

RESEARCH BY ROWBOAT
IN THE SAN JUAN
RIVER'S UTAH CANYON

SHELL NEWS

NOVEMBER 1957

from TEEPEES

to

OKLAHOMA
Semi-Centennial
1907-1957

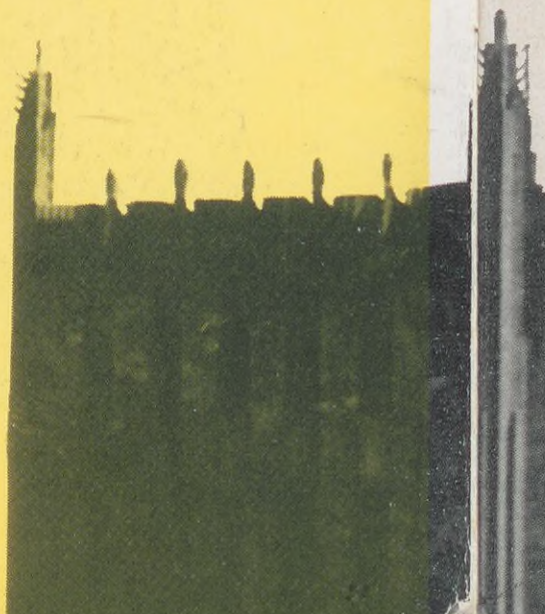


*Oklahoma looks back on a colorful
history in celebration of 50 years of statehood*

An oil derrick and a cowboy share the scene at the entrance of Oklahoma's State Capitol. The cowboy is bronze, straddling a bucking bronze horse; the derrick is steel, straddling a pump pulling oil out of a well directly beneath the Capitol.

The cowboy and the derrick symbolize the two dominant factors behind Oklahoma's growth from teepees to towers in only 50 years of statehood. This month, Oklahomans celebrate the achievements of the cattlemen, oilmen and others who created cities from tent towns and turnpikes from cattle trails. The occasion is Oklahoma's Semi-Centennial, celebrating the day in 1907 when a few scratches of President Theodore Roosevelt's quill pen made Indian Territory the nation's 46th state.

On that day, November 16, the first of Oklahoma's statehood celebrations took place—on a smaller scale than this year's, but perhaps with as much



CS

to TOWERS

*The Boston
Avenue Methodist
Church in Tulsa
is one of Oklahoma's
outstanding
structures.*

SHELL NEWS

VOL. 25—No. 11

NOVEMBER, 1957

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

Employee Communications Department
New York, N. Y.

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ABOUT THE COVER

On the surface there seems little connection between oil reserves and a sun-baked canyon in the Utah desert. The Shell men shown on the front cover were interested in what lay beneath the surface in the Utah canyon of the San Juan River — specifically, geological formations exposed along the walls of the San Juan River canyon. To get a look at the formations, a 10-man Shell party took a six-day trip down the river. The information they compiled may play a part in adding to Shell's oil reserves. A story on their trip, illustrated with pictures taken by party members, begins on page 10.

from
TEEPEES
to
TOWERS

The main street of Drumright, a center of the Cushing oil field boom, was typical of Oklahoma towns soon after statehood. Wooden buildings lined unpaved streets and horse-and-buggies outnumbered the autos.



enthusiasm. The biggest celebration was at Guthrie, then the capital. After a political rally and barbecue, the celebration got going in earnest. Because Oklahoma was admitted as a "dry" state, all liquor was to be sealed and shipped out of the state at midnight. "Faced with such a situation," one historian notes, "a large number of persons apparently sought diligently to reduce the supply on hand to the lowest possible point."

The participants in that first celebration had been in the territory at most only 18 years, or since the land was first opened to settlers in 1889. Before that date, almost all of what is now Oklahoma was Indian Territory. The Western Cherokees were the first assigned lands there in 1829. Other tribes followed — Choctaws, Chickasaws, Cheyennes and Kiowas — each assigned its own lands. At first the tribes depended on hunting buffalo and other game to live but gradually they turned to farming as the buffalo herds vanished.

Many Indian farmers had white hired hands, but many white residents in those days were unwanted — except by the law. Gunslingers, cat-

tle rustlers and assorted desperadoes roamed the territory to avoid the noose. The federal courts of bordering Arkansas had jurisdiction over Indian Territory but a land spread extending 300 miles west was too much for marshals to cover by saddle.

However, the presence of rogues did not discourage settlers eyeing the territory shortly after the Civil War. In 1879 the first organized group seeking to open the lands for settlement tried to force its way in. Federal troops stopped these land-seekers. A year later, David Payne started the "Boomer" movement — another effort to get federal approval of settlement. Again troops guarded the border. But Payne's activities had drawn so much attention to the lands that on April 22, 1889, the unassigned lands in the Territory were opened. More than 100,000 settlers staked claims the first day and by nightfall tent communities were scattered throughout the area.

On September 16, 1893, the Cherokee Strip Run poured 125,000 more settlers into the future state of Oklahoma. Five million acres were up for claims. Some settlers, seeking the best

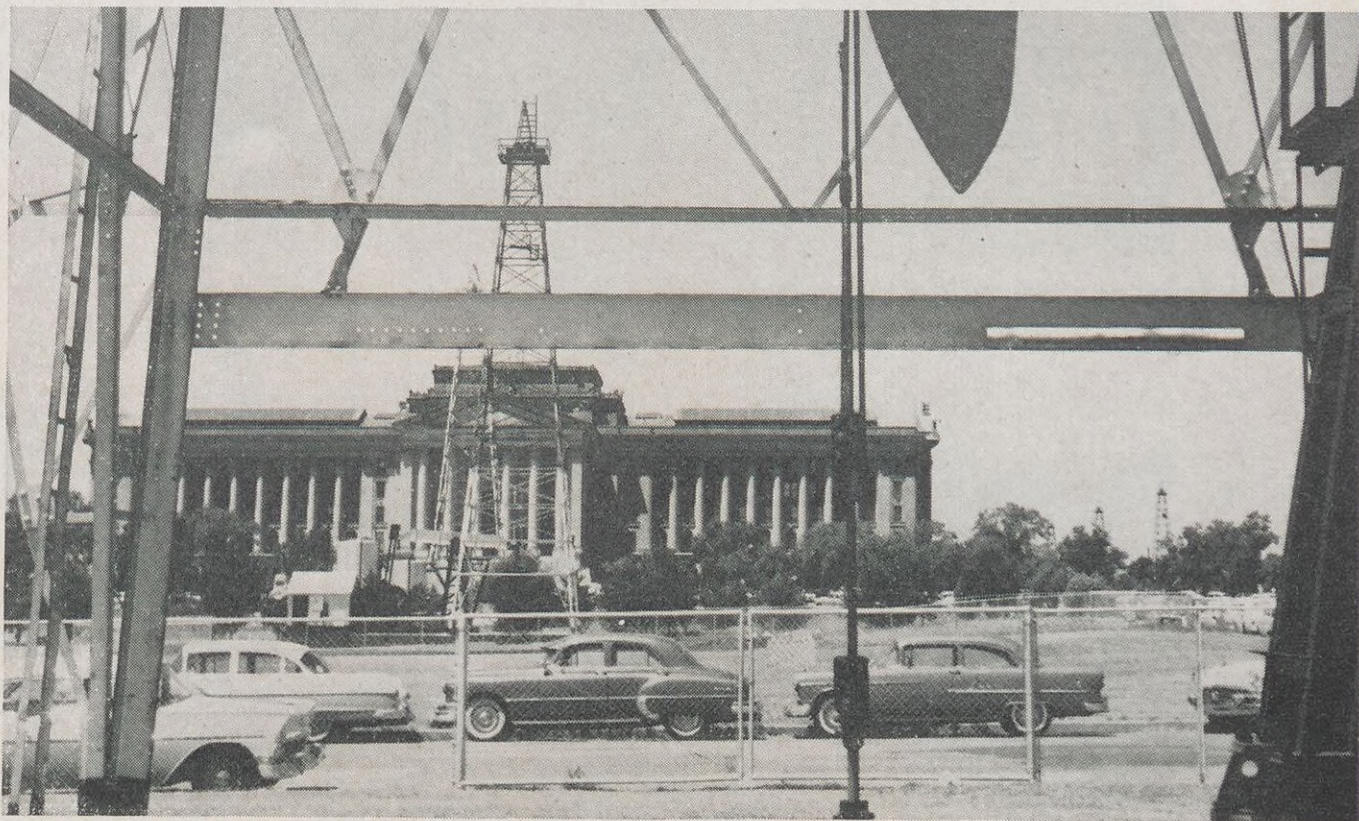
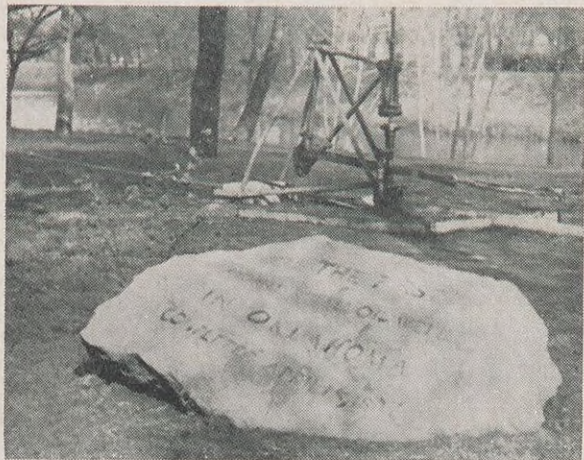
lands, sneaked across the line before the official starting time. Many of these "Sooners" were shot or hanged by settlers who found them holding choice claims. (Though "Sooner" was a bad name to the first settlers, it was a unique one, and in time became the accepted nickname for an Oklahoman. Today, for example, the University of Oklahoma's athletic teams are known as the "Sooners.")

The Indian Territory soon had a greater population than many states and the new residents began clamoring for statehood. Their demands were answered in 1907 when Theodore Roosevelt signed Oklahoma into the Union.

Oilmen were active in Oklahoma years before statehood. Wildcat drilling had started in Kansas in 1881, and within three years had spread into the Indian Territory. In 1889, Oklahoma's first oil well came in near Chelsea. It was only 36 feet deep and produced a trickle compared with state production that totaled more than 214 million barrels last year, but it started the oil industry in Oklahoma.

Though oilmen were eager to push

A carved stone marks Oklahoma's first oil well, below, discovered in 1889. Today, derricks surround the state capitol, right. One well pumps oil from beneath the capitol itself.



full-scale exploration, they had trouble getting leases from the Indian nations through the Department of the Interior. It was not until 1904 that sound business was possible and from that date leases were developed rapidly.

In 1912, prospects of great reserves in Oklahoma spurred the start of a new Shell company — the Roxana Petroleum Company of Oklahoma — marking the first time a Shell company entered the producing end of the oil business in the United States.

Roxana, which later became a part of Shell Oil Company, first bought already-producing properties in northwestern Oklahoma. In 1915 Roxana

entered the Cushing Field, one of the state's first prolific fields, and the Healdton Field, another big producer. These holdings solidified Roxana's position in what was to become one of the nation's leading oil producing states.

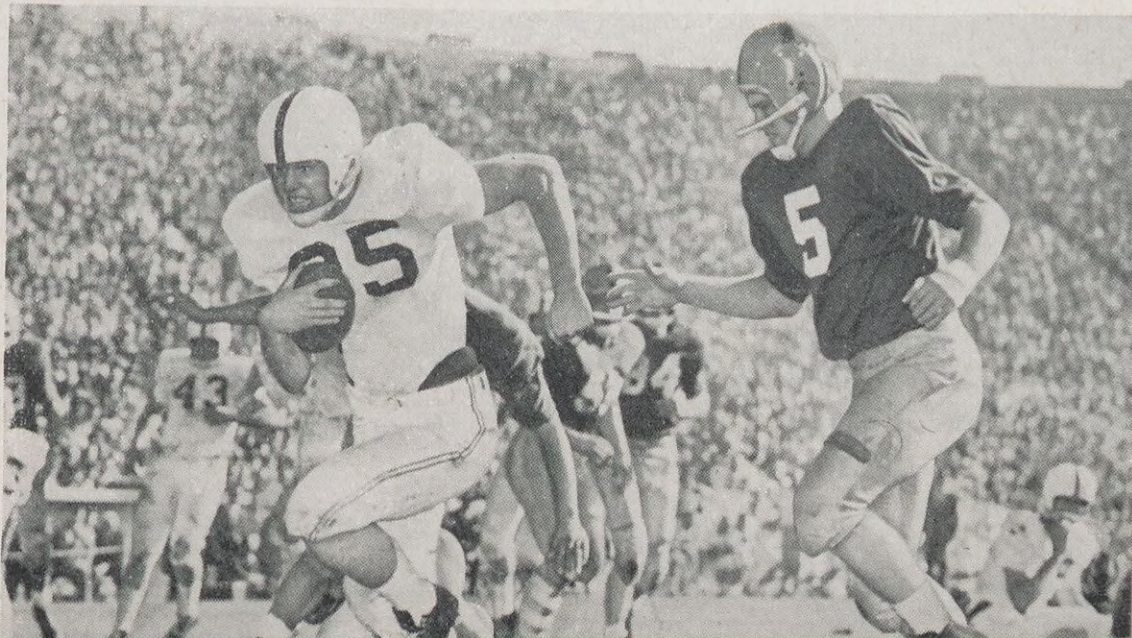
Shell has been active in both exploration and production in Oklahoma since those early days. The Tulsa Area's discoveries include the Elk City Field in 1947, one of the state's best.

Oil and agriculture have been Oklahoma's economic cornerstones since the turn of the century but industry is becoming more important every

year. Since 1940, for example, manufacturing employment has risen 85 per cent. But while to businessmen Oklahoma is synonymous with oil, Indians and industry, to most sports fans Oklahoma means oil, Indians and football. For the last nine years the University of Oklahoma's football teams have been among the nation's top 10, and to many Oklahomans the most appropriate event scheduled for this year's Statehood Day is the football game between Oklahoma and Notre Dame.

Before Oklahoma football teams became noted, a Broadway show made "Oklahoma!" a household word — and song. The musical play by Richard Rodgers and Oscar Hammerstein II was adapted from "Green Grow the Lilacs," a play by Oklahoman Lynn Riggs, and brought a new dimension to Broadway musical comedy. It also brought a new state song for Oklahoma. The state legislature adopted the show's title song as the official Oklahoma state song, and the people of Oklahoma heartily endorsed their song's closing lyrics: "You're doing fine, Oklahoma; Oklahoma, O.K.!" ●

Oklahoma's Clendon Thomas scores in the 1956 Notre Dame game. Notre Dame's Paul Hornung is No. 5. The teams play this year on Statehood Day.



news and views

MEETING THE DEMANDS



F. H. STAUB

"... It doesn't matter much how a company is set up or how many of the industry's divisions it operates in. As far as the public is concerned, the man who drives up to a station for gasoline or the farmer who buys diesel fuel or bug spray, the important things are these: good products, good service and reasonable prices.

And these demands are met every day in all parts of the country by all kinds of oil companies, large and small.

"However, while the large companies have some advantages because of size—and while they give the customer certain advantages (such as products improved by research and the confidence inspired by a widely-known brand)—these same big companies have problems. Some of these problems might discourage a man who is trying to make his own business grow. They make it appear that by getting bigger you just become a better target.

"One of the most-often-heard criticisms is that some companies are too big; they stifle competition; they create monopoly.

"But look at our roads and highways and notice how many service stations are competing for your business. Does that look like monopoly or lack of competition? There's competition at every level. Where Shell has geologists out looking for new fields, rival companies have geologists; for each Shell refinery, competing companies have refineries. If we develop an additive for motor oil or gasoline—other additives follow."

(From an address by F. H. Staub, Sales Assistant to the Midwest Marketing Vice President, before an Oil Progress Day luncheon of the Kiwanis Club, Columbus, Ohio.)

FORTUNE FEATURES SHELL

The Royal Dutch/Shell Group is surveyed by FORTUNE magazine in its September and October issues. FORTUNE said at the start of the article titled "The Bountiful World of Royal Dutch/Shell":

"No enterprise in the world has more stupendous pros-

pects than Royal/Dutch Shell, familiarly known to oil and gasoline consumers everywhere in the free world simply as Shell. It is the third-largest industrial organization (in sales) in the world, surpassed only by its competitor, the Jersey company, and by General Motors. But this international giant is growing faster than either of the two American giants. It is growing much faster than General Motors because the international oil business is now increasing much faster than the U. S. automobile business. And Shell has been growing faster and should continue to grow faster than Jersey because its market is increasing faster than Jersey's."

FORTUNE has this to say about Shell Oil Company:

"It presents practically no problems, and is treated [by the Group] more or less as another corporation might treat a good investment: it is left alone. Nevertheless, both the Group and Shell Oil benefit enormously by their relationship; a two-way exchange of technical knowledge goes on continuously. Europeans spend time in the U. S. and Americans spent time in The Hague and London, both learning and teaching. After the war, for example, teams of Americans came over to teach the Europeans how to organize sales departments."

CREDIT CARD CUSTOMERS



D. E. BURROUGHS

"One out of every eight motorists in the United States holds an oil company credit card. And one out of every 10 drivers keeps his card on an active basis. It has also been determined that the credit card holder buys a greater volume of gasoline than does the cash customer. He also buys the more expensive, premium-type gasoline.

"At the moment . . . Shell has almost a million active credit card customers, who are purchasing products and services at an annual rate in excess of \$200 million."

(From a recent address by D. E. Burroughs, General Credit Manager, Shell Oil Company, before the American Petroleum Credit Association Conference at San Francisco, Calif.)

DO-SI-DO! WHOA!

A Texas art form—square dancing on horseback



President and chief caller of the Longview Mounted Quadrille is F. O. Powell, Shell Pipe Line Corporation.

THE simplest square dance requires agility of a high order. When a square dance caller sings "swing your partner" and your partner is astride a prancing horse you need more than mere agility.

The 30 men and women of the Longview (Texas) Mounted Quadrille have mastered the feat of an "allemande left" on horseback. The smoothness of the turning and timing in their galloping dances has won them invitations to major rodeo and riding shows throughout Texas, Louisiana and Oklahoma.

"There's a difference between being able to ride and

being a good enough rider to perform in a show of this type," says F. O. ("Cowboy") Powell, the Quadrille's president and chief caller. Powell is a Field Gauger at Kilgore in the East Texas Division of Shell Pipe Line Corporation's Texas Gulf Area.

Powell comes naturally to his Quadrille activity. Before joining the Quadrille six years ago, he often organized rodeo and riding acts for school and civic events. Also, he used to call square dances—without horses.

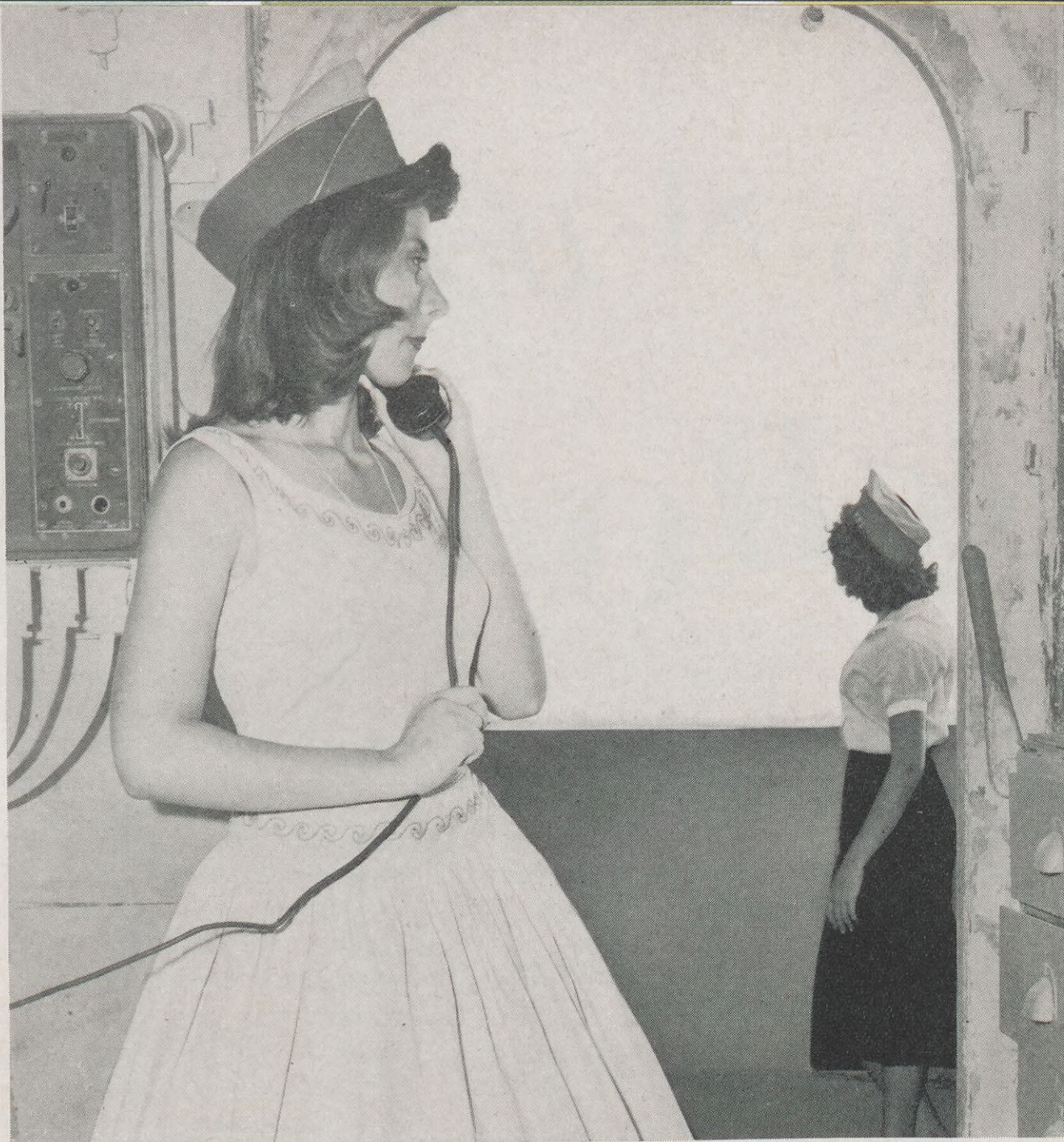
Now, though he rides sometimes, he is usually at the microphone, calling the turns for his charges and chargers ●



The Quadrille, at right, goes through the intricacies of the Texas Star, a square dance performed often on foot as well as on horseback. Above, the Longview group rides a Figure Eight, a routine that requires split-second timing in close formation to avoid collisions. Ten men and 10 women take part in each of the Quadrille's routines. All 30 members of the organization provide their own horses and colorful costumes. Proceeds of shows where the group is paid go largely to charity. The Mounted Quadrille was organized 12 years ago.



From the bridge of the Battleship Texas, Betty Edwards, daughter of Insulator R. Edwards, Houston Chemical Plant, phones in an aircraft sighting report to the Houston Air Defense Filter Center 20 miles away where it is recorded by other Shell people, pictured on the following page.



SCANNING THE SKIES

The first line of air defense is radar. But radar coverage has some gaps under 5,000 feet. The Ground Observer Corps fills these defense gaps.

THE ancient Battleship Texas, built in 1912, is alive with activity these days though it is land-locked in a special dry dock near the site of the Battle of San Jacinto, outside Houston.

The ship, which served in two world wars, now is a state memorial. It is also a Ground Observer Corps Observation Post in which Shell people play an important role.

The Battleship Texas Post is one among hundreds of observation posts throughout the country. They are the "eyes" of the Ground Observer Corps, which help guard the country from enemy air attack and also assist aircraft

in trouble and track the course of dangerous storms.

The "ears" of the Corps are the more than 60 Air Defense Filter Centers to which the Observation Posts report their sightings of aircraft. The filter centers coordinate the information and pass it on to the Air Force.

Often, when a report goes from the Battleship Texas Post to the Houston Filter Center, the message is both sent and received by Shell people who spend part of their spare time in this service.

Besides those pictured on these pages, Shell people in the Battleship Texas Post or the Houston Filter Center are:

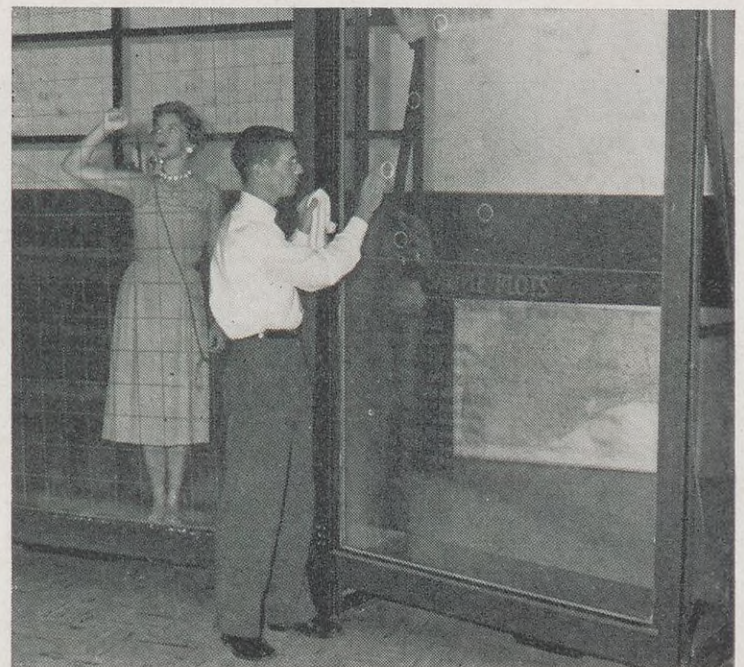
(text continued on page 8)



Receiving reports from observer posts at lower table are, left to right, Laboratory Assistant J. A. Hamilton and Operator G. F. Koronek, both of Shell Development's E&P Research Division Laboratory; Mrs. E. H. M. Jochens, wife of Seismograph Operator E. H. M. Jochens of the Laboratory, and Mrs. Shirley Pogue, wife of Geologist J. P. Pogue of the Laboratory. The men are called "recorders" and the women "filterers." The latter pass information to the plotters, shown in the pictures below. On the dais, left to right, are Mrs. C. E. Weaver, wife of Geologist C. E. Weaver of Shell Oil's Exploration Technical Services; Physicist J. P. Lloyd and Physicist D. L. Faass, both of the E&P Research Division Laboratory. From this position, they survey all operations and direct the work of the others.



Identification of aircraft is recorded by E. H. M. Jochens, left. The filter center notes the number, type, function, altitude and direction of flight of aircraft as relayed from observation posts. At right, D. L. Faass records weather information. The Houston Filter Center's responsibility covers about 80,000 square miles.



On the dais at the filter center are, left to right, Mrs. Jochens, Lieut. P. Metzger, and J. P. Lloyd. The letters at lower left help the plotters who must print backwards on the transparent plotting boards so those on the dais can read the information.



Certificates of their Ground Observer Observation Training go to E. T. Horridge, right, Assistant Manager-Utilities, Houston Refinery, and his wife.

SCANNING THE SKIES (Continued)

Shell Chemical Corporation's Houston Plant—Safety Inspector J. T. Cutrer; Operator H. B. Kesterson; Chemist J. P. McCann; Technologist R. E. Bucksat; Research Technologist L. R. Bitner. Mrs. F. A. Ward, wife of Pipefitter F. A. Ward; Mrs. R. Edwards, wife of Insulator R. Edwards; Judy Martin, daughter of Operator C. L. Martin.

Shell Oil's Houston Refinery—Gateman R. H. East; Pumper J. Sanders; Operator E. R. Watson and his wife; Mrs. C. A. Wolfe, wife of Shift Foreman C. A. Wolfe ●

Behind the scenes in the Ground Observer Corps



At observer training meeting, an Air Force sergeant instructs Machinist O. L. Chappell, Houston Chemical Plant. Chappell, Civil Defense Director of Deer Park, received an Air Force Distinguished Achievement Award for his work in organizing the post. Third from right is Mrs. F. A. Ward, wife of Pipefitter F. A. Ward of the Chemical Plant. Seated on her right is Operator J. L. Turner, also of the Houston Chemical Plant.

On the phone is Mrs. J. P. Lloyd, Civilian Administrative Supervisor of the filter center. She is responsible for all civilian volunteers in the center. With her, discussing a recruiting drive, is Mrs. J. M. Parks, wife of Geologist J. M. Parks of the E&P Research Div. Lab.



Pot of GOLD

*Motel life in retirement
suits a former Norco man*



R. G. (Ralph) Stillinger, former Cost Control Engineer at the Norco Refinery and now retired, enjoys running his motel. For a change, he takes off fishing in his cabin cruiser.

THE Rainbow Motel is R. G. (Ralph) Stillinger's "pot of gold" in retirement.

Stillinger bought the motel on the busy Airline Highway between New Orleans and Norco five years before he retired last July 1. The Rainbow was to give his wife, Reva, "something to do in her spare time," while he was Cost Control Engineer at Shell's Norco Refinery.

Now, in retirement, the thriving motel gives them both an absorbing occupation. Mrs. Stillinger remains manager. Her husband describes him-

self as "maintenance man."

"Whenever the going gets too rough" Stillinger says, "we just take off fishing" — in his 22-foot cabin cruiser.

The Stillingers have cut into their fishing time by doubling business in the last five years. They did it by remodeling and increasing the number of units from 22 to 35 (all air-conditioned and equipped with television); by modernizing the entrance; and by adding a swimming pool.

In his maintenance work, Stillinger draws on his experience as an en-

gineer. He received a degree in mechanical engineering from the University of Kansas before joining Shell at the Wood River Refinery in 1929. He also served in engineering positions at the Houston Refinery before going to Norco in 1950.

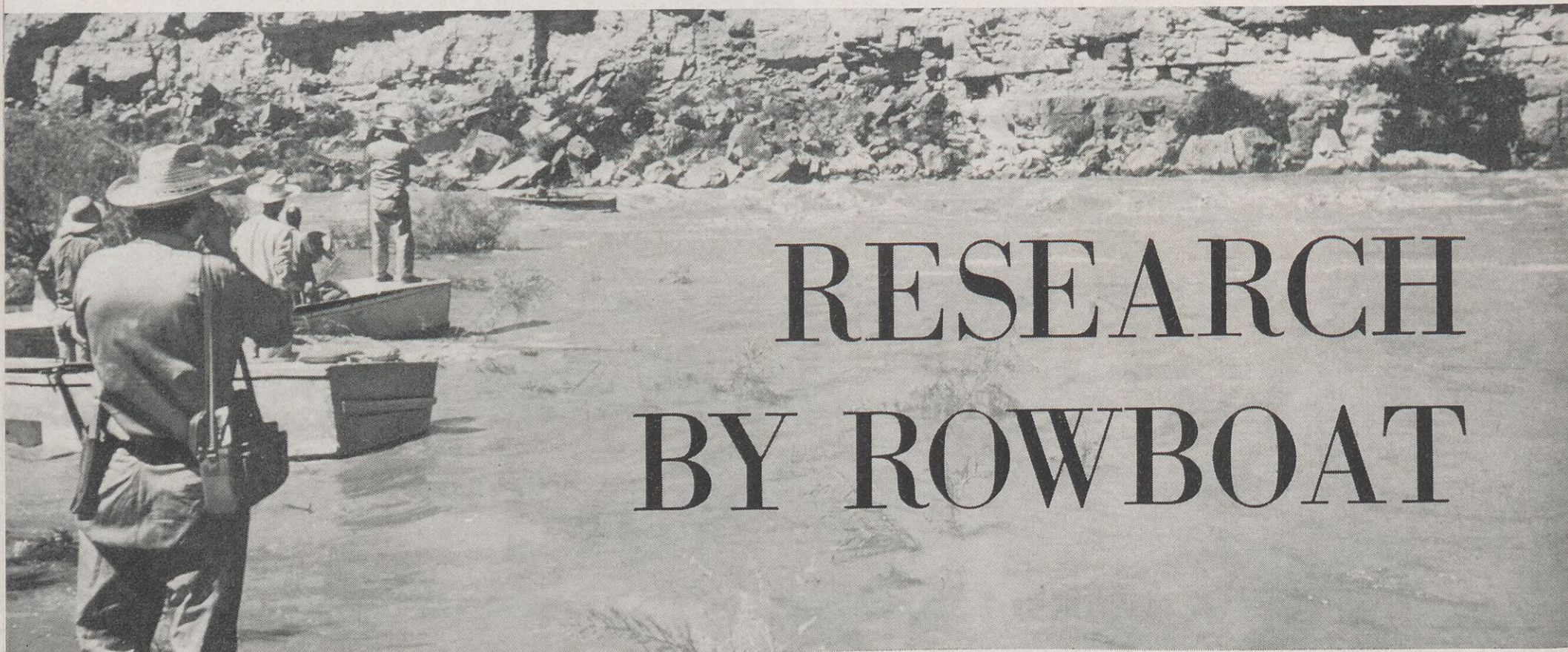
Besides maintenance, fishing, cleaning the swimming pool and showing guests to their rooms, Stillinger finds time to build furniture. Two of his best tables are in the motel office, where Mrs. Stillinger presides. Other examples of his handicraft are in the apartment above the motel office, where they live with their son, Michael, 14.

The Stillingers' success is evident in the popularity of the motel. It is booked solid in summer and is 90-per-cent full other times. A few years ago they took overflow guests from other motels; now the Rainbow often has to find other accommodations for its overflow.

They attribute part of their success to an ever-ready pot of coffee. Stillinger serves it free day and night to guests—many of them Shell employees and pensioners. This gesture has given the motel a reputation as the friendliest on the Airline Highway ●

Mr. and Mrs. Stillinger greet a guest at the motel. They have gained the reputation of having the friendliest place on the Airline Highway near Norco.





RESEARCH BY ROWBOAT

SHORTLY after dawn, reflected sunlight already was coloring the canyon walls that confine the San Juan River hundreds of feet below the Utah desert. At Mexican Hat Trading Post, 14 men—including 10 from Shell—launched a four-boat fleet in rapids to start a research trip through the newest—and loneliest—oil-producing region in the United States.

The 10 Shell men were on a six-day, 60-mile geology field trip through the river's twisting, turning Goose-neck region in southeastern Utah. They were most interested in limestone formations similar to those producing oil in the Four Corners region. Most of the canyon's sheer limestone wall—often rising 1,600 feet above the river—is exposed Hermosa formation, the formation that is the major producer in wells 30 miles away. In the Four Corners region, however, the Hermosa and other formations are far beneath the surface. Because only small samples of these formations, such as drill cuttings and cores, are available for study, the San Juan canyon walls offer an op-

portunity to study the outcroppings of these formations first-hand.

The Shell men in the party were Geologists J. M. Parks, J. L. Wilson, D. F. Toomey and J. B. Pogue, all of Shell Development Company's Houston Exploration and Production Research Division; Geologist R. L. Knight and Exploitation Engineer D. C. Connor of the Salt Lake City Division of the Pacific Coast Exploration and Production Area; Division Stratigrapher James Peterson of the Pacific Coast Area's Farmington (N. M.) Division; Paleontologist A. B. Shaw and Geologist M. L. Irwin of the Denver Exploration and Production Area, and Geologist W. A. Anderson of the Midland Exploration and Production Area.

Shell Development scientists made the trip to add to fundamental knowledge of geology that might help in operations. The representatives from three different exploration and production areas were interested in learning more about the formations because strata similar to those exposed in the San Juan canyon occur in all

three areas. This team of research and operating personnel also provided another opportunity to talk over problems of mutual interest.

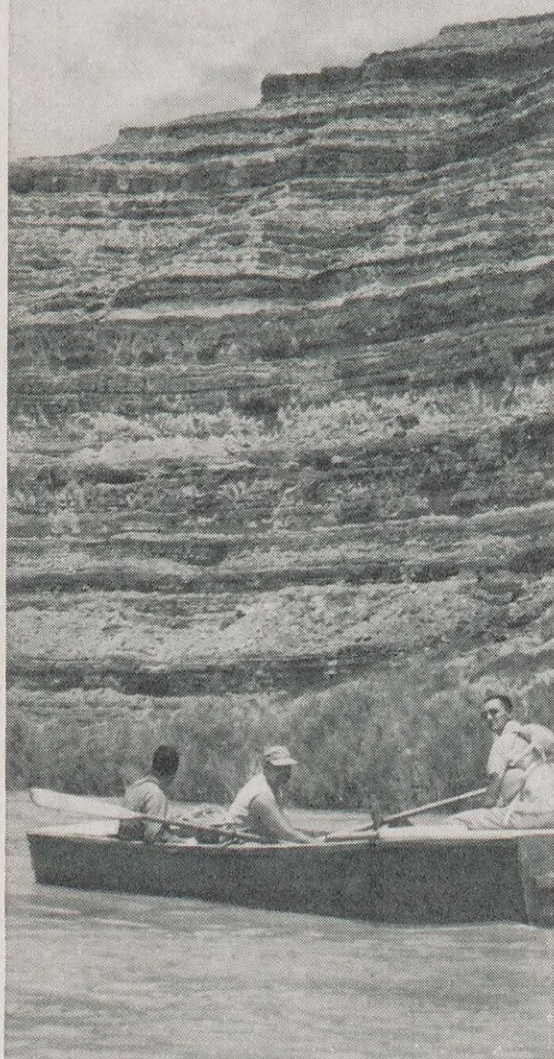
Jack Frost, Sr. of Artesia, New Mexico—a veteran of 16 similar trips—conducted the group. He also supplied three boatmen: his son Jack Jr., L. K. Lustig, and Bill Grossett. (Lustig later joined Shell as an Exploitation Engineer in the Midland Area.)

Frost also furnished the four boats. Three were specially constructed for

(text continued on page 12)



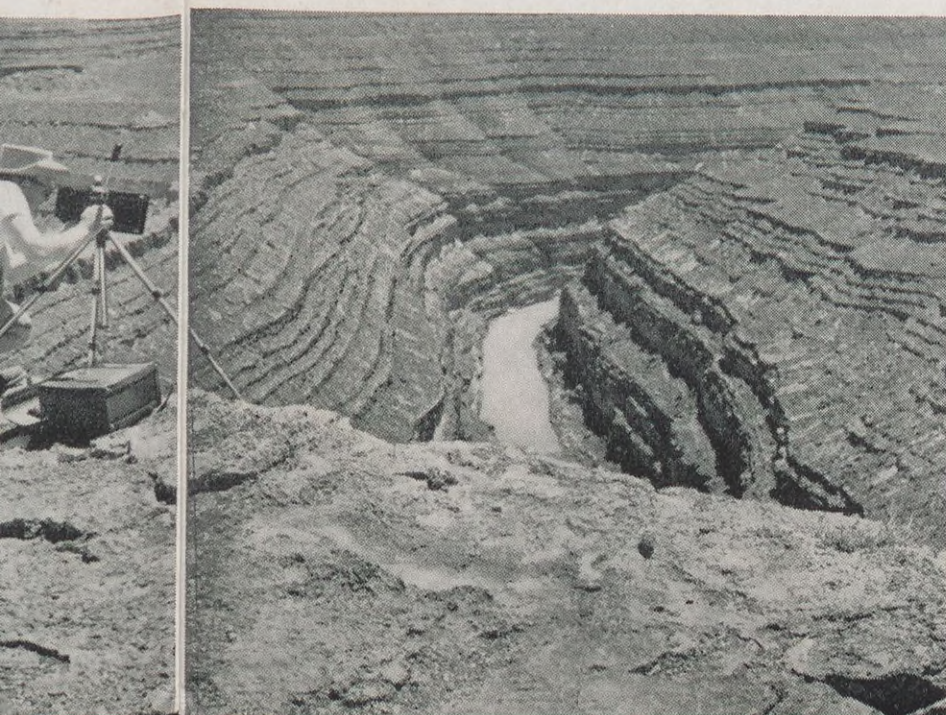
Ten Shell men rowed the San Juan River to study outcrops of one of the Four Corners Area's oil-bearing geological formations.



Drifting in a rare spot of calm water above are, left to right, Geologist R. L. Knight, Boatman Bill Grossett and Geologist Warren Anderson. At right, the San Juan River party halts for lunch. Left to right are Exploitation Engineer D. C. Connor, Geologist J. L. Wilson, Boatman Jack Frost, Jr., (gathering wood), Boatman L. K. Lustig, Geologist J. B. Pogue, Guide Jack Frost, Sr., (sitting) and Stratigrapher James Peterson.



Paleontologist A. B. Shaw, at left, photographs a section of the Hermosa limestone formation from the top of the San Juan canyon. The Hermosa is the major producing formation in the Four Corners area 30 miles away. At right, Shaw examines a fossil as Knight, right, makes a notebook entry.





Atop the canyon, Geologists M. L. Irwin and J. M. Parks stand to take photographs while Shaw and Anderson watch. Besides pictures the Shell group also brought back hundreds of pounds of rock samples and measurements of formations.

such downstream cruises—square wooden rowboats with planks covering each end to keep water from washing in. The fourth craft was a rubber boat. Two oars in each boat and the river current supplied power.

On this trip, however, the Shell men spent more time scaling the heights than sailing the depths. At likely spots, the rock-hunters would pull to shore and start climbing sun-scorched canyon walls along narrow ledges and over outcropping boulders to get to sections they wanted to investigate. Besides measuring stratigraphic sections with tape and hand levels, the men also collected rock samples (broken from the walls by hammers, chisels and crowbars), studied fossils and took photographs.

After a day of such work, even a sleeping bag on the bare ground felt better than an innerspring mattress back home. The men went to sleep early and got up at dawn to get as much done as possible before the full heat of day. Driftwood fueled the

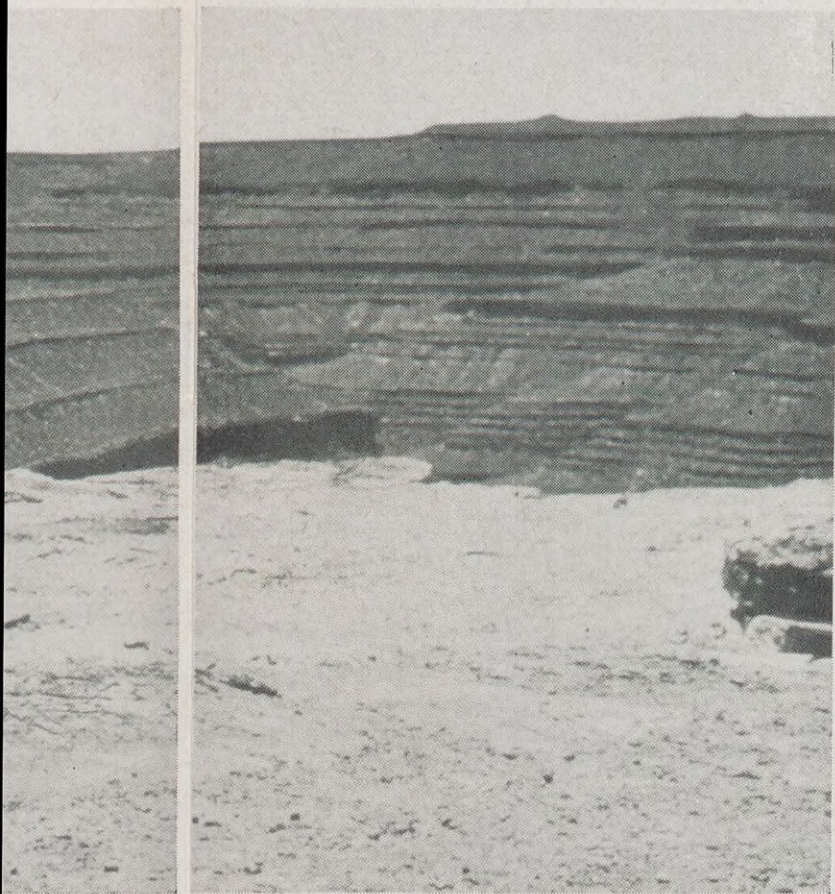
breakfast fire; dehydrated and canned food made up the menu. After the water supply they brought was gone, river water had to do. Even after the sand was settled out and chlorine added, the water was so muddy that the bottom of a full cup was invisible. It tasted "foul," Pogue said. The river also served as a bathtub, but lack of hot water eliminated shaving.

Each day, as soon as the cooking gear was cleaned, the party started down river again. Two oarsmen amidships controlled the boats; the rubber boat also had paddlers at the bow and stern. Because of its shallow draft, the rubber boat had troubles all its own. The wind continually tried to spin it around, and twice it was washed over boulders as big as box-cars hidden just under the water's surface. Once a paddle was lost, but recovered minutes later, and one passenger—engrossed in taking a picture—was knocked out of a boat by a wave, but another wave immediately washed him back into the boat.

The group stopped each noon for lunch and an hour's siesta—work was impossible in the heat then. Their naps, as well as the work itself, were pleasantly free of insect annoyance—a fact that came as a surprise. One scorpion was killed at a landing, and the men saw some rabbits and lizards, but the canyon itself was almost devoid of animal life.

On the fourth night, the party camped at Honaker Trail, a memorial hewn out of the canyon wall to one prospector's good work and bad luck. Honaker, a prospector, was sure he would find a rich strike in a large sand bar at the trail site. Working with dynamite and hand tools, he carved a trail more than a mile long down the 1,500-foot canyon across sheer cliffs. But Honaker and all the other San Juan prospectors failed. The total value of gold and other precious metals taken from the entire river is estimated at only \$3,000.

Gold prospectors weren't the only ones without luck in the canyon. On



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the last night of the trip, the group camped at the wreckage of two unsuccessful oil ventures at Slickhorn Gulch. Oil seeps have been known in the vicinity for more than 50 years. The first well was drilled there in 1908, and two others were drilled in 1950, but not enough oil was found to justify operations.

The last day's travel to Paiute Flats took the four boats through the roughest waters of the entire trip—a situation made a little worse by the weight of hundreds of pounds of rock samples in the boats. But the final landing was made without accident, and the samples of six days on the San Juan were loaded into vehicles to go to laboratories for months of study. The information and samples gathered by the Shell men may give clues to help find more oil in the Four Corners and other areas.

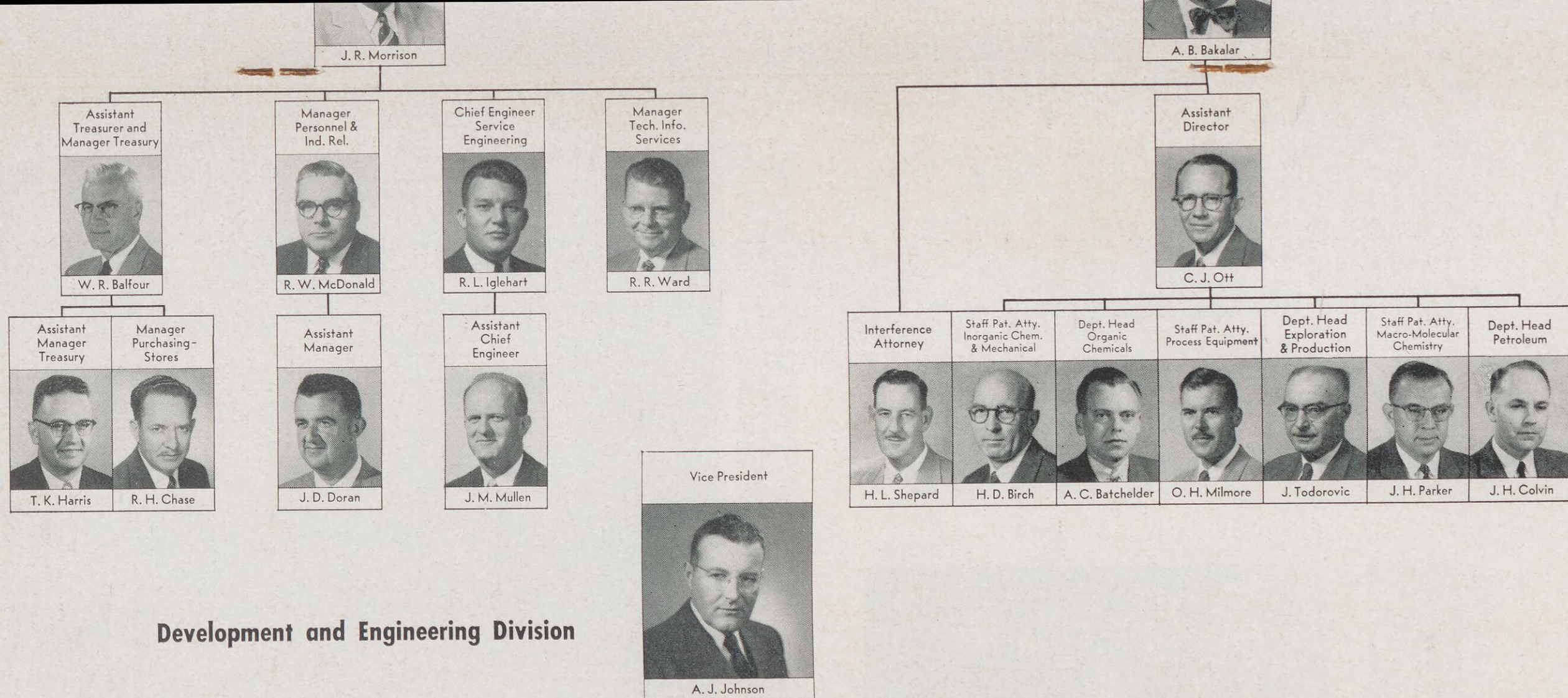
The Shell men emerged from the canyon with new knowledge of Utah geology and a new appreciation of some commonplace comforts ●



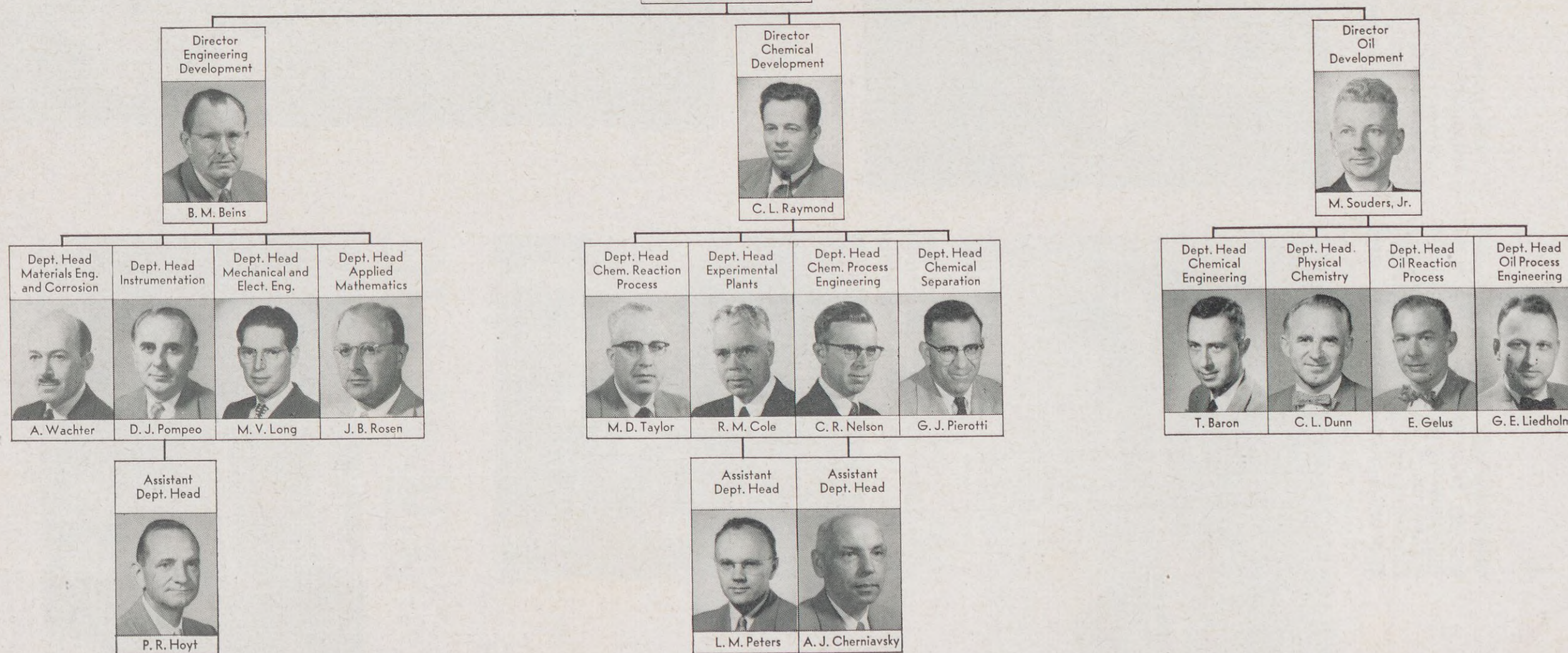
Wilson grips the side of the boat as Jack Frost, Sr., guides the craft through the current. Behind Frost is Peterson, and Parks is in the stern.



Geologist D. F. Toomey, right, snaps a picture through the spray of a wave splashing the boat. Jack Frost, Jr., is handling the oars and Shaw sits behind Frost.



Development and Engineering Division

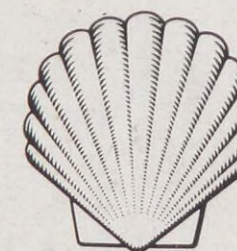


Shell Development Company

Emeryville Research Center

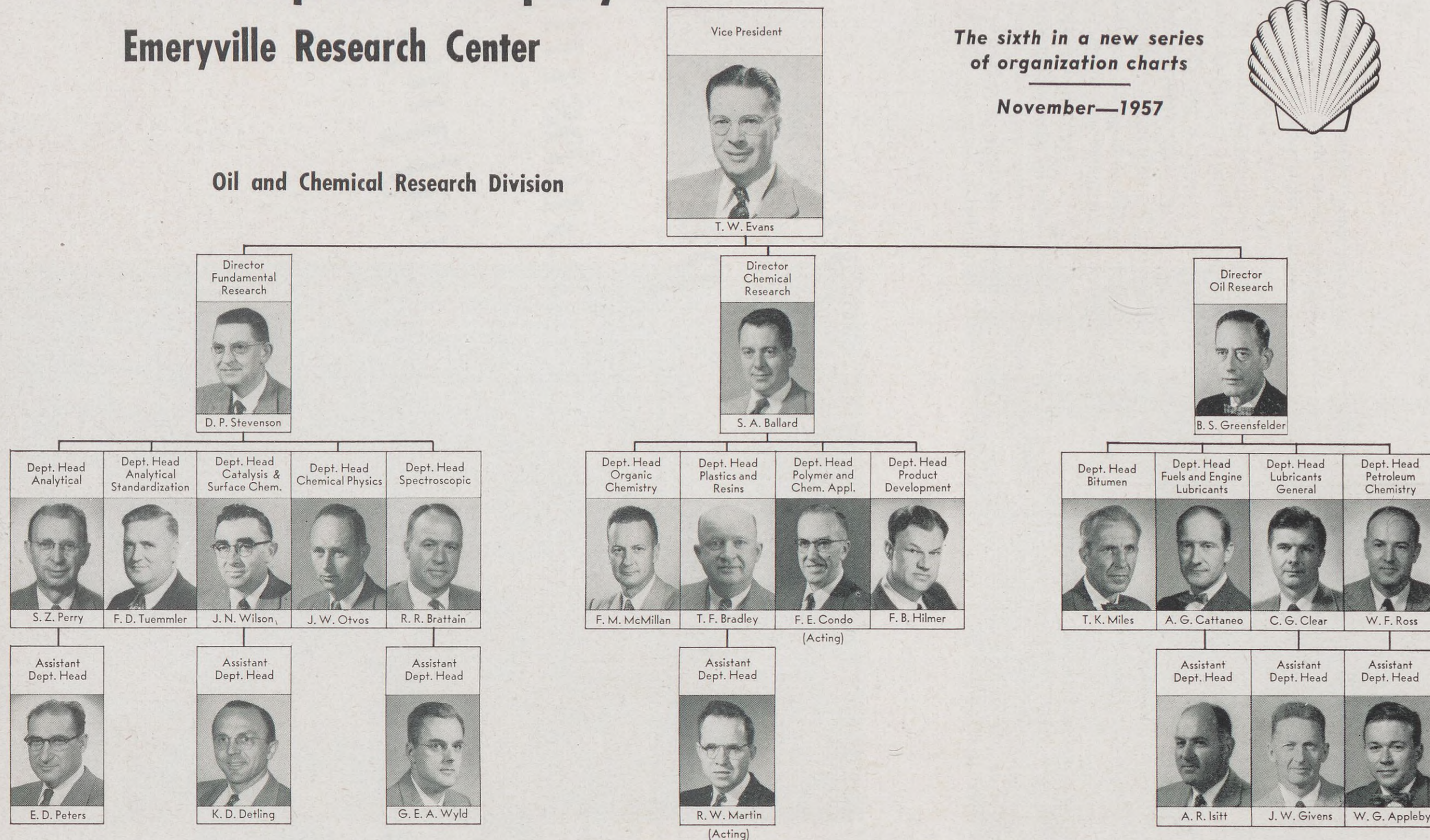
The sixth in a new series
of organization charts

November—1957

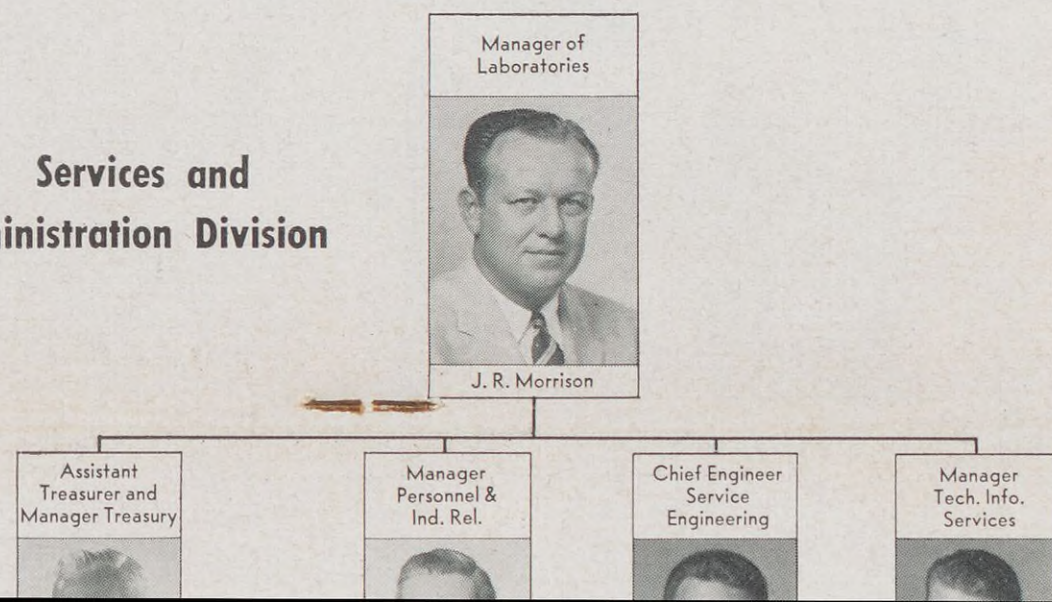


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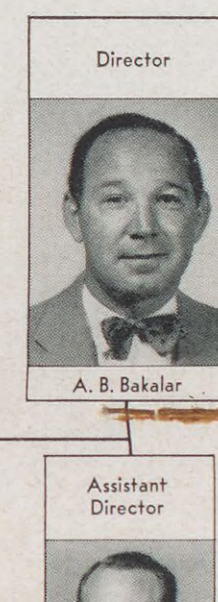
Oil and Chemical Research Division



Services and Administration Division



Patent Division



Sulfur: Nuisance and Necessity



A steam shovel chews into a hill of sulfur at Shell's Jumping Pound plant in Alberta, Canada. Jumping Pound produces about 30,000 tons of sulfur per year.

Shell's gas fields play a big role in brin

YOU are likely to require for your needs about 95 pounds of sulfur in one form or another this year. That's how much sulfur—about eight million tons in all—is being produced for every man, woman and child in the United States.

"Sulfur is as important to mankind as salt, iron ore, wheat or petroleum," says W. B. Golush, Gas Department Manager, Exploration and Production, in Shell Oil Company's Head Office. "It is one of the world's basic minerals and is used in manufacturing many things—from gasoline to writing paper."

In ancient Biblical times, brimstone (sulfur) was supposed to fuel the fires of Hades. Today, sulfur—and sulfuric acid—is used, either directly or indirectly, in making paper, paint, soap, rayon, bleaching agents, medicines, explosives and certain kinds of cement. It's used, too, in

making iron and steel, tin cans, disinfectants, matches, vulcanizing rubber, and as a fungicide, fertilizer and insecticide.

Not too many years ago, however, some people in America considered domestic sulfur an economic pain-in-the-neck.

The oil industry recognized the potential value of America's underground sulfur deposits over 70 years ago. But oil men discovered—sometimes at great expense—that it was all but impossible to extract the yellow mineral profitably. To complicate matters further, when sulfur occurred in crude oil in certain forms, it created such a bad odor that people labeled it "skunk oil."

During the post-Civil War period, it appeared that sulfur needed almost a miracle before it could play an important part in America's economic growth. And, in a



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role in brimstone boom



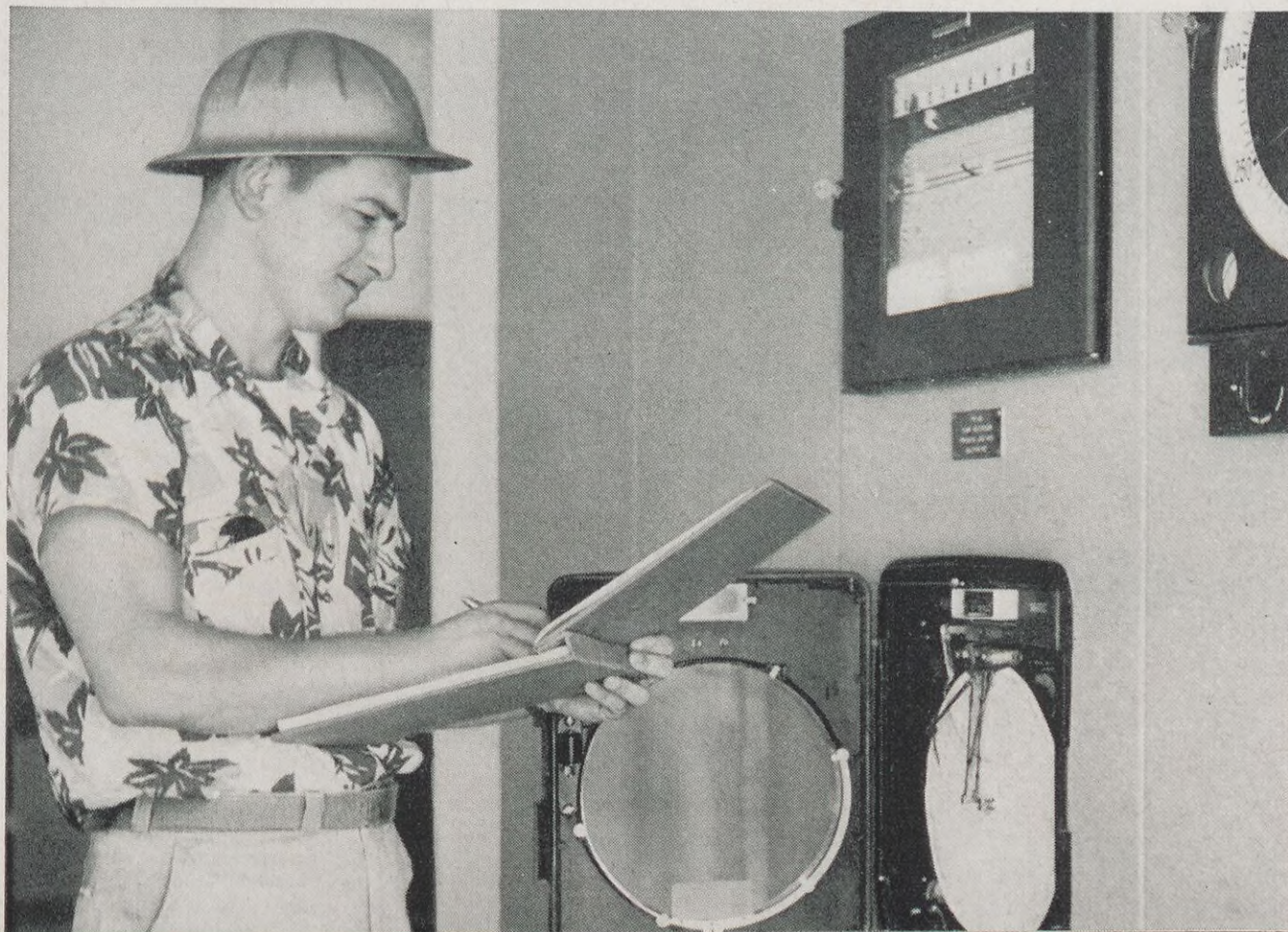
Before plans were made for a new sulfur-from-gas plant at Okotoks, Alberta, Shell operated a pilot plant there. Here, A. D. Gray, Mechanical Engineer, collects a gas sample at the pilot plant for testing. Gas mask keeps out fumes.

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Sulfur recovery from gas can be a complicated business. Operator W. C. Tompkins, left, checks meters in control room of the sulfur recovery unit at Shell Chemical's Houston Plant. The plant can produce up to 55 tons of sulfur per day.



Clam shells, brought to the Shell Chemical Norco Plant by gondola car, are emptied by a crane and stacked near the two neutralizer pits.

The Blending of Hydrochloric Acid

Settle a Dusty Street Problem

A SPECIAL clam cocktail blended by Shell Chemical Corporation's Norco Plant is paving the way for better streets in New Orleans. The "cocktail," made by mixing clam shells and hydrochloric acid, is used by the City of New Orleans as the ideal solution to keep down dust on streets.

Shell Chemical's Norco Plant has been dissolving the clam shells in the waste acid for some time. The hydrochloric acid, which comes from the Plant's chlorohydrins unit, must be neutralized before it can be disposed of as waste. When clam shells—made primarily of calcium carbonate—are mixed with the acid, the resulting



Operator M. L. Lauve watches as hydrochloric acid dissolves shells, resulting in calcium chloride.

Lauve draws a sample of calcium chloride from a storage tank to check its purity and clarity before it is sent to New Orleans.



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and Clam Shells at Shell Chemical's Norco Plant Is Helping the City of New Orleans

With Its

CLAM SHELL SOLUTION

liquid is a solution of calcium chloride, no longer an acid.

Initially, the calcium chloride was disposed of in accordance with permits and licenses issued by the Louisiana Stream Control Commission. But the disposal cost money, and so did the clam shells bought from a New Orleans supplier.

Now Shell Chemical sales personnel have found an outlet for the calcium chloride. The Norco Plant supplies the solution to Bartlett Chemicals, Incorporated, which in turn sells it to the New Orleans Street Maintenance Department to put on unpaved streets to keep dust from

forming and on fresh road topping to give it compactness.

Bartlett Chemicals had been buying its calcium chloride from another manufacturer, but in the second half of 1956 Shell made a successful bid to supply Bartlett with the solution. New Orleans officials in turn later accepted Bartlett's bid to continue its sales to the city.

To make calcium chloride of commercial quality, Shell Chemical added steps to purify the solution. Up to 2,000 cubic yards of clam shells a month come directly to the Plant in railroad gondola cars. A large crane scoops them out of the cars and spews

them into stock piles of shells. The same crane later dumps the shells into the two neutralizer pits.

The pits are concrete, lined with acid-resistant brick and redwood—the wood to protect the bricks from being chipped by the crane. Only one of the pits is in use at any one time; while one is being used, the other is being cleaned and refilled with shells.

When the hydrochloric acid is released into the pit, the shells slowly dissolve to produce a bubbling, scummy solution of calcium chloride. Pumps transfer the unclarified solution from the neutralizer pit into two open rectangular tanks—the same type of tanks used to hold mud in drilling operations—to permit separation of the dirt and scum from the calcium chloride.

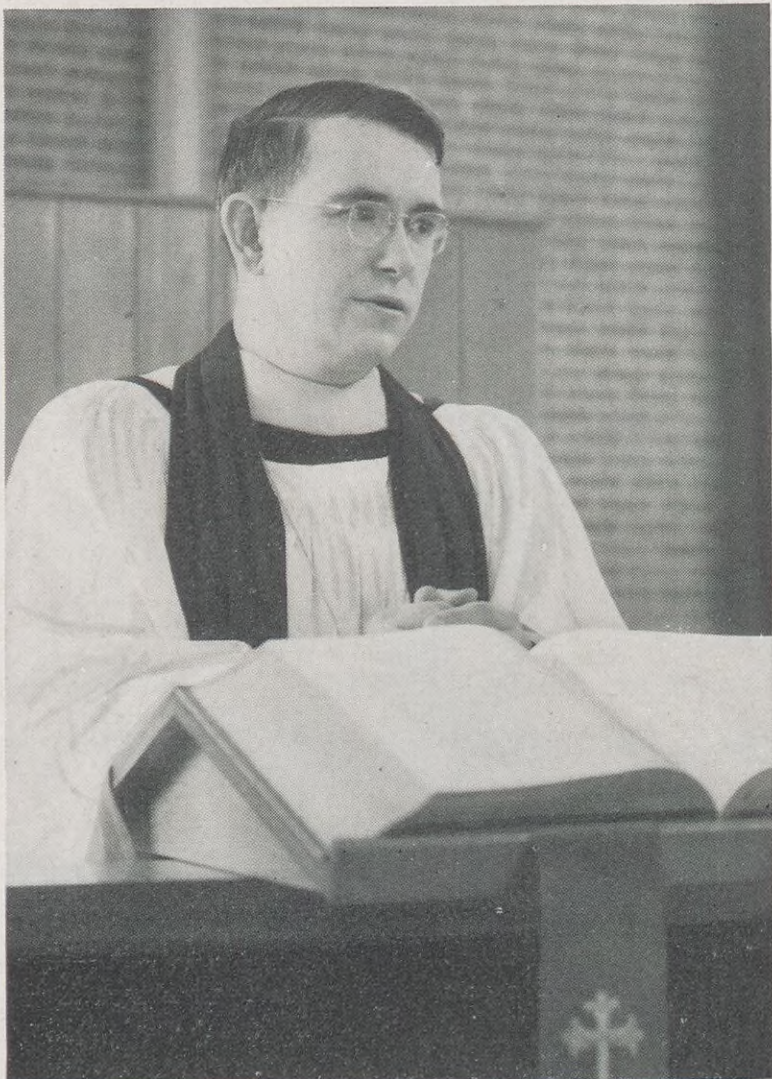
The “clarified” solution then goes to cylindrical tanks for further purification and is stored in tanks to await Bartlett Chemicals tank trucks.

Bartlett Chemicals takes the solution from the Norco Plant to New Orleans city storage tanks.

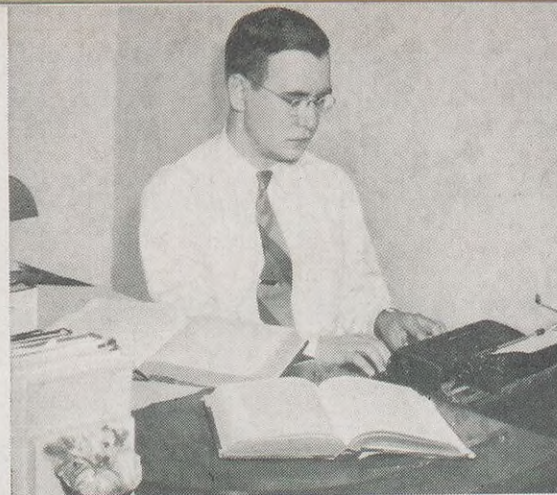
At this point the city takes over. Municipal tank trucks, each equipped with a pump and a sprinkler, take it wherever it is needed—to an unpaved street in a new housing development, or to another street where new topping is being applied. When the calcium chloride is sprayed onto the road, it absorbs water from the air, stays moist and thus keeps dust from forming ●



Calcium chloride sprayed on this New Orleans street by the truck in background keeps dust from forming by absorbing water from the atmosphere.



Rev. M. W. Armistead delivers a church sermon in St. Louis, Mo. He is also a Senior Technologist in the Computer Group at the Wood River Refinery.



In his study at home, Rev. Armistead prepares a Sunday church sermon.

Sermon in ST. LOUIS

REVEREND M. W. ARMISTEAD, in a sense, is a man who leads two lives.

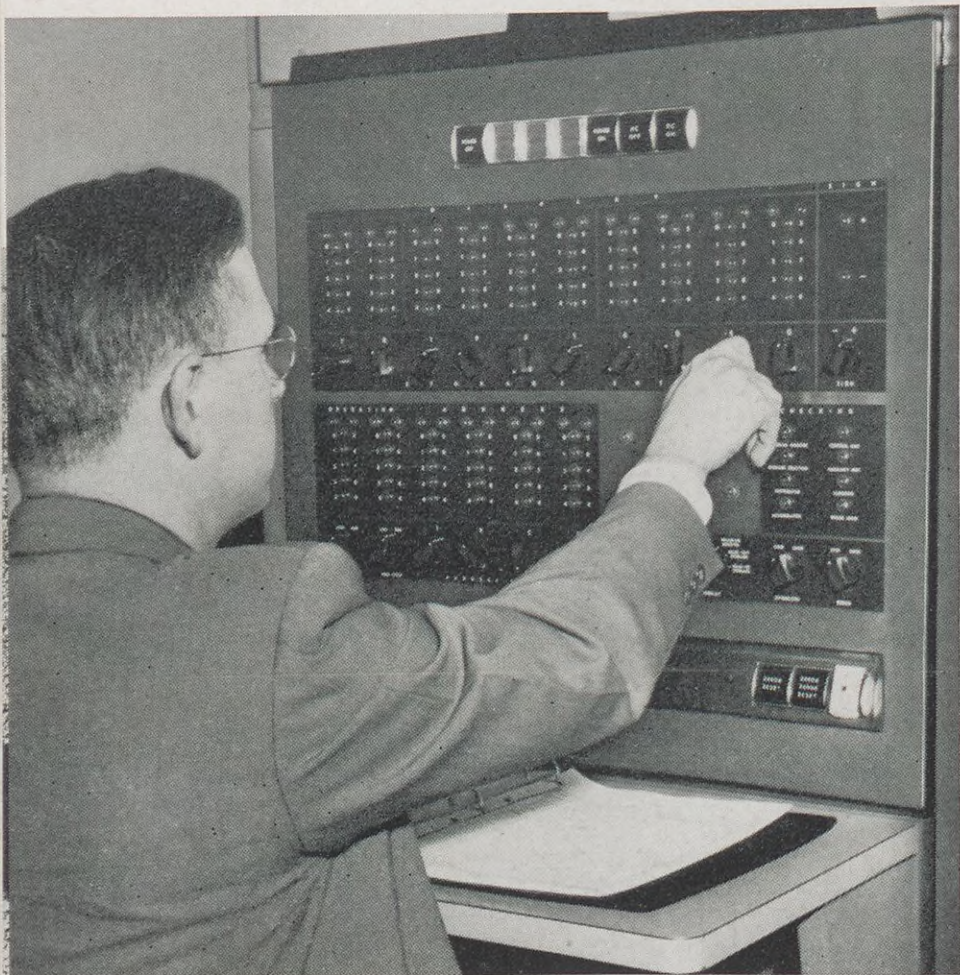
By day, he is a Senior Technologist in the Technological Computer Group in Shell Oil Company's Wood River Refinery. At night and over the weekends, Armistead serves as an ordained Episcopal minister in the Church of the Ascension in nearby St. Louis, Mo.

In the Episcopal Church, there are three classes of ordained clergymen; bishops, priests and deacons. Armistead is the only Perpetual Deacon in the Missouri Diocese. As a Deacon, Armistead fulfills all the duties expected of a clergyman of his rank, but he is not expected to become a priest because of his secular employment. He conducts most of the services which a priest normally conducts, except the celebration of Holy Communion, at which he assists only, and the reading of marriage services.

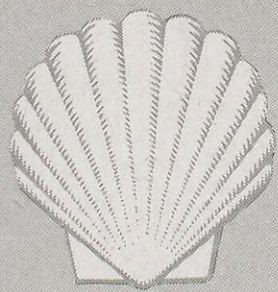
Armistead's clerical duties are partly the result of a recent church ruling which made it possible for qualified persons to enter the Episcopal ministry on a part-time basis. Long an active member of his church, he decided to enter the ministry early in 1955.

After the church approved his decision, Armistead spent months of study preparing himself for oral and written examinations before a clerical board. He passed his examinations in December, 1955, and was ordained a minister soon afterwards. Since donning his clerical robes, he has served at five different Episcopal churches in and around St. Louis.

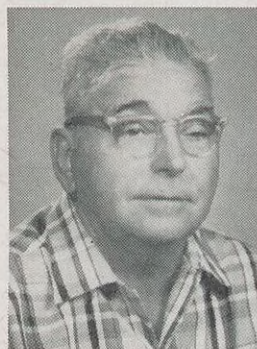
Armistead has a Bachelor of Science degree in chemistry from William and Mary College and a Bachelor of Science degree in chemical engineering from the Carnegie Institute of Technology. He joined Shell 16 years ago ●



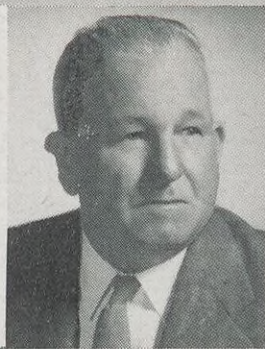
Here Armistead checks out a program on the IBM "Electronic Brain" at the Wood River Refinery. A native Virginian, he joined Shell 16 years ago.



They have RETIRED



G. ANDRE
Pacific Coast Area
Production



C. C. CAMPBELL
Wood River Refy.
Utilities



G. H. CUNIN
Pacific Coast Area
Production



L. D. HIGDON
Indianapolis Div.
Sales



W. C. HOMAN
Atlanta Div.
Treasury



A. G. HULL
St. Louis Div.
Operations



W. C. JOACHIMI
Houston Refy.
Treating



C. P. KESSINGER
Wood River Refy.
Fire & Safety



R. H. KNEER
Shell Pipe Line Corp.
West Texas Area



J. T. LARKIN
Houston Refy.
Engineering



W. H. LUIS
New York Div.
Operations



J. B. MASTERSON
Houston Refy.
Engineering



T. P. McKEON
St. Louis Div.
Operations



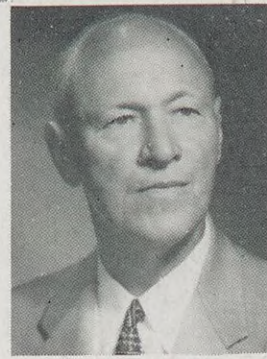
C. T. ORR
Shell Pipe Line Corp.
Texas-Gulf Area



F. S. RAINS
Houston Area
Production



A. D. SCLATER
Los Angeles Div.
Treasury



J. M. SWAN
Seattle Div.
Sales



S. A. WILSON
Shell Chemical Corp.
Dominguez Plant

SHELL *Coast to Coast*

BEST BLOOMS

FLOWERS developed by F. R. Versaw, Geophysicist in Shell Oil Company's Denver Exploration and Production Area Office, took top honors at the recent Colorado Gladiolus Society show.

Versaw is shown with his gladiolus judged Best Miniature of 1957—a pure white “Alecia,” in small vase—which accounted for one of the plaques on the table. Still another Versaw bloom, called “Caribbean,” in large vase, won a plaque as Best All-American and a cup as Reserve Grand Champion. His competition included professional as well as other amateur growers.

In the garden of his home at Lakewood, Colo., Versaw has more than 3,000 bulbs. By crossbreeding their blooms, he hopes to develop more gladiolus varieties and add to the number of awards he has won ●



PARADE PAINTING

F. D. deGroot, Draftsman in Shell Oil Company's Calgary Exploration and Production Area, completes his blue-and-white drawing on the canvas covering of a chuckwagon entered in the annual Calgary Stampede parade. The wagon was awarded first prize as the parade's best-decorated wagon.



SKY SOCIETY

W. S. Little, Jr., Supervisor of the Technical Section of Shell Oil Company's Head Office Aviation Department, has been elected an Associate Fellow of the Royal Aeronautical Society of London, England. He is one of 150 members in the United States. Little, a turbine fuels expert, was chosen because of his wide experience.



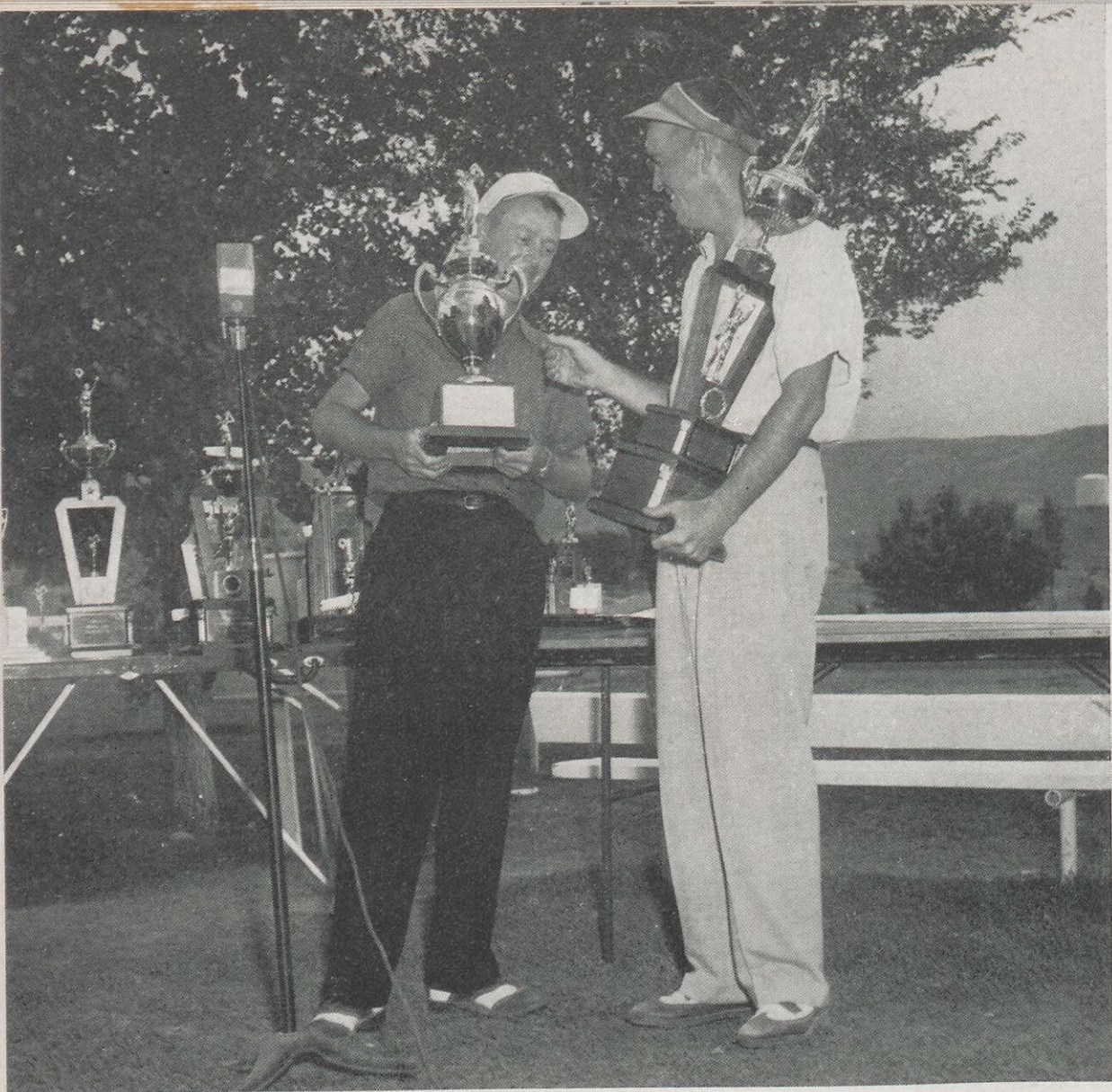
CYCLE STAR

R. H. Beauchamp of the Martinez Chemical Plant's Shipping Department has won 22 trophies in American Motorcycle Association races in Northern California. He has raced the best West Coast riders for five years.

CHAMPIONS

The employee softball team fielded by Shell Oil Company's New Orleans Exploration and Production Area won its first New Orleans Petroleum Softball League crown. Team members are, first row, left to right: C. E. Clark, S. J. Engeran, V. J. Cipriano, S. J. Cascoste, C. F. Forestiere, W. J. Boecklemann, J. P. Airhart, Jr. (batboy); second row, J. L. Boos, P. H. Lyons, J. Abadie, G. D. O'Brien, G. J. Bourgeois, A. L. La Pointe, J. P. Airhart, Sr.; third row, W. A. Michaelis, W. A. Muhl, D. J. Lloyd, F. L. Frank, G. M. Cramond and A. F. Ketchum.





GOLF CHAMPIONS

B. G. Craig, right, Assistant Supervisor of Oil Schedules in Shell Pipe Line Corporation's Rocky Mountain Division, holds the trophy he received for winning the Wyoming state amateur golf championship. Terry Martin, left, President of the Casper Municipal Golf Course, holds a second trophy Craig won by shooting the low qualifying round of 71 over the par-70 tournament course at Casper, Wyo.

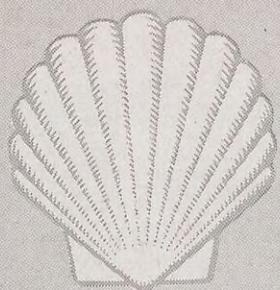
HORSEPOWER DELIVERY

This former Shell delivery wagon, almost 50 years old, won second prize in the Alameda (California) County Fair's Livermore parade. It is driven by R. M. Santos, Foreman of Shell Oil Company's Livermore Depot, and Mrs. A. D. Fellingham, wife of the owner of the team.



TOTEM TREATMENT

Painter E. L. Powell recently was hoisted by crane up and down the Anacortes Refinery's totem pole to spray it with a colorless preservative to prevent weathering. He is shown completing the job as Crane Operator G. D. Allen watches.



Service BIRTHDAYS

Thirty-Five Years



W. F. BENSON
Los Angeles Div.
Treasury



S. C. HAYES
Wood River Refy.
Dispatching



W. B. LEONARD
Wood River Refy.
Dispatching



J. LEVADA, JR.
Shell Chemical Corp.
Torrance Plant



H. M. MATSON
Pacific Coast Area
Treasury



W. R. MITCHELL
Wood River Refy.
Engineering



W. F. O'HAIR
Wood River Refy.
Engineering



M. A. ROGERS
Houston Refy.
Administration



S. E. ROWDEN
San Francisco Div.
Operations



C. W. RYAN
Wood River Refy.
Lubricating Oils



F. H. SCHLAPPRIZZI
Prov. Fund & Pens. Trust
Head Office

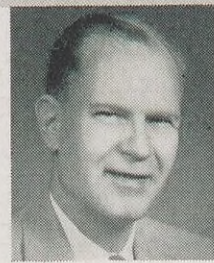
Thirty Years



H. ANDES
Pipe Line Dept.
Dewitt, Illinois



G. L. BAKER
Pacific Coast Area
Production



C. A. BEAR
Tulsa Area
Exploration



J. E. BERNOU
San Francisco Office
Transp. & Supplies



C. O. BLACKBURN
Wilmington Refy.
Refy. Laboratory



C. F. BUTCHER
Shell Pipe Line Corp.
West Texas Area



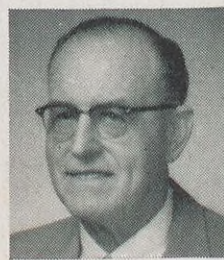
F. F. DEAVER
Houston Office
Transp. & Supplies



R. V. DONNOHUE
Martinez Refy.
Lubricating Oils



L. L. DUNCAN
Atlanta Div.
Treasury



R. ETHERINGTON
Houston Area
Production



P. N. FITZGERALD
San Francisco Office
Marketing



H. H. FLETCHER
Wood River Refy.
Lubricating Oils



I. E. GAITHER
Shell Pipe Line Corp.
Texas Gulf Area



R. C. GALENTINE
Houston Area
Transport



W. J. GRANLUND
Martinez Refy.
Engineering



W. D. GREGORY
Shell Pipe Line Corp.
West Texas Area



W. B. HECKLEY
San Francisco Div.
Operations



R. E. HICKMAN
Shell Pipe Line Corp.
Texas Gulf Area



J. M. KEENAN
Indianapolis Div.
Operations



H. C. KINZEL
Wilmington Refy.
Dispatching



F. J. LEHMANN
Pipe Line Dept.
Dewitt, Illinois



B. J. LONGSHORE
Shell Pipe Line Corp.
Texas Gulf Area



A. C. LYTLE
Martinez Refy.
Treasury



I. C. MANNING
Houston Area
Transport

Thirty Years *continued*



P. D. MARTIN
Denver Area
Production



W. S. PARKER
Pipe Line Dept.
Tracy, Calif.



D. H. PECK
Pacific Coast Area
Purchasing-Stores



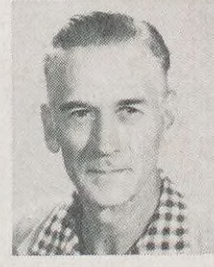
P. M. PHILLIPS
Martinez Refy.
Refy. Laboratory



E. W. POGUE
Indianapolis Div.
Administration



S. RANDALL
Martinez Refy.
Cracking



L. T. RASMUSSEN
Pacific Coast Area
Gas



G. M. ROSE
Wood River Refy.
Refy. Laboratory



M. F. SHAPPELL
Tulsa Area
Production



E. H. SHERIDAN
Houston Area
Production



E. V. STEPHENSON
Houston Area
Production



R. H. TUCKER
Wood River Refy.
Distilling



F. H. VASEL
St. Louis Div.
Operations



I. L. WIGGER
Wood River Refy.
Engineering



L. T. WITTNER
Wood River Refy.
Utilities



H. H. WOOD
San Francisco Office
Transp. & Supplies

Twenty- Five Years



P. J. ALBRIGHT
Martinez Refy.
Treasury



F. J. BRAUD
Norco Refy.
Engineering



J. P. BROOME
St. Louis Div.
Operations



L. S. BROUSSARD
New Orleans Area
Production



H. W. CAMPBELL
Cleveland Div.
Operations



J. A. CARVILLE, JR.
Norco Refy.
Engineering



F. P. CLINE
Houston Area
Production



J. L. COBURN
Wood River Refy.
Engineering



J. G. CRIBBS
Baltimore Div.
Sales



J. J. DAVIS
Head Office
Prov. Fund & Pens. Trust



J. J. FEENEY
Los Angeles Div.
Sales



J. S. FRIEDMAN
Sacramento Div.
Treasury



I. D. HUBBARD
New York Div.
Sales



V. L. JUDICE
New Orleans Area
Production



J. R. KEFGEN
Cleveland Div.
Operations



M. F. LAIBLIN
Pacific Coast Area
Production



E. L. MARKLE
Albany Div.
Sales



R. A. NELSON
Shell Chemical Corp.
Shell Point Plant



J. PARKER
Wood River Refy.
Engineering



W. O. PINKSTON
Houston Refy.
Treating



T. C. SHANLEY
Indianapolis Div.
Sales



W. W. STOKES
Shell Chemical Corp.
Houston Plant



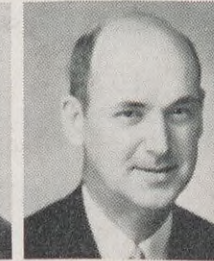
G. W. TANNER
Los Angeles Div.
Treasury



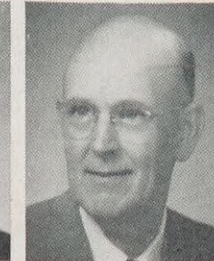
L. H. TOMLINSON
Seattle Div.
Operations



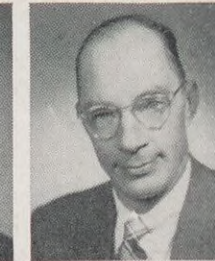
A. WACHTER
Shell Development Co.
Emeryville



J. A. WALDIE
Chicago Div.
Treasury



R. J. WATERFALL
Wood River Refy.
Engineering



J. J. WRIGHT
Boston Div.
Operations

SHELL OIL COMPANY

Head Office

20 Years

M. W. Bryant.....Marketing
W. L. Gordon.....Public Relations
G. R. Smith.....Transp. & Supplies

15 Years

B. F. Ruffin.....Financial
R. Q. Whidden.....Financial

10 Years

B. J. Dennelly.....Transp. & Supplies
R. A. Fischer.....Manufacturing
W. C. Hajek.....Financial
J. C. Ripley.....Explor. & Prod.
Irene M. Snowden.....Financial
Edna T. Waldman.....Manufacturing

Exploration and Production

TECHNICAL SERVICES DIVISIONS (HOUSTON)

20 Years

C. L. Rabe.....Production

CALGARY AREA

20 Years

J. Van Laar.....Production

DENVER AREA

10 Years

N. J. Matthews.....Production

HOUSTON AREA

20 Years

J. F. Jones.....Production
L. J. Rains, Jr.....Land
V. S. Saccar.....Legal
M. E. Toerck.....Production

15 Years

E. A. Asher.....Treasury
V. Franks.....Treasury
R. D. Griggers.....Production
H. S. Guinn.....Production
P. K. Lansdell.....Exploration

10 Years

J. A. Champion.....Exploration
T. C. Gibson.....Land
S. Johnston.....Exploration

MIDLAND AREA

20 Years

T. A. Abernathy.....Production

10 Years

J. W. Baker.....Production
A. S. Kilpatrick.....Gas
G. H. Lair.....Production
G. L. Sorrel.....Gas

NEW ORLEANS AREA

20 Years

E. C. Abell.....Land
A. C. Blanchard.....Production
C. Granger.....Transport & Materials

15 Years

R. A. Howard.....Transport & Materials

10 Years

M. E. Boyer.....Production
W. Buker.....Pers. & Indus. Rel.
J. C. Cheatham.....Gas
F. R. Covell.....Treasury
G. P. Gregoire.....Production
L. H. Lala.....Purchasing-Stores
P. E. Luke.....Exploration
R. W. Moreland.....Production
H. J. Templet.....Production

PACIFIC COAST AREA

20 Years

B. H. Mull.....Production
H. L. Popenoe, Jr.....Exploration

15 Years

H. E. Blunk.....Production
Eleanor M. Halliwell.....Production
Lois T. Martin.....Exploration
D. A. Reese.....Production
O. D. Robbins.....Gas
J. B. Sams.....Gas

10 Years

C. Grady, Jr.....Production
R. L. Kernodle.....Production
H. E. McKeen.....Transport
Jean P. Powell.....Legal

TULSA AREA

20 Years

V. T. Gaines.....Gas
C. T. Gariepy.....Production
J. W. Sutton.....Production

15 Years

H. G. Moffat.....Treasury
V. P. Whitlock.....Exploration

10 Years

B. J. Claxton.....Gas
H. L. Cutsinger.....Gas
B. T. Long, Jr.....Land

Manufacturing

ANACORTES REFINERY

10 Years

N. E. Bruce.....Zone A

HOUSTON REFINERY

20 Years

H. C. Blaylock.....Dispatching
J. B. Clarke.....Engineering
C. A. Wolfe.....Gas
R. W. Woods.....Engineering
C. D. Young, Jr.....Refinery Laboratory

15 Years

T. H. Cochran.....Catalytic Cracking
B. T. Ferguson.....Refinery Laboratory
W. E. Guin.....Engineering
C. E. Henderson.....Lubricating Oils
C. W. Herren.....Engineering
P. N. Lowe.....Aromatics
W. L. Orand.....Engineering
M. R. Schultz.....Thermal Cracking
E. L. Steck.....Thermal Cracking
W. H. Steil.....Distilling
D. Thomas.....Engineering
J. C. Valley.....Lubricating Oils

A. G. Woodland, Jr.....Lubricating Oils
R. Woodworth.....Engineering
H. C. Yackel.....Engineering

10 Years

E. G. Griffin.....Engineering
H. J. Jacqmin.....Catalytic Cracking
J. L. James.....Engineering
E. G. Mechler.....Engineering
J. B. Payne.....Thermal Cracking

MARTINEZ REFINERY

20 Years

E. W. Johnson.....Distilling
J. E. Piel.....Cracking

15 Years

J. J. Macaluso, Jr.....Stores
A. Seibel.....Research Laboratory

10 Years

V. H. Brodigan.....Engineering
D. W. Drumiler.....Technological
R. J. Harris.....Treasury
A. Wheat.....Distilling

WILMINGTON REFINERY

15 Years

C. Trombatore.....Dispatching

10 Years

R. W. Bunnell.....Engineering
C. M. Killian.....Alkylation
N. A. Morrison.....Engineering

WOOD RIVER REFINERY

20 Years

F. Bugg.....Engineering
V. J. Ellis.....Alkylation
C. O. Hendrick.....Engineering
W. C. Krupski.....Treasury
R. A. Reed.....Engineering
A. B. Texada, Jr.....Research Laboratory
E. H. Uhley.....Engineering

15 Years

J. L. Black.....Engineering
J. H. Cherry.....Lubricating Oils
F. B. Darr.....Fire & Safety
W. H. Dennis.....Compounding
C. L. Donahoo.....Distilling
R. B. Edwards.....Treasury
A. W. Gobble.....Refinery Laboratory
E. P. Goss.....Engineering
V. A. Huber.....Utilities
O. S. Johnson.....Engineering
H. E. Jones.....Engineering
L. P. Noeltner.....Engineering
L. L. Pieper.....Engineering
G. E. Ranek.....Refinery Laboratory
M. L. Roller.....Treasury
F. W. Schuette.....Engineering
W. A. Stone.....Compounding
H. V. Tune.....Aromatics
S. Uhas.....Compounding
R. E. Weber.....Engineering

10 Years

C. E. Campbell.....Dispatching
J. P. Daniel, Jr.....Engineering
D. M. Donaldson.....Engineering
B. D. Mayfield.....Engineering
H. E. McCollom.....Engineering
G. E. Miller.....Engineering
F. R. Ogle.....Experimental Laboratory
R. R. Roades.....Utilities
W. R. Rodgers.....Engineering
G. B. Roundcount.....Engineering
W. Russell.....Engineering
R. M. Saunders.....Engineering
F. L. Scanzoni.....Engineering
B. W. Simon.....Lubricating Oils
F. E. Watkins.....Engineering

Marketing

MARKETING DIVISIONS

20 Years

R. E. Jones.....Minneapolis, Sales
C. H. Aust.....Portland, Operations

15 Years

Mary T. Adams.....Atlanta, Administrative
R. D. Curry.....Atlanta, Sales
P. F. Lord.....Boston, Operations

J. L. Reeves.....Boston, Operations
A. C. Meile.....Chicago, Treasury
M. L. Van Sickle.....Chicago, Operations
R. D. Cade.....Indianapolis, Operations
Florence A. Curran.....Los Angeles, Treasury
A. D. Paul.....Minneapolis, Operations
M. E. Rose.....Minneapolis, Operations
F. P. Wasko.....Minneapolis, Operations
G. L. Till.....New Orleans, Operations
A. Di Pierro.....New York, Operations
A. R. Fahland.....New York, Treasury
E. C. Thomson.....St. Louis, Operations
L. C. Graves.....Seattle, Operations

10 Years

L. G. Farmer.....Albany, Sales
E. Miller.....Atlanta, Operations
R. T. Johnson.....Boston, Operations
R. E. Riley.....Boston, Operations
B. Tiz.....Chicago, Sales
A. Brown.....Detroit, Operations
T. G. Kirkpatrick.....Detroit, Sales
H. J. Gallagher.....Indianapolis, Operations
W. A. Kiner.....New Orleans, Operations
W. E. Powell.....New Orleans, Operations
H. L. Nichols.....New York, Treasury
V. K. Nielsen.....Sacramento, Treasury
R. L. Corless.....St. Louis, Operations
E. C. Krumvieda.....San Francisco, Treasury

SEWAREN PLANT

15 Years

J. Halas.....Engrg. & Maint.

10 Years

T. L. Recker.....Treasury

Pipe Line Department

20 Years

W. Chrisman.....Lost Hills, Calif.
O. K. Johnson.....Springfield, Ohio
W. W. Vandagriff.....Detroit, Michigan
L. M. Wade.....Tracy, California

15 Years

J. R. Bowman.....East Chicago, Ind.
L. D. Cantrell.....Spartanburg, S. C.
R. L. Latini.....West Boylston, Mass.
C. H. Wilson.....Greensboro, N. C.

10 Years

W. E. Walker.....Knoxville, Tenn.

SHELL CHEMICAL CORPORATION

20 Years

M. A. Elledge.....Houston
F. Burton.....Shell Point
J. C. Kraft.....Shell Point

15 Years

H. A. Tarrant.....Dominguez
L. L. Chambless.....Houston
M. Curd.....Houston

W. H. Hayes.....Houston
T. F. McQueen.....Houston
Jane M. Stillings.....San Francisco
Elizabeth C. Savage.....Shell Point
C. D. Austin.....Ventura

10 Years

J. F. Maloney.....Head Office
C. O. Braddon.....Houston
J. P. Callaghan.....Houston
W. H. Hudson.....Houston
Z. T. Hunt.....Houston
R. D. Lindley.....Houston
H. A. Lueders.....Houston
J. A. Marr.....Houston
E. R. Moon.....Houston
G. C. Noonan.....Houston
W. Rosser.....Houston
K. B. Rousselle.....Houston
R. F. Sorrells.....Houston
L. R. Turlington.....Houston
J. L. Tuttle.....Martinez
D. A. Weaser.....San Francisco
K. L. Bundy.....Shell Point
J. E. LeGros.....Ventura

SHELL DEVELOPMENT COMPANY

20 Years

W. W. Kerlin.....Emeryville
D. D. Tunnicliff.....Emeryville

15 Years

S. G. Balestrieri.....Emeryville
C. J. Forno.....Emeryville
E. E. Nyberg.....Emeryville
Myra F. Pollard.....Head Office
M. Johnson.....Houston

10 Years

W. J. Lawson.....Emeryville
H. C. Hutton.....Houston
G. F. Korenek.....Houston
J. F. Laverde.....Houston

SHELL PIPE LINE CORPORATION

20 Years

L. R. Mayo.....Texas Gulf Area

15 Years

J. E. Byrd.....Texas Gulf Area
L. W. Fisher.....West Texas Area
J. B. Green.....West Texas Area
C. L. Menville.....Head Office
Katherine S. Miller.....Head Office
E. W. Perry.....Texas Gulf Area
M. C. Reed.....Mid-Continent Area
E. R. Tooley.....Mid-Continent Area

10 Years

M. M. Alloway.....Head Office
R. E. Clarke.....Mid-Continent Area

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fact

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3,364 have 15 to 19 years' service



3,043 have 20 to 24 years' service



2,522 have 25 to 29 years' service



1,337 have 30 to 34 years' service



185 have 35 to 39 years' service



10 have 40 or more years' service

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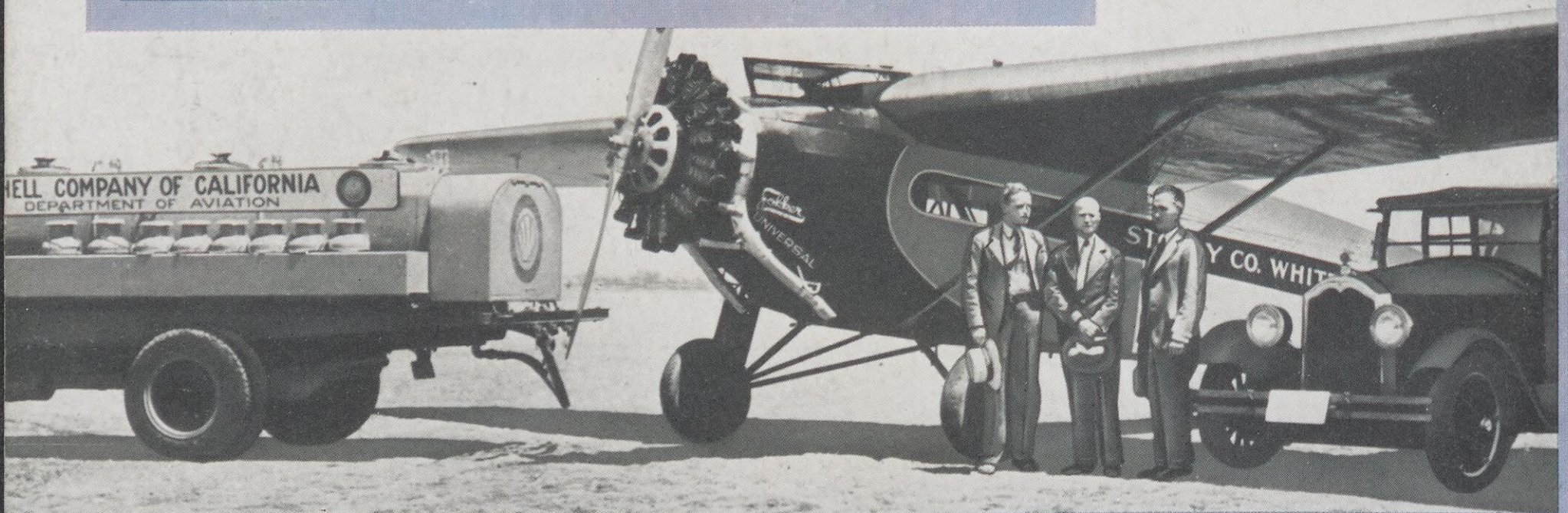
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Shell fueled the Fokker monoplane, above, for a San Francisco-Los Angeles flight in 1928.

SHELL'S
beginnings

AVIATION Shell's name has been woven into aviation history because Shell initiative—from research through marketing—has provided major contributions in aviation's progress: better fuels for every major improvement in engines; more versatile lubricants for high pressures and temperatures; faster fueling equipment for more efficient schedules.

Shell began supplying aviation fuel in the late 1920's. Today, the Aviation Department is represented in all of Shell's 18 marketing divisions. And more than 400 independent airport dealers around the country provide products and services under the Shell sign.