation

W. E. McANANY
Wood River Refy.
Thermal Cracking

J. A. McQUADE
Pacific Coast Area
Gas

J. A. MORGAN
Tulsa Area
Production

C. B. NEHER
Portland Div.
Operations

J. A. ST. PIERRE
Norco Refy.
Laboratory

J. E. SEAMON
New Orleans Area
Production

G. L. SIRARD
Sacramento Div.
Sales

R. J. SUTTON
Pacific Coast Area
Gas

T. E. SWIGART
Shell Pipe Line Corp.
President

G. D. THOMAS
New Orleans Area
Exploration

E. T. WILSON
Los Angeles Div.
Treasury

P. H. WRIGHT
Denver Area
Production

Twenty-Five Years

C. J. ABADIE
Norco Refy.
Distilling

A. J. ALBERS
Wood River Refy.
Distilling

L. L. ALTHAUS
Portland Div.
Operations

W. L. AULBERT
Tulsa Area
Production

P. L. BENSON
Houston Refy.
Catalytic Cracking

O. H. BLAIR
Wood River Refy.
Engineering

R. G. BOARDMAN
Los Angeles Div.
Sales

A. J. BRAUD
Norco Refy.
Dispatching

R. D. BURLESON
Head Office
Marketing

W. A. BURNETT
New York Div.
Purchasing-Stores

Twenty-Five Years (cont'd)

C. C. BUTLER, Tulsa Area Production
A. G. CABRAL, Martinez Refy. Engineering
J. CALAFATO, Wilmington Refy. Treasury
S. CANNON, Atlanta Div. Operations
W. R. CARBAUGH, Indianapolis Div. Operations
E. W. CARLSON, Portland Div. Treasury
L. M. COLLARD, Cleveland Div. Marketing Service
W. H. CRADDOCK, Shell Pipe Line Corp. Bayou Division
P. M. CRENSHAW, Shell Pipe Line Corp. West Texas Area
C. E. CROCKER, Shell Pipe Line Corp. Mid-Continent Area

C. H. CUNNINGHAM, Midland Area Gas
D. R. DALGLEISH, Wilmington Refy. Catalytic Cracking
R. A. DALTON, St. Louis Div. Treasury
R. O. DAWSON, Sacramento Div. Operations
M. S. DUNHAM, Cleveland Div. Operations
K. F. EHLENFELDT, New York Div. Sales
W. A. EQUITZ, Pacific Coast Area Production
W. D. EVANS, St. Louis Div. Sales
L. FARNER, JR., Head Office Financial
I. S. FLEGEL, Seattle Div. Sales
H. C. FRAZIER, Wood River Refy. Engineering

O. E. FRITCHMAN, Sacramento Div. Operations
P. N. FULLER, Shell Chemical Corp. Head Office
M. T. GISLER, Indianapolis Div. Sales
A. W. HABBE, Wood River Refy. Aromatics
J. O. HIZA, Albany Div. Operations
R. R. HOOVER, Wood River Refy. Stores
J. B. JACKSON, Indianapolis Div. Sales
O. H. JELF, Tulsa Area Production
V. L. JONES, Indianapolis Div. Operations
E. E. KETCHERSID, Pacific Coast Area Treasury

J. N. KOLB, Minneapolis Div. Sales
E. E. LINDQUIST, Seattle Div. Marketing Service
C. LIPEL *, Head Office Financial
M. J. LOMP, Baltimore Div. Sales
S. F. LUPO, Martinez Refy. Engineering
R. M. LYTLE, Shell Pipe Line Corp. Mid-Continent Area
F. J. MARGESON, Houston Area Land
D. C. MARSCHNER, Head Office Marketing
J. D. McCLINTON, Shell Pipe Line Corp. Mid-Continent Area
W. J. McDONOUGH, Boston Div. Real Estate
H. M. McFARLAND, Seattle Div. Administration

J. P. McKEON, Head Office Prov. Fund & Pens. Trust
R. D. MILLER, Houston Refy. Gas
F. E. MILLER, Cleveland Div. Operations
M. M. MILLWARD, Sacramento Div. Sales
F. X. MOORE, St. Louis Div. Operations
J. T. MORGAN, Technical Services Div. Administration
P. F. MULLANE, New York Div. Operations
K. W. OSTERHAGEN, St. Louis Div. Treasury
W. R. PARKER, Boston Div. Operations
E. J. PAULL, Sacramento Div. Sales

K. M. PRENDERGAST, Cleveland Div. Administration
C. J. PYATT, Tulsa Area Production
J. T. REGAN, Chicago Div. Operations
I. M. REINIGER, Houston Area Land
R. S. RENO, Wilmington Refy. Engineering
J. J. RILEY, Cleveland Div. Operations
E. E. ROBERTS, Midland Area Gas
C. W. SCHWARTZ, Chicago Div. Operations
C. SCOTT, Indianapolis Div. Operations
H. A. SHANKS, Head Office Purchasing-Stores
E. D. SHARP, Wilmington Refy. Engineering

* On Military Leave

Twenty-Five Years (cont'd)

A. I. SHUPPERT
Indianapolis Div.
Treasury

J. V. SILVA
Martinez Refy.
Compounding

F. H. SIPE
Indianapolis Div.
Sales

M. F. SIVERTSEN
Shell Development Co.
Emeryville

G. R. SIZEMORE
Tulsa Area
Production

G. J. SMITH
Pacific Coast Area
Legal

W. J. SNOW
Houston Refy.
Engineering

B. SPRAYBERRY
Martinez Refy.
Cracking

L. STANDLEY
St. Louis Div.
Operations

G. H. STOUT
Baltimore Div.
Operations

R. A. SWAN
Portland Div.
Operations

A. C. TAYLOR
Wood River Refy.
Aromatics

J. L. THOMPSON
Houston Refy.
Distilling

E. M. UHL
Cleveland Div.
Treasury

F. A. VAN MELLE
Shell Development Co.
Houston

M. VOOGD
Shell Chemical Corp.
Mgr.-Torrance Plant

C. T. WAIT
Portland Div.
Operations

W. W. WALKER
Pacific Coast Area
Production

A. J. WELLS
Indianapolis Div.
Operations

C. A. WENTZ
Wood River Refy.
Engineering

A. O. WILLIAMS
Martinez Refy.
Control Laboratory

K. E. WILT
Martinez Refy.
Engineering

SHELL OIL COMPANY

Head Office

20 Years

H. T. Duls.....Transp. & Supplies
H. W. Megaw.....Transp. & Supplies
J. W. Pittman.....Exploration & Production
S. L. Smith.....Transp. & Supplies

15 Years

M. L. Barrett.....Transp. & Supplies
F. A. Burdick.....Exploration & Production
F. B. Eutsler.....Marketing
G. Fellows.....Marketing
V. K. Leonard.....Transp. & Supplies

10 Years

Irene R. Girolame.....Marketing
G. A. Meyers.....Transp. & Supplies

San Francisco Office

15 Years

E. F. Maggio.....Marketing

Exploration and Production

CALGARY AREA

15 Years

T. J. Latus.....Exploration

DENVER AREA

10 Years

C. G. Roberts, Jr. .....Exploration

HOUSTON AREA

20 Years

M. P. Goodman.....Treasury
B. L. Willbanks.....Production

15 Years

W. E. Kitchen.....Treasury

10 Years

D. H. Adams.....Land
M. L. Cartwright.....Exploration
E. T. Childress.....Production
D. R. Dunham.....Production
L. D. Gray.....Automotive
D. M. Harrison.....Automotive
J. R. Randolph.....Exploration
C. Saucedo.....Exploration

MIDLAND AREA

20 Years

T. W. Hollis.....Production

15 Years

Wanda D. Goodson.....Treasury
L. Henson.....Production

10 Years

H. H. Crim.....Production
Irene R. Davis.....Production

NEW ORLEANS AREA

20 Years

A. M. Adair.....Production
R. R. Brown.....Production
P. P. Guizerix.....Land
R. M. Hunley.....Exploration
W. E. Smith.....Personnel & Indus. Rel.

15 Years

H. J. Cranfill.....Production
A. T. Eyler.....Production
R. G. Parker.....Production
J. L. Wagner.....Production

10 Years

S. J. Babin.....Production
M. M. Blaine.....Exploration
J. H. Howard.....Production
D. N. Worrell.....Exploration

PACIFIC COAST AREA

20 Years

J. O. Buckland.....Gas
F. W. Dean.....Exploration
D. J. Demel.....Production
I. L. Ellerman.....Production
K. T. McCamman.....Production
S. A. McClung.....Production
A. Silva.....Production
W. A. Stokesbary.....Exploration

15 Years

G. T. Self.....Gas

10 Years

J. G. Angle.....Production
E. L. Coulter.....Production
W. C. Edwards.....Production
T. Marker.....Production
B. M. McClelland.....Treasury
W. H. Moore.....Production
P. S. North.....Production
A. A. Paul.....Purchasing-Stores
M. L. Pereira.....Production
J. R. Vance.....Production

TULSA AREA

20 Years

W. L. Botkin.....Treasury
S. N. Crowley.....Production
J. G. Dwen.....Exploration
O. L. Nuernberger.....Production

10 Years

J. M. Cook.....Gas
R. M. Robinson.....Gas
C. A. Snow.....Gas

Manufacturing

HOUSTON REFINERY

15 Years

I. A. Daniel.....Lubricating Oils
A. M. Gore.....Gas
W. E. Gray.....Utilities
B. L. Jacks.....Engineering
H. C. Langer.....Engineering
J. R. Roberts.....Engineering
C. T. Williams.....Utilities

10 Years

T. J. Davis.....Thermal Cracking
Etoyle C. Mathews.....Pers. & Indus. Rel.
W. F. Mooneyham.....Gas
M. J. O'Neal, Jr.....Research
B. J. Royall.....Engineering
J. J. Thompson.....Engineering
L. Tolbert.....Engineering

MARTINEZ REFINERY

15 Years

R. D. Hanna.....Stores

10 Years

C. H. Byars.....Engineering
Frances M. Juterbock....Control Laboratory
*W. M. Lopes.....Stores

NORCO REFINERY

15 Years

L. E. Richoux.....Pers. & Indus. Rel.

WILMINGTON REFINERY

10 Years

M. D. Harper.....Engineering
C. B. Ratchford.....Catalytic Cracking
W. H. Schoening.....Dispatching
E. E. Shaw.....Dispatching
H. A. Turner.....Stores

WOOD RIVER REFINERY

20 Years

A. Hartley.....Engineering
O. P. Marlinghaus.....Engineering

* On Military Leave

H. J. Miller.....Alkylation
R. F. Ruckstuhl.....Engineering
A. Spence, Jr. .....Engineering

15 Years

E. Bean.....Stores
L. A. Brown.....Engineering
L. M. Hawk.....Engineering
J. C. Knop.....Engineering
L. W. Schwear.....Engineering
A. A. Shashek.....Engineering
H. K. Travis.....Engineering

10 Years

E. B. Johnson.....Utilities
E. H. Simonds.....Engineering
E. L. Sinclair.....Engineering

Marketing

MARKETING DIVISIONS

20 Years

C. D. Buckner.....Albany, Operations
C. R. Jones.....Atlanta, Sales
J. A. Williamson.....Atlanta, Operations
W. F. Brittain.....Baltimore, Operations
W. N. Smithson, Jr. ...Baltimore, Operations
D. J. Ahern.....Boston, Sales
G. H. Delzell.....Chicago, Operations
C. Laach.....Chicago, Operations
S. W. White.....Portland, Sales
R. W. Mautz.....St. Louis, Treasury
W. P. Miller.....St. Louis, Treasury

15 Years

A. G. Cowan, Jr. ...Los Angeles, Operations
P. R. Laughlin.....Minneapolis, Sales
J. R. Young.....Sacramento, Treasury
L. P. Dupuich.....San Francisco, Operations
W. F. Mertel.....Seattle, Sales

10 Years

W. R. Turk, Jr. .....Atlanta, Mktg. Service
E. C. Richards.....Los Angeles, Sales
G. E. Carnahan.....Minneapolis, Sales
R. Gianatasio.....New York, Operations
J. D. Van Valey.....Seattle, Operations

SEWAREN PLANT

15 Years

Anne M. Lonergan.....Treasury
E. H. Wolt.....Engineering

10 Years

E. F. Gasior.....Treasury
J. J. Kellner.....Depot
P. N. McCann...Engineering & Maintenance

Products Pipe Line

20 Years

Z. E. Baylis.....Dennison, Ill.

10 Years

Katherine Lawton.....East Chicago, Ind.

SHELL CHEMICAL CORPORATION

20 Years

C. I. Wright.....Dominguez
S. Johnson.....Houston
H. J. Shelley.....Martinez
J. B. Bennetti.....Shell Point
W. H. Dietz.....Shell Point
E. A. Potts.....Shell Point
F. L. Settles.....Shell Point
N. K. Grover.....Torrance

15 Years

T. M. Brye.....Martinez
R. A. Holderman.....Shell Point
C. A. Perkins.....Shell Point

10 Years

A. R. Alworth.....Dominguez
Zetta B. Housley.....Dominguez
B. Black.....Houston
R. L. Boyer.....Houston
J. H. Burns, Jr. .....Houston
W. A. Idoux.....Houston
W. L. Kowalski.....Houston
E. Matthews.....Houston
J. A. Middleton.....Houston
W. C. Rodgers.....Houston
E. E. Stringfellow.....Houston
D. B. Finch.....Martinez
Jean R. Sandner.....San Francisco
Linda Valerio.....San Francisco

SHELL DEVELOPMENT COMPANY

20 Years

C. P. Field.....Houston
D. L. Yabroff...Director—Agri. Research Div.

15 Years

J. E. Abernathy.....Emeryville
E. S. Hill.....Emeryville

10 Years

D. C. Holmes.....Emeryville
G. J. O'Donnell.....Emeryville
E. E. Roper.....Emeryville
H. L. Shepard.....Emeryville
C. D. Wagner.....Emeryville

SHELL PIPE LINE CORPORATION

20 Years

R. M. Boatright.....West Texas Area

10 Years

W. R. Carnes.....Texas-Gulf Area

matters of *fact*

LOOKING AHEAD

The Shell Pension Plan offers you a choice of options should you wish your widow or other beneficiary to receive a monthly pension, a lump sum payment, or both, following your death after retirement. As you approach retirement, you may elect to have your beneficiary's pension either EQUAL to, one HALF of, or one QUARTER of the pension you will receive. Your supervisor will help answer any questions you may have.

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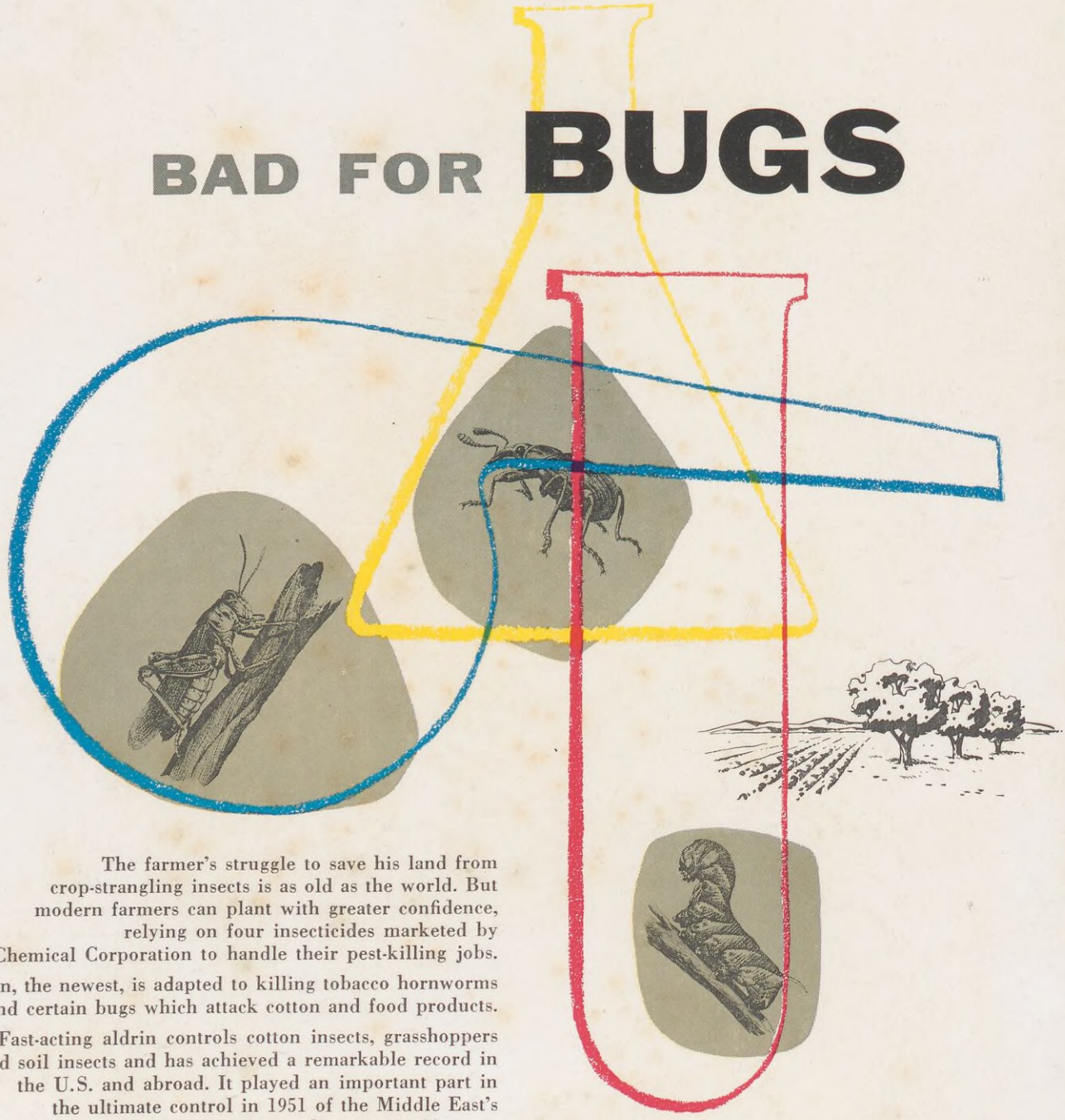
BAD FOR BUGS



The farmer's struggle to save his land from crop-strangling insects is as old as the world. But modern farmers can plant with greater confidence, relying on four insecticides marketed by Shell Chemical Corporation to handle their pest-killing jobs.

Endrin, the newest, is adapted to killing tobacco hornworms and certain bugs which attack cotton and food products.

Fast-acting aldrin controls cotton insects, grasshoppers and soil insects and has achieved a remarkable record in the U.S. and abroad. It played an important part in the ultimate control in 1951 of the Middle East's ruinous locust plague, the worst in 80 years.

Dieldrin, its sister product, is equally toxic and also has long-lasting residual action.

D-D* kills tiny wormlike parasites, called nematodes, which are present in most soils, burrow into plant roots, and cause many crop failures.

*Trade Mark registered U.S. Patent Office