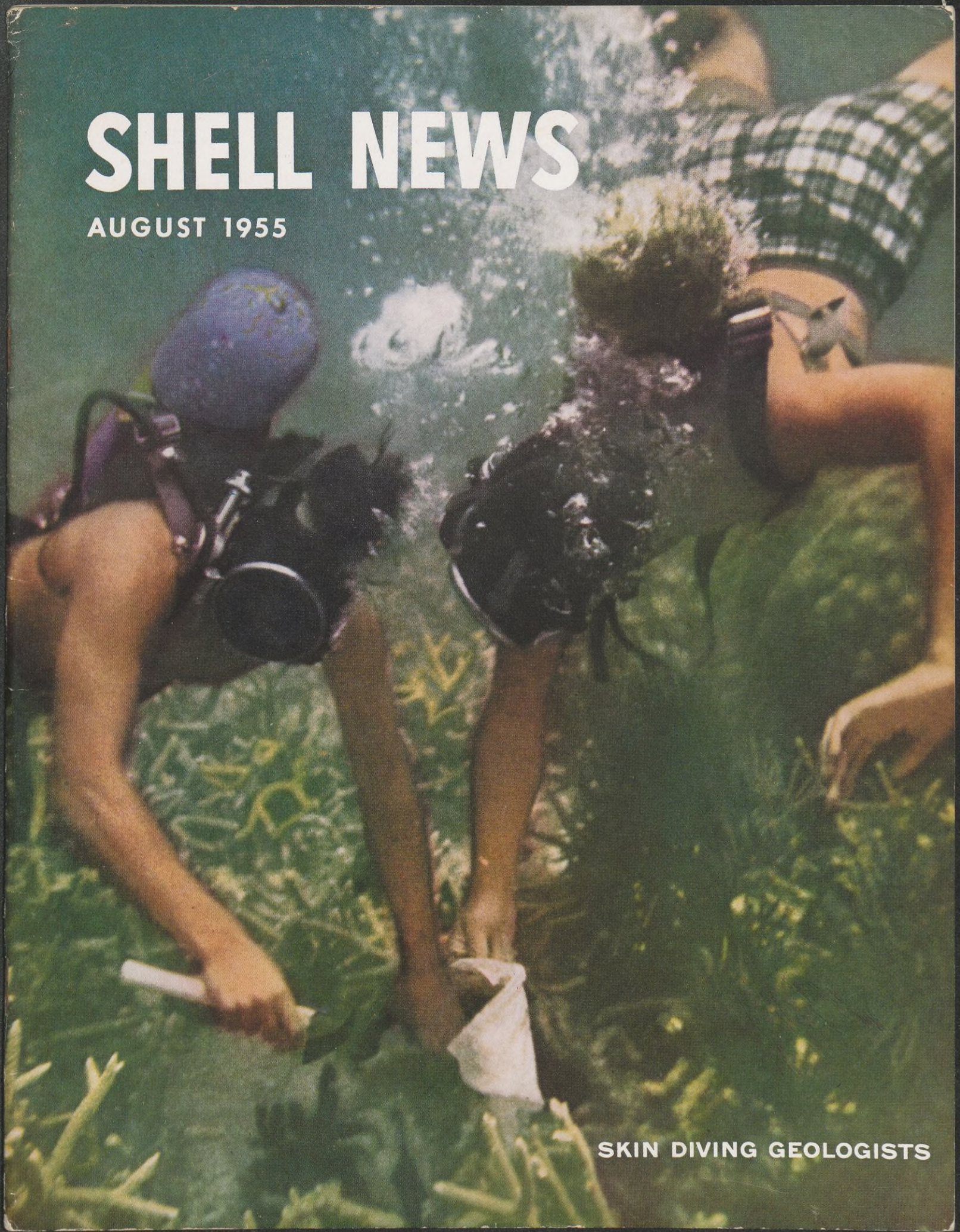
# SHELL NEWS

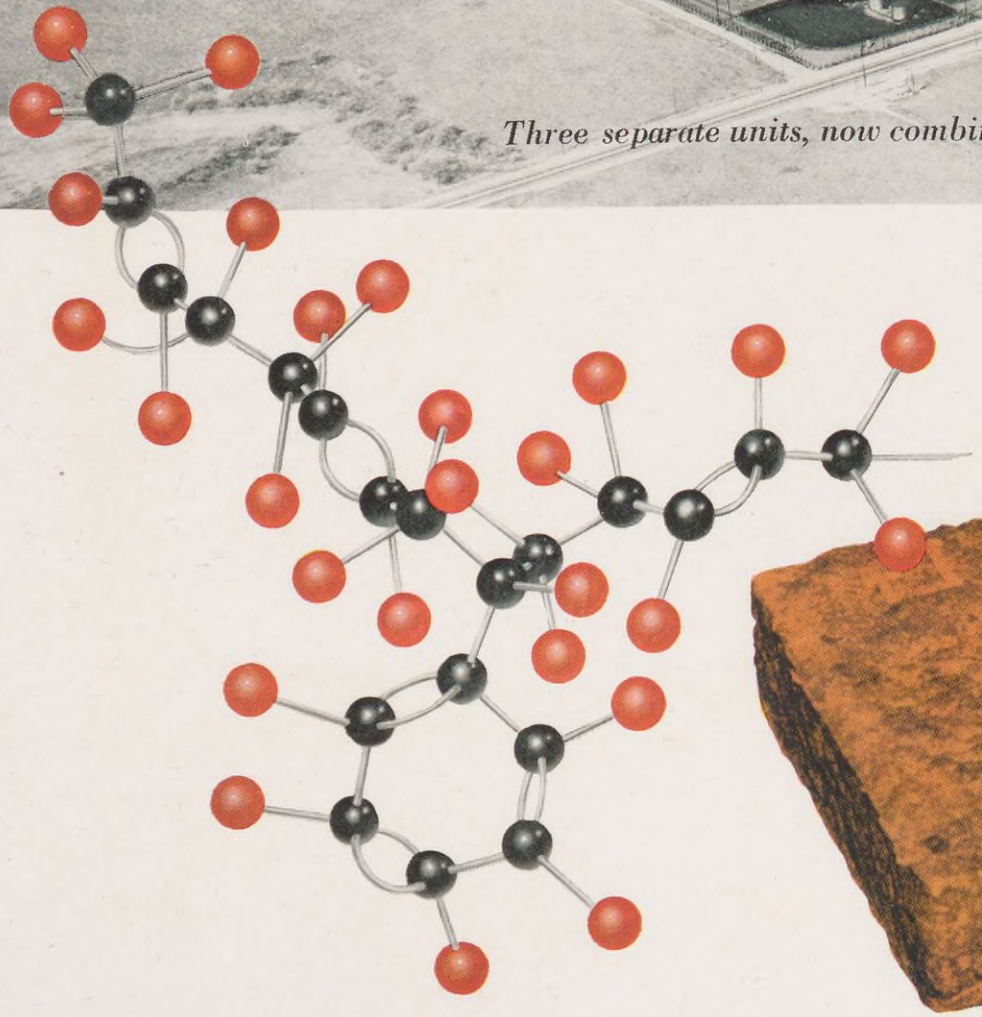
AUGUST 1955



SKIN DIVING GEOLOGISTS

# TORRANCE TRIO

*Three separate units, now combined into a single synthetic rubber*



Bouncy blocks of raw synthetic rubber, below, are manufactured by Shell Chemical Corporation at its Torrance Plant, above. The butadiene unit is in the foreground with the styrene unit behind it at left. The copolymer unit is at the upper right. A molecular model of Shell's new product is shown left.

*plant, are putting more bounce into Shell Chemical's future*

SYNTHETIC rubber produced from petroleum gases is the newest product manufactured by Shell Chemical Corporation. Last spring when the U. S. Government sold 27 rubber producing facilities to private industry, thus ending more than a dozen years of Government operations in that field, Shell Chemical was first to sign a purchase contract. The Corporation paid approximately $30 million for adjacent butadiene, styrene and copolymer units at Torrance, California, in Los Angeles County. Now combined, they form one of the largest synthetic rubber plants in the nation and the only complete unit on the Pacific Coast.

Shell built the butadiene portion of the plant for the Government during World War II and operated it for the Reconstruction Finance Corporation, Office of Rubber Reserve, until it was "moth balled" when military demands lessened in 1947. A stand-by crew of 11 Shell men and women were responsible for keeping the plant in condition during the shut-down.

In August 1950, it was reopened following the outbreak of fighting in Korea, and has been in operation continuously since then as domestic demands for synthetic rubber have increased. Until Shell took possession of all three units last April, butadiene from the Shell unit, and styrene (produced in an adjacent unit built and operated by Dow Chemical Company) were combined and reacted in the copolymer unit (built by Goodyear Tire & Rubber Company and U. S. Rubber Company and later operated by the Midland Rubber Corporation) and the finished product, synthetic rubber, emerged. Now Shell Chemi-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*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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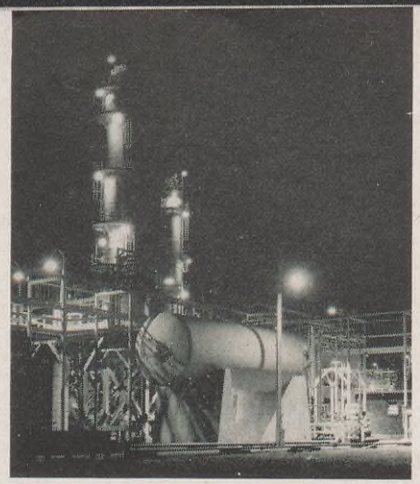
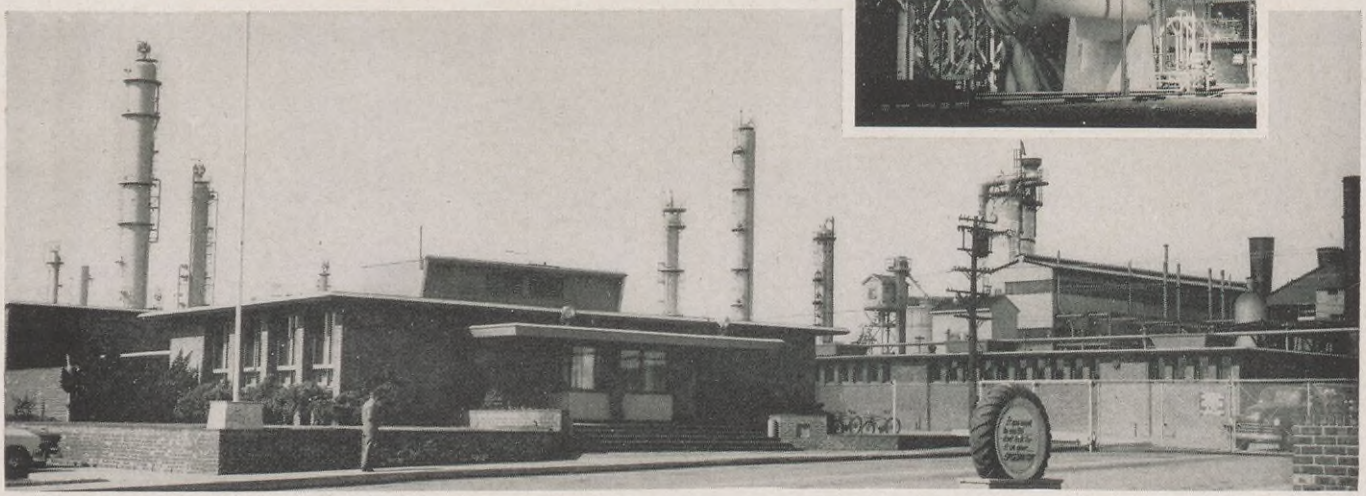
### SKIN DIVING GEOLOGISTS

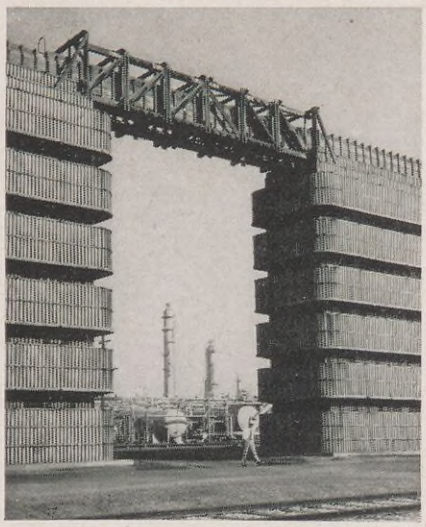
Off the coast of Florida this summer, Shell geologists are wearing swim trunks, face masks and flippers. They have breathing apparatus strapped to their backs. As a further aid in the search for petroleum, they are collecting samples of underwater life which they hope will provide clues to the nature and distribution of oil-bearing sedimentary rocks formed by ancient seas. The two "skin diving" geologists on this month's front cover, Dr. R. N. Ginsburg and R. M. Lloyd of Shell Oil Company's Exploration and Production Technical Services Division, are chipping specimens of stag horn coral from a living coral reef off the Florida Keys. A story about Shell's newest type of underwater exploration begins on Page 12.

# Torrance Trio . . . *cont'd*

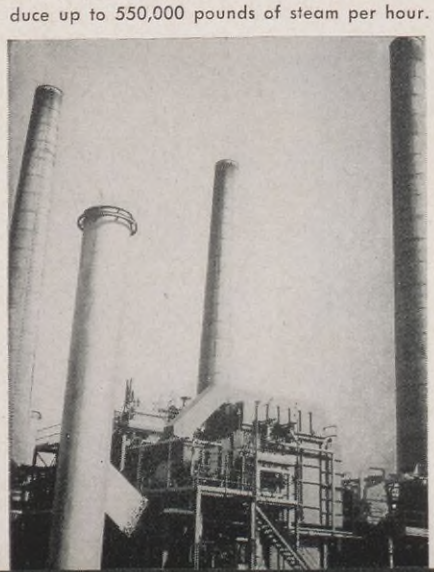


Formerly the main office of the butadiene unit, below, this building is now headquarters for the whole rubber producing trio. Night scene at right shows a part of the butadiene unit. The Torrance Plant operates around the clock.





Massive utility units are required for the synthetic rubber plant. The cooling towers, above, among the world's largest, are in the butadiene area. Boilers, below, in the styrene area, produce up to 550,000 pounds of steam per hour.



cal operates the entire process from start to finish; and markets the rubber, too. More than a thousand men and women work in the combined plant, which operates on a 'round-the-clock schedule.

In preparation for assuming control of the operation of all three units when Shell Chemical's purchase was completed, Shell received applications for employment from employees in the styrene and copolymer units during February. During March and April interviews and physical examinations were held; and when Shell Chemical officially assumed control of the total plant on April 25, more than 600 new employees joined Shell. Most of them remained in the jobs they had previously held when the units were operated by other companies.

A Synthetic Rubber Sales Division, created recently to market Shell Chemical's newest product, also has its headquarters at the Torrance Plant site.

Some of the criteria set by Congress in approving the sale of rubber plants to private industry were that 1) the sale should foster a competitive industry, 2) adequate supplies should be available for small rubber users, and 3) enough manufacturing capacity should be kept operating to meet possible defense needs in the future. In line with the first two of these, the output of the Torrance Plant is being sold to approximately 80 companies, large and small, in 11 western states—including such famous brand names as Firestone, U. S. Rubber, Goodyear and Goodrich.

The Torrance Plant currently manufactures many different types of synthetic rubber, including several grades of liquid latex, and other types are planned for the future to meet individual needs of customers. As much as 75 per cent of the present output eventually finds its way into some type of vehicle in the form of tires, chassis mountings and shock absorbers. Excess production from the styrene unit is also sold to other copolymer plants, as was the case when the plants were under Government ownership.

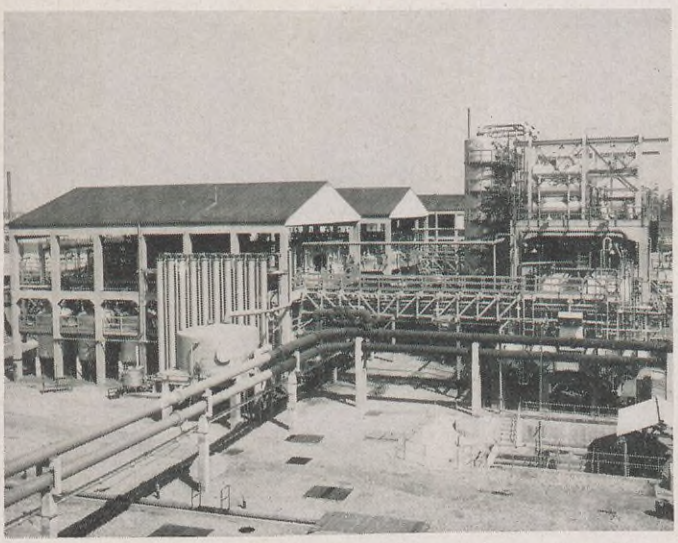
Scientists have been synthesizing rubber for the last half century, spurred by mass production of automobiles and occasionally expedited by

dire necessity when war-time shortages of the natural product occurred. By 1910, butadiene had been converted into a rubber-like polymer and a German chemist had laid the groundwork for present manufacturing methods. Synthetic rubber tires were exhibited on the Kaiser's car as early as 1912. During World War I, German scientists produced a "methyl rubber" for the first large scale manufacture of synthetic hard rubber.

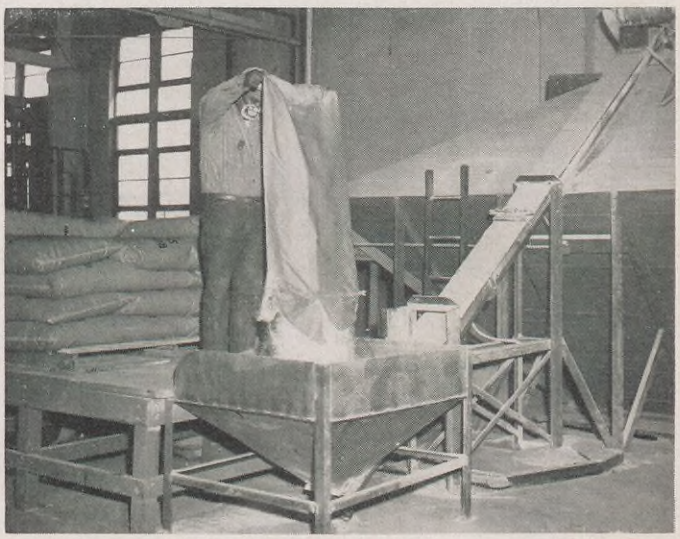
This ersatz product met the desperation needs of war, but it was expensive and it couldn't compete with natural rubber in performance. American scientists later improved both the product and the process, but the cost remained high and little was done about manufacturing synthetic rubber because of periodic dips in the price of natural rubber.

The result was that, when the Japanese seized Far Eastern rubber plantations in World War II, cutting off 90 per cent of the U. S. supply, shortages for defense production were acute. Only high speed action to build the first synthetic rubber plants in the U. S. saved the day. In short order, the country had enough plants to produce a million tons of synthetic rubber annually.

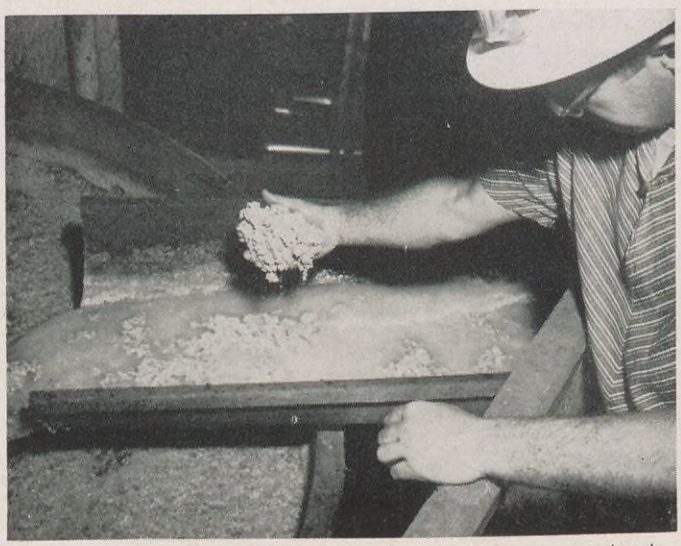
Current peace-time rubber consumption in the U. S. is estimated at about one and a half million tons annually. Last year more than half of the demands were filled by synthetic rubber —and the synthetic product is expected to capture a greater share of the market this year as competitive private industry puts the plants into full swing.



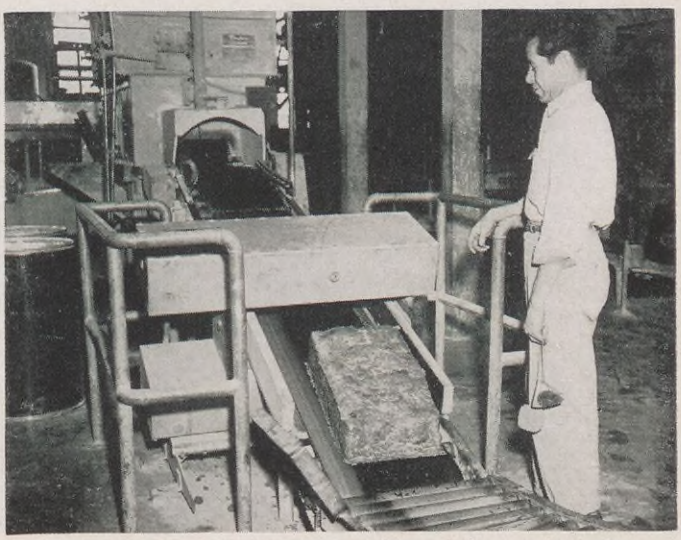
Above, in the reactor building, at left, and the recovery units, right, the components of synthetic rubber are united to form the end product. This is the heart of the Torrance Plant's copolymer unit.



In the copolymer unit, tons of soap flakes are used in the polymerization process which joins and re-shapes butadiene and styrene to form the rubber. D. R. Gutteriez, above, pours soap into a hopper.



After polymerization, suspended particles of rubber are coagulated into larger clots called "crumb." Above, an operator inspects crumb, which will be further filtered, washed, shredded and dried.



Above, Operator F. R. Guevara watches a bale pass beneath an electronic detector which would spot metal fragments that might get in the rubber. The bale came from one of 16 assembly lines.

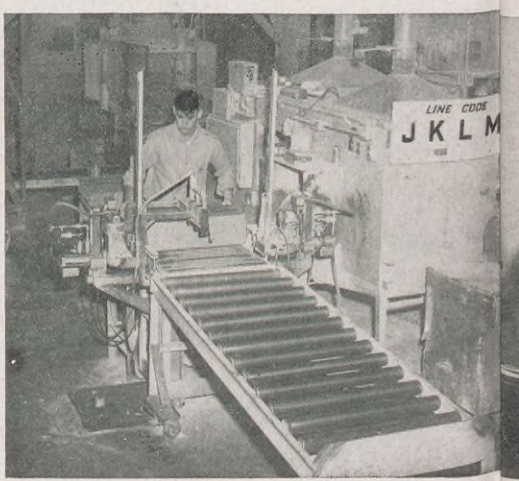
At the end of the production line conveyor, R. G. Thompson, above, swings 75-pound bales of synthetic rubber to neat stacks on wooden pallets. These bales, which have been powdered to keep them from sticking, will be shipped "bareback" to a local rubber products manufacturer.

Synthetic rubber production is booming for two reasons. One is that, in the face of growing demands for rubber products, unsettled conditions in the Far East have kept natural rubber production from increasing. It takes seven years from planting time until a rubber tree yields latex, and virtually no trees have been planted since 1942. The second reason is that synthetic rubber is not only superior to natural rubber in certain uses, it can also be tailor-made for specific applications. In the dozen years that American industry has experimented extensively with synthetic rubber uses, more than 700 varieties and grades have been produced. There is now a wide choice of synthetic rubbers capable of meeting requirements of flexibility and elasticity and of resisting wear, heat, cold, chemical action, and electrical charges. Synthetic rubber is favored over natural rubber in such products as passenger car and small truck tires, foam rubber goods, flooring, wire and cable covering, shoe soles, tank lining, wringer rolls, and in some kinds of hose and molded and extruded products.

The future of synthetic rubber looks good for another reason. Natural rubber prices vary greatly because of political instability and crop failures. A graph of natural rubber prices over the last 50 years is as bouncy as the product—ranging from highs of $2.88 to lows of 2½ cents per pound. Synthetic rubber, on the other hand, offers manufacturers a product at a fairly stable price, with indications that the new competitive market will keep it low. The current price of natural rubber is about 40 cents per pound. Synthetic rubber sells for about 23 cents per pound.

The manufacture of butadiene and stryene at Torrance involves two highly intricate processes. (Process temperatures in the butadiene unit range from 10 to 1,200 degrees Fahrenheit.) The principal feed stock for making butadiene is butylene; and styrene's principal feed stocks are benzene and propane. Some of the techniques and two of the catalysts used in the units were originated at Shell Development Company's Emeryville Research Center, and are generally in use at butadiene and styrene manufacturing plants throughout the nation.

Pure butadiene, a gas also used in making nylon, is put under pressure and piped to the copolymer plant in liquid form. The styrene, a clear, pun-




Package Handler J. H. Wilkinson, above, operates a boxing machine that puts bales into cartons. Bales are powdered in cabinet at right.

Truck trailers, above, are being loaded with boxed synthetic rubber bales at the Torrance Plant's dispatching platform. About 80 companies in 11 western states buy synthetic rubber from Shell Chemical Corporation. About 75 per cent of the rubber finds it way into some form of vehicle.

gent liquid commonly used in making plastics, joins the butadiene in the copolymer unit, where the two basic chemicals unite with each other and with themselves to form the much larger molecular units of synthetic rubber. Though several other chemicals are included in minor portions in the copolymer process, it takes approximately one-fourth of a pound of styrene and three-fourths of a pound of butadiene to make a pound of synthetic rubber.

The combined chemicals are emulsified in huge quantities of soapy water, and this emulsion enters a series of 12 vat-like reactors. In the reactors another chemical is added and "polymerization" proceeds for a period of 11 to 17 hours.

Chief Technologist M. L. Sagenkahn, above, center, Technologists W. B. Luther, left, and E. E. Carlstrum discuss a processing problem.

There are two kinds of polymerization processes in the manufacture of rubber at Torrance. The "cold" process proceeds at 41 degrees Fahrenheit and the "hot" process at 122 degrees. The "cold" method is the newer of the processes and accounts for approximately two-thirds of the rubber produced at Torrance.

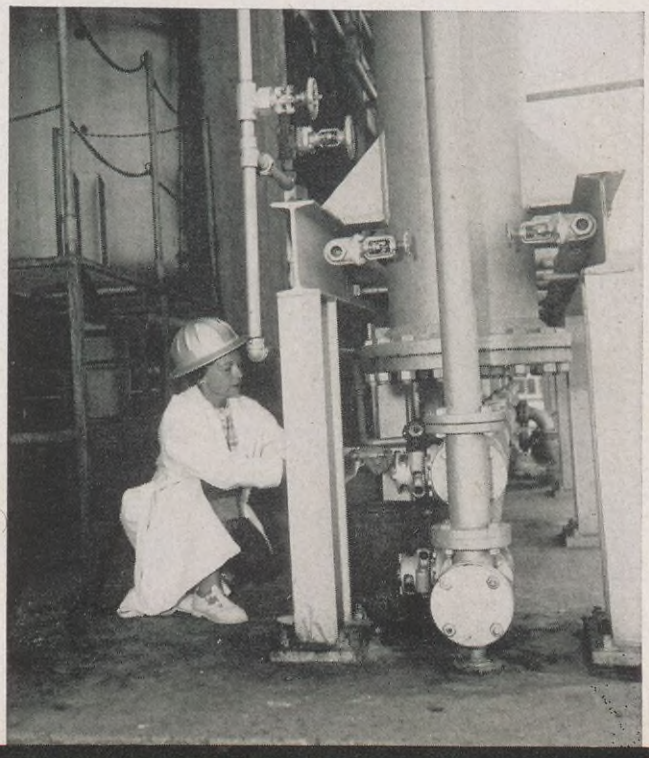
When the desired combinations of butadiene and styrene have been converted to copolymers, the chemical reaction is stopped by the addition of still another chemical. At this point the solution is latex, consisting of about 25 per cent rubber in the form of small solid particles suspended in water. The next step is to coagulate the small particles into larger ones with the aid of a solution of salt brine and sulfuric acid. The coagulated rubber particles, up to one-half inch in width, are then separated from the watery "mother liquor" (a term borrowed from scotch and bourbon distillers) and are dried. The resultant rubber "crumb" is usually compressed into 75-pound bales and a coating of talc or soapstone powder is applied. The baled rubber is generally boxed in paper cartons or is bagged. Certain types are shipped "bareback," or unboxed, to nearby rubber goods manufacturers.

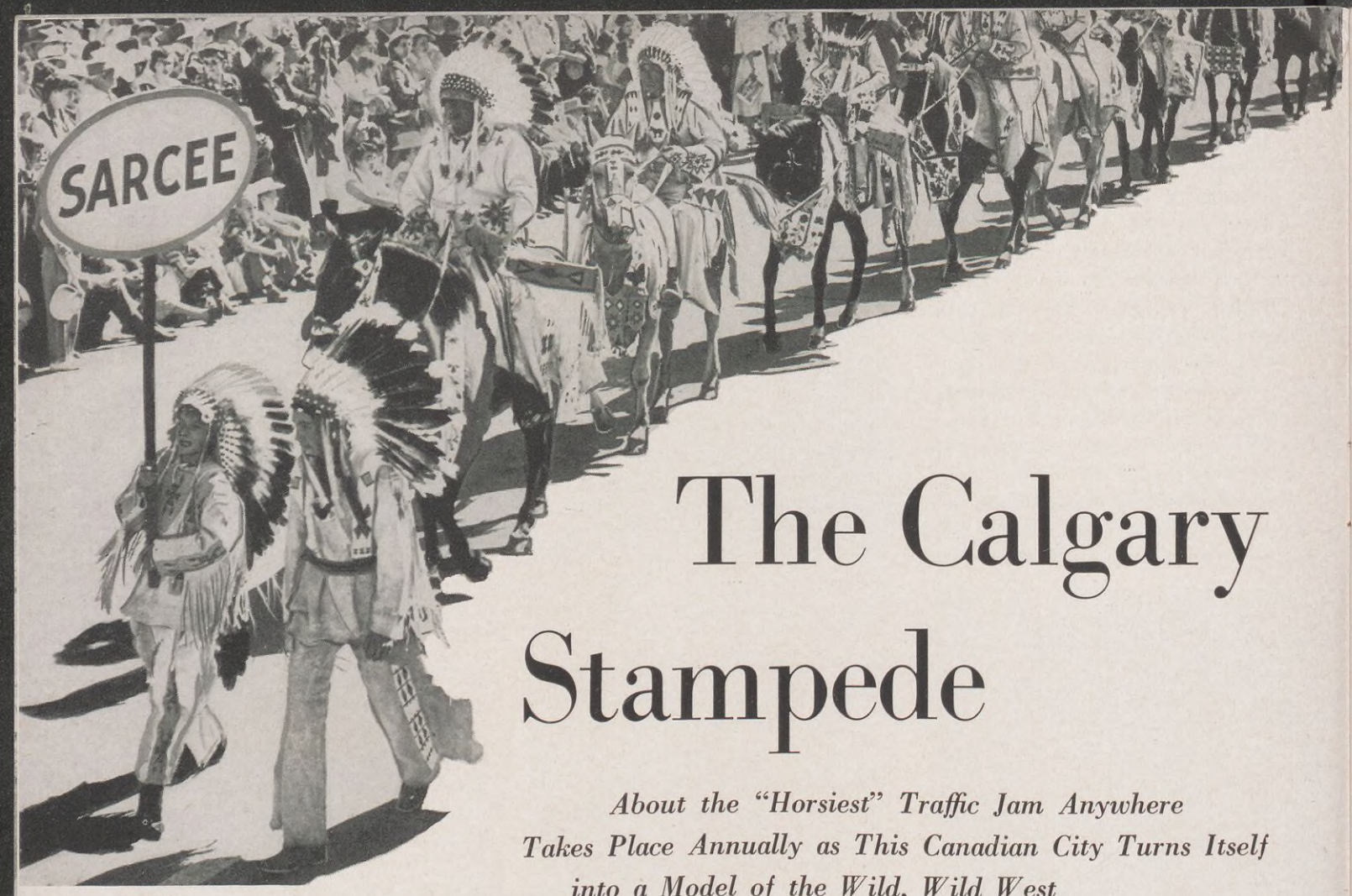
The rubber producing capacity of the Torrance Plant represents 13 per cent of the entire butadiene - styrene rubber output of the United States.

Both process and product are carefully checked from start to finish in the manufacture of synthetic rubber—sometimes with the result that finished bales must be destroyed because they do not meet specifications. Above, Operator P. B. Youtsey, "guillotines" defective bales before reprocessing.

If it were possible for all of the plant's production to go into the manufacture of automobile tires, there would be enough to make 54,000 daily. Compared to a plantation for producing natural rubber—a product over which synthetic rubber is making an apparent competitive triumph — Shell Chemical's Torrance Plant is equal to a 370,000-acre plantation valued at $148 million. It would require 40,000 plantation workers to match the rubber output at Torrance.

Laboratory Assistant Edith M. Scurto draws a sample of liquid latex from the bottom of a latex tank with a hypodermic needle. The sample will be tested in the copolymer unit control laboratory.






# The Calgary Stampede

*About the "Horsiest" Traffic Jam Anywhere Takes Place Annually as This Canadian City Turns Itself into a Model of the Wild, Wild West*

YOU don't have to be a cowpoke, for everybody in Calgary gets into the act when Stampede Week rolls around. Indian war whoops drown out auto horns on this western Canadian city's busy main street. Auto parking meters become horses' hitching posts. Men doff their conservative business suits, putting on flashy western-style shirts and ten-gallon hats instead. Mounted horsemen with lariats gallop through the business area as if it were once again open prairie land. In fact, during the one week each year when modern Calgary goes "Wild West," there are probably few places on earth that look more like an old-fashioned frontier town.

And spectators love it. Last month, the 43rd annual Stampede series of chuck wagon races, calf-roping contests, street dancing and championship bronco-busting events were witnessed by half a million people—three times Calgary's normal population! Since it originated in 1912, the Stampede has steadily grown both in popularity and in stature, until today it attracts to the Calgary Arena many of the most skilled riders and cowboys from all over Canada and the United States. Matching their ability against the wildest horses, steers and bulls which Stampede officials can procure, they compete for many thousands of dollars in prize money.

But this is only part of the Stampede's round of activity. The spectacu-

Chuck wagons surrounded by outriders round the bend in their madcap dash to the finish line. Among the Stampede's most thrilling events, chuck wagon races time cowboys' skill in striking camp, packing wagon and moving to a new location. They draw huge crowds to the Arena every night.

lar two-hour opening day parade is followed by commercial and livestock exhibits, old-time range songs and dances, and scores of other events. Among the hundreds of Calgarians who participated this year were many Shell people in the Calgary Exploration and Production Area.

From nearby Indian reserves came members of the Stoney, Sarcee and Blackfoot tribes who set up tepees on the Calgary fairgrounds. Attired in colorful tribal costume, they entertained week-long crowds with ceremonial Indian dances and horse racing. There were glittering displays of beads, handicraft and needlework, done by Indian boys and girls throughout the Alberta Province.

Perhaps the most thrilling event of all—and the one most frequently associated with the Stampede—was the famed series of chuck wagon races which took place every evening. In frontier days, chuck wagons hauled provisions and equipment as cowboys shifted camp from one location to another. The object of the Stampede races was to see how quickly a cowboy "outfit"—consisting of a chuck wagon, driver, two teams of horses and an escort of four outriders—could break camp, pack the wagon and race over an obstacle course toward the finish line a half mile away. Four outfits competed in each race. After the wagon has been packed, a fast outfit ordinarily completes the race in about 70 seconds!

Typical Stampede scenes are shown in the photographs here and on the next page.

Above, Indians and their sons in tribal regalia enjoy a midway ride during the interim between regular Stampede performances. They belong to Alberta tribes which set up tepees for the week and entertain at fairgrounds.

Above, Stampede spectators and performers square-dance at one of Calgary's busiest intersections. Half a million persons annually witness the week-long series of arena contests, fairground exhibitions and Indian ceremonials.

Left, Calgary's busy main street reverts back to "wild west" days as this youngster oversees horses which have been hitched to auto parking meters.

Right, a bucking bronco unseats a cowboy in the Stampede's rodeo. From ranches all over the cattle-raising territory surrounding Calgary come young men to try their skill in bronco-busting games.

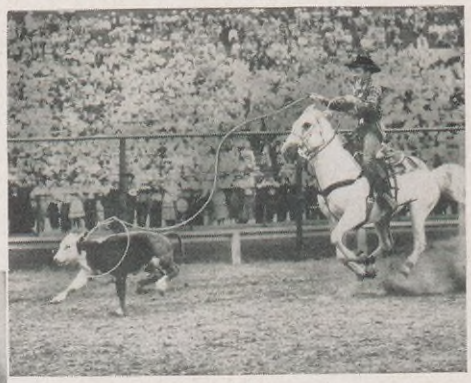
# The Calgary Stampede . . . *cont'd*

Above, the cowboy at right tries to fasten a red ribbon over the horn of this cross-breed Brahma steer in the steer decorating contest. To do this, the two cowboys work with split-second timing. The one at left, called the "hazer," coaxes the steer into position for the "decorator," at right.

In the wild horse race, above, teams of three cowboys—two to hold the animal while the other saddles and mounts him—try for prizes.

Ten-gallon hats are the Stampede's unofficial trademark, as seen in the three pictures above. At left, above, Miss Ruth Ramsay, File Clerk in the Treasury Department of Shell's Calgary Exploration and Production Area, was among contestants for the honor of serving as 1955 Stampede Queen. Above, center, Vice President P. L. Kartzke of the Calgary Exploration and Production Area, left, presented a ten-gallon hat to RAF Group Leader Douglas Bader. The famed wartime ace, who is with Shell Petroleum Company, Ltd., in London, was on a Canadian tour. City officials got into the Stampede mood too, as shown, in photo at right, of Calgary's Mayor Don McKay. He wore this Western garb while working in his office.

Below, cowboy and horse work together in the calf-roping contest. As the lariat noose falls around the calf's neck, the horse stops and then slowly backs away, keeping the rope taut so the calf can be quickly tied by the cowboy.



This cowboy hits the dirt in his attempt to ride a Brahma bull, a vicious animal which could gore a man unskilled at getting out of his way.

# Shell People in the News

## Shell Oil Company Realigns Marketing Functions

A REALIGNMENT of the Lubricants, Special Products and Fuel Oil Departments has been announced in the Shell Oil Company Marketing Organization. Under the new arrangement, an Industrial Products Department in Head Office will handle the marketing responsibility for lubricants and special products (excluding liquefied petroleum gas). A Fuel Oil-LP Gas Department will combine the marketing responsibilities for those two types of products.

The realignment was announced following a study which took into consideration the fact that at the Marketing District level, sales responsibility for industrial products (lubricants and special products) is centralized in the Industrial Salesmen and that many times the same accounts are involved in sales solicitation for these products. During the last few years this consolidation of sales responsibility has been accomplished in the San Francisco Office and in seven of the Division Offices by the introduction of Industrial Products Managers.

There has also been noted a growing tendency in the industry to combine the marketing of fuel oils and liquefied petroleum gas. In Shell's San Francisco Office the marketing of these products has been a function of the Fuel Oil Department for a number of years.

It is believed that the new organizational alignment will improve Shell's long range sales and distribution plans. Under the realignment, the following personnel changes became effective August 1:

| Name | Former Position | New Position |
|---|---|---|
| B. G. Symon | Manager<br>Lubricants Dept. | Manager<br>Industrial Products Dept. |
| J. L. Minner | Manager<br>Fuel Oil Dept. | Manager<br>Fuel Oil-LP Gas Dept. |
| C. B. MacGlashan | Manager<br>Fuel Oil Dept.<br>West Coast | Manager<br>Fuel Oil-LP Gas Dept., West Coast |
| T. F. Shaffer | Manager<br>Special Products Dept. | Assistant Manager<br>Industrial Products Dept. |
| D. E. Hendricks | Assistant to Manager<br>Lubricants Dept. | Manager, Lubricants Division,<br>Industrial Products Dept. |
| F. Preu | Assistant to Manager<br>Special Products Dept. | Manager, Special Products Division,<br>Industrial Products Dept. |
| C. M. Mockler | Assistant to Manager<br>Fuel Oil Dept. | Manager<br>Fuel Oil Division, Fuel Oil-LP Gas Dept. |
| J. G. Fuller | Assistant to Manager<br>Fuel Oil Dept. | Manager<br>LP Gas Division, Fuel Oil-LP Gas Dept. |

B. G. SYMON

J. L. MINNER

C. B. MacGLASHAN

F. PREU

T. F. SHAFFER

C. M. MOCKLER

D. E. HENDRICKS

J. G. FULLER

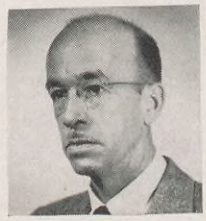
# Shell People in the News . . . cont'd

## H. L. Curtis Named Shell Oil Company Vice President

H. L. CURTIS

**H. L. CURTIS** has been elected to the newly created position of Vice President in charge of Public Relations of Shell Oil Company. Mr. Curtis joined Shell in 1923 as a service station attendant at San Jose, California. He subsequently became a Salesman, Assistant District Manager, and District Manager at several California locations; and in 1935 was named Manager of the Sacramento Marketing Division. He became Manager of the New York Marketing Division the following year. In 1938, Mr. Curtis was appointed Manager of the Sales Promotion and Advertising Department, a position he held until 1943, when he was named Assistant to the President of Shell Oil Company in charge of Public Relations.

**SHERWOOD BUCKSTAFF,** formerly Exploration Manager of Shell Oil Company's Houston Exploration and Production Area, has been named to the Head Office Exploration and Production Organization. He will remain in Houston to carry out a series of regional geological studies of the Gulf Coast. Mr. Buckstaff, who received a B.S. degree in mining engineering and geology from the University of Wisconsin and then did graduate studies there, joined Shell in 1925 as an Assistant Geologist at Wichita Falls, Texas. Following positions of higher responsibility at Ardmore, Oklahoma City and Tulsa, Oklahoma, he was named Regional Geologist in the Tulsa office of the former Mid-Continent Area in 1939. Five years later he was appointed Exploration Manager at Tulsa. In 1947 Mr. Buckstaff was appointed a Senior Geologist at Houston and the following year was named Exploration Manager of the Houston Area.



S. BUCKSTAFF

**M. S. METZ** has been appointed Exploration Manager of the Houston Exploration and Production Area, succeeding Mr. Buckstaff. A graduate of Texas A. & M. College with a B.S. degree in geology, Mr. Metz joined Shell in 1937 as a Geologist at San Antonio, Texas. Following assignments of increasing importance in Houston and San Antonio, he was named a Senior Geologist in the Midland Exploration and Production Area in 1946. He was assigned to the Calgary Area in 1949 as Area Geologist and was appointed Exploration Manager of that Area the same year. Mr. Metz was named Exploration Manager in the Midland Area in 1951.

M. S. METZ

G. S. COREY

J. F. REDMOND

**G. S. COREY** has been named Exploration Manager of the Midland Exploration and Production Area, succeeding Mr. Metz. Mr. Corey, who received a B.A. degree in geology from the University of Minnesota, joined Shell in 1937 as a Geologist at San Antonio, Texas. In 1941 he was named Assistant District Geologist in the former Midland District office of the Texas-Gulf Area. Following military leave of absence, Mr. Corey returned to Midland in 1945 and was named Area Geologist in 1949. In 1952, he was appointed Midland Division Exploration Manager.

**J. F. REDMOND** has been appointed Manager—Exploitation Engineering in the Head Office Exploration and Production Organization of Shell Oil Company. A graduate of the University of Kansas with a B.S. degree in chemical engineering, Mr. Redmond joined Shell in 1936 as a Chemist in Tulsa, Oklahoma. After carrying out engineering assignments in Tulsa, Houston, and West Texas, he was made Chief Exploitation Engineer in the Houston Area in 1946. In the following year he was transferred to the Tulsa Area in the same capacity. In 1952, he was named Production Manager of the Tulsa Area's Oklahoma Division.

W. HAFNER

**W. HAFNER** has been named Chief Geophysicist in the Head Office Exploration and Production Organization of Shell Oil Company. Mr. Hafner, who received a degree in geology from the University of Zurich in Switzerland, joined Shell as a Draftsman in 1924

at Los Angeles. He was named a Senior Geophysicist in 1945 in the former Texas-Gulf Area and the following year was assigned as Chief Seismic Interpreter on the former Regional staff in Houston. In 1951, Mr. Hafner was named Chief Geophysicist-Seismology in the Exploration and Production Organization's Technical Services Division at Houston.


R. K. BURNS

**R. K. BURNS** has been appointed Manager of Shell Chemical Corporation's Head Office Treasury Department. Mr. Burns joined Shell Oil Company in 1931 as a Clerk at the Wood River Refinery. Following various assignments there, including that of Treasury Manager, he was appointed an Auditor in the Head Office Financial Organization in 1949. The following year he was named Assistant Manager of the Head Office Refinery Accounting Department. In 1953, Mr. Burns joined Shell Chemical Corporation as Assistant Manager-Financial Accounting in the Head Office Treasury Department.


P. J. MOREL

**P. J. MOREL** has been named Assistant Manager-Financial Accounting in Shell Chemical Corporation's Head Office Treasury Department. Mr. Morel, who received a B.B.S. degree in accounting from the College of the City of New York, joined Shell Oil Company in 1935 as a Clerk in New York City. He was assigned to the Head Office Auditing staff in 1951 and made a Senior Auditor the following year. In 1953, he joined Shell Chemical Corporation as Chief Accountant of Head Office Treasury-General Accounting.


W. F. REED

**W. F. REED** has been made Assistant Manager-Financial Analysis and Budgets in Shell Chemical Corporation's Head Office Treasury Department. Mr. Reed, who was graduated from Rice Institute with a B.A. degree and attended Harvard University's School of Business, joined Shell Oil Company in 1940 as a Clerk at the Houston Refinery. In 1949, he was assigned to the Head Office Auditing staff and in 1952 was appointed a Chief Accountant. In 1953, he was made Chief Accountant in the Tulsa Exploration and Production Area's Treasury Department.


J. H. KNAUS

**J. H. KNAUS** has been named Operations Department Manager of Shell Chemical Corporation's Denver Plant. Mr. Knaus, who received a degree in mechanical engineering from the University of Wyoming, joined Shell in 1947 as a Laboratory Assistant at the Denver Plant. Following assignments of increasing importance, he was named Assistant Manager of the plant's Insecticide Department in 1952. In February of this year he was appointed a Senior Technologist in the Technological Department.


C. V. KIEFER

**C. V. KIEFER** has been appointed Manager-Asphalt in the West Coast Marketing Organization, San Francisco. He succeeds Raymond Harsch, who has retired. Mr. Kiefer, who received a B.S. degree in civil engineering from the University of Colorado, joined Shell Oil Company in 1932 as a Salesman in the Asphalt Department at San Francisco. He was made Manager of the San Francisco Marketing Division's Asphalt Department in 1950 and four years later was appointed Assistant Manager-Asphalt in the West Coast Marketing Organization.


R. G. EFFINGER

**R. G. EFFINGER** has been named an Assistant Chief Engineer at Shell Oil Company's Houston Refinery. Mr. Effinger, who received a B.S. degree in chemistry from the University of Washington, joined Shell in 1935 at the Martinez Refinery. Progressing through various technological and engineering assignments, he was named a Senior Engineer at Martinez in 1950. In 1952 Mr. Effinger was named a Senior Engineer in the Manufacturing Organization's Head Office Engineering Department.

# *exploring the* sea

Boatman Herb Alley, aboard the chartered boat "Spoonbill," takes on a cargo of spare breathing tanks, water-tight cameras and geology tools, while Geologists R. M. Lloyd and R. N. Ginsburg of Shell's Technical Services Division check skin-diving masks on the dock.

Diving head first and backwards so the air tank is pushed downward by the weight of his body, Lloyd goes over the side with a splash.

THE tap of the oil geologist's hammer has recently interrupted the customary silence in the jungle of coral, seaweed and fish that lies on the ocean floor off the Florida Keys.

Garbed in swim trunks, face masks and the skin diver's fish-like fins, and with breathing tanks strapped to their backs, Shell Oil Company Geologists R. N. Ginsburg and R. M. Lloyd have been indirectly searching for oil 20 feet under the sea. They have been poking their geological tools into the sandy depths of these tropical waters, where the skeletal structures of mi-

At left, Lloyd, in checkered trunks, helps Ginsburg strap on an aqualung, underwater breathing apparatus developed during World War II. Its air supply gives out after 50 minutes, but the geologists seldom stay down that long, because underwater work is exhausting. Ballasts worn at the waist help to weight the body and add to mobility on the ocean floor.

# world

## *Skin-Diving Shell Geologists Study Florida's Coral Reefs*

Kneeling on the ocean floor, Ginsburg photographs a limestone coral reef formation with a pressurized, water-tight color movie camera.

Small fish and tiny sea urchins surround this coral mass. The geologists are studying the relation of reefs to ancient oil-bearing rocks.

Occasionally, the divers surface to deliver large specimens to Alley. Here, Lloyd brings up a moose horn coral for laboratory study.

nute marine animals, called corals, are crumbling day by day to form limestone reefs. Their work may help Shell learn more about how certain types of oil pools are formed.

Some oil pools accumulate in "structural traps"—domed or tilted and fractured rock formations which are comparatively easy to detect with modern seismic instruments. But other large pools are found in "stratigraphic traps," formed by a pinching out of porous rock formations. Many of these porous masses closely resemble the limestone coral reefs now being formed off the Florida Keys. Stratigraphic traps are difficult, if not impossible, to find by the seismic method.

Samples of coral and sediments which these scientific "frogmen" bring back for study in cooperation with Shell Development's Exploration and Production Research Division Laboratory in Houston may form a further link in Shell's continuing search for oil on dry land. When matched with their fossilized ancestors in deep sedimentary rock, they may point to places where oil is hiding under a formation that was itself part of a coral reef perhaps a million years ago.

Before Ginsburg and Lloyd began their unusual geologic expedition into the sunlit but treacherous sea world, they spent many hours practicing skin diving at the University of Miami's Marine Laboratory. They concentrated particularly on the exacting art of breathing through a 60-pound aqualung. On their descent into the sea to collect samples as far as five miles off the coast, they also carried pressurized, water-tight movie cameras to record the wonders they saw.

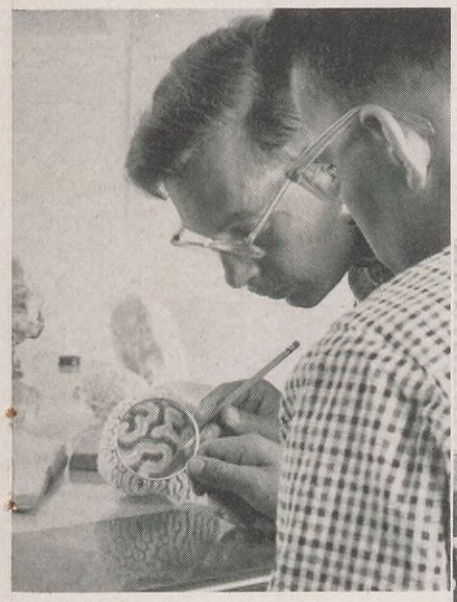
These are some specimens of coral, formed by the building up of large colonies of minute marine animals. They were collected by Ginsburg and Lloyd off the Florida Keys. Of interest to Shell geologists, they are, left to right: brain coral, porous coral, flower coral, knobbed brain coral and star coral.

Above, Lloyd and Ginsburg chip off moose horn coral samples. Bag for collecting samples is tucked in Ginsburg's belt. Compressed air tanks automatically feed air to men through tubes attached to face masks. As a safety measure, men can instantly detach tanks from their bodies. The water is clear and sunlight filters through so intensely that men apply a cream to prevent sunburn.

Heading for shore aboard the Spoonbill, above, Ginsburg charts locations where specimens, such as that Lloyd is holding, were found. They hope to learn more about how oil accumulates in hard-to-find "stratigraphic traps."

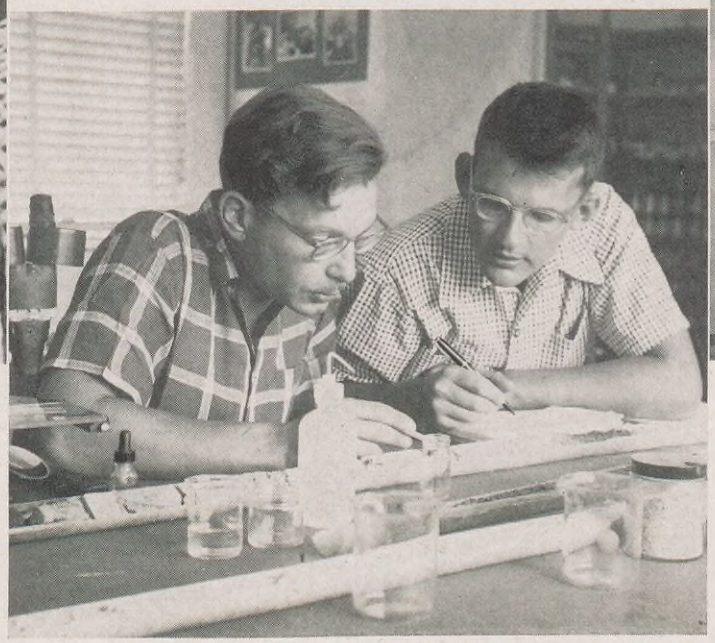
On the Keys at low tide, above, Ginsburg studies the action of organic gases buried under wave-deposited sediment. Lloyd and Professor F. J. Pettijohn of Johns Hopkins University, a consultant for Shell, observe this work.

A sample from the sedimentary deposit shown at left is pictured more closely above. Gas, formed by decaying organic matter, was found to have bubbled upward through the layers, partially causing the fritter-like surface on top.



In a laboratory set up by Shell at Coral Gables, Florida, above, the two Geologists study minute variations in a specimen of coral, compare it with other samples and catalogue it for future reference.

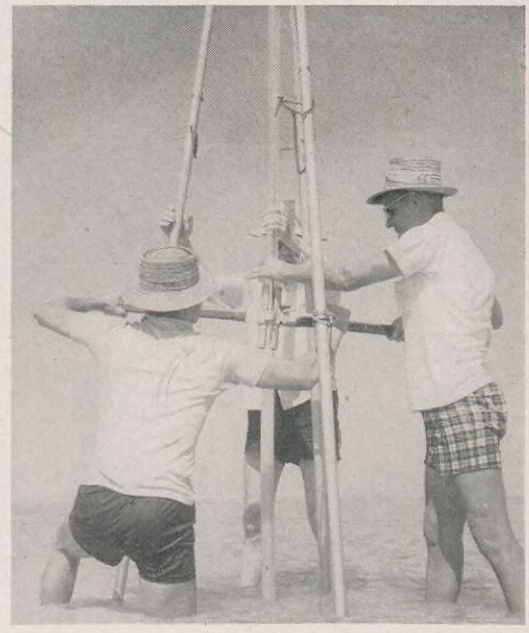
Below, Ginsburg and Lloyd check a cross-section of sediment, obtained by core sampling, that indicates the structure of the ocean floor. They may be able to correlate this information with rock characteristics in various inland fields producing oil from similar geological structures—and about which Shell would like to know more.



Standing before charts of the Florida Keys area, above, Lloyd and Ginsburg review a specimen-gathering expedition which took them as many as five miles out in the ocean.

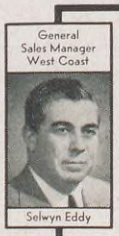
## *Silt-laden waters are continuously laying new carpets of sediment on the rocky ocean floor*


In shallow mud flats not far from the Keys, Professor Pettijohn uses a glass-bottomed bucket to study the deposition of sediment below the water. Sedimentary rocks, like those which may seal in pools of oil, are largely formed in bodies of water over long periods by the action of waves on such materials as sand and gravel, clay and lime.



In this same area, Ginsburg, Pettijohn and Lloyd sink a core "barrel," a rod-like device which penetrates the ocean floor and enables the men to obtain a cross-section sampling of the many layers of sediment below the water.

# Marketing Organization Chart

















WEST COAST DIVISIONS

Honolulu
Los Angeles
Portland
Sacramento
San Francisco
Seattle

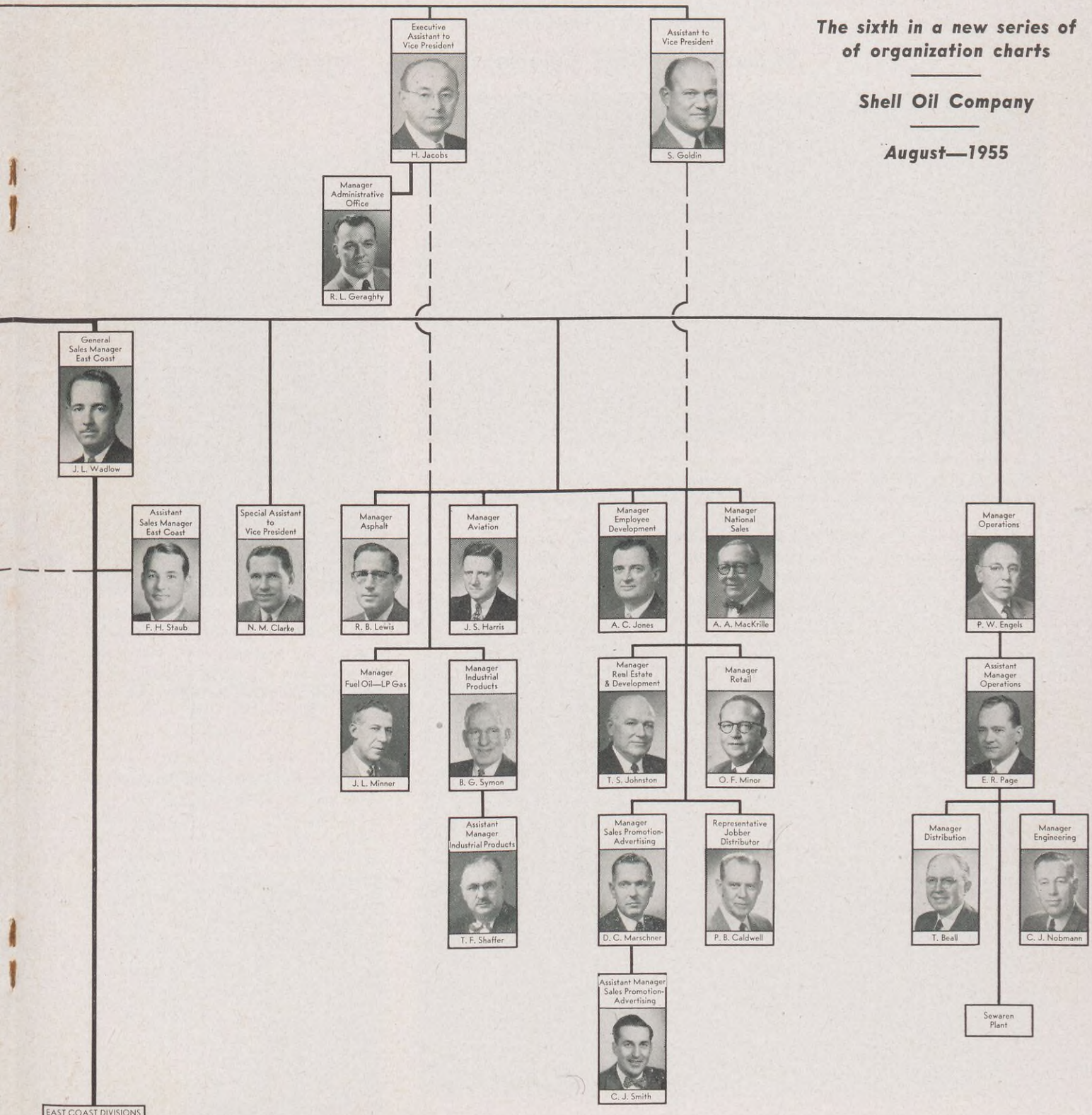
MIDWEST DIVISIONS

Chicago
Cleveland
Detroit
Indianapolis
Minneapolis
St. Louis

*The sixth in a new series of organization charts*

## *Shell Oil Company*

*August—1955*



# AMPHIBIOUS OIL FIELDS

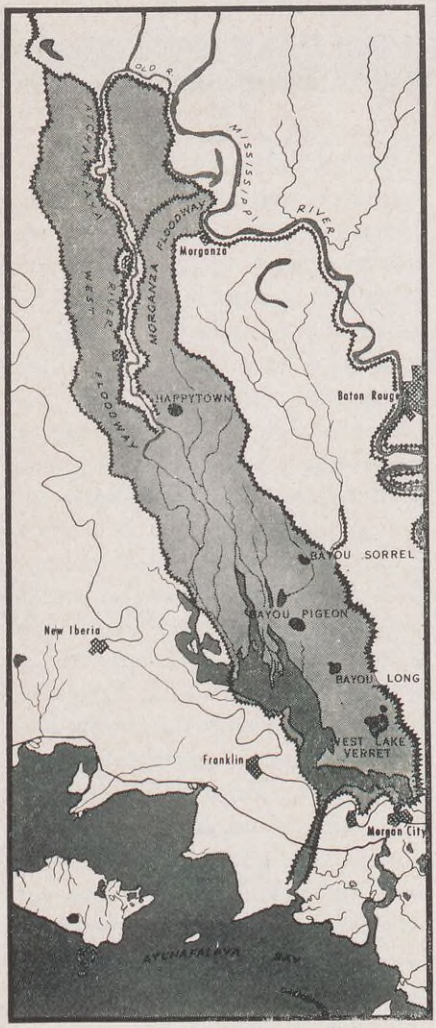
*Although These Shell Fields Lie Within One of Louisiana's Swampiest Regions, Equipment Always Stays Safely Above Water*

Much of the Atchafalaya Floodway is heavily wooded, like the section shown above. Behind the trees, a tug pushes a crude oil barge along a section of the Intracoastal Canal, which cuts across the southern end of the Floodway. The Intracoastal Canal affords a water route to the Norco Refinery.

A submersible contract rig, below, drills a development well at Shell's Bayou Sorrel Field, one of two new producing locations in the southeast sector of the Floodway opened up last year by successful Company wildcats. A workman approaches the structure in a bayou canoe, called a pirogue.

A. A. Lamb, above, left, Construction Foreman in the Delta Division of Shell's New Orleans Exploration and Production Area, and George Roach, employee of a service company, moor a barge at a gas well at the Bayou Long Field.

Resembling an outsize yardstick, the water gauge on this platform in the West Lake Verret Field, below, shows spring flood waters falling off near the six-foot level. Ten feet was the highest water level ever recorded here.




Lightly shaded area, above, is the Atchafalaya Floodway, huge flood control project in Louisiana.

In the heart of the bayou country to the west of New Orleans, there is a long, sausage-shaped strip of swampland known as the Atchafalaya (pronounced a-CHAFF-ah-LIE-uh) Floodway. Underneath a large portion of this vast $40 million Government flood-control project lie some of Louisiana's most prolific oil sands. But if the floodgates ever are opened to drain off the excess water of the Mississippi River, which periodically threatens to spill over the land, five Shell producing locations within the Floodway's boundaries might suddenly be submerged. Drilling and production equipment would also be flooded out if it weren't anchored at a safe distance above the water.

There are further and equally hazardous geographic conditions to hamper the work of Shell production crews within the Floodway's limits. Included in its southern flank is one of the largest and most primitive swamps in Louisiana. Bayous twist in and out of the area, underbrush is thick and wildlife abounds. And, to lay crude gathering lines after a well has been drilled, Shell men frequently must wade through shoulder-deep water over invisible obstacles like gnarled tree roots. Men work from pirogues—small bayou canoes made of scooped-out logs—and hack away at the underbrush with axes and saws so dredges can get through to clear channels for drilling rigs. In the southern part of the Floodway, the Atchafalaya River spreads its rain-swollen brown waters over the land every spring, raising the water level in the oil and gas fields by seven to ten feet.

But despite these difficulties, there is bustling activity in all five fields. For many years, Shell wells at West Lake Verret, Bayou Pigeon and Happytown have accounted for an important share of the Company's annual oil and gas production in Louisiana. Last year, with the discovery of oil and gas at Bayou Sorrel and gas at Bayou Long, Shell added two promising new fields in the southeast quarter of the Floodway. Two Shell contract rigs are busy at present drilling development wells at Bayou Sorrel. At the Bayou Long Field, where initial production tests have indicated a strong potential, two natural gas wells have been shut in to await the extension of commercial gas lines.

The combined obstacles to producing oil and gas in these semi-submerged fields have been conquered in a variety of ways. Drilling platforms have in all cases been built high enough that their edges seldom touch water. Well heads, too, have been fitted to withstand possible damage from the periodic floods, with the valves and chokes at an accessible level above the water. It is infrequent, even in time of flood, that a well has to be shut-in as a safety measure.

At West Lake Verret, even Shell's gas compressor station has been designed as a kind of floating plant. It stands on platforms that automatically rise and fall with the water level. Connections in the gas lines here are flexible enough that there is no interference in production no matter what the unpredictable water does.

With the increasing oil yield at Bayou Sorrel, plans are underway to construct centralized, permanent gathering facilities. These will replace a small battery of tanks, situated on an earthen-fill island, which had served the field up to now. There will be four separate platforms raised 15 feet above the swampy earth on wooden piles, and on them there will be two 1,000-barrel storage tanks, separators, oil and gas meters, well-testing equipment, heater treaters, a small office and limited space for additional equipment. The platforms will be connected with steel walkways which would, in case of fire, reduce the possibility of flames spreading from one platform to another.

Despite the problems it presents, producing oil in the Floodway fields offers one big advantage: The many bayous give crude-hauling barges easy access to the fields. And from there, barges travel a direct water route via the Gulf Intracoastal Canal and the Mississippi River to Shell's Norco Refinery.

But production difficulties are not the only ones to be surmounted. As Shell's search for oil and gas in this region continues, exploration crews have equally laborious going. Often they must pull their small boats through the thick growth and over floating logs. At flood peaks, seismic crews sometimes moor their boats to the tree tops and set up their seismic explosions from points far above what normally is dry ground.

# PLANNING FOR

By HERBERT LEASURE

THOUSANDS of Shell employees —especially those of us with 15 or more years of service—often speak hopefully of retirement and of the things we intend to do once we leave our jobs for the last time. Investigation shows, however, that our "intentions" are sometimes surprisingly vague and undefined. Few of us, at least until recently, have made any real plans for retirement. In fact, out of 50 persons nearing retirement age who were interviewed at one large Shell office, only two had definite "blueprints" of what they intended to do after they retired.

It is possible, of course, for some individuals to make satisfactory unplanned adjustments to the new way of life which retirement necessitates. But the majority of us are not so easily adaptable. Just as we need training for our careers, we need some sort of preparation to cope successfully with the important changes which retirement brings to the individual—changes in activity, surroundings, associates, and income.

Realizing this, Shell began some years ago to lay the groundwork for an organized program to offer employees an opportunity to examine and discuss retirement in relation to their own circumstances. Reasoning that a good measure of financial security, the basic need in retirement, is provided by the Shell Pension Plan and Provident Fund, the Company developed a program which would cover many of the additional personal problems, some of which are often overlooked or misunderstood. It was recognized that failure to face up to these problems and to plan to meet them could mean the difference between a happy and an unsuccessful retirement.

Called "Planning for Retirement," the program was inaugurated on a trial basis at five Shell locations in the fall of 1952. At offices of the Wood River Refinery, the Pacific Coast Exploration and Production Area, and the New York, Los Angeles, and San Francisco Marketing Divisions, individuals experienced in personnel matters were assigned to handle the program. In preparation for their work, the men designated to conduct the program were provided with training in Head Office on retirement and its problems. As additional men were selected and trained during succeeding months, they were given similar assignments at other locations. Today, pre-retirement discussions are a regular service available to employees at nearly every Shell location. In such widespread operations as Exploration and Production Areas, men conducting these discussions often travel great distances to talk with employees. A few locations do not yet have the program in operation, but it is anticipated that arrangements will soon be made to extend it to them.

Employee participation in the program is entirely voluntary. At each location, the manager sends a personal letter to each employee approaching retirement age, telling him that a helpful service is his for the asking. Participation simply means that the individual handling the program sits down with the employee for a series of personal discussions about certain recognized retirement problems and his views and plans concerning them. The employee is under no obligation to attend the discussions if he feels they do not interest him.

As a general rule, four separate and confidential discussions are held with each employee participating in the program. The first covers the general purpose of the Planning for Retirement service, the desirability of plan-

Herbert Leasure, below, Head Office Personnel Department, spent several years helping to establish and now assists in the coordination of the Planning for Retirement program throughout Shell.

At right, S. J. Friloux, a Leadburner at the Norco Refinery, makes a point in a conversation with George Smith, who handles the program at Norco.

# RETIREMENT

## *Shell Employees Nearing Retirement Age Are Now Offered a Service To Help Them Plan for the Years Ahead*

ning and what to plan for. The second deals principally with retirement finances. Many persons, it has been found, do not have a very good idea of what their retirement benefits will be, including Social Security, or the amount of their Provident Fund accumulations.

The third discussion usually deals with health and physical condition. If the employee wishes, a physical examination at Shell's expense is arranged so that he may have a good idea as to his immediate physical condition and what limitations, if any, he should be mindful of during retirement.

The fourth discussion covers the subject of what to do and where to live during retirement. Since attitudes and conditions concerning these matters are not standardized, analysis, study and discussion of them with an experienced individual can be helpful to employees in making wise choices.

In addition to these discussions, each participant in the program is given an outline of the service, a series of articles dealing with retirement, a check list of important personal papers and a bibliography of books and magazines devoted to the many significant aspects of retirement and general problems of men and women who are approaching it.

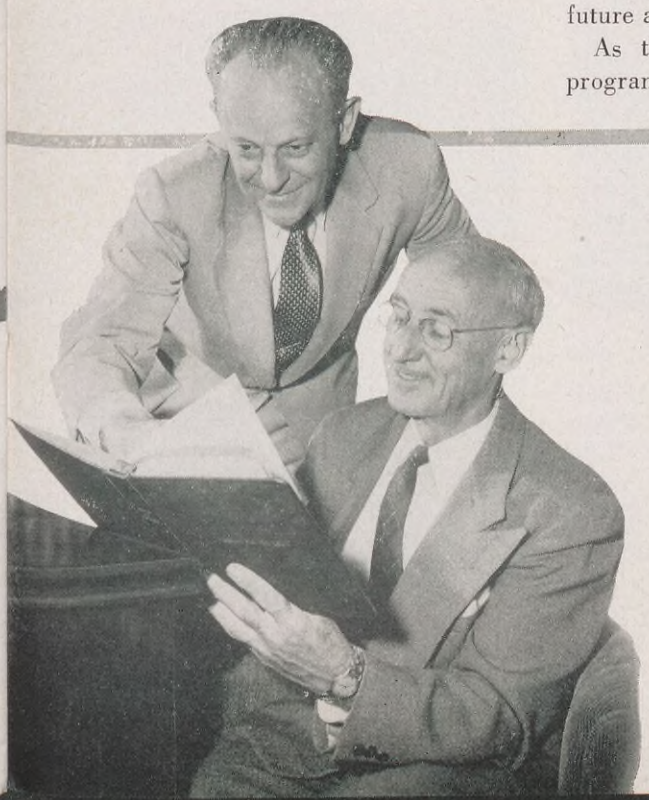
The first goal of the men handling the discussions is to get a person to start *thinking* about retirement and what it involves. After that, if he has any specific desires or opinions about what he should do, we try to get him to investigate them to see if they can be included—or are practicable for inclusion—in a "way of life" which will meet his individual needs. We do not presume to tell anyone how to spend either his time or money after he retires. If we can stimulate thought and interest, the individual will develop his own plans.

We offer information on a variety of subjects. But a lot of times we just serve as "good listeners," because a lot of people need nothing more than an opportunity to talk out their own accumulation of thoughts about retirement. In the course of a man's own conversation his ideas often drop into place in an orderly pattern for future action.

As the Planning for Retirement program progresses, invitations will be sent to employees approximately five years before their normal retirement age—thus allowing ample time for retirement planning. Since the program is new, however, nearly all of the locations are still "catching up" with lists of older employees. They look forward to the day when all interviews will be held not less than five years before normal retirement age.

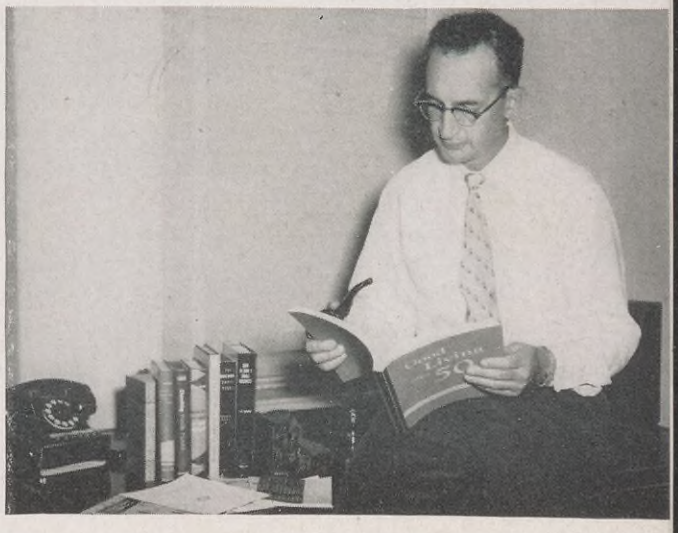
Also, because the program is new there has been little opportunity to estimate how much it has benefited those who have participated in it. However, frequently an employee or a pensioner has telephoned or written to express his thanks for assistance or information in a particular matter or to offer a piece of good advice in turn. These post-discussion and post-retirement contacts seem to indicate that the program is beginning to show tangible results.

At least we are certain that retiring employees are better off for having started thinking and talking well in advance about their plans for the future. After all, the average life expectancy is increasing. And the years after retirement seem, to some people, like an awfully long time to sit on the front porch with nothing to do.



John N. Hull, of the San Francisco Office, standing at left, discusses Planning for Retirement material he has given to C. E. Crompton, former Public Relations Representative at San Francisco, who retired this year.

J. E. James, right, of the Houston Exploration and Production Area Personnel and Industrial Relations Department, looks over one of several books he uses in providing retirement information for employees.



# Where there's a will there's a way ... TO EUROPE

Members of Midland, Texas, Girl Scout Troop 13 and their leaders, above, wave goodbye just before sailing from New York aboard the Andrea Doria. From left, they are Ann Williams, Nancy Herold, Gerry Liscum, Lois Nell West, Carol Ann Wilkinson, Janice Hill, Troop Leader Betty Jo Greene, Midland Girl Scout Field Director Mrs. David Bishop, Larry Ann Burnside, Carolyn Petering, Brownie Queen, Janice Michener, Theresa Jones, Carol Ann Fitting, and Mary Wynn. Another member of the Girl Scout Troop, Darlene Aldridge, joined them later in Italy.

*A Two-Year Dream Comes True for 14 Girl Scouts on a European Tour*

A NEATLY uniformed group of Midland, Texas, Girl Scouts are currently seeing the sights of Europe on a three-month vacation tour that is taking them through eight countries. The trip, financed entirely by themselves, proves once again what a group of young people can accomplish, given ample determination on their part and a large portion of encouragement from their parents and community.

Almost forgotten in the excitement of viewing strange scenes and people are nearly three years of hard work that went into raising the $18,000 necessary for the tour. The girls' main stipulation was that they earn all of the money themselves, and their hopes were not dampened by their Troop designation. It is 13.

Helping make the girls' dream come true were Shell employees and their families in the Midland Exploration and Production Area. The Shell people joined fellow citizens in hiring the girls for part-time jobs and in supporting various other projects through which funds were raised.

Group projects accounted for most of the money raised by the Troop. Each girl needed $1,084 for transportation, room and board while on the tour. Each girl also had to raise a minimum of $200 personal expense money in projects of her own.

Nancy Herold, one of the Girl

Scouts on the tour, is the daughter of Midland Area Geologist C. L. Herold. Troop Leader Betty Jo Greene, one of two Girl Scout officials chaperoning the girls on the tour, is the daughter of the late J. L. Greene, a former Shell employee in Midland.

For Nancy Herold, the trip will mean more than a three-month tour of Europe. Two days before Troop 13 sailed from New York City aboard the Andrea Doria, Mr. and Mrs. Herold and another daughter departed aboard the Queen Mary. Mr. Herold will be on a one-year special assignment in The Hague, and when her Troop returns to the United States, Nancy will join her family in Holland.

The itinerary of the touring Girl Scouts will include stops at Naples, Italy; the islands of Capri and Sorrento; Rome, Florence and Venice, Italy; Innsbruk, Austria; Lucerne and Attleboden, Switzerland; Heidelberg and Cologne, Germany; Amsterdam, Rotterdam, Vollendam and The Hague, Holland; Brussels, Belgium; Paris and the French Riviera; London, England; Edinburgh and Glasgow, Scotland. To the girls of Midland's Troop 13, the tour is a dream come true.

Shell people, like Mrs. O. B. Jackson, left in photo at right, wife of a Senior Geophysicist in the Midland Exploration and Production Area, joined other citizens of Midland in helping the Girl Scouts raise their funds. Mrs. Jackson buys a Christmas cedar wreath from Nancy Herold, daughter of Midland Area Geologist and Mrs. C. L. Herold.

Spaghetti suppers were the backbone of the girls' money raising campaign. They rented a school cafeteria, cooked and served the meals themselves. During one of several suppers the troop sponsored, left, Larry Ann Burnside helped a guest select a dessert.

Baby-sitting was a major individual project by which each girl earned part of the trip's expense. Nancy Herold, above, is on the job with a bedtime story for Mary and Bill Brown, children of Midland Area Gas Manager J. L. Brown. They also raised individual money at other jobs, like waiting on tables, working as hospital laboratory assistants, addressing envelopes and tutoring.

The girls operated target ejectors for a Midland skeet club to raise part of the $1,084 each needed for travel, lodging and food, and $200 additional for spending money. A club member, left, gives instructions on the ejector's operation to Theresa Jones, left, Nancy Herold, center, and Janice Michener. The girls also cooked and served food at the club during two regional skeet meets.

# Where There's A Will . . . *cont'd*

Janice Michener, above, left, and Gerry Liscum were among the girls who colored oil well logs for oil operators to earn trip money. One member of the troop, Ann Williams, raised a calf and sold it profitably.

Cake sales earned the girls a considerable part of their expenses. Above, in the kitchen at one of their homes, Carol Ann Fitting, left; Carol Ann Wilkinson, kneeling, and Lois Nell West prepare cakes for sale.

Nancy Herold, below, left, and Mary Wynn select clothes from Midland merchants for modeling in back-to-school style shows. They raised $1,200 of troop's total expenses through these projects. They also did janitoring jobs and housework.


"Be seeing you in three months" Nancy Herold tells her parents and younger sister, Judy, as they sailed aboard the Queen Mary two days before Girl Scouts were due to leave New York. After Troop 13 tours Europe, Nancy will join her family in The Hague, Holland, where Mr. Herold is on a year's special assignment.

# They Have Retired

H. D. ATHERTON
Shell Chemical Corp.
Martinez Plant

B. C. BARKER
Los Angeles Div.
Operations

R. R. BRAUN
Los Angeles Div.
Sales

L. G. FRASER
Boston Div.
Operations

J. L. FROST
Pacific Coast Area
Production

R. F. GRAY
New Orleans Area
Treasury

W. J. HALL
Martinez Refy.
Engineering

N. A. MacKENZIE
Boston Div.
Operations

S. A. McCLUNG
Pacific Coast Area
Production

R. C. OSBORN
Pacific Coast Area
Pipe Line

A. PARKER
New Orleans Area
Production

J. J. SCHMITZ
Chicago Div.
Operations

R. W. SHEEHY
St. Louis Div.
Operations

A. R. SLOAN
Boston Div.
Operations

R. E. SWEARENGIN, SR.
Martinez Refy.
Engineering

V. L. WEINDEL
Wood River Refy.
Catalytic Cracking

R. B. WHEELER
Sacramento Div.
Sales

# SHELL COAST TO COAST

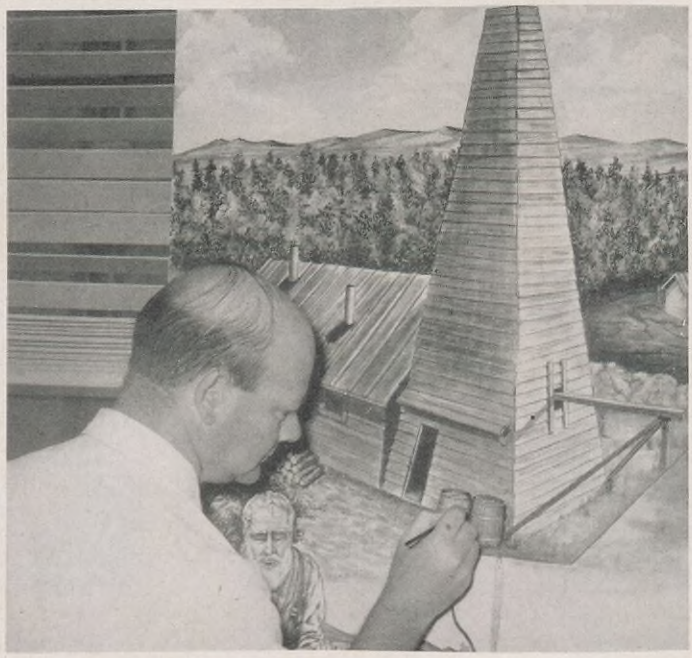
Right, mural painted by Draftsman Jack Moore of the Houston Exploration and Production Area indicates the varied techniques involved in the search for oil. Below, Moore works on a panel that will become part of a second mural depicting the oil industry's colorful history. Both murals, one of which is completed, will hang on the 22nd floor of the Shell Building in Houston.

## Murals by Moore

Visitors to the 22nd floor of the Shell Building in Houston soon will see a capsule account of the oil industry's colorful history and progress in two murals being painted by Draftsman Jack Moore of the Houston Exploration and Production Area.

The first mural, covering the almost boundless ways in which oil men search for petroleum, has already been completed. Done in casein, a water-based paint, it extends across a wall nearly 11 feet long and five feet high. A second mural, twice that size and depicting highlights in oil's history, is well underway. Drake's first well, contrasts between old and modern drilling rigs, changes in refining methods, petroleum research, petroleum in agriculture and progress in transportation and marketing are among the phases of the oil business it will show.

Before beginning the murals, which consist of a number of panels fitted together, Moore made small preliminary drawings from pictures either taken over a long period by Shell photographers or gathered from other sources. These drawings were photographed, enlarged to four times their original size and sketched on masonite panels. Moore estimates that it takes from ten days to two weeks to complete a single panel. Slightly more than nine full panels will be required.




The woman's place in science was the subject of a recent Chemical Progress Week broadcast discussion between Mrs. L. M. Whitney, above right, Mechanical Engineer in the Fuels and Engine Lubricants Department of Shell Development Company's Emeryville Research Center, and Jane Todd, commentator on San Francisco's Station KCBS.

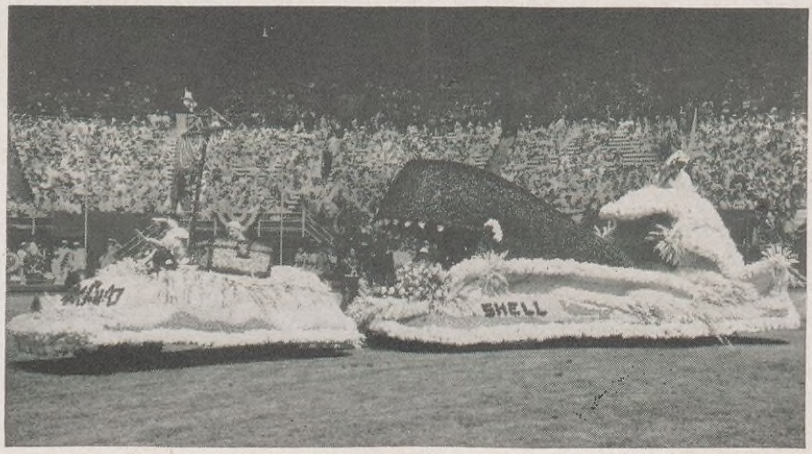
H. W. Stewart, Manager of Shell's Sacramento Marketing Division until his recent retirement, has been named by Governor Goodwin J. Knight to a four-year term on the California State Industrial Accident Commission. Mr. Stewart had been with Shell for 35 years.

First winner of an annual contest to determine a "Shell Club Queen" among women employees of the Wood River Refinery is Mrs. Lynette Spudich of the Engineering Office. She is shown at left with her husband, George, before she was crowned at the Club's annual dance.

"Hearts Afloat," original musical comedy about a group of tourists on a Caribbean cruise, was presented in five performances recently by the Shell Playhouse, Head Office employee organization in New York. Playhouse members wrote both music and lyrics. Nearly 50 Shell people were involved in the show production, given in a private theater.

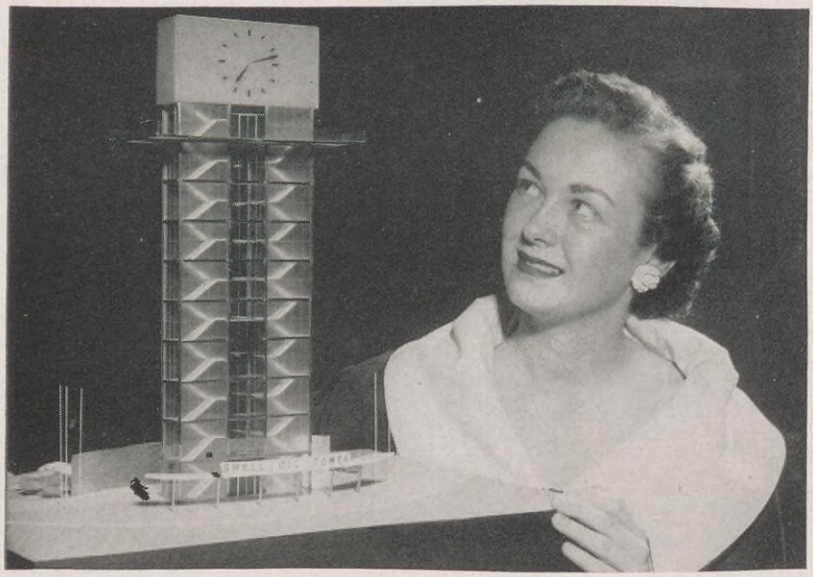
## New Fangled Fish Story

A serious collector of tropical fish is Kirk Dyer of the Land Department in the Denver Exploration and Production Area who became interested in them seven years ago. His collection has so grown that he now owns three aquariums, like the one shown above. The small, beautifully colored fish cost from 25 cents to $200 apiece, and tropical fish hobbyists compete to acquire rare breeds. Dyer reports that the fish require little attention, although they must ordinarily be kept in thermostatically controlled tanks to keep the water at a constantly warm temperature. As evidence of the hobby's popularity in Colorado, several aquarium societies are organized in the state. The Denver group holds annual shows and prize competitions.




Shell's entrant in the Portland, Oregon, Rose Festival, above—a float which depicted Pinocchio being chased by a whale—won a first-prize blue ribbon. At left, a parade official presents the award to Mrs. Barbara J. Amacher, of Shell's Portland Marketing Division Tabulating Department. In the parade, Mrs. Amacher rode on a section of the float built to represent a wave breaking over the whale. The parade's theme was one of story-book characters.

Trophy winners in the 1955 Mileage Marathon, sponsored by and open exclusively to employees in the Wood River Refinery Research Laboratory, are, left to right in photo at right: W. N. Groves, first; E. R. Lane, second; C. A. Phalen and G. D. Chambliss, tie for third, and V. T. Welch, fourth. Groves won by averaging 36.67 miles per gallon in a 1953 model automobile over a 26.9 mile course that was kept secret until race time. In inset photo at far right, C. F. Zimpel and R. E. Sutton, race officials, weigh a can of gasoline to determine miles-per-gallon average of a Marathon contestant. To qualify for honors, contestants had to observe a strict set of rules that limited car weight, tire pressure and engine adjustments.



Visitors to the Canadian National Exhibition in Toronto later this month will see a striking new addition among the permanent buildings —the Shell Tower. Miss Helen Merklinger, at left, Receptionist in Shell Oil Company of Canada's Head Office, studies a model of the Tower. The glass and steel structure will stand 120 feet high and will be topped by a giant clock. An observation platform for visitors will circle the Tower near its top.

# Service Birthdays

## Forty-Five Years

H. JACOBS
Head Office
Marketing

## Forty Years

G. W. HONEGGER
Martinez Refy.
Engineering

## Thirty-Five Years

H. D. CHAPPELL
Wood River Refy.
Effluent Control

D. M. CUNNINGHAM
Tulsa Area
Production

R. A. ELLIS
Pacific Coast Area
Production

J. F. HARROW
Shell Chemical Corp.
Martinez Plant

L. D. RHODES
Midland Area
Production

A. J. SCHEXNAYDER
Norco Refy.
Engineering

J. T. VIERA
Martinez Refy.
Engineering

F. E. WILBERT
Pacific Coast Area
Production

G. WHITESELL
Shell Pipe Line Corp.
Mid-Continent Area

## Thirty Years

L. E. BANKS
Wilmington Refy.
Engineering

R. S. BELSHE
Shell Pipe Line Corp.
Mid-Continent Area

H. O. BINKLEY
Shell Pipe Line Corp.
Mid-Continent Area

E. H. DISHMAN
Tulsa Area
Automotive

R. A. DOWELL
Shell Pipe Line Corp.
Mid-Continent Area

A. J. GALLOWAY
Head Office
Vice Pres.-Expl. & Prod.

H. GILMOR
Houston Refy.
Stores

F. J. HAVERSCHMID
Shell Chemical Corp
Head Office

T. S. HAYWOOD
Houston Area
Production

C. R. HOTARD
Norco Refy.
Distilling

F. S. JENSEN
Martinez Refy.
Cracking

M. C. KEILBACH
Wood River Refy.
Engineering

W. J. KELLEY
Shell Pipe Line Corp.
Mid-Continent Area

O. L. KESTERSON
Shell Pipe Line Corp.
Texas-Gulf Area

G. W. KNAPP
Shell Pipe Line Corp.
Mid-Continent Area

D. A. LEMON
Wood River Refy.
Stores

## Thirty Years (cont'd)

N. D. McCLURE
ell Pipe Line Corp.
West Texas Area

N. NAQUIN
Norco Refy.
Engineering

C. T. NICHOLAS
St. Louis Div.
Operations

A. B. NOBEL
Pacific Coast Area
Production

O. R. OGLESBY
Wood River Refy.
Control Laboratory

D. R. OLIVER
Products Pipe Line
Zionsville, Indiana

E. W. RAUB
Shell Pipe Line Corp.
Mid-Continent Area

T. C. RAYNES
Shell Pipe Line Corp.
Mid-Continent Area

J. R. ROBERTS
Wood River Refy.
atalytic Cracking

W. M. SCROGGS
Shell Pipe Line Corp.
Mid-Continent Area

M. H. SEGAL
San Francisco Div.
Treasury

J. SEIBEL
Martinez Refy.
Engineering

A. M. SIMON
Norco Refy.
Dispatching

B. J. SOWKA
Chicago Div.
Operations

K. S. WOODFORD
Martinez Refy.
Lubricating Oils

J. C. WOODS
Midland Area
Automotive

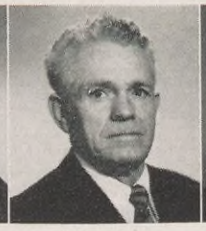
## Twenty-Five Years

J. M. ADAMS
Pacific Coast Area
Production

C. W. ALLEN
Boston Div.
Sales

G. D. ALLEN
Wood River Refy.
Engineering

F. V. ATHONS
Pacific Coast Area
Production



J. R. BIGGART
Wilmington Refy.
Engineering

C. P. BRISTOL
Tulsa Area
Vice President

C. S. BUCHANAN
St. Louis Div.
Sales

B. C. CLARK
Shell Development Co.
Emeryville

H. W. COPELAND
Atlanta Div.
Operations

A. F. DEUTSCH
Head Office
Manufacturing

L. F. FABER
St. Louis Div.
Operations

C. L. FORS
Wood River Refy.
Control Laboratory

G. L. FREEMAN
Cleveland Div.
Operations

R. L. GAUTSCHE
Shell Pipe Line Corp.
Head Office

A. G. GEARHEARD, JR.
Norco Refy.
Treasury

M. R. GOULD
Detroit Div.
Operations

F. C. L. HALLIDAY
Los Angeles Div.
Marketing Service

O. D. HUTTO
New Orleans Area
Production

J. F. JACKMAN
New York Div.
Operations

# Twenty-Five Years (cont'd)

L. B. KERSEY
Shell Pipe Line Corp.
Texas-Gulf Area

R. B. LAMBERTON
New York Div.
Sales

H. F. LARGE
Tulsa Area
Production

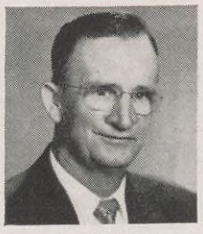
G. W. MAKER
Shell Chemical Corp.
Ammonia Div.

A. J. McDOUGALL
New York Div.
Operations

C. REYNOLDS
Houston Area
Automotive

E. SNAJDR
Wood River Refy.
Control Laboratory

C. M. SWEENY
Seattle Div.
Sales



G. E. THORN
Houston Refy.
Engineering

S. M. TREADWAY
Atlanta Div.
Sales

R. E. TUCKER
Pacific Coast Area
Pipe Line

C. N. WEBER
Indianapolis Div.
Sales

## SHELL OIL COMPANY

### Head Office

20 Years

W. B. Golush.....Exploration & Production
M. P. L. Love, Jr. .....Manufacturing

15 Years

R. F. Dopf.....Transportation & Supplies

10 Years

J. O. Izatt.....Manufacturing

### San Francisco Office

10 Years

Reda M. Aeschlimann.....Financial
N. Langridge.....Marketing

### Exploration and Production

#### CALGARY AREA

20 Years

A. F. MacDonald.....Production

#### DENVER AREA

15 Years

A. T. Bowler.....Pers. & Indus. Relations
J. R. Richards.....Public Relations

10 Years

V. N. Madson.....Land

#### HOUSTON AREA

20 Years

A. A. Barentine.....Exploration
A. F. Luker.....Automotive
C. G. McDonald.....Production
J. E. Pate.....Production
A. F. Rudel.....Production

15 Years

Q. M. Peterson.....Production
J. C. Steinhagen.....Land

10 Years

C. W. Eastland.....Gas
H. E. Helmcamp.....Gas
J. A. Jamail.....Land
B. K. Martin.....Automotive
W. D. McQueen.....Production
J. Robertson.....Production
E. A. Weeden.....Automotive
N. S. White.....Production

#### MIDLAND AREA

20 Years

N. D. Nixon.....Production

15 Years

O. Hitchcock.....Exploration

10 Years

M. H. Davis.....Production
E. M. Dowell.....Production
J. W. V. Dugan.....Production
J. A. Lampkin.....Gas
W. T. Mitchell.....Production
W. F. Shipley.....Gas

#### NEW ORLEANS AREA

20 Years

F. W. Jones.....Exploration
A. B. Lyall.....Production
J. L. Nicholson.....Exploration
W. E. Porter.....Production

15 Years

L. D. Reynolds.....Production
C. A. Stuart.....Production

10 Years

T. A. Moffett.....Production
M. Moreau.....Production

#### PACIFIC COAST AREA

20 Years

Mildred M. Crawford.....Land
D. S. Easton.....Production
C. H. Gregory.....Exploration
E. L. Hale.....Production
C. A. Harrison.....Production
W. M. Keeler.....Production
H. H. Lenhart.....Gas
H. F. Stanley.....Pipe Line

15 Years

A. Ernst.....Treasury
Frances H. Hussey.....Public Relations

10 Years

W. E. Bertrem.....Purchasing-Stores
G. C. Bridges.....Production
H. L. Frazier.....Production
G. A. Lowery.....Pipe Line
J. L. Mahoney.....Production
C. E. Thrash.....Purchasing-Stores
O. A. Vanzant.....Pipe Line
J. E. Wright.....Production

#### TULSA AREA

20 Years

R. F. Christy.....Exploration
E. R. McCormick.....Treasury

15 Years

C. W. Hopewell.....Production

10 Years

N. V. Clark.....Gas
M. E. Dilley.....Treasury
G. Harrell.....Gas
D. V. Valentine.....Treasury

## Manufacturing

### HOUSTON REFINERY

#### 20 Years

C. E. Bergfeld.....Engineering
L. R. Brossette.....Lubricating Oils
J. R. Devereaux.....Thermal Cracking
G. Ehrensberger.....Engineering
L. B. Harris.....Engineering
R. G. Hightower.....Dispatching
L. B. Jones.....Distilling
C. D. Lee.....Engineering
L. D. Marsac.....Lubricating Oils
L. Simmons.....Engineering
T. J. Sudbeck.....Distilling
F. J. Sweeny.....Lubricating Oils
E. J. Vollers.....Distilling
F. Walker.....Engineering

#### 15 Years

J. Allen.....Engineering

#### 10 Years

J. H. Cassaro.....Gas
M. G. Hills.....Research Laboratory
W. H. Peters.....Fire & Safety
D. H. Smith.....Engineering
W. M. Stephens.....Engineering

### MARTINEZ REFINERY

#### 20 Years

R. L. Crossman.....Lubricating Oils
R. R. Moore.....Cracking
W. M. Thomas.....Stores
R. M. Tye.....Cracking

#### 15 Years

P. R. McEwen.....Engineering
W. J. Nicholson.....Research Laboratory

#### 10 Years

H. A. Conklin.....Dispatching
D. B. Jimenez.....Compounding

### NORCO REFINERY

#### 20 Years

M. A. Gassen, Jr.....Stores

#### 15 Years

L. J. Landry.....Pers. & Indus. Relations

#### 10 Years

R. J. Dupuy.....Distilling
F. J. Robert.....Engineering

### WILMINGTON REFINERY

#### 20 Years

H. Adams.....Control Laboratory
G. L. Kilgore.....Control Laboratory
A. R. Rivera.....Compounding

#### 10 Years

R. S. Barringer.....Engineering
C. S. Butler.....Distilling
J. S. Colvin.....Thermal Cracking
W. F. Green.....Engineering
E. L. Howland.....Control Laboratory
H. F. Jones.....Thermal Cracking
O. D. Lilley.....Thermal Cracking
J. L. Lloyd.....Compounding
C. C. Marshall.....Dispatching
C. D. Wall.....Engineering
M. W. Webb.....Alkylation

### WOOD RIVER REFINERY

#### 20 Years

T. R. Deen.....Engineering
C. W. Deitz.....Stores
L. F. Graham.....Engineering
M. H. Hubbs.....Fire & Safety
H. E. Jones.....Engineering
R. W. Puetz.....Engineering
N. L. Pyle.....Compounding
A. P. Racak.....Engineering
O. J. Snedeker.....Engineering
J. G. Wooldridge.....Compounding

#### 15 Years

S. G. Droege.....Engineering
J. R. Groom.....Thermal Cracking
T. H. Jones.....Thermal Cracking
W. M. Major.....Engineering
G. Margherio.....Engineering
A. L. Sharleville.....Engineering
E. W. Suhre.....Utilities

#### 10 Years

E. A. Carter.....Dispatching
K. L. Dean.....Dispatching
A. E. Doerr.....Control Laboratory
E. Gilbert, Jr.....Lubricating Oils
L. Kunz.....Control Laboratory
R. W. Lange.....Gas
C. E. Lewis.....Engineering
M. G. March.....Control Laboratory
H. F. May.....Fire & Safety
W. A. Murphy.....Control Laboratory
H. P. Turley.....Control Laboratory
F. H. Vozak.....Control Laboratory
J. L. Waters.....Control Laboratory

## Marketing

### MARKETING DIVISIONS

#### 20 Years

K. S. Cleare.....Atlanta, Operations
Margaret E. Dunphy.....Boston, Treasury
Olive G. Lee.....Cleveland, Treasury
W. C. Kean.....San Francisco, Treasury
C. W. Townsend.....Seattle, Treasury

#### 15 Years

G. W. Ellington.....Atlanta, Treasury
G. H. Petty.....Boston, Operations
F. E. Bradley.....Chicago, Operations
A. F. Olson.....Chicago, Marketing Service
G. G. Blackmore, Jr.....New York, Mktg. Serv.
R. Gechter.....New York, Operations
E. F. Pearce.....San Francisco, Sales
L. C. Geissel.....Seattle, Operations

#### 10 Years

J. C. Tillis.....Atlanta, Operations
J. J. Balcer.....Baltimore, Operations
E. B. McKenzie.....Baltimore, Operations
J. A. Roppelt.....Baltimore, Operations
E. J. Lyons.....Boston, Sales
J. Adamek.....Chicago, Operations
W. H. Blankenheim.....Chicago, Operations
A. D. Philp.....Chicago, Operations
S. Ulanowicz.....Chicago, Operations
M. M. Voss.....Chicago, Treasury
M. E. Farmer.....Cleveland, Operations
K. Tsuneda.....Honolulu, Treasury
W. J. McKee, Jr.....Indianapolis, Purch.-Stores
H. Schmelzer.....Los Angeles, Operations
J. V. Amen.....New York, Operations
Elizabeth J. Kogler.....New York, Mktg. Serv.
A. P. Marrone, Jr.....New York, Operations
D. G. Munro.....New York, Operations
J. D. Murphy.....New York, Operations
C. J. Pagnotta.....New York, Operations
A. J. Simmons.....New York, Operations
G. F. Stadtmuller.....New York, Operations
T. O. Esser.....Portland, Operations
M. D. Reese.....Portland, Treasury
F. Ross.....Portland, Operations
L. C. Schacher.....Portland, Operations
J. W. Weber.....Portland, Operations
L. H. Chapman.....Sacramento, Operations
W. P. Sorenson.....Sacramento, Operations
J. E. West.....St. Louis, Sales
H. F. J. Wilmot.....San Francisco, Sales

### SEWAREN PLANT

#### 10 Years

C. G. Daley.....Terminal
F. E. Einhorn.....Depot
Nina Meschersky.....Treasury

## Products Pipe Line

#### 20 Years

M. S. Kuhn.....Wood River, Ill.

#### 15 Years

E. L. Banks.....Wood River, Ill.
C. L. Brave.....St. Elmo, Ill.
R. L. Brown.....Harristown, Ill.
B. E. File.....Harristown, Ill.
E. J. Hendryx.....Casey, Ill.
J. H. Kimmons.....East Chicago, Ind.

#### 10 Years

M. J. Connolly.....Waltham, Mass.

## SHELL CHEMICAL CORPORATION

#### 20 Years

P. J. Morel.....Head Office
J. Elliott.....Houston
W. B. Rhoden.....Houston
R. W. Smith.....Houston
J. T. Benson.....Ventura

#### 15 Years

E. B. Silvestri.....Shell Point
E. S. Starkweather.....Ventura

#### 10 Years

B. B. Bradford.....Dominguez
P. Janssen.....Dominquez
D. C. Wells.....Head Office
S. M. Darnell.....Martinez
J. N. Green.....Shell Point

## SHELL DEVELOPMENT COMPANY

#### 20 Years

R. L. Griffin.....Emeryville
C. H. Larison.....Emeryville
A. D. Taylor.....Houston

#### 15 Years

R. L. Wixson.....Emeryville

#### 10 Years

R. Blondeau.....Denver
Martha Bartnick.....Emeryville
W. L. Campbell.....Emeryville
J. H. Colvin.....Emeryville
W. H. Davis.....Emeryville
C. A. Edmonds.....Emeryville
T. M. Hogan.....Emeryville
T. G. O'Brien.....Emeryville
Irene A. Rosenberg.....Emeryville
G. E. A. Wyld.....Emeryville

## SHELL PIPE LINE CORPORATION

#### 20 Years

L. T. Cain.....West Texas Area
J. W. Hunt.....West Texas Area
G. D. McCurdy.....West Texas Area

#### 15 Years

J. E. Pritchett.....West Texas Area

#### 10 Years

H. T. Jones.....West Texas Area

matters of *fact*


# an ounce of prevention...

... can, indeed, save a pound of cure when it concerns accidents and injury on the job. Your first concern should be to avoid accidents, but if you *should* suffer even the smallest of injuries your immediate problem is to prevent it from developing into a serious disability. Minor injuries, left unattended, can result in the loss of your health and well-being, loss of time from your job, and eventually loss of income. No matter how minor they may be, it is important to report all injuries when they occur.

SHELL OIL COMPANY
50 West 50th Street
NEW YORK, N. Y.
RETURN POSTAGE GUARANTEED

J. B. Bradshaw
4710 Bell
Houston, Texas

SCC



# Honolulu

Capital of the "Paradise of the Pacific", Honolulu is the transportation and commercial center of the Hawaiian Islands and the Pacific area. Its world-renowned climate draws thousands of tourists annually and provides splendid growing conditions for pineapples, sugar cane and other tropical foodstuffs. From Honolulu, a city of a quarter-million people, Shell directs the distribution of products through four field sales offices and eight bulk plants to the five major islands that make up the Hawaiian chain. Shell employees in the Honolulu Marketing Division channel Company products through more than 150 service stations and to important airline, cannery, military and public utility accounts.