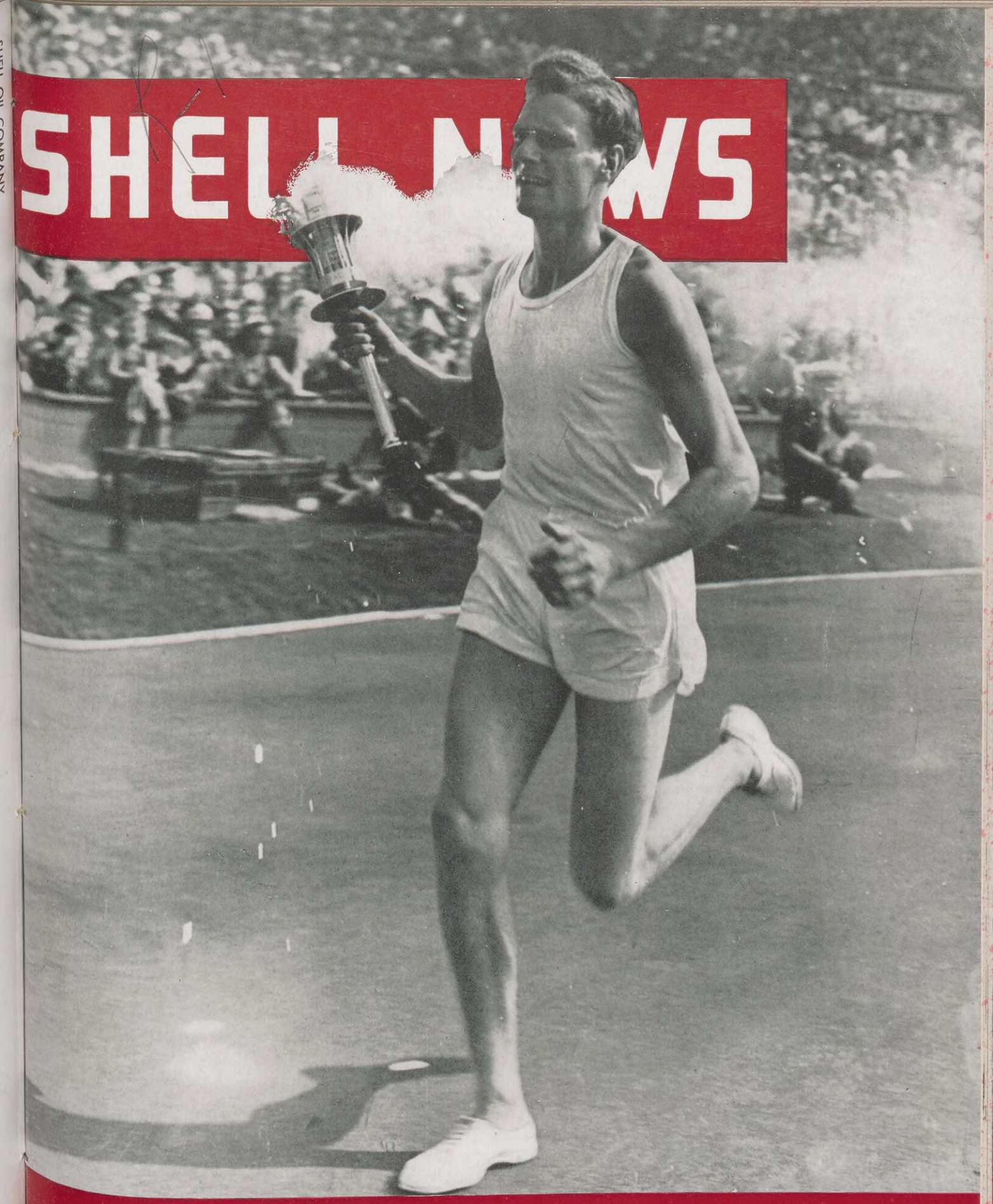
SHELL NEWS



SEPTEMBER · 1948

SHELL OIL COMPANY

The Elk City discovery well was brought in at 9,300 feet after drilling had extended to 13,133 feet

ELK CITY DISCOVERY

FIVE miles south of Elk City in western Oklahoma, Shell is carefully investigating a promising new gas-condensate field on which it holds a 28,000 acre block of leases.

The new field's discovery well, J. G. Walters 1, was brought in last December at a depth of about 9,300 feet after drilling to 13,133 feet at a cost of $780,000. After two months of extensive testing, the well was shut down while an exploratory drilling program was being developed to determine the full size and character of the reservoir. That program has been decided on and is underway.

A second well is now being drilled and more wells are planned. Drilling is scheduled to continue until the field is fully defined and developed. Some preliminary conclusions, however, have already been reached. Data gathered from the discovery well, for example, indicate that there are no liquids as such in the reservoir, that recoverable fluid (clear white condensate) exists in the reservoir solely in the form of gas.

In view of the potential gas reserves and discovery well experience there is the prospect that a gasoline plant may have to be constructed to insure the greatest yield of liquid product from the gas produced. Under the methods of separation used during the testing period, the discovery well produced approximately 76 barrels of condensate per million cubic feet of gas. Using the more efficient processing procedures of a modern gasoline plant, yield would climb from 76 to about 110 barrels per million cubic feet of gas.

All indications are that if the field lives up to expectation, a large-capacity gasoline plant will be required. The exact size, of course, depends upon the size and ultimate character of the field as determined by the exploratory drilling program now in progress.

SHELL NEWS

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

Employee Publications Division
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contents

associate editors

associate editors *(Marketing Divisions)*

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Shell At The Olympics

Shell Kept the Olympic Fires Burning This Year With a Specially Designed Burner for the Olympic Torch

On the site of the ancient temple of Zeus, in Greece, a ceremonial procession starts the Olympic flame on its journey to London.

LAST July 29th, in jam-packed Wembley Stadium in London, thousands of spectators witnessed the last act in a ceremony centuries old. The famed Olympic Torch was ignited and burst into flames, and the 1948 Olympic Games were officially underway. Designed by Shell at the request of the Organizing Committee of the 1948 Games, the great Torch burned steadily throughout the duration of the Games.

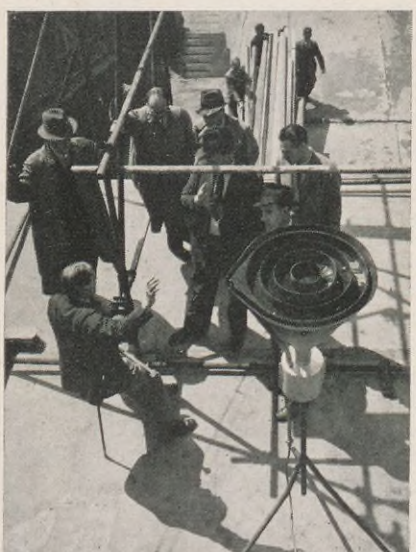
It was more than a year ago that the Olympic Committee turned to Shell for help in designing a new type of burner for the Wembley Torch. Shell undertook the problem because of its experience with flares and flood lights that use liquid gas, and the work was carried out at the Shell Laboratory in Delft, Holland, where problems of combustion are specially studied.

By November 1947 a satisfactory burner was produced. Three feet in diameter, it was capable of producing a flame about ten feet high when burning at full pressure—28 to 35 pounds per square inch at average temperature. Butane, a liquefied petroleum gas, was fed to a vaporizing chamber in the burner head when air was added. The resulting mixture was then fed to the burner proper. Various refinements were incorporated so that the ten-foot flame would keep burning even in high winds. The size of the flame could be varied widely, but continued to be windproof even at low consumption.

Last February the burner was flown to London for a demonstration before Shell and Olympiad representatives. The demonstration was completely successful, and the Committee accepted the design from which a final model was made at Delft and in due course erected in the Stadium.

The "match" that lighted the great Torch and opened the Games was itself a lighted torch, much smaller, of course, which relays of runners—each covering about 2 miles—had carried from Mount Olympus in Greece. Symbolizing "the fire that Prometheus stole from Jupiter on Mount Olympus" it had been ignited two weeks before in Olympia on the ancient site of the Temple of Zeus.

In a ceremony more than 2,000 years old, a 19-year-old Greek girl, dressed in the garb of her ancient forebears, focused the rays of the sun on an olive branch until it burst into flame. Then she transferred the fire to a lamp almost as old as the ceremony itself. From this lamp the small torch was lighted and handed to the first of the 1,600 runners who ran the long distance to London.



At the left, members of the Olympiad Committee and Shell technicians discuss timing arrangements for the ignition of the Olympic Torch. Right, the lighted torch, burning Shell-supplied liquid butane, produces a clear, yellow, smokeless flame.

Here, one of the 1,600 runners who carried the Olympic flame across Europe passes a group of villagers in Strefi, Greece. Two weeks later, the flame arrived in London (right, above).

In true classic fashion, the flames from Mount Olympus should have been carried directly across the European continent by the runners; but since it was not possible to guarantee safe conduct for the runners through the Balkan countries, the torch was taken aboard a British destroyer at Corfu, in Greece, and carried to Bari, Italy, where it was again met by runners who then ran with it across Europe to Calais.

At Calais, the torch was taken aboard another destroyer and carried across the English Channel to Dover where it began the last leg of its journey to Wembley Stadium in London, about 80 miles away. Finally, two weeks from the day the flame left Greece, it was burning brightly in the permanent Olympic Torch at Wembley.

This relay across the European continent is a symbolic tribute to the famous run made by an Olympic champion, Pheidippides, who, in 490 B. C., ran 26 miles from Marathon to Athens to report the news of the Battle of Marathon and died with the news of the victory on his lips.

A feature of the 1948 Olympiad of interest to Shell employees was the fact that seventeen employees from associated Shell companies in various parts of the world took part—some as competitors in the athletic events and others as officials.

The final Olympic relay runner, who carried the flame into London's Wembley Stadium, ignites the permanent Olympic Torch.

This page and upper right hand corner, page 2, Wide World Photos.

Diesels Ride The Rails

Oil-burning Diesel-Electric Locomotives Show Strong Popularity Increase in the Post-war United States

IF CASEY JONES came back today, he might have a certain amount of trouble locating a familiar Iron Horse on several of the nation's railroads. The snorting, puffing monsters which immortalized him are decreasing in number, and in some quarters their popularity is waning. After serving the nation faithfully for more than 100 years, the noisy, picturesque and dependable steam locomotives today find themselves facing stiff competition.

The competition is coming from the oil-burning diesel-electric locomotive, a twentieth century product which has been quick to make friends and influence railroad men. Such a locomotive is actually driven by electric motors mounted near the wheels, the motors receiving current from a generator which in turn is driven by a diesel engine. Champions of the diesel-electric point with pride to the clean, efficient and low-cost operation made possible by these locomotives which are helping to change the face of American railroading.

Many railroads are buying more and more diesel locomotives each year. This year, one of the major rail-

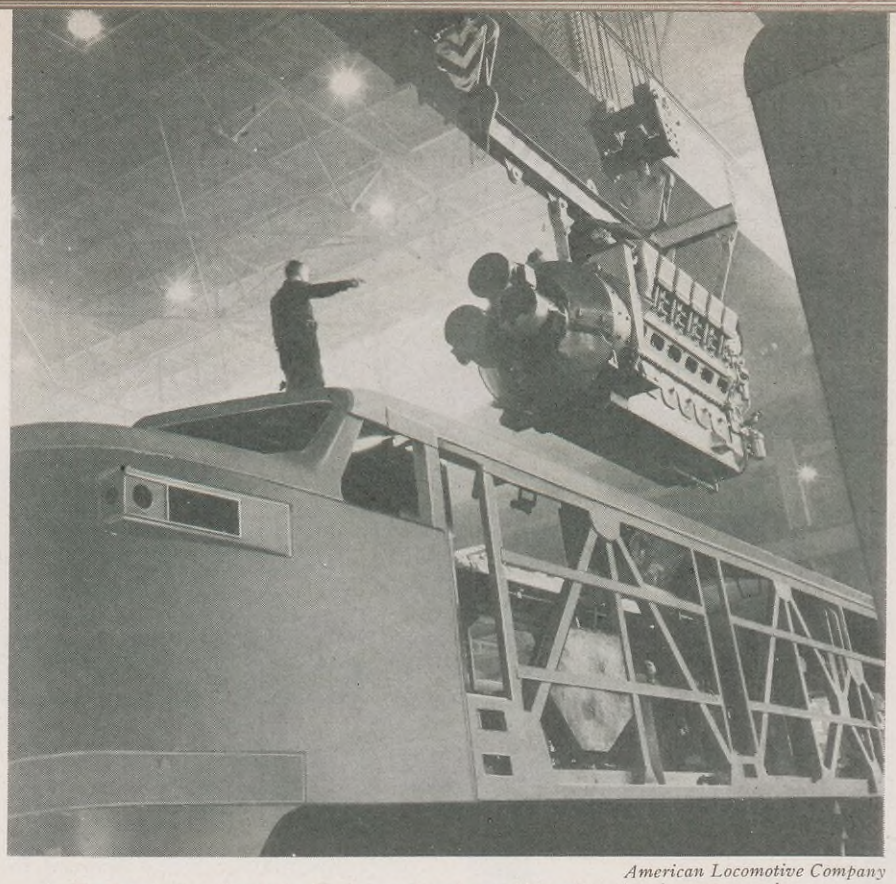
road equipment manufacturers, the American Locomotive Company, is completely through with steam, after one hundred years of turning out coal-burning locomotives. From now on, they will manufacture only diesels. "American Locomotive is not intentionally going out of the steam locomotive business," says a company spokesman. "It's simply a matter of demand."

The scale of the demand is shown in the orders. In January, 1948, for instance, there were 1,226 locomotives on order in the United States, of which 97 percent were diesels. The Nation's largest railroad, the Pennsylvania, has received or has on order, 375 diesel locomotives totalling nearly 300,000 horsepower. Over a 10-year period, the Santa Fe increased its number of diesels from 20 to 247, and today has almost 800,000 horsepower wrapped up in diesel locomotives. The Southern Pacific is building up a 500,000 horsepower fleet of diesels. The Baltimore and Ohio plans complete dieselization of all feature passenger trains by the end of 1948. Other major railroads are speedily getting on the diesel bandwagon. And as final proof of popularity, here's a pertinent fact from the juvenile world: 70 percent of the toy locomotives now being turned out are modeled after diesels while only 30 percent imitate steam and electric locomotives.

Diesel vs. Steam

What has the diesel locomotive got to explain its popularity with railroad men? Mechanical engineers can come up with a handful of answers to that question. Diesel-electric locomotives, for example, generally exhibit greater versatility than steam locomotives, operating efficiently under widely varied conditions. One reason for this versatility is that a greater number of driving axles permit full utilization of locomotive weight, and proper use of this weight helps attain maximum pulling power.

The use of diesels also allows railroads a decided increase in train tonnage, and heavy trains can be handled more easily. On long descending grades, electric braking helps the engineer, while on certain rising grades, diesel-electrics can make the haul alone without the assistance of helper locomotives.



American Locomotive Company

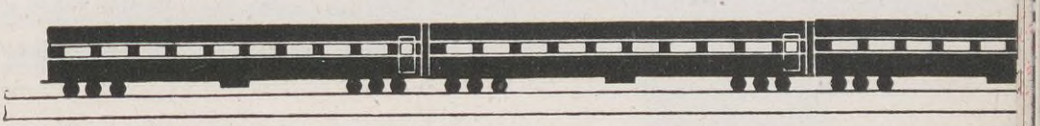
The heart of a diesel-electric locomotive is an oil-burning diesel engine, such as the 1,500 horsepower model shown here as it is lowered into a freight locomotive. Mechanical energy created by the diesel engine goes to a generator where it is converted into electric power which drives the locomotive.

These features, which have boosted the popularity of the diesel-electric, are the result of the electric transmission, a system long appreciated by those railroads which have electrified sections of their routes. Today, the diesel-electric is extending the advantages of electrical transmission on a world-wide scale. This is possible because each locomotive of this type carries a prime mover—the diesel engine—which spins the generator to make electricity. In reality, each diesel-electric is an electrically-driven locomotive equipped with its own power plant.

In train switching service, the diesel-electric locomotive has no equal, and switchers of from 660 to 1,000 horsepower are gradually replacing steam-powered switching locomotives of greater capacity. The diesel-electrics operate for long periods without attention. Their refueling is simple, maintenance expense is low, and their efficiency is high.

For road service, on freight and passenger hauls, diesel-electric locomotives range from 1,500 to 6,000 horsepower. These larger locomotives are often composed of one or more units of 1,500, 2,000 or 3,000 H.P. capacity. The average size of all diesel road locomotives is between 4,000 and 4,500 H.P.

Along with efficiency and economy of operation, diesels have a host of



The Baldwin Locomotive Works

Because of low operating expense and maintenance cost, diesel-electric switching locomotives are gradually replacing all other types used for this service in railroad yards.

other advantages; many planned for the comfort of the passenger. The electric power transmission system used on diesel-electric locomotives eliminates jerky starts and stops and makes for generally smoother operation. A low center of gravity and smooth, rapid acceleration at low speeds do much for general riding qualities. And diesels throw neither coal dust, cinders nor smoke.

Safety improvements have been made too. The driving motors over the locomotive wheels may be reversed to act as brakes, an advantage which has proved its worth in mountain country. When extra power is needed in the mountains, additional units may be added to the locomotive, all directly controlled by the engineer. As for the engineer himself, he has more comfortable quarters and much better visibility, looking straight ahead and out to either side instead of leaning out one side of his cab as is common practice with engineers who operate steam locomotives.

Diesel Development Slow Until Recent Years

The prime mover for our modern diesel locomotives—the engine itself—was developed slowly over a 50-year period. The brain child of Rudolph Diesel, it was first patented in Berlin in 1892, but no really successful model was built until 1897. In 1898, Adolphus Busch became the American father of the diesel engine, constructing a successful commercial model in St. Louis.

Research in the diesel field moved at a leisurely pace in the early years of the twentieth century. The new engine was tried out experimentally in locomotives, sailing ships, motorships and liners as well as in stationary installations. The submarine dramatized the use of the diesel in the first World War. In the post-war 1920's, as original patents expired, there was another flurry of interest in the oil-burning engines. All these efforts, however, were more or less feelers in the field of product application and there was no mass manufacture of diesels for any specialized purpose.

The most spectacular diesel advances were made in the field of railroading. In 1924-25, what is generally regarded as the first diesel locomotive, a switcher, was put to use for the Central Railroad of New Jersey. It did the yard work efficiently, and railroad men began to think in terms of potential diesel power for passenger and freight trains. In the late 1920's General Motors became interested in Electro Motive Corporation development of diesel engines for use in locomotives, and at the Chicago Century of Progress exhibition in 1933, GM displayed two light weight, high powered engines, each capable of generating 600 horsepower. The significant features of E.M.C. were incorporated in these engines which showed a

Art courtesy of West Virginia Pulp & Paper Company
Designed by Bradbury Thompson

weight reduction of 80 percent and a size reduction of 75 percent as compared with contemporary engines of comparable horsepower. Such engines fitted in perfectly with railroad mens' plans for trying out diesels in rolling stock.

One year later, in 1934, a flashy performance heralded by a great publicity fanfare brought the diesel-powered locomotive before the public's eyes. The scheme was planned by Ralph Budd, President of the Burlington Railroad and a real diesel pioneer, and the officials of the Chicago Century of Progress which was to open in May for its second year.

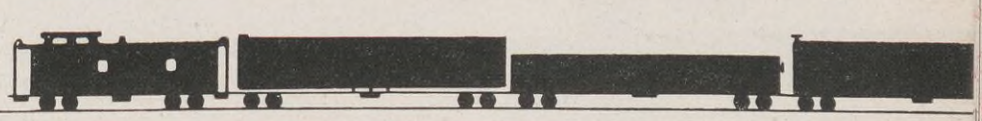
Budd had, on the Burlington, the first diesel-powered streamlined train, a three-car articulated unit called the *Pioneer Zephyr*. The railroad president and exhibition officials planned a dawn to dusk run for this train which was to leave Denver at dawn and arrive, after a non-stop trip, at the exhibition before night fall—rolling onto a great open air stage as the climax to a transportation pageant called "Wings of a Century." The fastest time on this run in the past, made by a steam locomotive, had been about 26 hours. Running against the sun, the experimental train would have to make the trip of 1,015 miles in 14 hours to keep to the planned schedule.

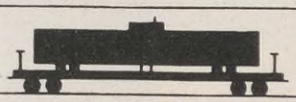
The show was planned for May 26, the exhibition's opening day. The silver-coated *Zephyr* rolled into Denver two days in advance, and was duly glorified in the local press. On the morning of the record trip, the *Zephyr* pulled out of Denver, one hour late, at 5:05 and the engineer gradually gave it the gun, pushing it well past 80 as it flashed through specially guarded grade crossings. Over rivers and across the plains, the streamliner raced the sun. At 7:10 P.M. the *Zephyr* snapped a ribbon across the track in Chicago, and a short time later rolled onto the big

General Motors Corporation

A 2,000 horsepower diesel-electric locomotive was chosen to power the "Train of Tomorrow," designed by General Motors to try out advanced ideas for safety and comfort in rail travel and to demonstrate these ideas to the railroads and the general public.

Shell diesel fuel flows into one of the tanks of the "Train of Tomorrow." Each car of this ultramodern train carries a diesel engine, generator and compressor so that it may be lighted and air conditioned independently of power from the locomotive.





Southern Pacific Lines

When heavy tasks demand a power increase, one or more extra units may be added to a diesel-electric locomotive and controlled from a single engineer's position.

Wide World

A wide field of vision and a comfortable seat are enjoyed by the engineer of this diesel-electric locomotive.

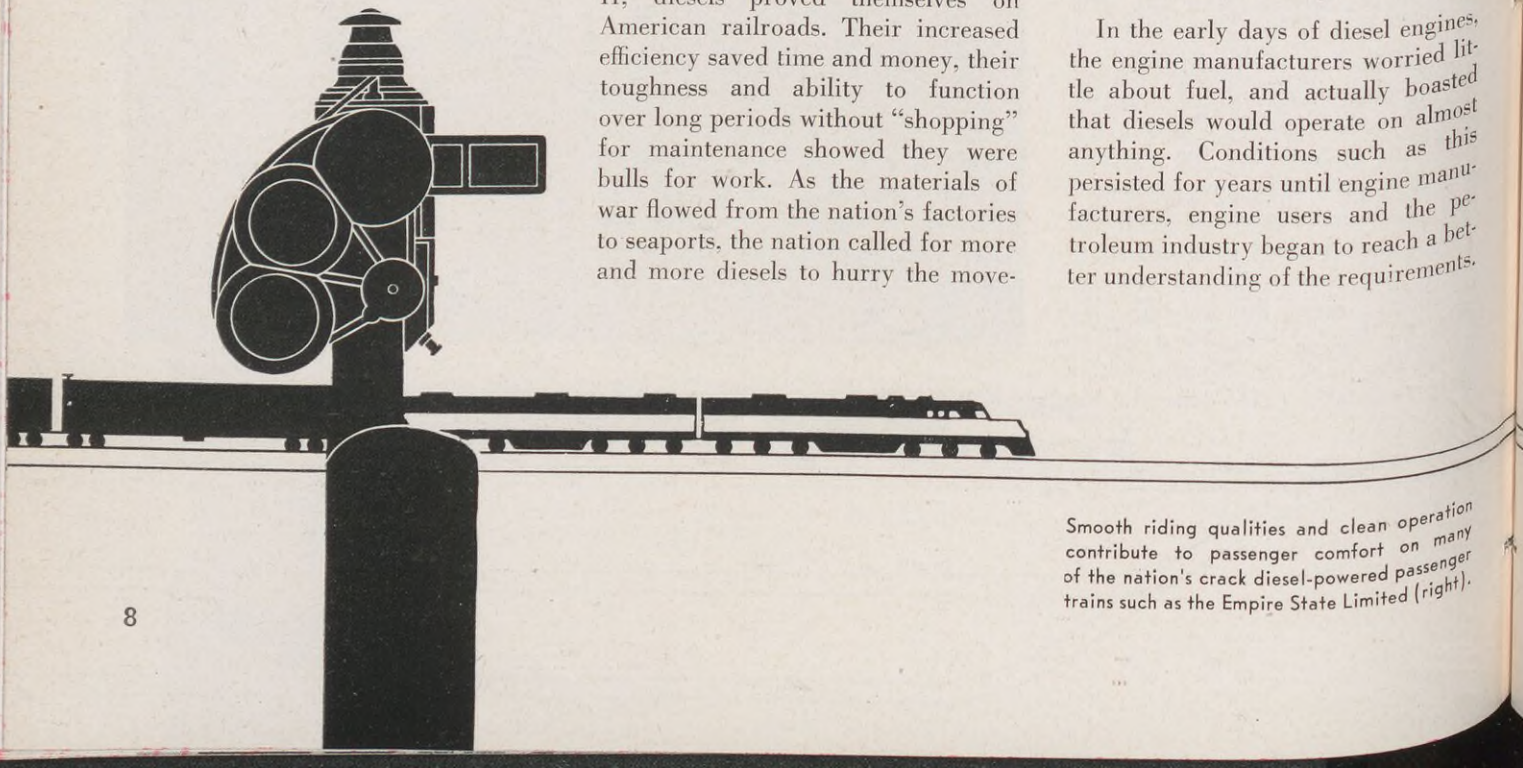
stage to be greeted by a thundering ovation from the wildly excited audience. The average time for the trip of 1,015 miles—the fastest non-stop run in railroad history—was 77.6 miles per hour.

This performance was more or less a milestone in diesel locomotive history, for soon after the impressive trip, many railroads began construction of their own crack diesel-streamliner units. Following closely on the heels of the *Zephyr* came the Union Pacific's first transcontinental streamliner *City of Portland*. The Illinois Central's *Green Diamond* was an early success. In rapid succession came the Santa Fe's diesel-powered *Super Chief*, the Boston and Maine's *Flying Yankee* and the Rock Island's series of *Rockets*. By the time the United States entered World War II, diesels were zooming in popularity for switching and passenger service, and the Electro-Motive Division of the General Motors Corporation had proved the worth of diesel-powered locomotives for freight hauling.

Through the days of World War II, diesels proved themselves on American railroads. Their increased efficiency saved time and money, their toughness and ability to function over long periods without "shopping" for maintenance showed they were bulls for work. As the materials of war flowed from the nation's factories to seaports, the nation called for more and more diesels to hurry the movement of vital goods. The boom in diesel locomotive building has not yet reached its peak as the demand for diesels is higher today than ever before and there is every indication that the healthy boom in this phase of railroading will continue. A look at the figures backs up this story. In 1945, diesel locomotives traveled 24.2 million miles in the United States; in 1946, 34.5 million miles; and in 1947, 54.9 million miles.

Diesels and the Petroleum Industry

In the early days of diesel engines, the engine manufacturers worried little about fuel, and actually boasted that diesels would operate on almost anything. Conditions such as this persisted for years until engine manufacturers, engine users and the petroleum industry began to reach a better understanding of the requirements.

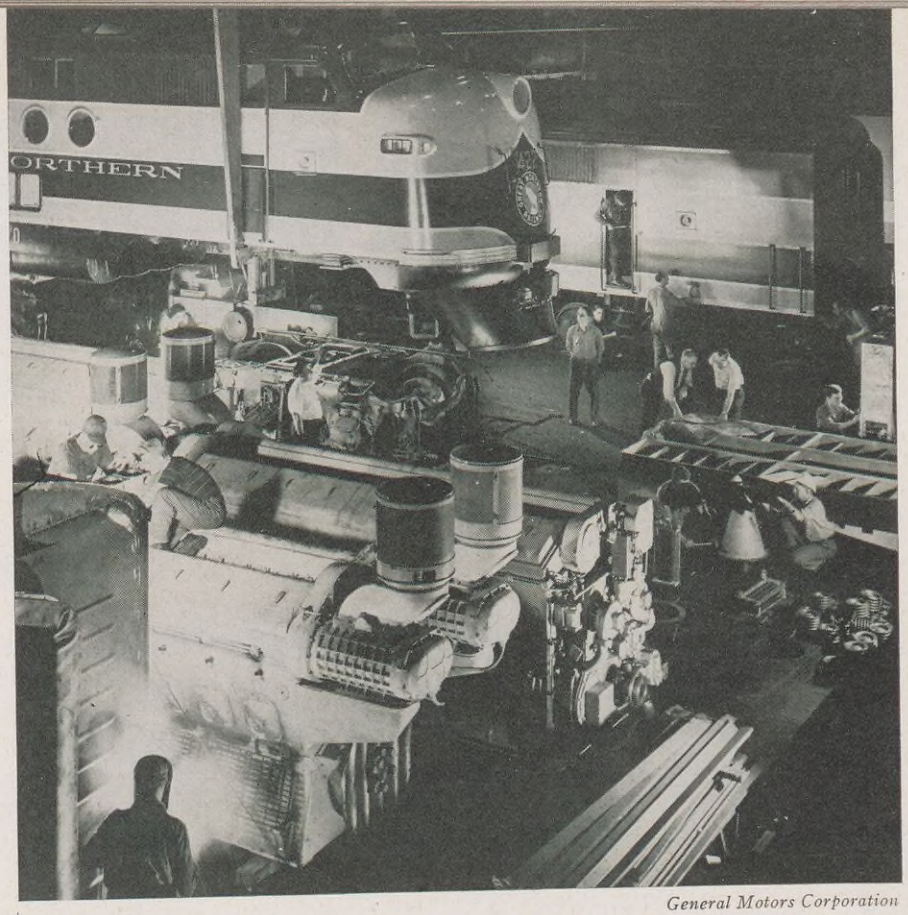


Smooth riding qualities and clean operation contribute to passenger comfort on many of the nation's crack diesel-powered passenger trains such as the Empire State Limited (right).

The first diesel fuel standardization committee was formed in 1928 by personnel of The Pennsylvania State College working with men from the Oil and Gas Power Division of the American Society of Mechanical Engineers. Standards changed over the years, and today the Diesel Engine Manufacturers Association is continuing research in this field. The petroleum industry has made great progress in standardization of diesel fuels.

Shell took a forward step in the diesel locomotive field in 1936, when the big streamliners were just beginning to operate on regular schedules. In that year, the Illinois Central established a run from Chicago to St. Louis and return, for its pioneer diesel streamliner, the *Green Diamond*. The famous train made a round trip each day, averaging about 60 miles per hour. The *Green Diamond* was fueled and lubricated by Shell, which pioneered in fitting diesel fuel to the characteristics of the engine. Dyed a distinctive, deep cherry red, Shell's diesel fuel was christened Dieselene, the name it still carries today.

From the early days of the *Green Diamond* up to the present, Shell has kept to the pace of the diesel locomotive industry, improving its fuels and lubricants as engine requirements changed and were made known. The cooperation of engine manufacturers and railroads with the petroleum industry has helped the latter in its research for increasingly efficient diesel fuels. Shell today has several grades of lubricants and fuels suitable for all types of diesel power in all classes of railroad service.



General Motors Corporation

Manufacturers of diesel-electric locomotives have increased production and lowered manufacturing costs by concentrating on several standard models and by adapting mass production and assembly line techniques to their industry.

In 1948, oil men estimate the nation's railroads will burn approximately one billion one hundred million gallons of diesel fuel oil. Among these railroads will be such representative Shell customers as the Pennsylvania; New York Central; Chicago and North Western; Gulf, Mobile & Ohio; Missouri Pacific; Southern; Seaboard; Nickel Plate; Illinois Central and a host of other Class I railroads operating in the United States.

A. Devaney, Inc.

H. JACOBS

H. G. SWANSON

H. J. UNDERWOOD

R. F. CAREY

O. F. MINOR

SHELL PEOPLE

HARRY JACOBS has been appointed Executive Assistant to the Vice President-Marketing. Mr. Jacobs began his career with Shell in the United States in April 1923, as a roustabout at Tonkawa, Oklahoma. Within a few months he was transferred to the Arkansas City Refinery, and during the next two years served in the Manufacturing Department there and at Wood River. His long service in the Marketing Department dates from 1925 when he became a salesman at Galesburg, Illinois. Following assignments at Decatur, Illinois and Tulsa, Oklahoma, he moved to St. Louis Head Office in 1930 where he subsequently held various responsible positions in the Marketing Department. He moved to New York as Assistant Sales Manager in 1940 and two years later assumed the Sales Manager position.

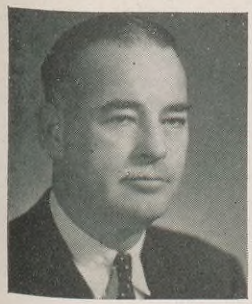
H. G. SWANSON has been named General Sales Manager, Head Office, New York. Educated at Knox College in Galesburg, Illinois, Mr. Swanson began his Shell career in June 1923 as a Depot Foreman at Michigan City, Indiana. He became a salesman the following year, and served as a salesman and subsequently as Field Supervisor in various Midwest locations prior to becoming Assistant Manager of the Cleveland Division in 1930. After assignments in Illinois, Indiana, and Iowa he was appointed Manager of the former Des Moines Marketing Division in 1936. He then served as Manager of the Minneapolis Marketing Division from September 1938 until November 1941 when he was named Manager of the Chicago Marketing Division.

H. J. UNDERWOOD has succeeded H. G. Swanson as Manager of the Chicago Marketing Division. A graduate of Tri-State College in Indiana, where he majored in mechanical engineering, Mr. Underwood came to work for Shell in 1928 as a Sales Engineer in the Division he now heads. After moving to the St. Louis Marketing Division in 1930 he returned to Chicago in 1932 and became Sales Manager there three years later. In November 1936 he was made Manager of the old Pennsylvania Marketing Division. Named Manager of the New York Marketing Division in July 1938, he served in that capacity until September 1942 when he became Manager of the Boston Marketing Division.

R. F. CAREY has been appointed Division Manager of the Boston Marketing Division, succeeding H. G. Underwood. Educated at Dartmouth College and at Massachusetts Institute of Technology, Mr. Carey joined Shell as a draftsman for the New York Marketing Division in July 1929. In 1930 he became Division Operations Manager and in 1933 Division Sales Manager. As Sales Manager, and during the war years as Acting Division Manager, he served in the New York Marketing Division from 1933 until his new assignment.

O. F. MINOR, Assistant to the Vice President-Marketing has been named to succeed R. F. Carey as Sales Manager of the New York Marketing Division. After studying at the City College of Law, St. Louis, Mr. Minor entered Shell's employ as a clerk in the St. Louis Marketing Division in December 1929. During the next ten years he held various Marketing positions in that location, becoming Assistant to the Division Manager in 1938. Mr. Minor saw service in Springfield, Illinois, St. Louis, Missouri, and Atlanta, Georgia in the following years until February 1945 when he was named Manager of the Public Relations Department at Head Office. Since February 1947 he has been Assistant to the Vice President-Marketing.

J. S. MORSE has been appointed Operations Manager for Shell-Pacific Coast with headquarters in San Francisco. Mr. Morse, who graduated from the Massachusetts Institute of Technology with a degree in civil engineering,



J. S. MORSE

T. BEALL

F. C. CUTTING

M. P. L. LOVE

R. J. GREENSHIELDS

IN THE NEWS

came to Shell in 1932 as a Pump Mechanic's Helper in the New York Marketing Division. After various assignments within the Operations Department of that Division, he was transferred to Detroit Marketing Division as Operations Manager in 1941. He obtained a leave of absence for service with the Navy in 1942 and returned to Shell early in 1946 as Operations Manager of the Cleveland Marketing Division. After a special assignment in Head Office Marketing Department, Mr. Morse was named Manager of the Head Office Marketing Plant Department in June of this year.

THORNTON BEALL has been transferred from San Francisco to New York to succeed J. S. Morse as Manager of the Head Office Marketing Plant Department. Holder of undergraduate and graduate degrees in mechanical engineering from the University of Colorado, Mr. Beall came to Shell in 1926 as a Mechanical Engineer for the Martinez Refinery. His career in Shell marketing began two years later when he was named Sales Engineer for the San Francisco Marketing Division. In the years that followed he held many different Marketing engineering positions at San Francisco, Fresno and Sacramento, California, Salt Lake City, Utah and Spokane, Washington. Granted a military leave of absence in 1943, he returned to Shell as Operations Manager of the Oakland Marketing Division in April 1946. After a special assignment as Operations Manager in the San Francisco Head Office, he was named Manager-Planning at that location in June 1948.

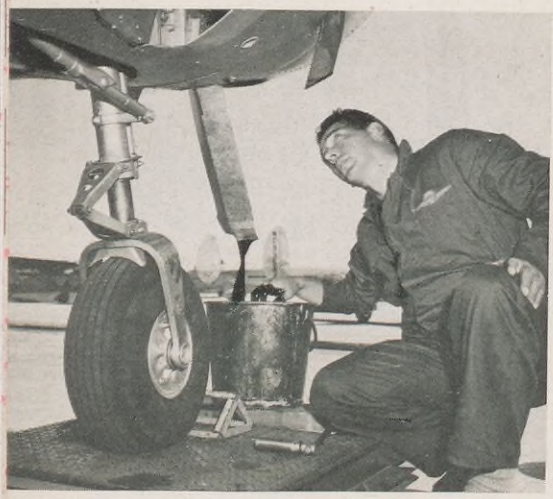
F. C. CUTTING has been appointed Manager of the Technological Department of Head Office Manufacturing, one of two departments (the other is the Research Department) resulting from the reorganization of the Research and Development Department whose functions have grown substantially during recent years. In his new capacity, Mr. Cutting will be in charge of all manufacturing technology, including process design, new process developments and evaluations, and general technical progress throughout the refineries in the East of Rockies territory. A graduate of the University of Michigan where he took his B.S. and M.S. degrees in chemical engineering, Mr. Cutting joined Shell in 1925 as a gas engineer at Tulsa, Oklahoma. He was transferred to the Wood River Refinery in 1928 as Technical Assistant, and since then has held a wide range of technical and administrative positions both in the refineries and in Head Office Manufacturing.

M. P. L. LOVE has been transferred to Head Office Manufacturing as Manager of the newly formed Research Department, in which capacity he will coordinate and direct Manufacturing research programs in the East of Rockies territory. Dr. Love is a graduate of Mississippi College and did graduate work in organic chemistry at the University of Virginia. He was employed as a Junior Analytical Chemist at the Wood River Refinery in 1935, following which he held various positions in research both there and in Head Office Manufacturing. He became Chief Research Chemist at the Houston Refinery Research Laboratories in 1942, and its Research Director in 1943. Later the same year he was appointed Research Director at Wood River where he served until his present appointment.

R. J. GREENSHIELDS has succeeded M. P. L. Love as Research Director at the Wood River Research Laboratories. Mr. Greenshields graduated from the University of Illinois in 1932 and joined Shell as a tester at the Wood River Research Laboratories the following year. Progressing through the research organization during subsequent years, he became Senior Research Engineer (Engine) in 1939 and Assistant Director of Engine Research in 1941. He was named Chief Research Engineer in 1943, and continued in that position until promoted to his new assignment.

Shell Serves the Private Flier

Development of New Service Programs for the Nation's Constantly Growing Private Plane Fleet Keeps Shell's Aviation Department on its Toes



From propeller to tail, every lubrication point is covered under the Shell program which indicates lubricants to be used, interval of application and method of application.

Edward McGee, Shell Aviation Representative, Boston Marketing Division, makes use of a Company plane to demonstrate the new Shell Aircraft Lubrication Program in action.

WHEN a progressive rancher of today starts out to locate a herd of wandering yearlings, he's likely to leave his horse in the stable and turn to a light airplane for transportation. Lumberman and lawyer, doctor and sportsman, specialist and average citizen are showing a mounting interest in light aircraft for both business and pleasure as the utility of small planes is gradually increased and their cost lowered.

The basic fact that the airplane is the fastest means of getting from one place to another has spurred the purchase of almost 100,000 civil aircraft by individuals, companies and flying clubs in the United States. Light aircraft manufacturers, after riding out temporary business reverses caused by the postwar release of surplus army and navy planes to private purchasers, are now turning out planes in ever-increasing numbers to keep up with the growing group of aircraft owners.

The light plane, in many cases, is becoming an important part of farm life. Its utility in rural areas is attested by members of the National Flying Farmers Association, a nationwide group bound together by a common interest in flying. The farmer-pilots who make up the Association are continually coming up with new uses for the airplane on the farm to add to the list of such basic tasks as seeding, crop dusting and fertilizing which are now being performed with aircraft.

In cities, companies are turning to aircraft to extend the territorial coverage of salesmen, to whisk personnel to and from distant meetings and to transport light-weight products in a hurry whenever necessary. Like the farmer-fliers, the companies have an organization known as the Corporation Aircraft Owners Association. A continuing Shell survey, not yet complete, shows that at least 145 corporations in the United States are currently operating 175 single-engine planes in the normal course of their business. This is in addition to the 1,000 multi-engine aircraft being operated by some 800 corporations.

Meanwhile, as flying schools pour out more and more classes of trained pilots every month, government organizations such as the Civil Aeronautics Administration and the National Advisory Committee for Aeronautics are working with private foundations to improve the lot of the light plane devotee by bettering the performance of small planes and increasing their safety factors. In the cards at present, for example, are projects for a new large propeller which will revolve more slowly to help eliminate the noise now present in airplane operation, and the combined airplane-auto which has passed the drawing board stage and is now being tried out in operation. In production is a radically different landing gear, sponsored by the C. A. A., which will permit planes to come in under cross wind conditions on single strip fields.

Another important C. A. A. function is the licensing and checking of airports. The brisk increase in private flying has made new airports necessary to house and service the

planes, and current C. A. A. figures show 6,210 airports in the U. S. at present as compared with 5,251 a year ago. Here, at the airports patronized by private fliers, Shell Aviation Department Representatives meet the dealers who supply fuel, lubricants and greases to light plane owners.

Aviation's field men meet their dealers and customers on common ground, for eight members of the 12-man field staff are licensed pilots, while the other men fly but have not yet received their licenses.

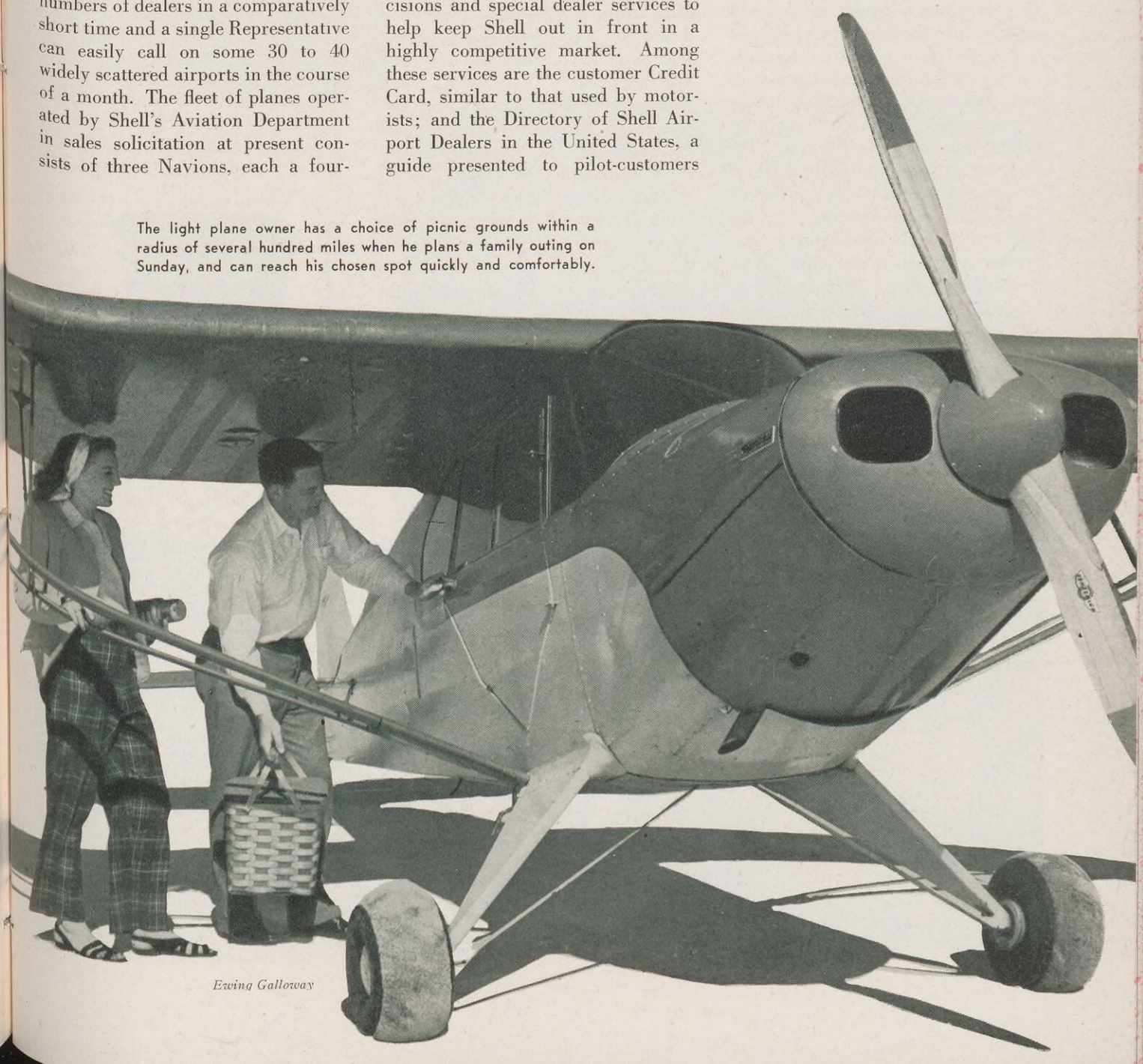
Traveling by air enables Shell Aviation's field men to reach large numbers of dealers in a comparatively short time and a single Representative can easily call on some 30 to 40 widely scattered airports in the course of a month. The fleet of planes operated by Shell's Aviation Department in sales solicitation at present consists of three Navions, each a four-place plane. An additional Navion, and one Beechcraft Bonanza will also soon be in operation.

Under Manager R. T. Goodwin, the Shell Aviation Department, East of Rockies, consists of a Head Office staff, two flying Supervisors, and 10 Aviation Representatives. The last named work under the Marketing Division Managers. In the field, the Representatives are in constant touch with airport dealers to promote the sale of Shell products and to assist the dealers in becoming better merchants.

From Head Office come policy decisions and special dealer services to help keep Shell out in front in a highly competitive market. Among these services are the customer Credit Card, similar to that used by motorists; and the Directory of Shell Airport Dealers in the United States, a guide presented to pilot-customers who do a great amount of cross-country flying. To keep the Shell name before the air-minded public, Aviation also distributes wind cones carrying the bright red and yellow symbol; large metal Shell hangar signs; *Shell Aviation News*, recognized as one of the finest publications in the industry; and smaller items such as calendars and lapel pins.

Newest of aviation services and one which will contribute materially to the dependable operation of private aircraft, both large and small, is the "Shell Aircraft Lubrication Program," which is now being intro-

The light plane owner has a choice of picnic grounds within a radius of several hundred miles when he plans a family outing on Sunday, and can reach his chosen spot quickly and comfortably.



Ewing Galloway

Aeronca

The substitution of floats for conventional landing gear on the present-day light plane (left) opens up new travel paths for sportsmen and vacationists. Landlocked lakes are almost always smooth enough to permit aircraft landings, as are protected salt water harbors.

duced to the flying public through Shell dealers throughout the nation. This program is based on years of experience in the lubrication field and is designed to combine information, equipment and merchandising aids so that dealers will be able to realize the increased benefit resulting from greater customer satisfaction. The program is built around a series of charts and diagrams explaining in detail the correct procedure for the lubrication of the most widely used aircraft ranging in size from Piper Cubs to twin-engine DC-3's. Aircraft lubrication is an intricate procedure and dependable operation of the aircraft depends upon nothing being left to chance. With the aid of the Shell Aircraft Lubrication Guide a dealer can have complete confidence that he is not overlooking the most minute detail. The charts which make up the Shell Aircraft Lubrication Guide were prepared under the direction of R. M. Cherryholmes of Shell Lubricants Department.

Formal introduction of the Shell Aircraft Lubrication was made to the Aviation Field representatives by A. J. M. Hamon, Assistant Manager, Shell Aviation Department, New York, at a meeting held specially for this purpose at Groton, Connecticut. Scene of the gathering was Air Holiday Inn, a hotel at the Groton Airport catering to private flyers. All planes used by Shell representatives East of Rockies were at the meeting and actual demonstration of the Shell Aircraft Lubrication Program was made on one of the Navions.

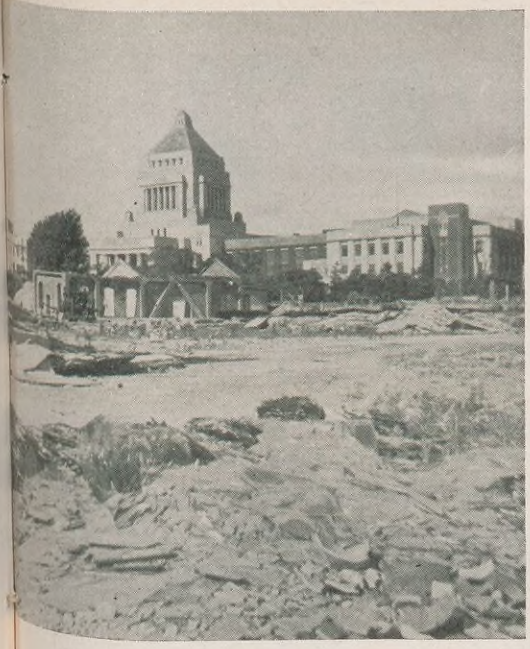
Aircraft lubrication is an intricate procedure involving attention to the propeller, landing gear, controls, wings and tail assembly as well as the engine. Shell Guide diagrams, carrying aircraft illustrations in X-Ray style and enlarged detail drawings of complicated parts, do much to simplify lubrication problems. The entire Shell Aircraft Lubrication Program, of which the charts are the main part, has been designed to combine information, equipment and merchandising aids for greater customer satisfaction among light plane owners and increased returns to Shell dealers.

The Shell Aviation Department at a Connecticut airport where representatives from Head Office and the field met in late July to discuss the new lubrication program.

Medal for Merit

"Dr. Raymond Henry Ewell, for exceptionally meritorious conduct in the performance of outstanding service to the United States from December, 1941 to May, 1946. Dr. Ewell as Technical Aide in the Fire Warfare Section of Division 10 of the National Defense Research Committee, contributed greatly to all the work of this section on the development of incendiary bombs, incendiary fuels and flame throwers. His broad and detailed knowledge of the AN-M69 incendiary bomb qualified him to play an important part as a consultant in planning most destructive fire raids on Japan."

—Harry S. Truman



Fire-bombed ruins of central Tokyo in front of the Imperial Diet Building.

THE nation's highest medal award for civilians, the Medal for Merit, was presented to Shell Chemical Senior Technologist Raymond H. Ewell July 21 at the Sixth Army Headquarters, San Francisco. General Mark W. Clark, Sixth Army Commander and Rear Admiral Donald B. Beary, commanding the Western Sea Frontier and the 12th Naval District, joined in presenting the award.

On December 8, 1941, the day after Pearl Harbor, Dr. Ewell was called to Washington to do war research work for the National Defense Research Committee. He was put in charge of the section developing incendiary weapons, such as the flame thrower and incendiary bomb, that made jellied gasoline a weapon of war.

Perfection of the jellied gasoline incendiary bomb led to the mass incendiary raids so destructive to Japanese resources. During the early months of 1945 these attacks destroyed most of the principal industrial cities in Japan . . . the big fire bombing of Tokyo on March 9, 1945 is estimated to have done five times as much damage as either of the two atomic bomb attacks on Hiroshima and Nagasaki.

U. S. Army photograph

Born forty years ago in Brockton, Massachusetts, Dr. Ewell graduated from the University of Toledo in 1928 with a B.S. degree. In 1930, he received his M.S. degree at Purdue University. From 1930 to 1935, he was a research chemist in ceramics with the National Bureau of Standards in Washington, D. C. After receiving his doctorate from Princeton University two years later, he served for a while as professor of chemistry at Purdue. He and his wife and child currently make their home in Berkeley.

This isn't the first time that Dr. Ewell has found himself in the public eye. His book "Dining Out in San Francisco and the Bay Area" serves as a guide to good eating and has established the author as a gourmet of note.

The nineteenth in a series of organization charts

Shell Oil Company, Incorporated (East of Rockies Territory)

September—1948


Division Manager
J. W. Southworth


Operations Manager
E. P. Ericson


Marketing Service Manager
K. J. Nagelkirk


Real Estate Manager
T. W. Zemper


Operations Assistant Plant
J L. Sargent


Operations Assistant Engineering
A. E. Martin


Retail Manager
H. O. Krass


Employee Relations Supervisor
L. W. Gray


Purchasing-Stores Supervisor
A. M. Gruenewald


Lubricants Manager
J. M. Lendway


District Manager Detroit
H. S. Eustis


District Manager Grand Rapids
O. F. Schneider


District Manager Dearborn
F. C. Edwards

DETROIT MARKETING DIVISION

Sales Manager

N. H. Miles

Office Manager

C. S. Maxwell

Jobber Manager

W. D Penman

Special Products Manager

C. W. Irwin

Fuel Oil Manager

J G. Sestak

Credit Manager

I. A. Keller

Chief Accountant

H. K. Haeffner

Shellane Manager

V. R. Storey

Aviation & Commercial Representative

R. E. Dowling

Sales Development Representative

R. H. Stine

District Manager Pontiac

W. R MacKay

District Manager Kalamazoo

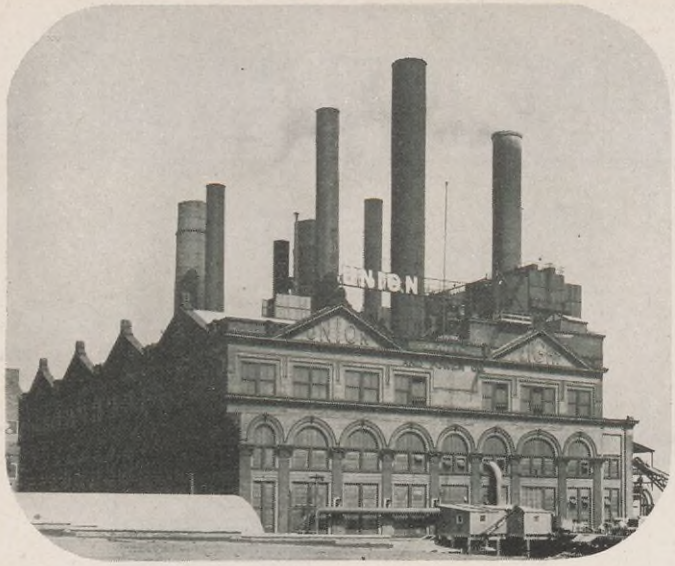
F. V. Smith

District Manager Saginaw

D. H. Buell

District Manager Lansing

R. W. Richards



District . . . . St. Louis

Designed to reach and serve the ultimate customer, St. Louis and other Company marketing districts form the front line in Shell's marketing organization

LAST year the St. Louis Marketing District delivered over 69 million gallons of Shell products. Its volume of business was among the largest for any marketing district in any of Shell's eleven marketing divisions in the East of Rockies territory. Its sales . . . in terms of gasoline and fuel oil . . . put it ahead of all its local competitors.

Big, energetic, the St. Louis Marketing District illustrates in almost every way the activity and the organization of a Shell marketing district—key unit in Company marketing operations.

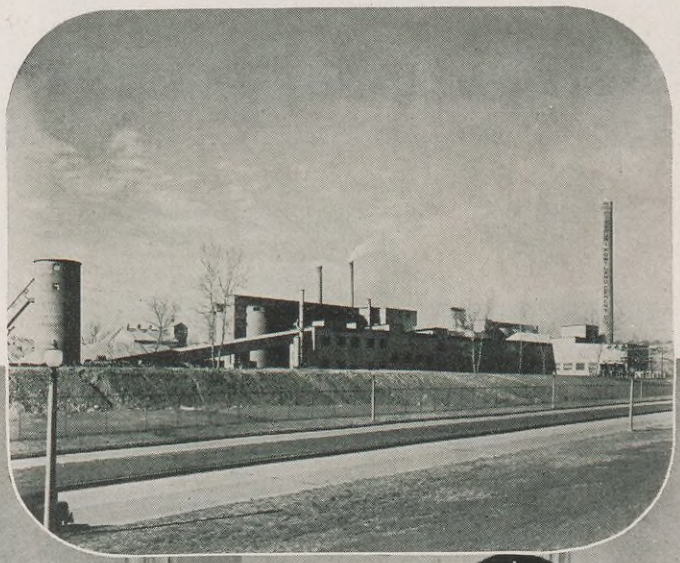
Shell markets its products through strategically located marketing districts. These sales districts are set up to meet specific marketing situations within each marketing division. Their size and organization thus varies according to the geographical area and the density of population, and the types and size of customer accounts within the division. Their job is to sell Shell products—to get to know the customer and his needs first hand, and to satisfy them.

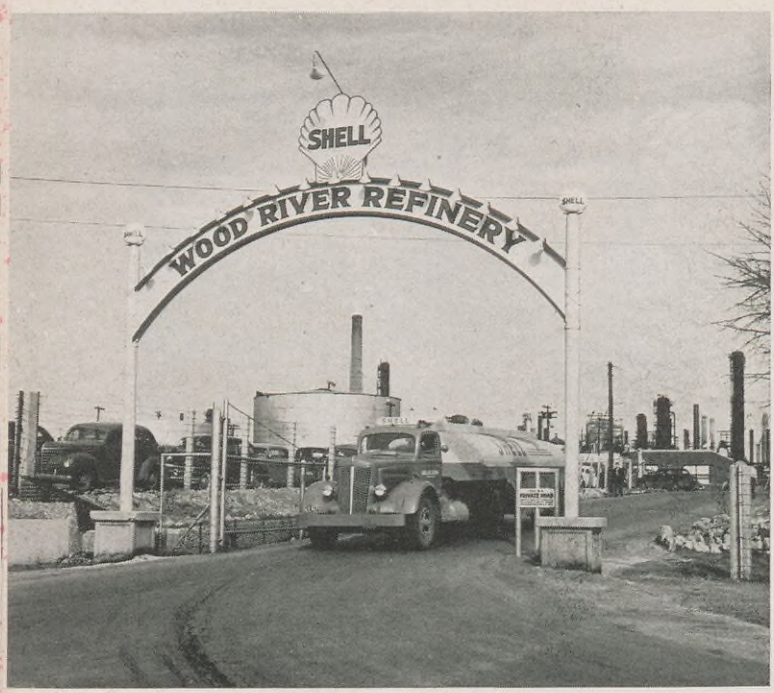
St. Louis Marketing District has a ready source of supply and a fine, nearby market. Supply center for the St. Louis District is the Wood River Refinery, less than 25 miles from the heart of St. Louis and so close that approximately 95 percent of the District's gasoline sales are handled by direct delivery from the Refinery. Transportation and storage problems, of course, are minimized; only one bulk depot is required to service metropolitan St. Louis.

Greater St. Louis, with its busy and diversified industries and its large population (over a million) is a tremendous consumer of petroleum products. To maintain a leading position in this market, the District requires the closely coordinated efforts of about 150 employees who handle all sales and operating activities. Last year they sold, delivered to, and serviced a long list of varied customers including 244 service stations, 5,000 domestic fuel oil consumers and over 500 industrial and other consumer accounts. Outstanding among their accounts are the Union Electric Company, Anheuser Busch (largest single brewery in the world), and American, Chicago and Southern, and T.W.A. air lines.

The St. Louis District closely resembles other Shell marketing districts in its day-to-day operations . . . some of which are pictured here.

ONE OF THE MIDWEST'S LEADING INDUSTRIAL AREAS is served by the St. Louis Marketing District whose customers include public utilities, breweries, riverboat lines, airlines, manufacturing industries. In charge of the District is J. F. Lewis, shown below with members of his staff.





◀ Approximately 95 percent of the District's gasoline sales are handled from nearby Wood River.

J. R. Chamberlain (right) and W. T. Dolan, check merchandise at the St. Louis Depot. ▶

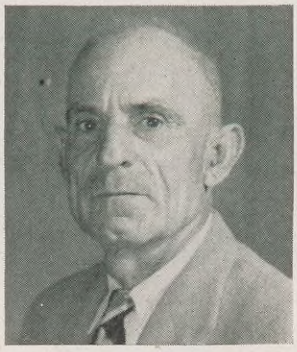
◀ Over 5,000 domestic fuel oil consumers were served by the District in 1947.

A landmark for St. Louis motorists is the Shell station on the corner of Lindell and Vandeventer. ▶

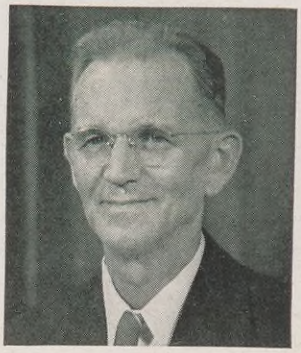
They have Retired

Manufacturing

C. H. BECNEL
Norco Refinery
Engineering Field

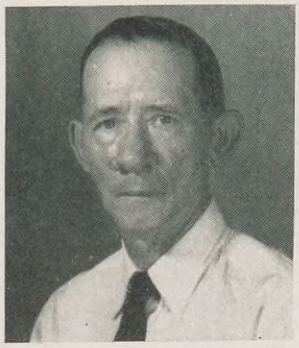


H. I. DUGAS
Norco Refinery
Engineering Field



J. EWEN
Wood River Refinery
Engineering Field

R. J. PERRY
Wood River Refinery
Engineering Field



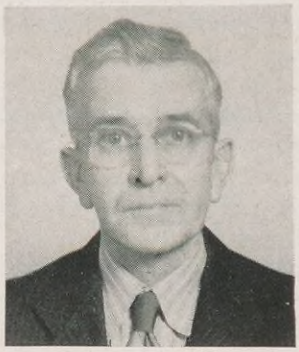
H. J. ZERINGUE
Norco Refinery
Laboratory

Marketing

G. E. CLARK
Detroit Division
Operations

Exploration and Production

A. M. HARDING
Boston Division
Operations



I. L. COVERT
Tulsa Area
Production

The Causeys' Hobbies

Woodworking, Gardening, Canning, Community Work—All On a Grand Scale—Make the Causeys of Ellicott City, Maryland, One of the Busiest Shell Families on Record.

ON Columbia Road, between Washington, D. C., and Ellicott City, Maryland, about 12 miles from Baltimore, is a Cape Cod bungalow that reminds visitors more of a beehive than a house. There aren't actually any bees around—just Mr. and Mrs. Paul Causey and their two sons, Paul Junior and William—but the amount of energy expended by the Causey family every day in the week can be compared only to the activity that takes place in a hive of healthy bees.

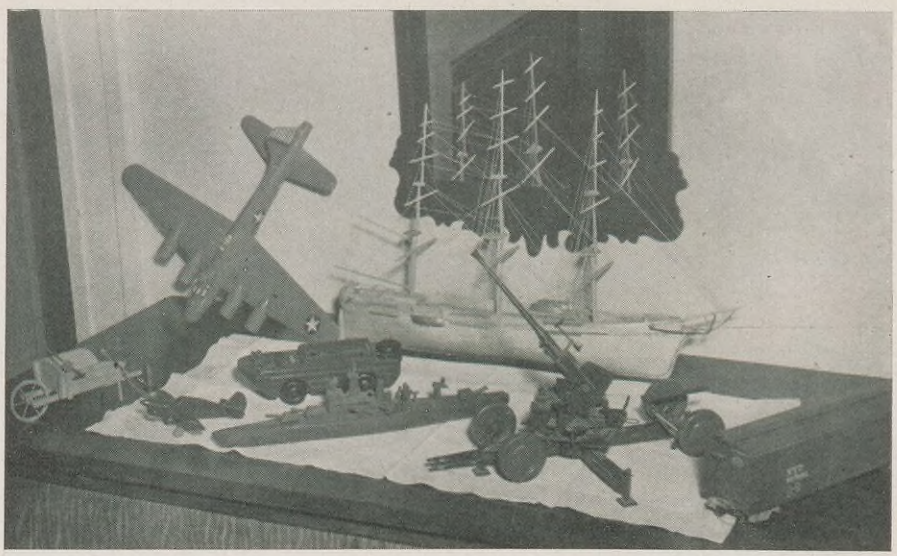
The reason for this is that the Causeys are a family devoted to many hobbies — not gentle hobbies like stamp and butterfly collecting, but hobbies that require lots of hard work and, as Shell's Baltimore Marketing Division Sales Development and Advertisement Representative Paul F. Causey describes it, "innumerable pounds of elbow grease."

Chief among the Causeys' hobbies is woodworking. This highly skilled occupation is enjoyed by the entire family. Everyone takes part, and when a new project is started, each member of the family is ready with his share of suggestions and criticisms.

Woodworking had its beginning with the Causeys about 12 years ago when Mr. Causey became interested in helping Paul build model airplanes.

Not long after that, more ambitious building ideas began to take shape and the men of the family dreamed of having a home workshop with real machinery in it. Mrs. Causey, with an eye to the many useful knick-knacks that could be made in the shop, was all in favor of it too.

Getting their first power-driven tool posed quite a problem, for by that time the war had started and such tools had all but disappeared from the market. Finally, though, young Paul managed to find a miniature tilt-top table saw and bought it for four dollars plus a part of his stamp collection. An uncle supplied the motor. That was the first tool in a shop that is now equipped with a 7-inch circular saw, a wood-turning lathe, a jig saw, sanders, electric drills, and a complete set of hand tools.



The models shown here were made by Paul Jr. and William. The wheelbarrow and clipper ship are two of William's masterpieces, the others are Paul's. Each piece required many long hours of careful, painstaking work.

The Causey family works as a team. Each member has developed special woodworking talents and interests and is depended upon to lend his particular skill to the success of a project. Because of her training in design at Pratt Institute in Brooklyn, N. Y., Mrs. Causey has become the authority on design and styling. The family recognizes that Mr. Causey is best at fitting, joining and finishing work. Paul Junior, the woodworking perfectionist of the family, is the authority on the proper use and care of the machinery and tools. Young William specializes in airplane and ship models, and is at his best with the jig saw and lathe. During the past two years William has had a hand in almost all the family's major projects, which include the beautiful furniture pieces pictured on these pages.

Originally, the Causeys' woodworking shop was set up in their basement, but one day when they found they

In this typical Saturday afternoon scene in the Causeys' attic workshop, Mr. Causey is sawing out the triangular base for the miniature corner cupboard under Paul's right elbow (right). Paul is sanding the base of the Hepplewhite bookcase while William makes molding for the pediment of the cupboard.

Mrs. Causey with some of the hundreds of jars of vegetables and jellies she preserves every year. As one of their hobbies, the Causeys grow their entire year's supply of vegetables, and have enough left over to distribute over 25 bushels of produce to neighbors without gardens.

had to cut one of Mr. Causey's projects in half to get it outside, they decided to move their equipment to the attic, and now they lower their oversize pieces out a big window.

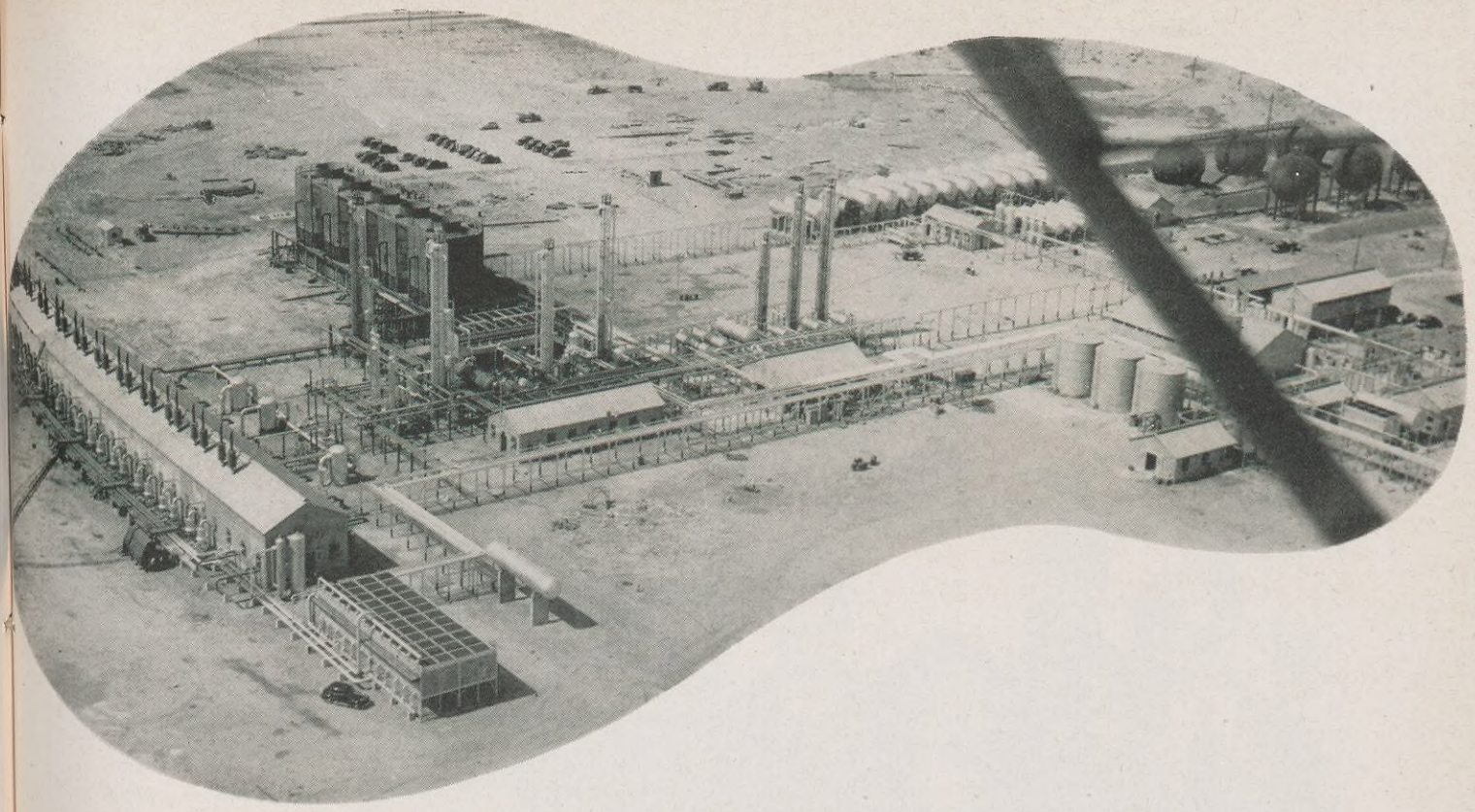
Four years ago the Causeys, who were then city dwellers, suddenly found themselves battling the housing shortage. They solved their problem by moving to their present home in the country, and characteristically, this started them on another hobby—gardening. Of their three acres, they devote one entirely to raising vegetables. Mr. Causey and William spend their summer week-ends in the garden, and Mrs. Causey, with some help from the men, cans and preserves all the surplus produce. She estimates that this year she will "put up" over 500 jars of vegetables and jellies.

The Causeys attribute much of their success in gardening to Shell's new horticultural spray, Shell Resitox D-25. They report that a neighboring farmer was so impressed with the results the Causeys got with the spray that he discarded all the other sprays he had been using and adopted Shell Resitox exclusively.

What with woodworking in the winter and gardening in the summer, it would seem that the Causeys must have little time for other pursuits, but such is not the case. Somehow, in addition to all their other activities, each member of the family has an individual program that most people would consider a full-time job in itself. These programs are as widely varied as the Causeys' interests themselves and include such activities as teaching model-building, teaching Bible classes, debating, sports, and raising animals.

Where they find the time to do everything they do puzzles everyone but the Causeys themselves who believe there is always time for the things one really wants to do.

The 8-foot tall, solid African mahogany cupboard (above) was designed by Mrs. Causey and took Mr. Causey 14 months to build. Mr. Causey designed and built the mahogany credenza (right) in approximately five months.



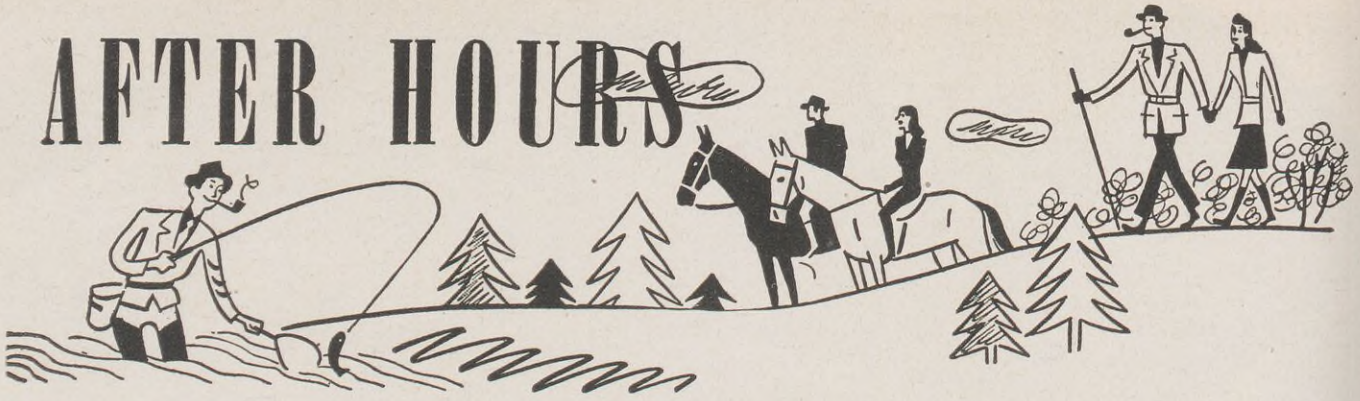
45 Million Cubic Feet a Day

TXL—Shell's newest natural gasoline plant—processes wet natural gas from two important Texas fields.

Twenty-five miles west of Odessa, in the heart of the TXL Field in West Texas, Shell's newest natural gasoline plant went into full operation in mid-May . . . less than 18 months after ground was broken. Supplied by nearby Wheeler Field, as well as by TXL, the TXL Natural Gasoline Plant processes 45 million cubic feet of petroleum gas per day.

Its principal product is "natural gasoline." Also recovered are butane—used in the manufacture of gasoline—and propane which is sold as a domestic and industrial fuel. Residue gas remaining after processing is sold to a fuel gas company for transportation through pipe lines to consumer areas.

AFTER HOURS



◀ The "Rotella Rollers," Duck Pin Bowling Champions of the Atlanta Division, included George Wulff, Keith Hutchison, Loree Moon (Captain), William Harrell, Forrest Bryant.

Lower left, George Will (center) watches T. T. Thompson and R. C. Hensel hold up two of the 168 fish that didn't get away on a recent Purchasing Stores, Head Office, outing.

▲ The Baltimore Marketing Division held its annual picnic in June at the Annapolis Roads Club, Annapolis, Maryland.

◀ Winners in the recent Head Office golf tournament at the Knollwood Country Club, White Plains, New York, were J. R. Childs, C. E. Starn, W. P. Riley, and J. B. Lowery.

Golfers B. G. Symon, A. R. Talgo, W. E. Kleeman and F. C. Hunt were in the second prize-winning group of the Head Office tournament held in July in White Plains. ▶

When fire raged through a neighbor's home July 3 in Wells, Maine, Maine District Salesman Clarke D. Newcomb raced for the fire truck, drove it there himself and helped fight the blaze. His wife revived unconscious neighbor. ▼

Picture courtesy of Portland Sunday Telegram

SO YOU STAYED HOME!

. . . . for your vacation. Emil Snodgrass, one of our better known characters, stayed home, too. For this reason Emil has decided not to enter the Vacation Story Contest. As he so pithily puts it, "Nothing ever happens to people who stay home" . . . that is if you except falling off the roof while painting same; extricating junior from the paint can; finding the missing paint brush on the living-room divan; and the thrill you get when the kitchen walls you painted a delicate rose late that night turn out purple under the light of the noon-day sun.

Just in case you don't see eye to eye with Emil, your local Shell editor is ready to receive your entry in the Vacation Story Contest. And you may win $225.

Closing Date — October 10

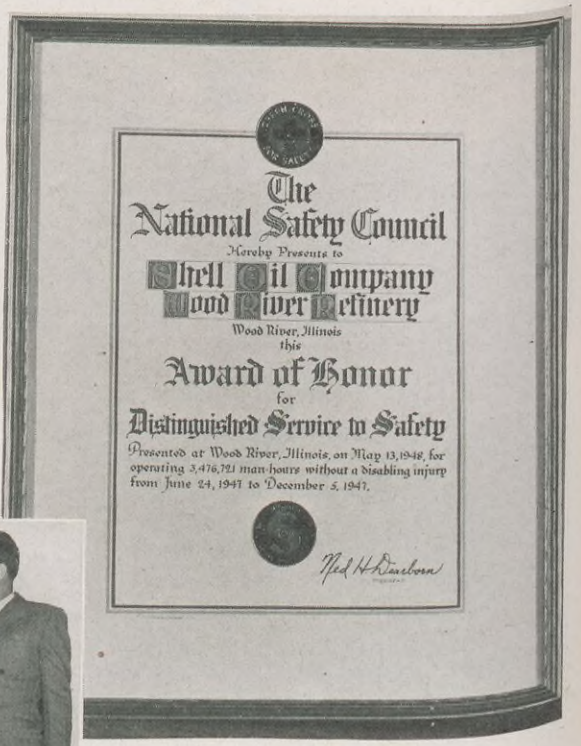
Local Contest	Shell News Contest
First Prize $25	First Prize $200
2nd Prize $15	2nd Prize $100
	3rd Prize $50

'ROUND THE REFINERIES, AREAS, AND DIVISIONS

Credit Managers in the East of Rockies territory held their annual meeting in New York Head Office in May.

Fire and Safety Representatives of the Exploration and Production areas met in Houston June 7th and 8th. Participating in the meeting were (left to right): J. E. Jones, J. E. Tucker, G. H. Creighton, W. F. Richards, Bruno Stolley, W. E. Smith, H. E. Barber, and F. A. Hall. ▶

Bruno Tiz (left) of the Chicago Division's Marketing Service Department receives congratulations from Congressman Everett Dirksen of Illinois, and a check for $250 as 2nd prize in an essay contest sponsored by the National Association of Wholesalers. The award was presented June 1 at the Edgewater Beach Hotel in Chicago. ▼



The Wood River Refinery has been awarded the National Safety Council's Distinguished Service to Safety Award. H. D. Dale, Refinery Manager, accepts the award on behalf of the refinery employees from M. D. Conroy (center) representing the Council, while Fire and Safety Manager R. A. Randels looks on. The presentation was made at a gathering of employees May 13 in the Roxana Community Building. ▶

SERVICE BIRTHDAYS

30 Years

R. H. COOMBS
Houston Refinery
Main Office

M. M. LUKETICH
Wood River Refinery
Engineering Field

TWENTY-FIVE YEARS

C. M. BAILEY
Tulsa Area
Production

G. H. BARNES
Houston Area
Production

S. E. BERMES
Wood River Refinery
Dispatching

C. P. CHAMPAGNE
Norco Refinery
Engineering Field

B. G. FLOESCHER
Head Office
Treasury

C. C. HALL
Wood River Refinery
Utilities

W. J. HAUN
Wood River Refinery
Dispatching

C. C. MANAHAN
Wood River Refinery
Engineering Field

T. P. McKEON
St. Louis Division
Operations

H. L. OTTWELL
Wood River Refinery
Engineering Field

TWENTY-FIVE YEARS—*Continued*

C. B. PARIS, JR.
Houston Area
Production

C. G. POWER
Shell Pipe Line Corp.
West Texas Area

J. R. RUSKIN
Wood River Refinery
Engineering Field

M. L. SAPPINGTON
Tulsa Area
Production

L. M. VREUGDE
Regional Staff (Houston)
Exploration

G. E. WADE
Chicago Division
Operations

J. H. WAGNER
St. Louis Division
Marketing Service

H. D. WHITE
Shell Pipe Line Corp.
Mid-Continent Area

TWENTY YEARS

W. A. ALEXANDER
Tulsa Area
Administration

S. P. CHAPMAN
New Orleans Area
Land

R. L. COLEMAN
Cleveland Division
Sales

R. R. COOPER
Houston Refinery
Treating

I. O. COTNER
Products Pipe Line
East Chicago, Ind.

J. T. DOUGHERTY
Wood River Refinery
Main Office

W. H. ESSER
Tulsa Area
Automotive

L. N. FOLSE
Norco Refinery
Cracking

W. I. FRANKLIN
Wood River Refinery
Treating—Light Oil

J. F. GATES
Products Pine Line
Clinton, Ill.

P. A. GOODMAN
St. Louis Division
Sales

E. D. HALE
New Orleans Area
Exploration

A. HODGES
Tulsa Area
Production

M. E. HOPKINS
Tulsa Area
Production

E. H. JASPER
Wood River Refinery
Treating—Light Oil

R. H. LUEBKE
Products Pine Line
Barnett, Ill.

D. C. MANTOOTH
Shell Pipe Line Corp.
Mid-Continent Area

R. W. McBRIEN
Wood River Refinery
Control Laboratory

J. J. McKENZIE
Head Office
Purchasing—Stores

D. M. MONTZ
Norco Refinery
Engineering Field

F. D. OLIVER
Houston Area
Treasury

T. U. OLIVER
Houston Area
Production

J. D. PIGMAN
Shell Pipe Line Corp.
West Texas Area

G. J. PRIBBLE
Houston Area
Production

J. B. ROE
Tulsa Area
Gas—Gasoline

R. T. SCHREIER
Wood River Refinery
Cracking

H. D. SIMPSON
Houston Area
Production

B. G. SYMON
Head Office
Marketing

R. B. THOMPSON
Wood River Refinery
Engineering Field

S. J. TIPSWORD
Wood River Refinery
Industrial Relations

C. L. TONER
Wood River Refinery
Engineering Field

J. G. TUTTLE
Houston Area
Production

J. A. WALKER
Wood River Refinery
Alkylation

D. O. WAYMIRE
Shell Pipe Line Corp.
Texas-Gulf Area

Head Office

15 Years

H. B. Dannell ..... *Marketing*
J. G. Kerley ..... *Manufacturing*
J. M. Von Almen ..... *T. & S.*

10 Years

L. M. Leisinger ..... *Marketing*
L. Noble ..... *Marketing*

Products Pipe Line

10 Years

L. E. Biles ..... *Clinton, Ill.*
N. F. Coil ..... *Toledo, Ohio*
J. B. Rigg ..... *Harristown, Ill.*
J. G. Sparks ..... *Zionsville, Ind.*

Shell Chemical Corporation

15 Years

T. Hahn ..... *Houston*
I. M. Shore ..... *Houston*
C. L. Walter ..... *Houston*

Shell Pipe Line Corporation

15 Years

F. W. Chappell ..... *Mid-Continent Area*
W. C. Childers ..... *West Texas Area*
M. B. Dickey ..... *Texas-Gulf Area*
J. V. Dover ..... *Mid-Continent Area*
G. L. Kenney ..... *Mid-Continent Area*
C. T. King ..... *Texas-Gulf Area*
R. L. King ..... *Texas-Gulf Area*
D. M. McMillen ..... *Mid-Continent Area*
A. R. Most ..... *Mid-Continent Area*
G. O. Norvell ..... *Mid-Continent Area*
L. A. Raydon ..... *Mid-Continent Area*
A. C. Richardson ..... *Mid-Continent Area*
F. E. Riggs ..... *Mid-Continent Area*
A. C. Schnack ..... *Mid-Continent Area*
O. P. Womack ..... *Texas-Gulf Area*

10 Years

L. E. Smith ..... *Mid-Continent Area*

Sewaren Plant

10 Years

P. C. Catano ..... *Terminal*

Houston Refinery

15 Years

J. F. Alford ..... *Gas*
D. M. Bergin ..... *Effluent Control*
R. B. Carter ..... *Storehouse*
E. J. Hander ..... *Engineering*
L. O. Lord ..... *Gas*
F. R. McGuire ..... *Dispatching*
J. P. Murray ..... *Engineering Office*
F. L. Robinson ..... *Control Laboratory*

10 Years

A. M. Vana ..... *Engineering Field*

Norco Refinery

10 Years

P. J. Gaudet ..... *Engineering*

Wood River Refinery

15 Years

C. W. Baker ..... *Engineering Inspection*
W. C. Bruce ..... *Control Laboratory*
I. S. Cliff ..... *Experimental Laboratory*
C. O. Farnstrom ..... *Engineering Field*
C. D. Greeling ..... *Engineering Field*
W. E. Hannold, Jr. ..... *Gas*
D. E. Hayes ..... *Engineering Field*
L. H. Hibberd ..... *Treating-Light Oil*
D. C. Holloway ..... *Cooling Water*
L. D. Humphrey ..... *Lube D. & D.*
E. A. Hutte ..... *Alkylation*
G. G. Niederkorn ..... *Lube Treating-Heavy Oil*
W. M. Vice ..... *Engineering Field*
C. N. Weger ..... *Engineering Field*
J. H. Zimmerman ..... *Treating-Light Oil*

10 Years

E. H. W. Bettman ..... *Lube C. & S.*
E. W. Bryant ..... *Engineering Field*
F. J. Carlin ..... *Engineering Field*
K. I. Stover ..... *Engineering Field*

Exploration and Production

Houston Area

15 Years

H. S. Brookshire ..... *Production*
H. T. Collins ..... *Production*
H. J. Hoffman ..... *Treasury*
W. T. Hopson ..... *Production*
W. J. Jones ..... *Production*
J. E. Talley ..... *Production*
G. M. Young ..... *Production*

10 Years

L. P. Carr ..... *Land*

Midland Area

15 Years

J. L. Brown ..... *Gas-Gasoline*
F. J. LaLanne ..... *Exploration*
W. C. Nowlin ..... *Production*

10 Years

F. W. David ..... *Production*

New Orleans Area

15 Years

E. J. Bourgeois ..... *Production*
W. C. Clay ..... *Production*
O. Deville ..... *Production*
A. Dumas ..... *Production*
L. E. Fleming ..... *Production*
P. V. Hitt ..... *Land*
W. Miller ..... *Production*
W. B. Prescott ..... *Production*
C. G. Whaley ..... *Production*

10 Years

D. Benoit ..... *Gas-Gasoline*
R. R. Daniels ..... *Production*
C. T. Williams ..... *Production*

Tulsa Area

15 Years

A. G. Ashley ..... *Production*
W. H. Burke ..... *Production*
C. Butterfield ..... *Treasury*
E. Hise ..... *Production*
G. S. Lambert ..... *Exploration*

10 Years

R. E. Gearing ..... *Exploration*
E. Lovell ..... *Exploration*
R. H. Wiseman ..... *Exploration*

Marketing Divisions

15 Years

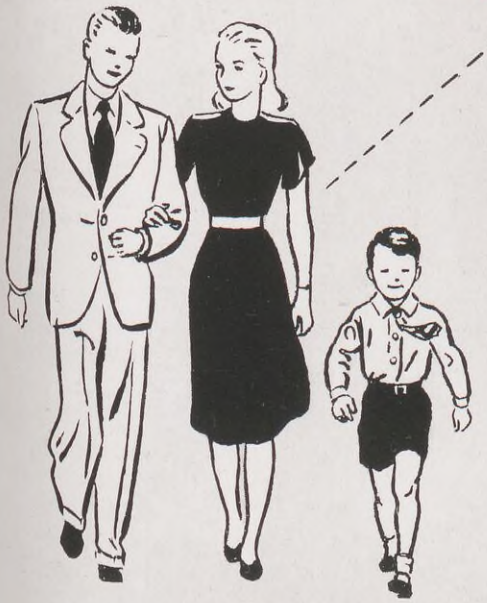
L. S. Tomlinson ..... *Atlanta, Operations*
C. E. Cook ..... *Baltimore, Operations*
H. A. Beebe ..... *Boston, Operations*
A. R. Sloan ..... *Boston, Operations*
S. L. Cook ..... *Chicago, Operations*
O. A. Kershaw ..... *Chicago, Treasury*
E. L. Felix ..... *Cleveland, Operations*
M. E. Hammond ..... *Cleveland, Operations*
E. E. Miller ..... *Cleveland, Sales*
T. D. Stewart ..... *Cleveland, Operations*
E. J. Armstrong ..... *Detroit, Operations*
F. J. Raczko ..... *New York, Operations*
H. J. Baker ..... *Indianapolis, Treasury*
P. G. Blackburn ..... *Indianapolis, Operations*
E. H. Cain ..... *Indianapolis, Sales*
J. A. Lunt ..... *Indianapolis, Sales*
C. F. Morris ..... *Indianapolis, Operations*
H. A. Bearwald ..... *Minneapolis, Operations*
E. L. Davis ..... *St. Louis, Sales*
W. T. Dolan ..... *St. Louis, Operations*

10 Years

C. A. Spates ..... *Baltimore, Sales*
J. H. Mack ..... *Boston, Operations*
A. De Stefano ..... *New York, Operations*
G. R. Stevens ..... *New York, Sales*

matters of *Fact*

OPTIONS... SHELL PENSION PLAN



If you retire on a Full, Proportionate, or Early Pension you may elect one of three options in the event that you wish to provide for your wife, child, or other approved beneficiary after your death.

OPTION 1

Under the terms of this option you receive a reduced Pension for life. After your death, a monthly Pension amounting to one-half of your reduced Pension will be paid to your named beneficiary for life.

OPTION 2

Under the terms of this option you receive a still further reduced Pension for life. After your death a Pension equal to the reduced Pension will be paid to your named beneficiary for life.

OPTION 3

Under the terms of this option you receive a reduced Pension for life. Upon your death a lump sum payment will be made to your named beneficiary or to your estate. The amount of this lump sum payment will be $500 unless a different amount is requested by you and approved by the Trustees. This option may be elected either alone or in combination with either Option 1 or 2 set forth above.

FULL DETAILS ON PENSION OPTIONS CAN BE FOUND ON PAGES 20 AND 23 OF "PROGRAM FOR SECURITY"

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

FAMILY PORTRAIT

OPERATOR 1st

MARIAN L. FLETCHER

When Cat Cracker No. 2 is on stream at the Wood River Refinery, Marian L. Fletcher, Operator 1st, is on duty as one of the group which operates the massive unit. Fletcher, who started at Wood River in 1929 as a Tester in the Control Laboratory, has worked in the Cracking Department over 17 years and was in on the initial start up of the huge twin Cats in 1943.

His hobby of woodworking recently led him, almost singlehanded, into a major construction project: a home in Wood River. He has already moved his family—Mrs. Fletcher and young daughter Carla Jean—into their nearly completed house. When the last room is completed, Marian expects to relax in his off hours with shotgun and fishing rod.

In Shell's five refineries there are more than 800 Operators who, like Marian Fletcher, play an important role in maintaining continuous and efficient operation of the many processing units which convert crude oil into refined products. These men draw constantly on their background of training and experience to operate their units—to control temperatures, pressures, rates of flow and the myriad of other factors which go to make up such an operation. Upon their shoulders rests much of the responsibility for the safe and proper functioning of complex processing equipment which supplies vitally needed petroleum products to our national economy.