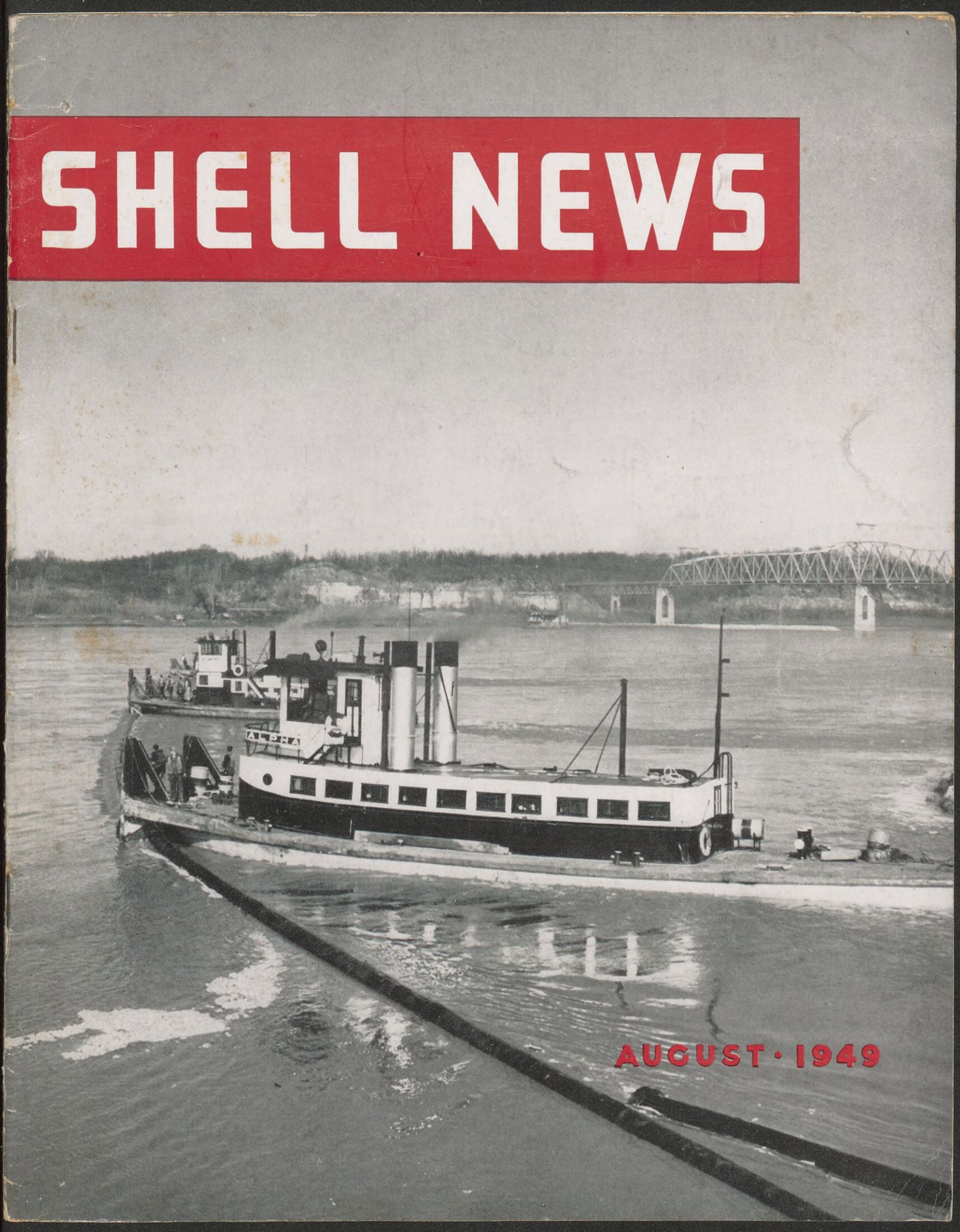
SHELL NEWS



AUGUST · 1949


Legend
Receiving and Pumping Stations
Pumping Stations
Refinery
Basin Line
Ozark Line
Patoka Extension
MISSOURI
KANSAS
OKLAHOMA
TEXAS
ARKANSAS
MISSISSIPPI
BLAND
WOOD RIVER
PATOKA
BUFFALO
DIAMOND
CHELSEA
CUSHING
LINDSAY
WICHITA FALLS
SEYMOUR
COLORADO CITY
JAL
MIDLAND
WINK

Basin-Ozark System Dedicated

Largest American Crude Oil Pipe Line Ever Built by Private Capital Can Deliver Over 200,000 Barrels of Crude Oil Daily

LAST July 12th saw the dedication of a huge transportation project which, because of its size and importance, ranks as a major achievement in its field. The Basin-Ozark Pipe Line System stretches 1,000 miles under the surface of the earth from Jal, New Mexico, to Shell's Wood River refinery with an offshoot to Patoka, Illinois. This $66,000,000 undertaking is the largest oil pipe line in the U. S. ever financed by private capital. It was conceived and constructed in the short space of two years with a minimum of fuss and a maximum of efficiency. How it came to be built is a story typical of our aggressive industry.

Line to Serve New Fields

The need for such a pipe line grew out of several economic factors. The unprecedented demand for petroleum products which followed World War II accelerated the search for oil and scores of new fields were discovered. Among them were prolific pools in the Permian Basin of West Texas and New Mexico. This new production gave impetus to other economic considerations in the field of transportation. Refineries which could manufacture the products sorely needed in the Midwest, the Great Lakes and East Coast regions were a thousand miles from this new source of crude supply. The cost of shipment by tank car to these refineries was prohibitive, and existing pipe lines were already overburdened.

The oil industry knew, from experience with the Big and Little Inch, that a large diameter pipe line was the probable solution. Since one company's Permian Basin production was not sufficient to justify an independent pipe line project, several companies combined in a joint study of all production in the area—and found it advisable to transport their crude to midwestern refineries through a jointly owned and operated large diameter line.

Shell Pipe Line Corporation, the Texas Pipe Line Company, Sinclair Refining Company and Empire Pipe Line Company joined together to build and own in undivided interests and capacities the 20, 22 and 24-inch Basin Line from Jal, New Mexico, to Cushing, Oklahoma—an industry hub for pipe line transportation east. From Cushing, Shell Pipe Line and Texas Pipe Line jointly built the Ozark Section to Wood River and Patoka, Illinois. This line is a 22-inch one with a maximum daily capacity of 186,000 and is to be operated by Shell Pipe Line as far as Wood River.

Two Lines From West Texas

Actually, this arrangement gives Shell two pipe lines from West Texas to Cushing and, temporarily, three from Cushing to Wood River. Shell already has a 10-inch line leading into Cushing, and a 10-inch welded Cushing-Wood River line built in 1928. An older 10-inch screwed line, laid from Cushing to Wood River in 1917, will soon be dismantled.

Apart from the problems of planning and financing (undertaken individually by each company as to its share) there were the problems of construction. The work on the Ozark section and on the 173-mile stretch of 24-inch pipe in the Basin section was hampered by one of the worst winters on record. Freezing weather was encountered much of the time and blizzards sometimes covered all traces of the work. Cold and ice made the pipe line's natural obstacles—a dozen major rivers—even more difficult to traverse. Torrential rains through the late winter and spring at

SHELL NEWS

VOL. 17—No. 8 AUGUST, 1949

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

Employee Publications Division
Personnel Department, New York

contents

Published by Shell Oil Company, Incorporated, (H. S. M. Burns, President; A. G. Schei, Treasurer; J. A. Horner, Secretary), for its employees and those of Shell Chemical Corporation, Shell Development Company, Shell Pipe Line Corporation and Shell Union Oil Corporation. Address communications to SHELL NEWS, Shell Oil Company, Inc., 50 W. 50th St., New York 20, N. Y.

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times sent a river into flood stage just at the time a crossing was about to be made. At other places the ground became a quagmire.

And for the men who steadily pushed the line forward through cold and wet, the weather had something else in store. When summer came, the heat and sandstorms in West Texas vied with the winter's blizzards to hold the project back.

There were other problems, too. Over 200,000 tons of scarce steel pipe had to be obtained, even as contractors were being engaged, rights-of-way procured, and the route surveyed. Simultaneously pump stations were designed, ordered and constructed, along with the power systems, storage tanks, staff quarters and other facilities necessary for getting crude through the line. Private telephone and teletype circuits were needed to keep the system working smoothly.

Men Behind the Scenes

Making sure that the Ozark project moved along at the scheduled pace, despite these obstacles, were qualified men drawn from all over the Shell Pipe Line organization. D. H. Lewis, Chief Engineer, and O. W. Heyden, Project Engineer, supervised the line's design and kept things moving. H. H. List assisted Heyden on mechanical design and J. J. Sonnier on electrical design.

To direct field operations, offices were opened at Springfield, Missouri, and two of Shell Pipe's senior operating superintendents took charge. W. H. Shelley, a veteran of the laying of the original Cushing-Wood River line and of the Bayou products system during World War II, was brought in from West Texas to be General Superintendent of the Ozark construction, and C. D. Winkelman moved in from Oklahoma as his assistant. Retired veterans L. F. Young, C. D. Marquis, James Stevenson and E. C. Morris were called back to serve as field consultants on the project. List eventually went to the field to take charge of station construction, H. F. Ziegler supervised the rights-of-way work, C. D. Remele served as chief material man and C. B. Shell as Springfield Office Manager. Others too numerous to mention did yeoman service under most trying conditions.

Today, the completed Basin System extends northeast 515 miles from Jal to Cushing. A combination of 20, 22 and 24-inch diameter pipe, it has a daily throughput capacity into Cushing of 241,000 barrels of crude oil.

8 Pump Stations Propel Crude

Eight strategically located pump stations propel the crude oil through the Basin System. The main line pumps at Jal are gas-engine driven. Each of the remaining Basin System stations except Odessa has four 4,160-volt electric motor-driven centrifugal pumps, three of which are rated at 1,250 horsepower and one at 600 horsepower. When using its three larger pumps, each station imparts 750 pounds per square inch pressure to the moving oil stream. The smaller pump in each station serves mainly as a "standby" though it can also be operated to attain greater flexibility in pumping pressures without sacrificing efficiency. Odessa has two 1,250 horsepower pumps with which it can add 500 pounds pressure to the line.

Connecting with the Basin line at Cushing and continuing 433 miles on to Wood River, the 22-inch Ozark System has an initial throughput capacity of 186,000 barrels daily with its present five pump stations. This initial over-all line capacity, in which Shell has a 103,000-barrel-a-day share, can be increased in the future to 260,000 barrels daily by the addition of intermediate stations. The Ozark System pumps are similar in operation and design to those in the Basin System.

Maintaining the Shell-operated Ozark pump stations and tank farms are pipeliners whose long previous experience has been supplemented by special training. To help them become familiar with the technological advances incorporated in the line, the Training Department prepared a manual on the operation of the new equipment and conducted a 17-week course for operators at each of the ten stations on the old 10-inch Cushing to Wood River lines.

Preceding the actual dedication ceremonies at Cushing, a lengthy tour of the Basin-Ozark System provided more than a hundred oil men from the Mid-Continent territory with a first-hand view of the unusual engineering problems solved by the project engineers. Transported in air conditioned buses, they began the five-state tour on Monday, July 11, in Dallas, Texas, proceeded along the pipe line to the dedication at Cushing on the second day and then continued on making various pipe line station stops all the way to Wood River.

System Dedicated July 12

Joining the touring party in the July 12 dedication ceremonies at Cushing were members of the Interstate Commerce Commission, the press, leaders from various industries, and senior representatives of the participating oil, supply and construction companies. Walter Hallanan, Chairman of the National Petroleum Council and President of the Plymouth Oil Company, made the day's principal address.

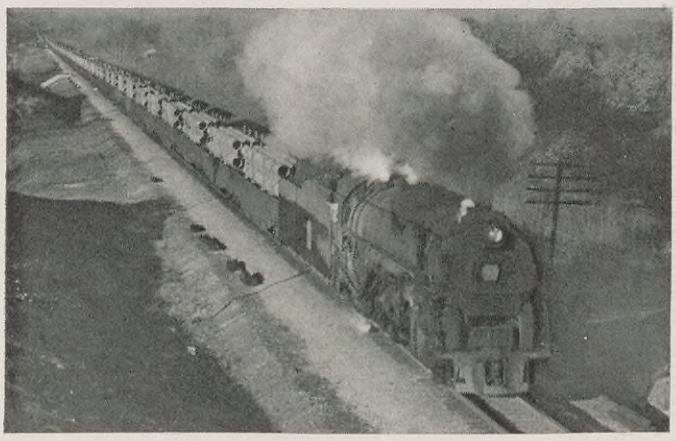
Today, the Basin-Ozark Line is more than just a pipe line system which bridges the gap between Midwest refineries and the Permian Basin crude oil supply. Completed on schedule in spite of numerous and difficult obstacles, it is one more example of the oil industry's bold, aggressive expansion which, in war and peace, has served our country well.

BUILDING THE LINE

On the following pages the story of the Basin-Ozark Line is shown, from surveying to dedication. Construction of this line, through rugged terrain and across numerous rivers, including crossings of the Missouri (shown on the front cover) and the Mississippi, was a difficult task. The arrival of the first tender at Wood River, Ill., marked the successful conclusion of an undertaking that will be important to Shell's future.

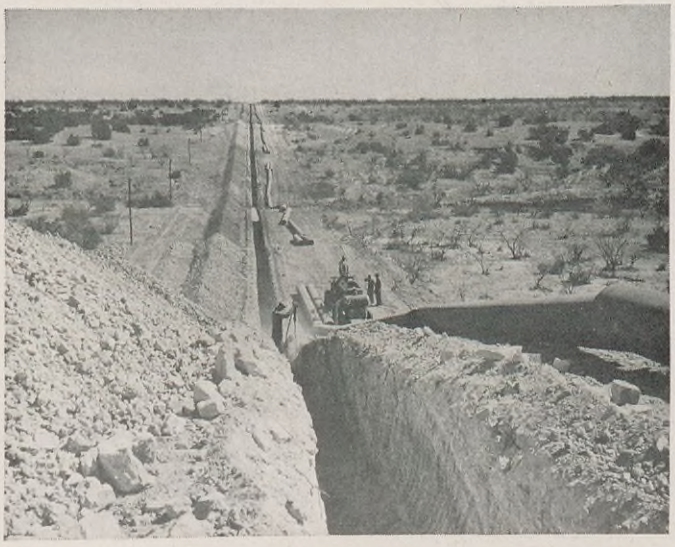
First step in the construction of the Basin-Ozark Pipe Line System, following the survey, is clearance of the right-of-way.

After the pipe line route is cleared, powerful steam shovels move in to dig the big ditch in which the pipe will be buried.



Trainloads of the heavy pipe highball across the country from steel fabricating mills to takeoff points near the pipe line route.

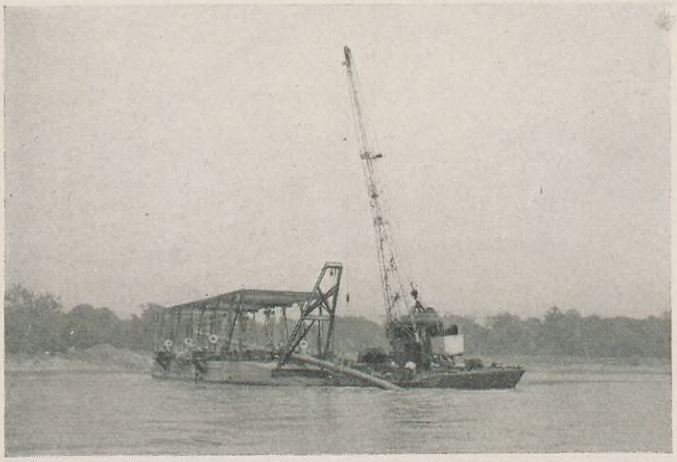
Oversize trucks do their part in pipe line construction, hauling thousands of tons of heavy pipe from rail sidings to location.



Once the ditch is dug, sections of pipe are unloaded from trucks and strung along the edge, waiting to be welded and buried.

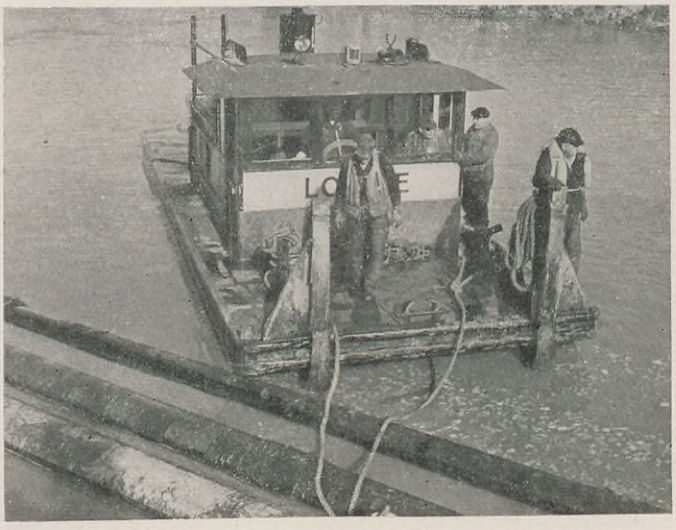
After the sections are joined, the pipe is cleaned, primed and coated and lowered into the ditch, which is then filled in.

Various techniques are used to cross rivers. Here, a suspension bridge lifts a section of the Basin System over the Red River.



At the Mississippi, on the Ozark System, a wartime barge is used. Pipe is welded together on deck, then sunk in the river bed.

A different method is used in crossing the Missouri. Pipe is welded together on land, then floated into position and sunk.

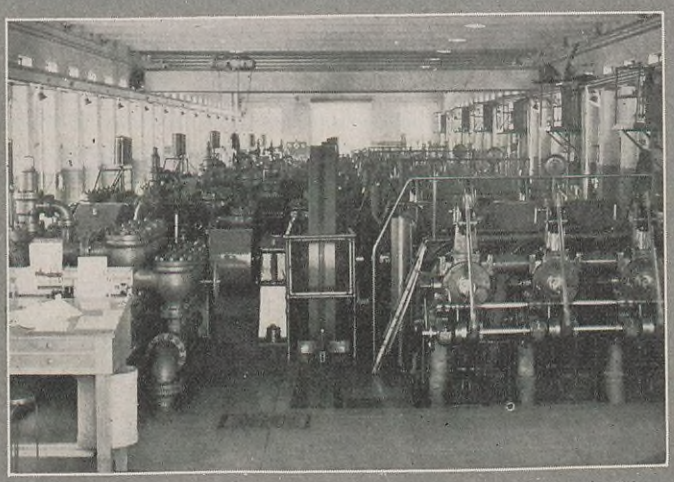


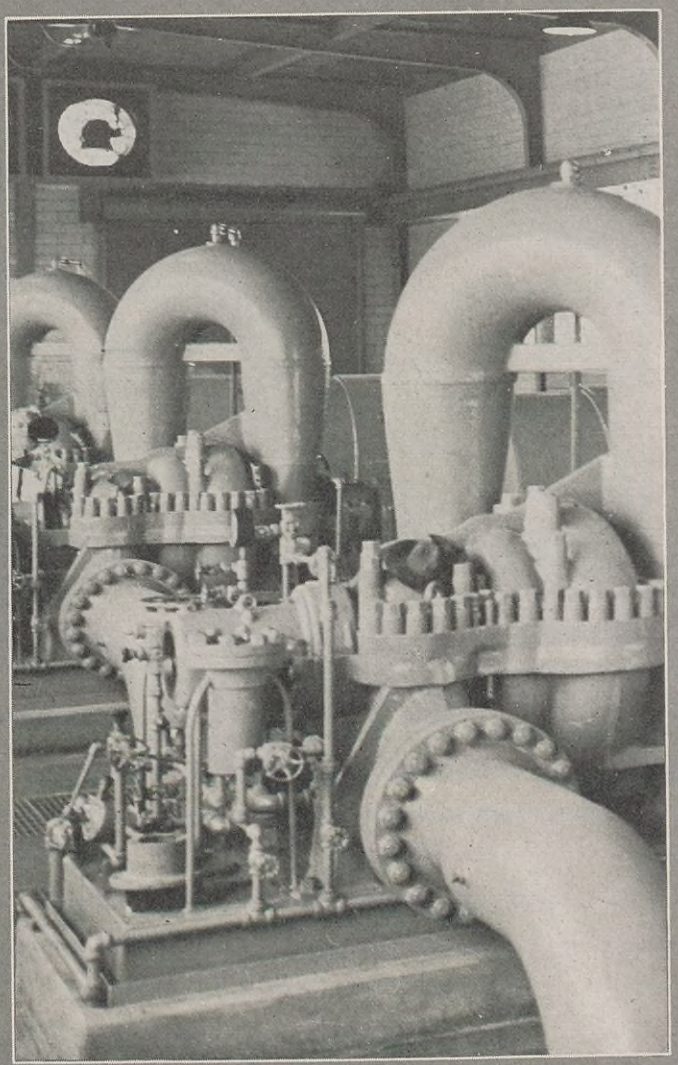
Holding an air-tight section against the Missouri current, tugs maneuver it in place over a channel dug for it in the river bottom.

Air-filled pipe is inched along in the water to an "anchor barge" to which it is roped until ready to be sunk to the bottom.

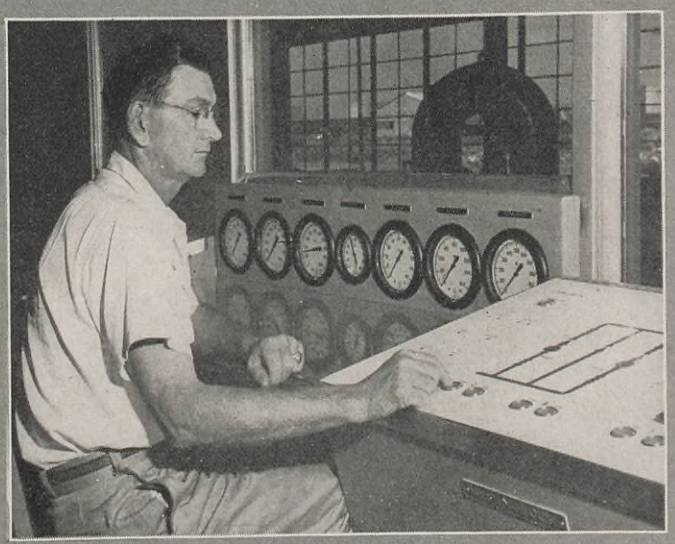
THEN AND NOW

The last decade has seen constant progress in the methods and techniques of pipe line construction and operation. The Basin-Ozark System has taken full advantage of recent innovations, resulting in such "old and new" contrasts as those shown below.





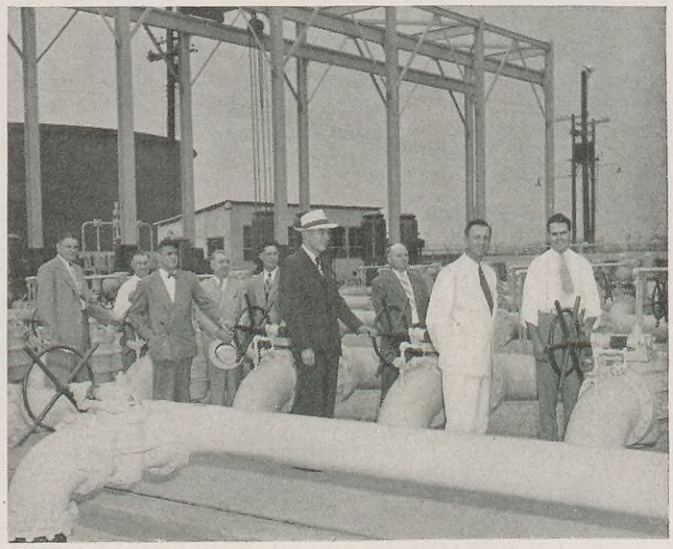
At Cushing, three compact and modern electric motor-driven pumps (right), plus a standby pump, power the 22-inch Basin Pipe Line—a marked contrast to the mass of equipment at left (five reciprocating pumps and seven diesel engines) which formerly powered the dual 10-inch line from Cushing to Wood River.



Modern pipe line operation is a marvel of silent, almost effortless efficiency. Automatic controls, electric motors and powerful pumps combine to keep tenders moving swiftly and smoothly. The push-button control panel (right) is a far cry from the hand-operated valve (left) which yielded only to brawn and muscle.

BASIN-OZARK SYSTEM: Dedication Ceremonies

Prominent members of the industry and Shell officials were present at the dedication on July 12 in Cushing, Okla., of the Basin-Ozark Pipe Line System. They included (left to right): C. D. Winkelman, W. H. Shelley, D. H. Lewis, H. H. Anderson, Vice President, and (sixth from left) T. E. Swigart, President, all of Shell Pipe Line Corporation.



At Wood River for the arrival of the first tender through the new system are Mayor W. R. Stoneham (second from left); State Representative L. J. Kennedy, Shell employee from Alton (third from left); H. H. Anderson, Vice President, Shell Pipe Line (sixth from left); and H. D. Dale, Manager of the Wood River Refinery (second from right).

Shell Pipe Line Plans New Elk City Line

AS SHELL NEWS went to press, T. E. Swigart, President of Shell Pipe Line Corporation, announced plans for the construction of a ten-inch pipe line to extend from Elk City oil field in Beckham County, Oklahoma, to Cushing, Oklahoma. Approximately 160 miles in length, the projected line will connect with the new Basin-Ozark System at Cushing and will be owned and operated by Shell Pipe Line Corporation.

To be completed during December, 1949, at a cost of approximately four million dollars, the Elk City - Cushing pipe line will have an initial capacity of 25,500 barrels per day. Construction of intermediate pump stations can increase the capacity of the line to approximately 50,000 barrels per day. The Ozark System replaces one of Shell Pipe Line's existing ten-inch lines from Cushing to Wood River, and pipe from this latter line will be reconditioned and used in the Elk City line.

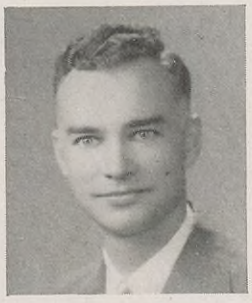
The Elk City field's discovery well, J. G. Walters No. 1, was brought in back in December, 1947, at a depth of about 9,300 feet. It was a find of great promise. Even under the methods of separation used during the initial testing period, the discovery well produced approximately 76 barrels of condensate per million cubic feet of gas. With more efficient processing procedures, the yield can be increased to approximately 110 barrels per million cubic feet of gas.

At first the 28,000-acre block of leases five miles south of Elk City was considered important only as a gas-condensate field, but today it is acclaimed one of the most important oil field developments in Oklahoma in recent years. Five oil wells have been completed to date which have a daily allowable production of 258 barrels of oil each. An active drilling program is in progress with seven wells drilling at the present time and it is planned to accelerate this program in the near future. Production from them is expected to reach 11,000 barrels of crude oil per day early in 1950.

GLENN PURCELL

R. L. DAVIS

L. J. SNYDER



W. M. FRECH

S. F. GOOD

Shell People In The News

GLENN PURCELL has been named Assistant Superintendent of the Houston Plant of Shell Chemical Corporation. After receiving his degree in chemical engineering from the University of Oklahoma, Mr. Purcell joined Shell Oil Company as a junior chemist at Wood River Refinery in 1929. He served in a variety of technical and chemical positions at the refinery in the decade that followed and in 1941 was transferred to the Houston Refinery as Manager of the Gas Department. Mr. Purcell was appointed Senior Technologist in Shell Oil Company's Head Office Manufacturing Department in New York in 1943 and has served in that capacity until his recent assignment.

★ ★ ★

R. L. DAVIS has been appointed Manager of the Gas-Gasoline Department in the New Orleans Exploration and Production Area. A graduate of Louisiana State University, where he received his B. S. degree in chemical engineering, Mr. Davis came to Shell in 1932 as a sample carrier in the laboratory at Norco Refinery. He subsequently held a variety of positions at Norco prior to becoming Head of the Gas Department there in 1937. In 1940 he was transferred to Wood River Refinery as Assistant Manager of the Gas Department, and three years later he was appointed Manager of the Wood River Alkylation Department. Mr. Davis moved to Houston Refinery in 1944 as Manager of the Gas Department.

★ ★ ★

L. J. SNYDER has been named Manager of the Gas Department at Houston Refinery. A graduate of Stanford University, where he later received his Master's degree in chemistry, Mr. Snyder entered Shell's employ in 1929 as a Research Chemist at Martinez Refinery. He served there and at the old Coalinga Refinery in technical positions of increasing responsibility prior to becoming Manager of the Martinez Refinery's Cracking Department in 1939. Transferred to Wilmington Refinery in the same capacity in 1945, Mr. Snyder served subsequently as Manager of the Chemical and Alkylation Departments there before receiving his new assignment.

★ ★ ★

W. M. FRECH has been appointed Manager of the Alkylation Department at the Wilmington Refinery. A chemical engineering graduate of Washington University in St. Louis, Mr. Frech began his Shell career in 1936 in the Technological Department at Wood River Refinery. He remained at Wood River until 1939 when he was transferred to the St. Louis Office as a Technologist in the Manufacturing-Development Department. Shifted to Houston Refinery in 1940, he served there as Senior Technologist and later as Assistant Manager of the Gas Department prior to 1945 when he moved to Norco Refinery as Manager of the Gas Department.

★ ★ ★

S. F. GOOD has been appointed Manager of the Gas Department at the Norco Refinery. Following his graduation from Rice Institute, where he majored in chemical engineering, Mr. Good entered Shell's employ at the Houston Refinery as a Junior Analytical Chemist in 1936. In 1941 he was appointed Junior Technologist at that location and he served in this capacity until 1944, when he became Assistant Manager of the Gas Department. Mr. Good remained in this position until his recent appointment.

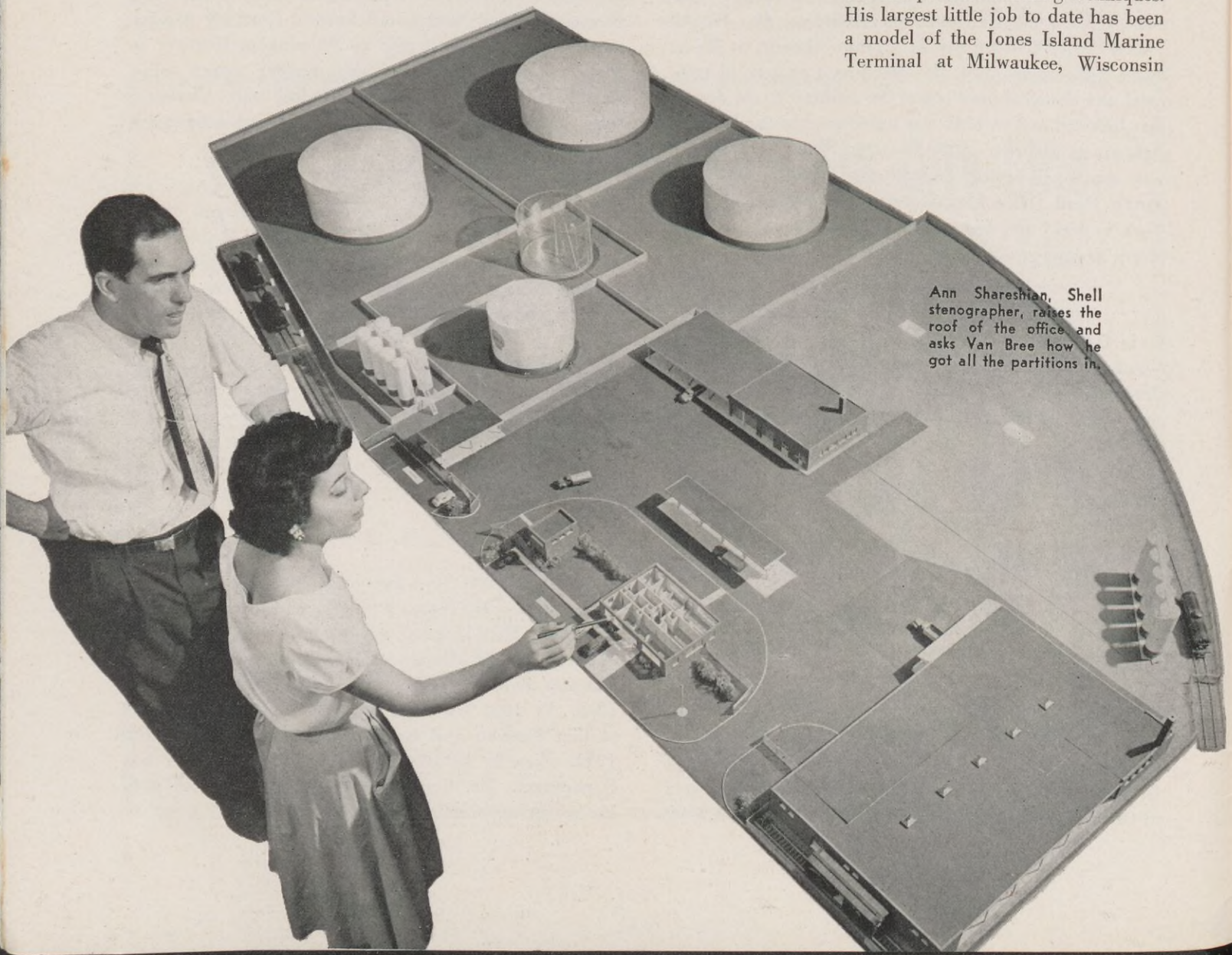
Shell's Model Job

Techniques Used by This Draftsman Who Brings His Hobby To the Office Make an Interesting How-to-Do Course In Modeling Scale Miniatures

MANY members of the Shell family have interesting hobbies to occupy their leisure hours; throughout the Company they hustle home from work to take up woodworking tools, brush and palette, training leash or tennis racquet. And you'd be surprised how many duck into a basement workshop, or just settle at a card table in the living room, to make models — models of ships, airplanes, miniature railroads, tiny dolls, or maybe a Lilliputian dream castle with a two-car garage.

As these model-making hobbyists go William Van Bree, a Draftsman in Head Office Marketing-Engineering, is about as typical as the next one. He made his first model, a ship, when he was 13 years old, and has been fashioning Tom Thumb creations in his spare time ever since. But there the similarity to other hobbyists ends. For when Van comes to work in the morning he brings his hobby with him. He simply drops the "a" out of avocation, and his hobby becomes part of his job. As a result, he has acquired a professional know-how about model building techniques which can be a helpful guide to others who follow the midget hobby.

Van makes the scale models of service stations, terminals and distribution fixtures which Shell's Marketing Department uses to study new designs, color schemes, physical layout and product handling techniques. His largest little job to date has been a model of the Jones Island Marine Terminal at Milwaukee, Wisconsin



Ann Shareshian, Shell stenographer, raises the roof of the office and asks Van Bree how he got all the partitions in.

(see the July SHELL NEWS). Every eighth of an inch on the model represents a foot of the actual terminal. Mounted on a reinforced plywood base, 10 feet long and 5 feet wide, it took four months to complete.

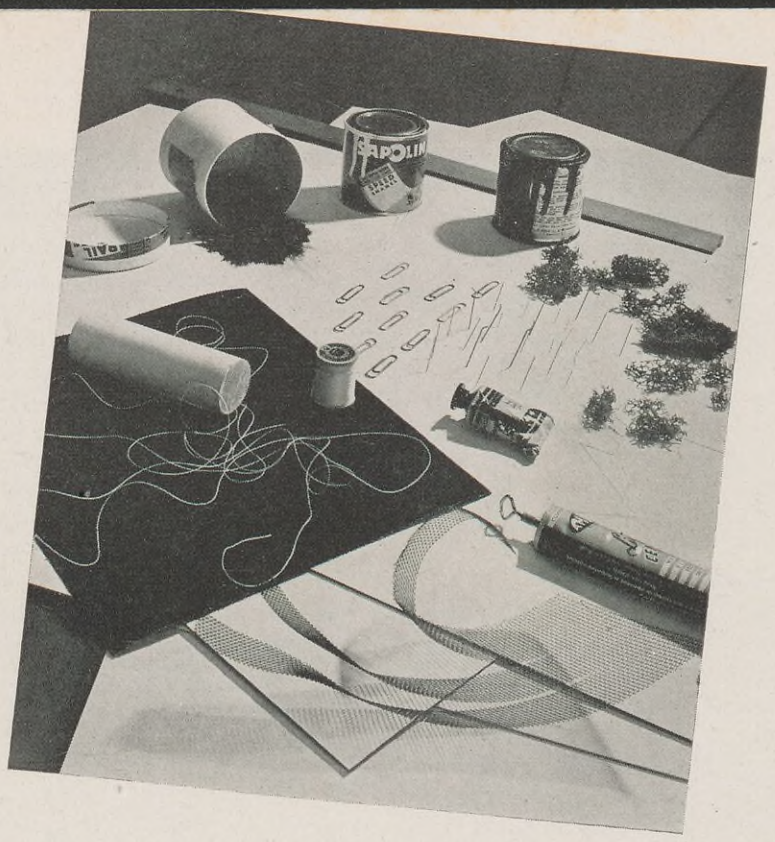
Since the terminal model required imitation of a wide variety of materials—ranging from steel tanks to shrubbery around the office building—the devices used in making it constitute a short course in model construction. If you'd like to try, a list of tools and materials appear on these pages.

Van has found illustration board a versatile material for making models of buildings, houses, and a variety of industrial equipment. First of all, it can be obtained in sheets large enough to meet any model requirement. It is easy to cut, can be bevelled and carved in relief, and edges can be smoothed with sandpaper. Illustration board readily adapts itself to any paint, ink or dye the model maker might wish to use. It won't crack or split like wood, and will withstand rougher treatment than materials like balsa. The terminal model has been shipped for special displays at the Wisconsin centennial celebration, Marketing schools at Asbury Park, N. J., and other Marketing and management meetings—a treatment most hobbyists wouldn't risk for their models—yet it remains in excellent condition.

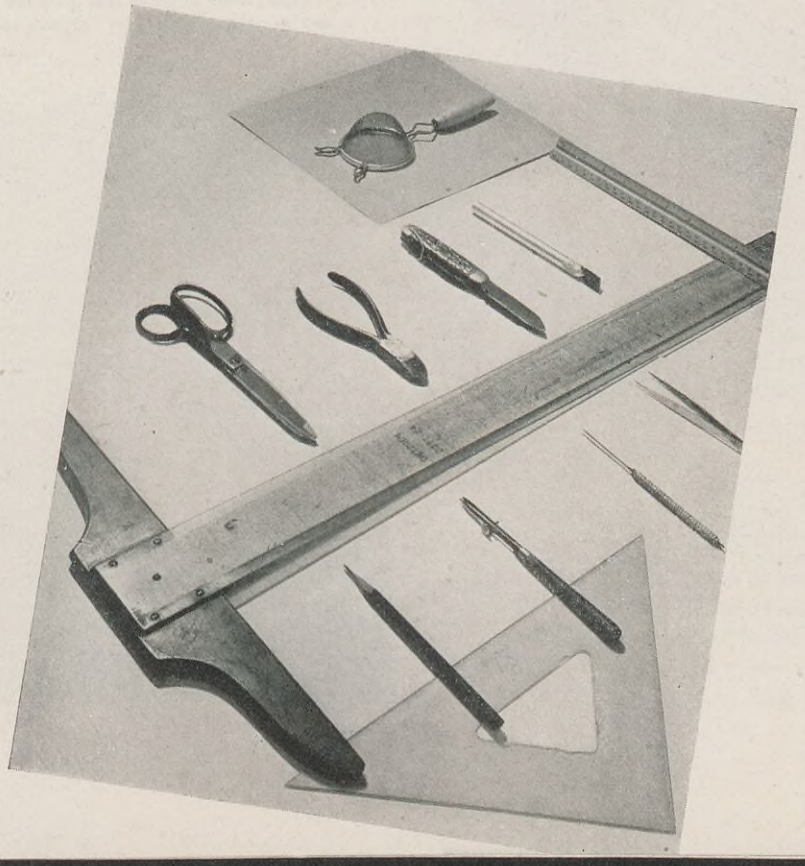
Van Makes Walls in Layers

In making the model buildings to scale, Van simply glued successive layers of illustration board together for the required wall thicknesses. By lifting the removable roofs, you can see how the outside walls, office walls and partitions vary in construction. This method of making walls in layers also makes it possible to imbed "glass" windows and partitions in slots in the walls—much like window frames are fastened in actual construction. (See the photo on Page 10). The windows and panels are made of transparent sheets of cellulose acetate, the thickness varying in proportion to the size of the panes.

Van began making the terminal buildings by cutting all the wall sec-



THE MATERIALS: Illustration board, screen wire, emery paper, a spool of thread, pieces of clothes pole, green wool flock, gloss enamel, flat finish paint, slats of Venetian blind, paper clips, straight pins, sheets of cellulose acetate, lichen moss, a tube of Venetian red oil paint, and glue. The glue, a liquid cement in tubes, has a cellulose acetate base, is hard and permanent when dry.



THE TOOLS: T-square, triangle, scissors, wire clippers, pocket knife, X-Acto knife, tea strainer, sandpaper, ruler, tweezers, ruling pen, pencil—and any sort of brush for painting. The tool between the tweezers and the ruling pen is a piece of piano wire wrapped in glue-soaked cord. It's used for applying glue. The T-square and triangle aid speed and accuracy, but aren't essential.

tions, gluing layers together for the right thickness and installing windows and doors at the same time. He then glued the interior walls together in groups and fitted them into the rectangle of the outer walls. This avoided the tedious job of fitting each wall in like an individual piece of a jig-saw puzzle. A building was not fastened to its base until complete; thus it could be tipped and turned to facilitate assembly.

Painting Precedes Assembly

As much of the painting as possible was done before the separate pieces were assembled to avoid smears where two colors joined. The light green interiors were painted and sanded smooth. In some cases, after assembling a section of offices, closets and storerooms, the corners were retouched with paint to fill tiny cracks where walls joined and to cover spots of glue. In joining walls with outside corners, Van didn't bother to bevel edges to 45 degrees. After gluing, painting and sanding, the joints could hardly be detected anyway.

The outside walls were scored in parallel horizontal lines with a pocket knife, with the result that they look remarkably like brick. The vertical lines were not scored to avoid "flaking" of the outer layer of the illustration board. The paint was Venetian red oil paint in tubes, thinned with turpentine to prevent pigment streaks. Several coats were applied until the right shade of brick red was attained, each coat being allowed to dry several hours before the next one was applied.

The floors of the buildings, themselves sheets of illustration board, were painted flat grey, and look like the painted concrete of the real buildings.

Each roof is another sheet of illustration board to which emery paper has been glued to look like graphited asphalt roofing. Emery paper was also glued to the model's base to represent the asphalt paving of the driveways and parking area, but a coat of flat black paint with no shine to it would have done as well. Once when making a model of a service station with a white gravel driveway, Van used Pabena, a baby food, for the gravel . . . it was to scale.

Landscaping is important, because crude grass and foliage can spoil the atmosphere of reality in even the best of building models. The office building of the terminal required particular care, because it is surrounded by lawn and shrubs, is joined by the wire fence which surrounds the property, and has concrete sidewalks and curbings.

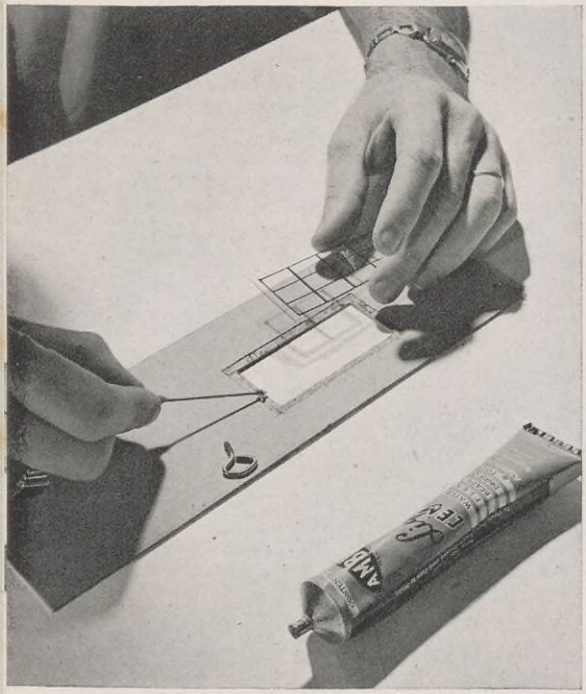
Painted Curbs Add to Reality

By cutting a piece of illustration board the size and shape of the lawn and sidewalk area, Van made his concrete curbings merely by painting the edges of the board grey-white. The board was one-sixteenth of an inch thick, which made it exactly to scale for the 6-inch curbs at the terminal. He then painted the sidewalks, let the paint dry thoroughly, and put in the lawn.

For grass, a package of green wool flock from an art supply store was used. The lawn area was painted with a flat green paint and, while it was still "tacky," the flock was sprinkled on the lawn with a tea strainer. The board was then held upside down and tapped lightly. This removed the excess flock and made that which adhered to the paint stand up like blades of real grass.

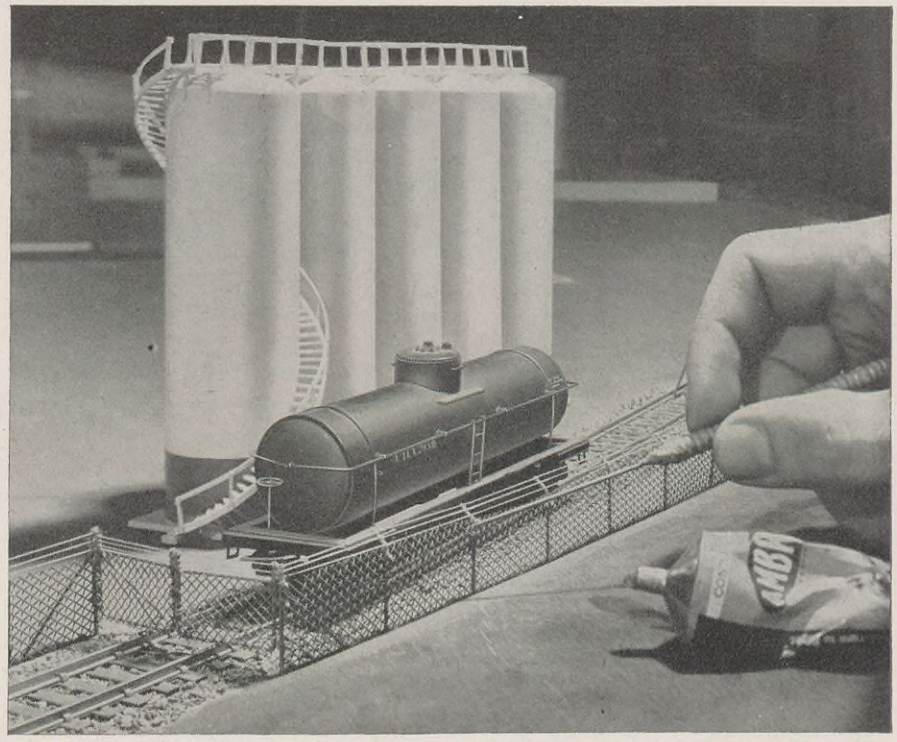
The office building—and utilities building, also in the area—were then secured into place. The fence, shrubbery and flag pole were mounted last.

To make a midget "cyclone" fence, straightened paper clips were used for the iron posts. They were bent slightly at the top, then glued into holes in the model's base. The mesh wire was made of long strips of galvanized door screen, cut diagonally with scissors and tied to the posts with thread. A bead of glue was put



Before fastening windows and doors into the walls, paint imitation steel mullions (moldings), using a ruling pen loaded with grey paint. Painted strips of illustration board make heavier mullions. The cellulose acetate windows extend into walls an eighth of an inch all around. A few layers of paper in the illustration board are cut out (see left) to accommodate the thickness of the cellulose acetate and prevent bulges in walls when they are glued together.

William Van Bree, model maker both by vocation and avocation, with his scale model replica of the Confederate man-o'-war, "Alabama."



It's detail that counts. Here Van puts a bead of glue on the thread tying the screen wire fence to the posts made of paper clips. A bit of thread also imitates the barbed wire atop the fence. Lubricants tanks are cut from wooden clothes pole "rounds" and the stairs and catwalk are made of strips of illustration board glued together. The car and track come in an assembly kit.

on each tie. Three strands of thread, wrapped around the upper sections of the posts and secured with glue, look like the strands of barbed wire which top the life-size fence. The pipe frames and diagonals of the fence gates were also made of paper clips, bent to shape and glued together.

The shrubs are small pieces of lichen moss. They can be purchased at hobby stores or collected in the woods. To mount them, straight pins were driven into the lawn after their points had been dipped in glue. The moss was then glued to the pins so the latter would not show. There are no trees at the terminal, but if there were, Van says he would have made them by selecting pieces of hedge, stripping them of leaves, and gluing pieces of lichen or green-dyed sponge to the branches. Carefully selected sponges can also be cut to look like hedges and pruned shrubs.

The loading rack, outdoor sheds, even the steps to the racks and buildings around the terminal model were all made from carefully cut and glued pieces of illustration board. Where the finished construction called for wooden hand rails, small strips of the board were used. When the railing was to imitate pipe, paper clips served the purpose.

Tank Has "Expansion Roof"

Illustration board again went into the construction of the models of the large storage tanks. To strengthen them and make certain they held their shapes, Van first made an interior support of evenly spaced discs, like the blades of a harrow, painted the edges with glue and wrapped the outside walls of the tank around them. Cord tied around the tank held the side in place until the glue set. An extra strip of illustration board was glued around the top of the largest tank to make it look like an expansion roof.

The flat cone shape of the tank roofs was achieved by cutting a "pie slice" from a disc slightly larger in diameter than the tank and drawing the edges of the cut together, binding them with glue. On the largest tank tops—to make sure they retained their rigidity—the inside pitch was measured and triangular radial ribs cut and glued into place. After the tops had been secured to the tanks and all glue firmly set, the edges were sanded smooth.

The model lubricants and special products tanks—tall, narrow columns—were made of clothes pole "rounds" purchased at a lumber yard. Strips of illustration board made the winding stairs and catwalks on all tanks.

One storage tank was made from sheet plexiglas and without supporting discs and roof ribs so that the pipes inside could be seen through the transparent sides. The "pipes" were made of long, sanded strips of wood like sucker sticks. Slats from a Venetian blind were cut down to imitate concrete fire walls which surround the storage tanks.

The railroad equipment used in the terminal model—ties, rails, ballast, tank and freight cars—was the only thing which could not be easily made with ordinary materials. Railroad models are a hobby in themselves and special kits were purchased at a hobby store and the sidings and cars assembled from them.

Underway: A Man-o'-War

Van's vocational model making takes up about a third of his time at the office, but that doesn't dampen his ardor for models as a hobby. He has a small shop at home and frequently makes toys for his year-old son. Since before the war, Van has been working on a detailed scale model of the *Alabama*, a Confederate man-o'-war that sank 82 Federal ships. On the full-scale side he is currently making a table radio set. As an archery enthusiast, he has made all his bows, arrows and slings.

On the job right now Van has just completed hundreds of models of pallets, drums and products cartons for a study of palletizing and warehouse efficiency. The drums were cut from wooden dowels, the two-inch-square pallets and the cartons are made of —you guessed it—illustration board.

PLANNED RETIREMENT:

Pop Knows It Pays

Profit From the Experience of a Pensioner Who Didn't Plan Ahead. It Could Have Been Easier, He Says

Pop Gaines, center, lives near the site of his old job and often attends Service Birthday dinners and picnics. Here, at a Company picnic, he talks with two other old-timers, E. C. Hubbard, left, and R. H. Price, right.

IT MAY seem a paradox that the ease and pleasure of planned retirement can be extolled by one who failed to make any plans, but Havones "Pop" Gaines of Kilgore, Texas, after a period of frustration in which he atoned for letting his retirement "slip up on him," now makes a point of advising Shell employees to prepare for the day when they will begin receiving their pensions. "Be ready," he says, "and you will thoroughly enjoy it."

Pop retired two years ago after 24 years with Shell. He had been a roustabout, gang pusher, switcher and pumper at Corsicana and Kilgore, and has lived at Kilgore since 1934. But when the time came to leave the job, he discovered he wasn't ready. How Pop solved his problem with a belated idea and nine dollars is a story in itself, but if he had it to do over again he would have been thinking about that idea long before he left the Company.

Mrs. Gaines, who is "Mama" Gaines to most everyone, says that retirement nearly broke Pop's heart. "He wouldn't admit it," she says, "but for a time he simply didn't know what to do with himself."

After a short period of aimless puttering about, Pop got a job with a Kilgore welding firm just to keep busy. But business was not good and one day the boss told Pop he'd have to let him go. Discouraged again, Pop sat down and thought things out.

Students of Kilgore's Elder School, right across the road, are year-round customers because they use the school ground as a baseball diamond during vacations.

Then he went home and said to his wife:

"Mama, let's put in a bubble gum counter so we can make a little money and have somebody to talk to."

Out of that statement grew a thriving little grocery and concession stand. It caters mainly to the pupils of Kilgore's Elder School, just across the way, and supplies a limited number of staple groceries to the residents of the neighborhood. Pop hired a carpenter to take out a double window in one of his bedrooms, install a door and cut a gate in the fence on that side. The Gaines had little use for the bedroom, since their children —three sons and a daughter—are married and living away from home. Pop bought a box of bubble gum and was open for business.

Gross Income Now $225 a Month

Gradually, he added to the stock. It now consists of candy, soft drinks, ice cream, school supplies, milk, bread, bacon and eggs. Two to three dozen of the eggs sold each day come from the Gaines' own chickens. Gross income is about $225 a month, with estimated profit about $100. It is easy to see how Pop and Mama Gaines can set aside most of their pension for emergencies and for their children's and grandchildren's future.

Though the business of running the small store is not strenuous, it keeps Pop occupied to the point that he claims he is "the busiest man in Gregg County." During the school sessions there's always a rush for the ice cream and soft drinks coolers during lunch hours and after classes. Nor does the junior trade slack off during the summer, because most of the kids in the neighborhood use the school ground for a baseball diamond. A great deal of the business comes from the surrounding neighborhood when parents send their children in for a loaf of bread or bottle of milk. This usually means an added purchase of a bar of candy, gum, or a cold drink.

Though Pop often extends a form of credit to the kids, he keeps them firmly believing that he doesn't. "If they haven't got money, and want something badly enough, I just *give* it to them," he says. This policy has never failed, because the penny or nickel owed always turns up the next day.

Mama Gaines keeps the books for the store, also tactfully answers questions as head of the firm's "public relations department."

Pop maintains he is the "boss" and Mama is just the bookkeeper. She just smiles at this and points out that in addition to balancing the books at the close of business each night and keeping a spotless store as well as a home, she is also head of the firm's "public relations department." This means she has to figure out the right answers to the question, "Aren't I the best customer you've got?"—asked of her by children countless times daily. In addition to his other duties, Pop also serves as bouncer, "persuading" some of the rougher boys to settle their personal troubles outside.

About two-thirds of Pop's time is spent serving customers in the store. The other third he applies to his garden and chicken yard. The garden not only supplies fruits and fresh vegetables for his household, but affords a small profit in hot peppers, his specialty. Last summer Pop made about $75 with his peppers, and could have made more, but he gave a lot away. His fruit trees include peach, fig and plum.

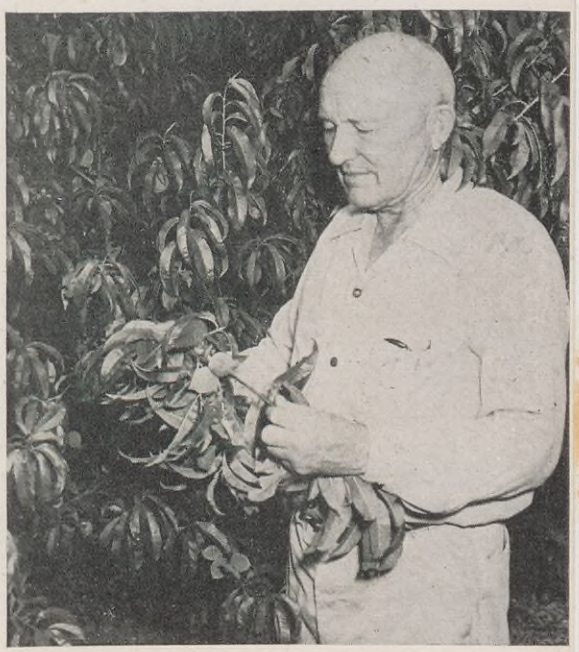
Time Is No Longer a Problem

Pop has long since put his watch away, for time is no problem now. He says he never feels old. Both he and Mrs. Gaines are in perfect health. They've been married 46 years and are typical doting grandparents—with three granddaughters and a grandson. They are extremely proud of their family, but they are just as proud of their independence.

Independence after retirement is a wonderful thing, Pop declares. Though he has made a real success of it, he repeats the admonition that it would have been easier if he had planned ahead for it. Not everyone has a house right across from a school and half a mile from the nearest grocery competitor.

Now, after two years as a pensioner, he never yearns to go back to his work on the lease.

"When I wake up at night and hear the rain pounding on the roof, I'm really glad I don't have to get out into it in the morning," says Pop Gaines. "Besides, I've gotten sort of used to that nap I take after lunch each day."



Pop inspects young peaches, part of the fruit and vegetable garden supplying home and market needs. Peppers are his specialty.

They Have Retired

Manufacturing

H. E. BARTELS
Wood River Refinery
Engineering Field

L. C. KEEGAN
Martinez Refinery
Treasury

C. E. MABB
Wood River Refinery
Engineering Field

E. M. ODLE
Wood River Refinery
Engineering Field

B. H. SERMONS
Houston Refinery
Engineering Field

E. A. SLATER
Wood River Refinery
Engineering Field

D. M. THOMSON
Wilmington Refinery
Engineering Field

W. C. WETZER
Wood River Refinery
Engineering Field

Treasury

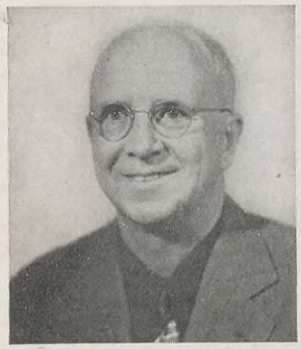
G. W. CURRY
Head Office

J. K. RYAN
Los Angeles Office

Shell Chemical Corporation

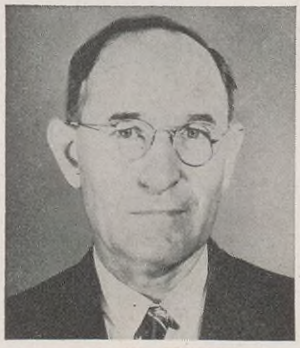
JAMES RAMSAY
Martinez Plant
Engineering

Exploration and Production



R. A. BOLTON
San Joaquin Division
Production

H. G. BROWN
Los Angeles Basin Division
Production



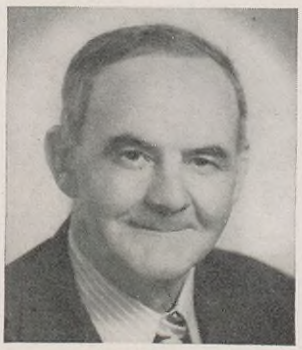
A. G. LEWIS
Houston Area
Gas-Gasoline

V. A. LISITZEN
Los Angeles Office
Production

Marketing

J. F. BAKER
St. Louis Division
Operations

RAYMOND BAKER
Sacramento Division
Operations



G. P. GRANT
Portland Division
Operations

E. L. HUEBER
Detroit Division
Sales

G. O. JACKSON
San Francisco Division
Operations

W. E. McKEVITT
Seattle Division
Operations

T. F. McMAHON
San Francisco Division
Sales

W. D. MURRAY
Boston Division
Operations

J. C. NELSEN
Seattle Division
Operations

J. E. REIS
Boston Division
Operations

HAROLD TURNER
Head Office
Marketing Service

The seventh in a new series of organization charts

Shell Oil Company, Incorporated

August—1949

Vice President & General Counsel

C. S. Gentry

General Attorney (New York)

W. F. Kenney

General Tax Attorney (New York)

J. D. Watkins

Attorney

J. L. Beauchamp

Attorney

R. W. McDonald

Attorney

T. S. Parker

Attorney

P. M. Payne

Attorney

L. V. Roberts

Attorney

I. Slifkin

Attorney

S. R. Vandivort

Attorney

C. M. Wright

Attorney

W. W. Yeager

LEGAL ORGANIZATION CHART

Vice President & Assistant
General Counsel (San Francisco)

A. R. Bradley

General Attorneys

Houston

Midland

Los Angeles

New Orleans

Tulsa

Attorneys

Attorney

T. J. Curry

Attorney

N. E. Davis

Attorney

A. J. Fabris

Attorney

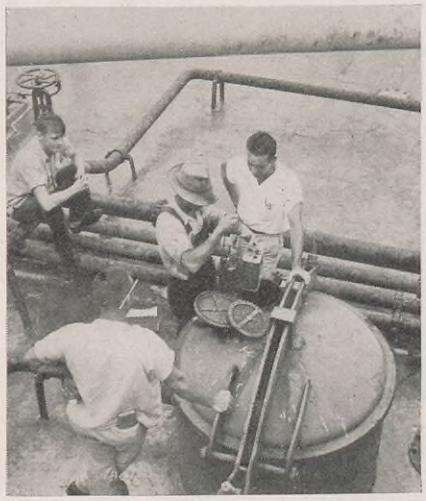
C. D. Walz, Jr.

Law Clerk

D. D. Ring

By Tanker To Sewaren

Twice Monthly the Tanker *Monmouth* Makes a 1900-Mile Voyage from Houston Refinery to Sewaren, Carrying as Much as 135,000 Barrels of Products Each Trip



Dockman John C. Dycus gives cargo levels a final pre-sailing check. B. L. Allen (lower left) and H. C. Blaylock join the ship's third mate (on pipes) in observing the operation.

Slicker-clad, Shell's Dockman Dycus later disconnects a refinery hose. In spite of torrential rains the MONMOUTH promptly gets under way on schedule at 2:30 P. M. on July 15th.

Just prior to departure, the pilot, Captain R. C. Blodgett of the Houston Pilots Association, comes aboard to direct the big ship down the winding Houston Ship Channel. Here he watches a tow boat slowly edge its way into position alongside as the MONMOUTH prepares to sail.

THE tanker *Monmouth* sailed from the Houston Refinery July 15 on a routine trip to Sewaren, New Jersey, Shell's principal East Coast marine terminal which serves New York and other large metropolitan markets. The *Monmouth* is one of a number of ships which periodically make this run for Shell. During the first six months of 1949 these deep-sea tankers transported about seven million barrels of petroleum products from the Company's Gulf Coast refineries to the Sewaren Terminal.

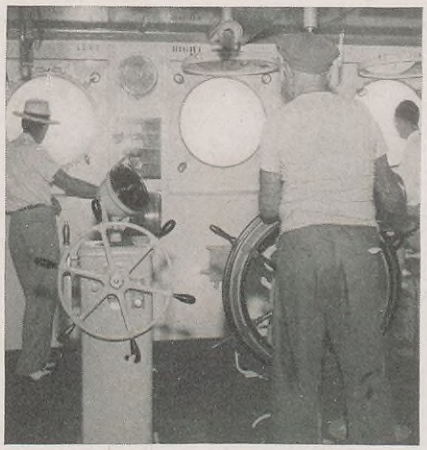
The *Monmouth* left the Houston Refinery at 2:30 p.m. She proceeded down the Houston Ship Channel to Galveston and across the Gulf of Mexico to the Florida Straits, then out into the Atlantic Ocean for the voyage north to Sewaren. The tanker docked at the New Jersey terminal on the morning of July 22. Excepting time spent clearing the channel, dropping and picking up pilots, the trip took about five days. The vessel's powerful pumps, capable of pumping as much as 10,000 barrels of products an hour, unloaded the entire cargo in 14½ hours. After taking on ballast and fresh provisions, she returned to Houston—completing the round-trip voyage a little more than 13 days after leaving the refinery.

The *Monmouth* is a T-2 tanker operated by Keystone Shipping Company. During the war she carried valuable cargoes to the theaters of operations in both the Atlantic and Pacific. By early 1946, like many another veteran sailor, she "readjusted" to peacetime service.

Larger than the typical pre-war tanker, she is 525 feet long and 68 feet wide, and draws 30 feet of water when fully loaded with 16,500 tons of cargo. On this particular trip the cargo consisted of 134,818 barrels of Premium, Regular, and aviation gasoline; lube oil and other refined products.

The pictures on this and the following pages were taken during the *Monmouth's* Houston-Sewaren run to illustrate the activities which go into the operation of a large sea-going tanker.

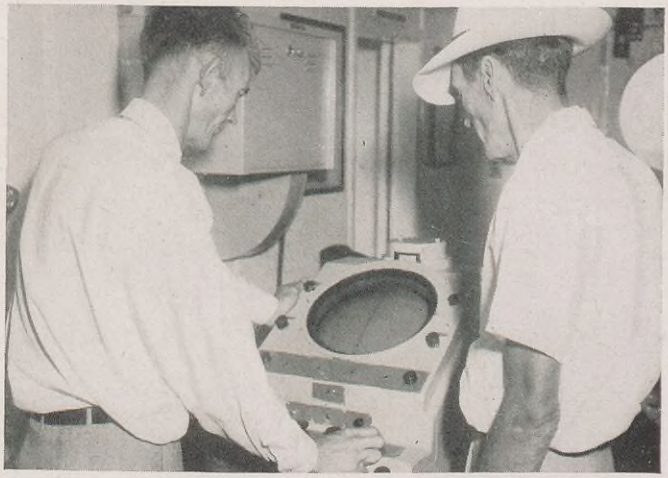
Houston Refinery shows in the background as the MONMOUTH slowly edges away from the dock on her voyage to the East Coast.



The pilot (left) and Ship's Captain T. H. Bratcher (right) flank the Quartermaster in the wheelhouse as the latter tends the helm.

From the wheelhouse the pilot watches the tow boat assist the big tanker to run down the channel leading to the Gulf of Mexico.

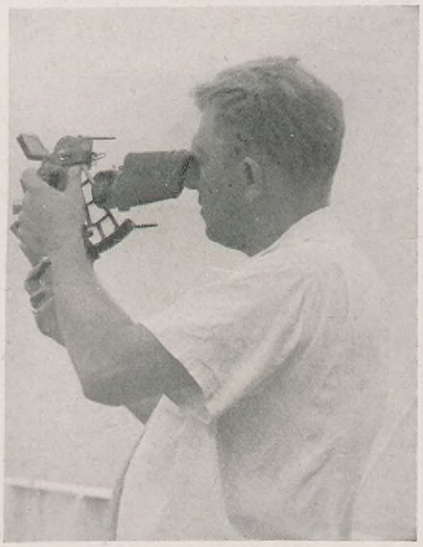
Production meets transportation on the four-hour channel trip as the tanker passes a floating derrick being towed up channel.



Captain Bratcher of the MONMOUTH (left) and the pilot, Captain Blodgett, check the radar equipment in the wheelhouse.

The pilot is dropped about 7 miles to seaward of Galveston and land fades from view.

Towering amidships, the MONMOUTH's radar antenna helps her to "see" in bad weather.



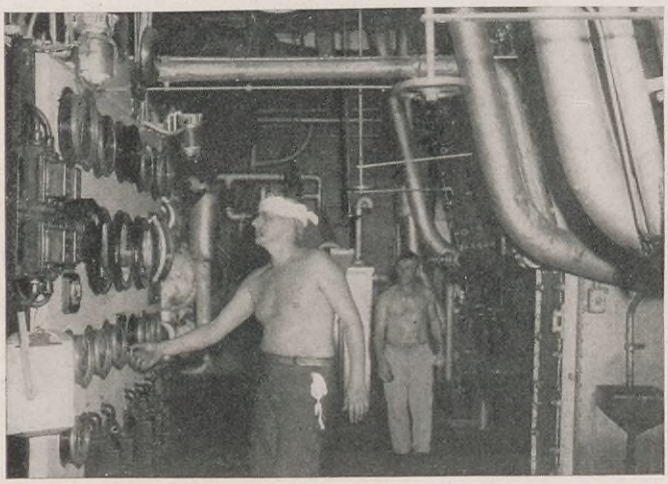
The ever-reliable navigational aid, the sextant, is used to fix the ship's position at sea.

The captain, who is master of the ship at all times—even when the pilot is aboard, checks the sailing schedule with three of his officers.

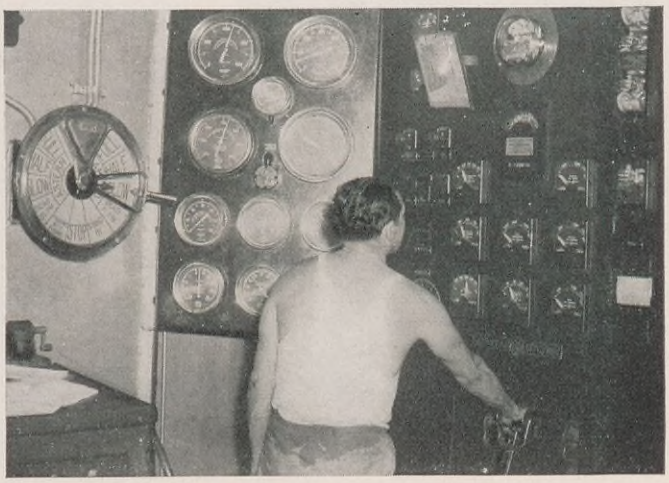
Routine maintenance duties on the trip to Sewaren include such tasks as painting. In hot weather, the cargo deck is sprinkled to keep it cool.

Seamen not on duty relax during their recreation periods with cards and checkers, catch up on their reading, and talk over the coffee cups.

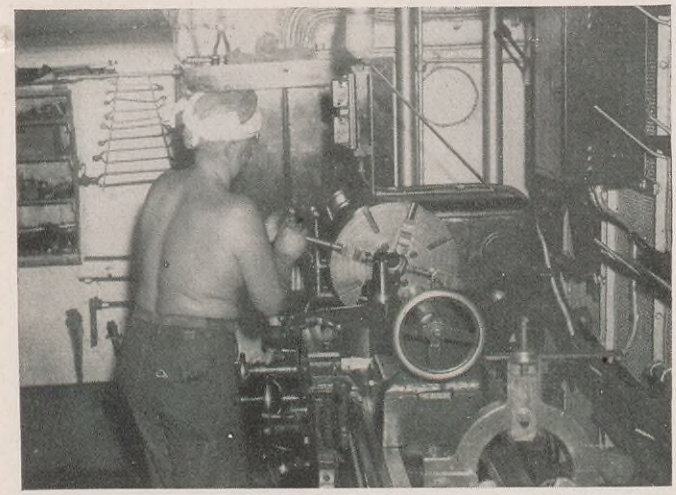
Throughout the voyage, the radio operator maintains radio communications, receives time signals and services the ship-to-shore telephone.



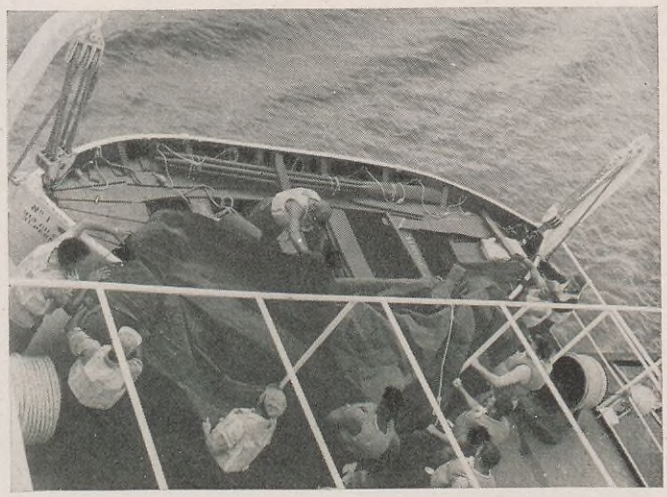
The engine room staff and other hands in the MONMOUTH's crew of forty-two work in three watches . . . four hours on and eight off.



The engine room is aft, below the crew's quarters. Driven by a turbo-electric 6,000 h.p. engine, the ship averages 14½ knots with a full load.

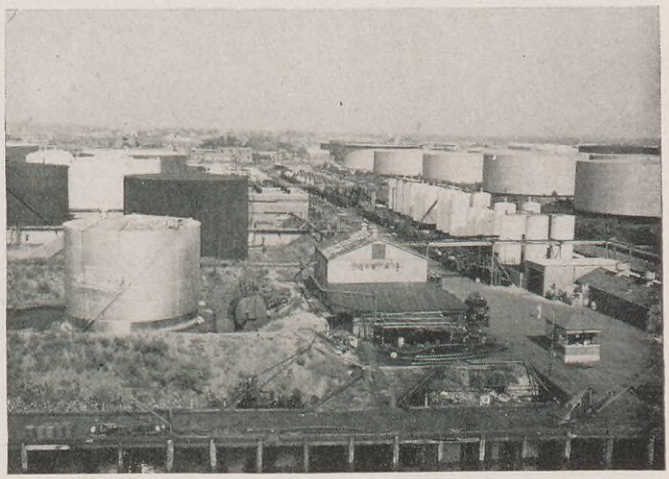


Minor repairs en route are handled by the ship's machine shop. On the return trip, the crew tests tanks for leaks and cleans them for the next cargo.

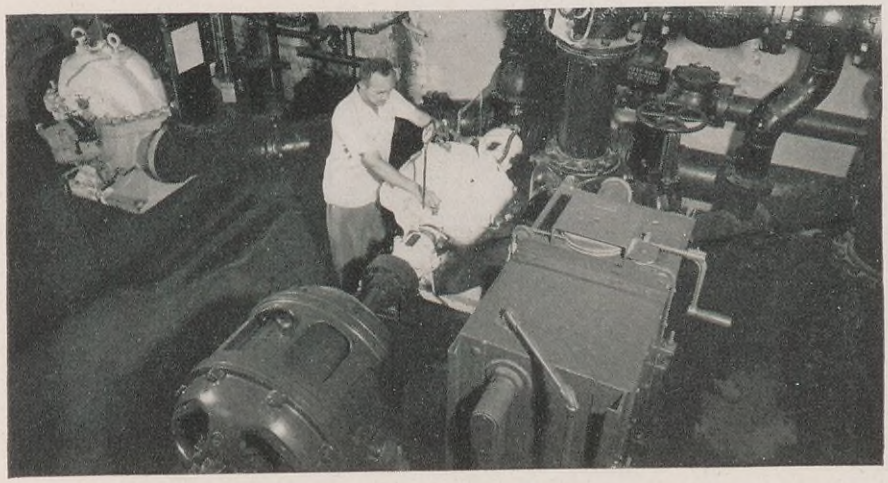


Fire is always a hazard at sea and the vigil against it never ends. Full-scale boat drills and fire drills are held at least once each week.

After a fast trip—it only took 4 days and 20 hours from the Galveston "sea buoy" to Sandy Hook—the tanker reached Sewaren July 22.

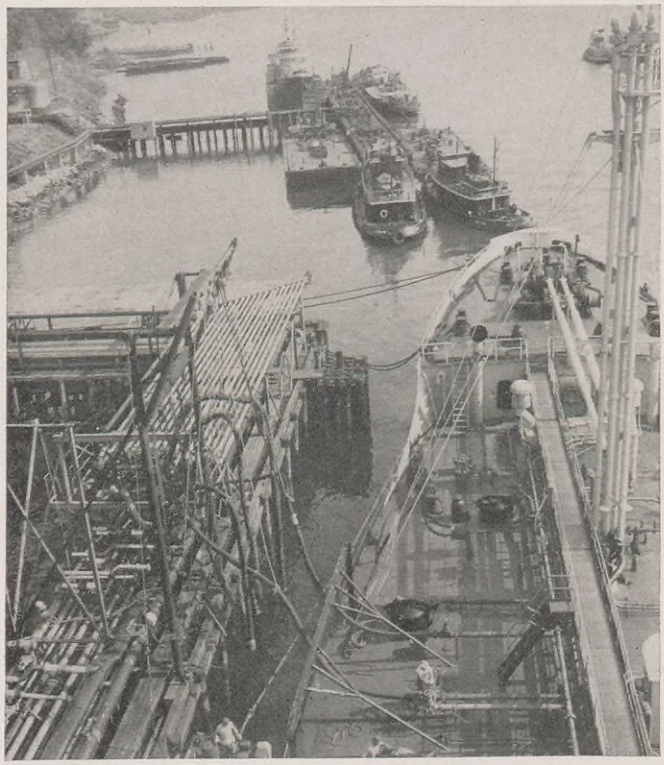


From the ship's crow's nest, Sewaren Terminal seems to spread out in all directions. It can store more than 2,500,000 barrels of products.



Before a tanker docks, Joe Allgaeir, Sewaren Mechanic, carefully checks the water pumps which supply the pressure needed to operate Sewaren's elaborate dock fire-fighting equipment.

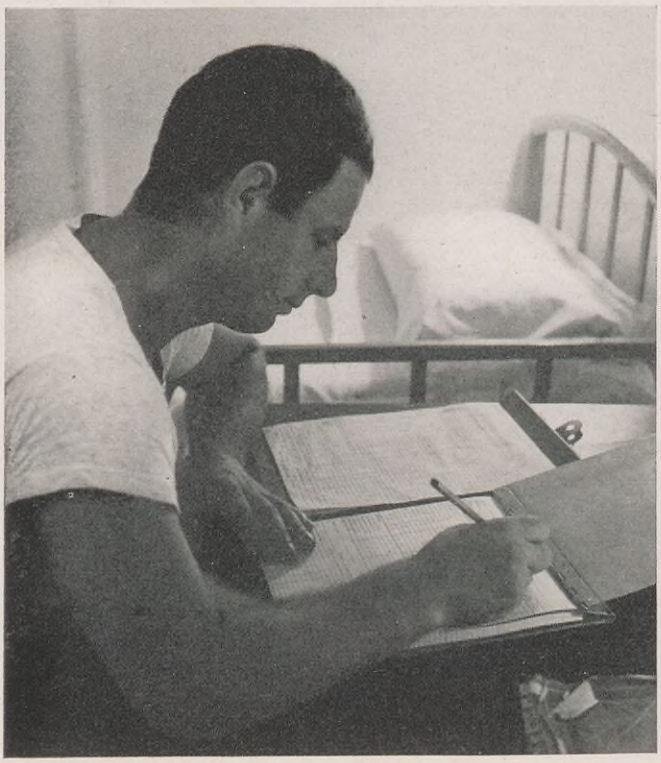
After hoses are connected to the ship's lines, pumps force the cargo into Sewaren's tanks.



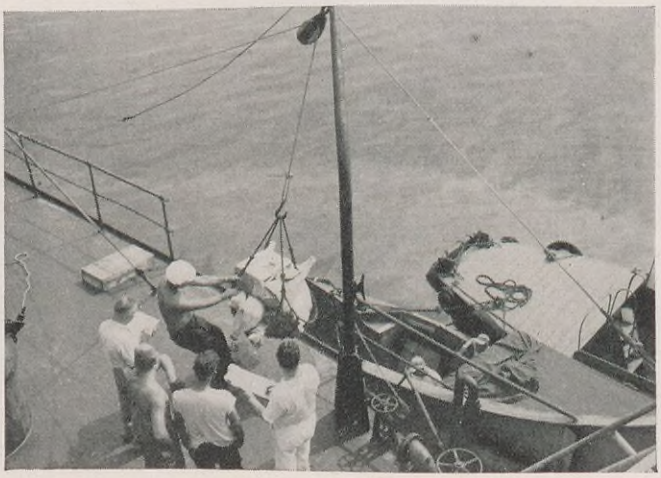
This is a crow's-eye view of pipes, valves and hoses leading from the MONMOUTH to the terminal dock during discharge operations.

Sewaren Dockman Frank Waitt and the ship's Chief Mate gauge and record cargo levels. Simultaneously, cargo samples are taken of each tank to insure that products going into storage meet specifications.

Meanwhile, in his cabin Captain Bratcher officially signs the cargo of petroleum products over to Sewaren Terminal's Dockmaster, M. "Ben" Bensinger (right), in the presence of Port Captain F. W. Stegeman.



Later on, Frank Waitt compares the gauging records he and the mate have made with those obtained when the tanker was loaded at Houston.



While cargo is being discharged on the port side, provisions are hoisted aboard on the starboard side for the return voyage to Houston.

coast to coast

Wood River Refinery's baseball team, which is playing the 1949 season in the Southwestern Illinois Inter-city League, is managed by boilermaker R. Reynolds (back row, second from left).

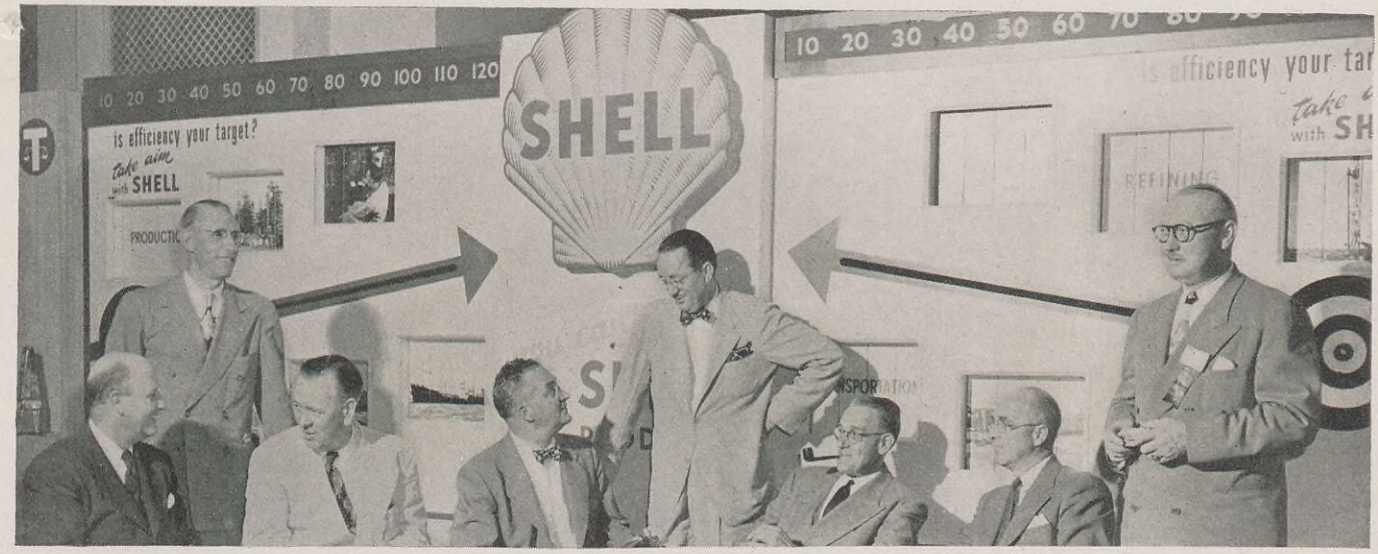
Shell men and women of the Los Angeles Regional Office held their annual Ten Year Club dinner party in the Embassy Room of the Ambassador Hotel. Among those attending the dinner were (left to right) G. L. Baker, F. P. Webb, V. A. Lisitzen, H. F. Peterson, M. J. Gibson, H. J. Shields, W. S. Bissell and T. C. Hoffman.

This group attended the recent North Products Pipe Line 25-year Service Award Dinner at the Stevens Hotel, Chicago.

Left to right (front row) are I. E. Tinstman, J. A. Huisinga, G. W. Burdine, R. J. Joseph, J. Van Acker, G. Higgins, H. M. Close and (back row) W. Motley, F. W. Wood and F. Murphy, veteran employees attending the emblem banquet of the Ten Year Club, Shell Chemical Corporation, Shell Point plant.

Other "Ten Year Club" members who attended Shell Point festivities were, left to right, Stephen D. Lee, who received a 25-year watch, and employees Joseph Yob, C. M. Conklin, E. C. Wickbom and C. J. Dahlstrom.

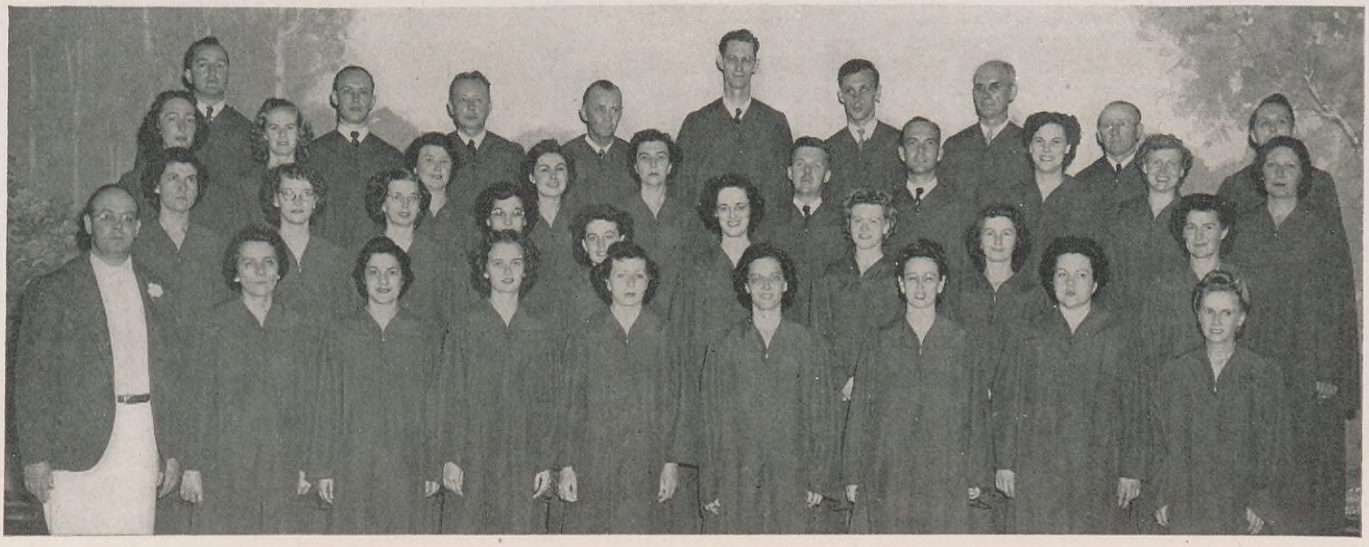
Pictured below is the Wood River Refinery sponsored reserve group, organized under the War Department Affiliation Program. Col. George Berry (second from right, back row) of the St. Louis Office has been selected as commanding officer of this Shell unit.



Shell's delegation to the National Purchasing Agents' Convention in Chicago included (l. to r.) W. H. Bratches, Manager, Purchasing and Stores; A. E. Collins, O. D. Story, W. M. McKellar, T. T. Thompson, S. T. Covell, J. E. Halford and C. G. McLaren.

Charlie Woodward (left) a roustabout at the Magnolia Gas Plant, New Orleans Area, recently carried away the Arkansas men's amateur golf crown in a Texarkana tournament. Here, he is congratulated on his links victory by the 1947 amateur state champ.

Directed by G. L. Hayes of the Research Laboratory, the Shell Choral Club, Wood River Refinery, presented its annual concert at the Wood River High School. Proceeds from the event were devoted to the support of the Wood River Township Hospital.



New Industry for Britain

With the Opening of Shell's New $16,000,000 Plant at Stanlow, Great Britain Begins the Manufacture of Important Chemicals from Petroleum

A NEW basic industry began in Great Britain this month with the opening of the ultra-modern petrochemical plant at Shell Petroleum Company, Limited's refinery in Stanlow, England. The new plant, manufacturing chemicals from petroleum, will use processes and techniques made possible by the coordinated efforts of research scientists at Shell Research and Development laboratories throughout the world.

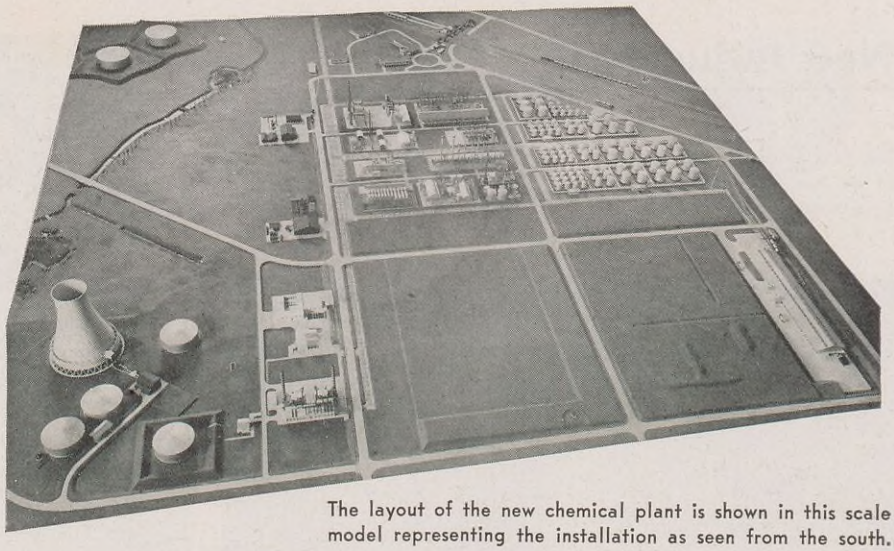
The new installation will not only help satisfy the world's ever-increasing demand for chemical solvents, but in so doing will aid England's economic recovery as well.

The $16,000,000 chemical plant is expected to turn out about 8,000,000 gallons per year of alcohols, ketones, ethers, and other chemicals, exclusive of Teepol (a synthetic detergent). The existing Teepol section of the plant has been doubled to produce 110,000,000 pounds per year, and a further extension to 170,000,000 pounds per year is planned. In the face of a fat shortage, the increased output of synthetic detergents is extremely important, since it helps to release for human consumption much edible fat normally used in the soap and detergent indusries.

Two types of feed stock, both obtained from cracked gas oil, will be used initially at Stanlow in the production of petrochemicals. Ketones made at the plant will be used in various types of surface coatings; in the manufacture of lacquers, paint removers, transparent paper, photographic film, celluloid, acetate, rayon and explosives; as well as for hydraulic brake fluids. The alcohols also will find wide application in manu-

facturing surface coatings; for extracting the flavoring essence from vanilla beans, oranges, lemons, and grapefruit; and as an intermediate in the chemical synthesis of a wide range of dyestuffs. Isopropyl ether, another petrochemical to be made at Stanlow, is a valuable solvent in many processes where its low volatility makes it preferable to ordinary ethyl ether. It is also used in the textile industry as a delustering agent for acetate rayon.

Important as it is, the chemical plant is only one part of the major extension program at Stanlow. Completion of the proposed expansion which is to cost approximately $80,000,000 will make Stanlow one of the largest and most-up-to-date refineries in Europe, with a throughput of 23,500,000 barrels per year.



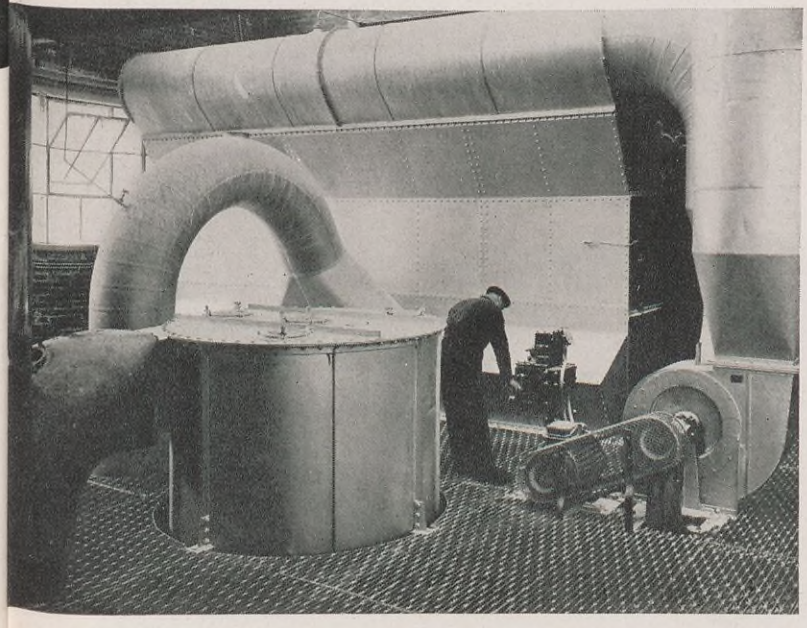
The layout of the new chemical plant is shown in this scale model representing the installation as seen from the south.

Shell Increases Its Capacity

Established in 1922, Stanlow, by 1945, was the largest specialized refinery in Great Britain, covering 800 acres and employing 4,000 men. Since the war a vast construction program has been adopted by the oil industry as its contribution to the long-term program for Britain's economic recovery. Having already purchased a government refinery at Heysham, in Lancashire, with an annual capacity of 11,000,000 barrels, Shell is currently engaged in building new refineries both at Stanlow and at Shell Haven near London, the latter to have a capacity of over 29,000,000 barrels per year. These refineries will be the largest and most up-to-date in Europe.

Besides making gasoline, fuel oil and other petroleum products for consumption in Great Britain and Western Europe, the new Stanlow Refinery will provide feedstocks, which have been imported in the past, for various other plants. The history of specialized refining at Stanlow made it a natural development that the area should be selected as the site for Shell's latest venture—the petrochemical plant.

Sir Stafford Cripps, Chancellor of the Exchequer and Minister for Economic Affairs, commenting on the growth of Stanlow, and the importance of oil for its valuable chemical end products and important basic materials for other industries, said: "It must then be an encouragement to all of us when we see new developments such as have been made at Stanlow in recent months, and appreciate that there is no slackening off of enterprise on the new work of the Shell Company."

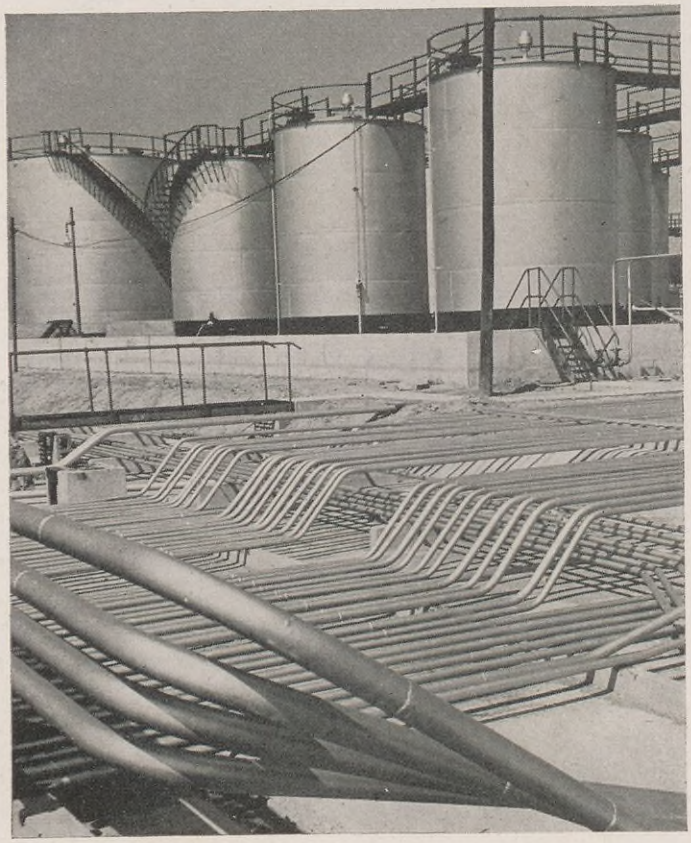


This installation is the cyclone separator and bag filter used in the production of spray-dried "Teepol" powder for shipment.

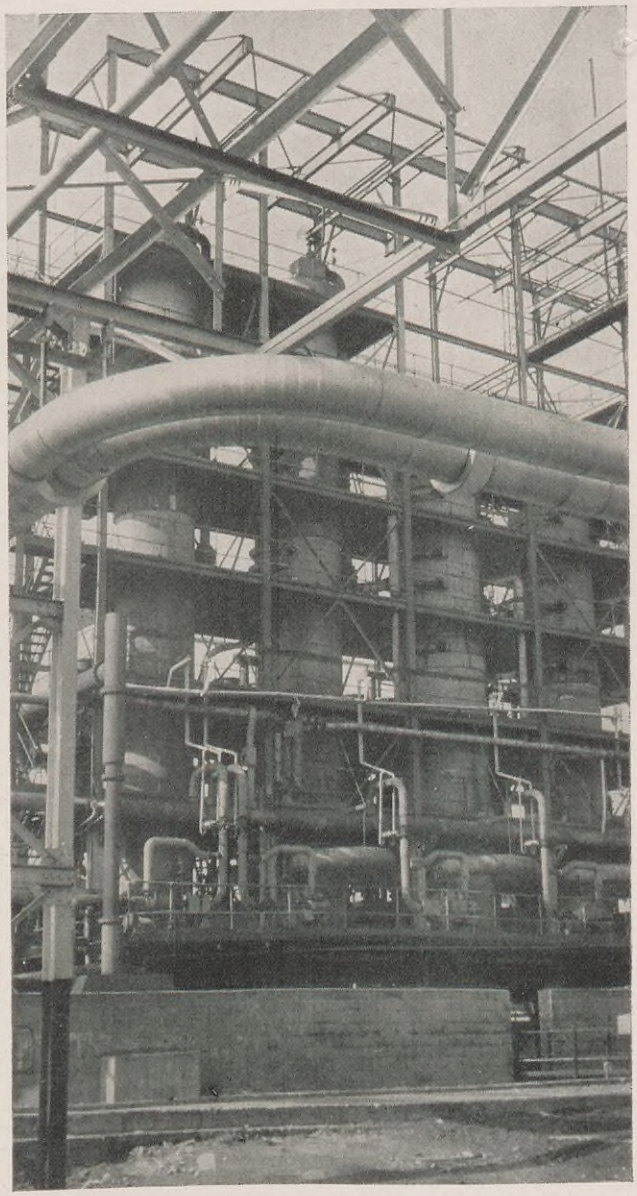
Foreign place names on barrels of "Teepol" indicate the worldwide market supplied by Shell with this popular detergent.

New Industry for Britain

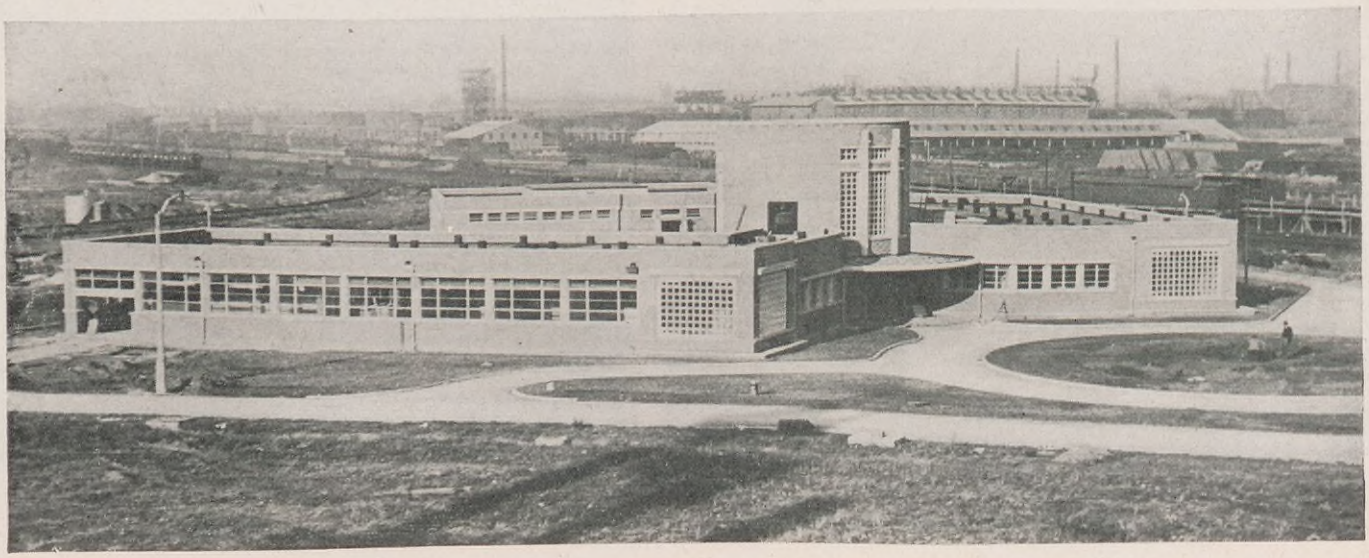
The tank farm for the products of the new Solvents Plant is fed by a maze of pipe lines (below).



Stanlow's Special Boiling Point Spirits Plant (right) provided benzene for wartime aviation fuel.



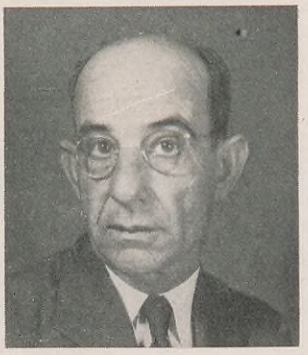
Control center for the many and varied operations of Shell's new Chemical Plant at Stanlow, Cheshire, England, is the Administrative Building (below) situated north of the main chemical manufacturing installations.



Service Birthdays

Thirty Years

C. J. BRASHEAR
Norco Refinery
Personnel & Industrial Relations



V. FALGOUT
Norco Refinery
Engineering Field

M. K. LAKIN
Portland Division
Sales

N. L. MERSEREAU
Seattle Division
Operations

C. M. ROSSEN
Head Office
President's Office

GEORGE SHIDLER
Wood River Refinery
Utilities

O. T. TROXLER
Norco Refinery
Engineering Field

E. H. WALTZ
Wood River Refinery
Engineering Field

Twenty-Five Years

R. M. BARBEE
Martinez Refinery
Cracking

H. M. BARNES
Shell Pipe Line Corp.
Mid-Continent Area

A. W. BERNTSEN
San Francisco Office
Treasury

H. M. BROWNE
Seattle Division
Sales

E. F. COX
Wood River Refinery
Engineering Field

J. G. CUDDY
Wood River Refinery
Treating-Light Oil

TWENTY-FIVE YEARS—*Continued*

C. M. DEAN
Martinez Refinery
Technological

W. J. DE GROOT
Head Office
Transp. & Supplies

J. O. DIVELEY
Wood River Refinery
Utilities

R. O. ERICKSON
Minneapolis Division
Sales

G. B. FRANKEN
Los Angeles Division
Treasury

W. C. GEORGE
Coastal Division
Production

J. C. GORMAN
Wood River Refy.
Engineering

W. HAFNER
Houston Regional
Production

E. R. HOWDEN
Shell Chemical Corp.
Martinez Plant

C. E. KIRKMAN
Wood River Refy.
Engineering Office

E. H. LEWIS
Martinez Refinery
Engineering

W. C. LYON
Coastal Division
Drilling

R. N. OSBORN
Wilmington Refy.
Dispatching

J. P. PETITT
Wood River Refy.
Cracking

O. R. REEVES
Wood River Refy.
Dispatching

G. C. RIEKEN
Wood River Refy.
Utilities

F. P. ROBINSON
Wood River Refy.
Distilling

R. H. SANDERS
Wood River Refy.
Engineering Field

H. L. SHORT
Wood River Refy.
Engineering Field

JOSEPH SMAWLEY
Seattle Division
Operations

F. E. TAMME
Minneapolis Division
Operations

R. W. TARRANT
Houston Area
Legal

E. W. THOMPSON
Martinez Refinery
Cracking

W. H. TOMERLIN
Wood River Refy.
Engineering Field

S. E. TRANER
Los Angeles Division
Sales

M. F. TRAUNECKER
Wood River Refy.
Engineering Field

A. G. UZZELL
Wood River Refy.
Research Laboratory

SHELL OIL COMPANY, INCORPORATED

Head Office

20 Years

W. H. Coffin.....*Marketing*
Eugenie H. Desbets.....*Treasury*
R. W. Faulk.....*Personnel*
J. H. McCarty.....*Manufacturing*
C. H. Prescott.....*Marketing*
J. C. Thompson.....*Treasury*

15 Years

B. W. Conn.....*Marketing*
J. Hazen.....*Marketing*
E. B. Herrin.....*Treasury*
R. R. McGregor.....*Treasury*

10 Years

Marion C. Chornyei.....*Transp. & Supplies*
R. J. Draper.....*Manufacturing*

San Francisco Office

20 Years

M. C. Giles.....*Treasury*
C. O. Witt.....*Sales*

Exploration and Production

HOUSTON REGIONAL OFFICE

10 Years

H. M. Goodman.....*Exploration*

HOUSTON AREA

20 Years

R. D. Hennelly.....*Treasury*
C. G. West.....*Production*

15 Years

E. E. Armstrong.....*Production*
R. R. Barr.....*Production*
O. W. Howard.....*Production*
D. J. Stephenson.....*Production*
W. Stutchman.....*Production*
W. O. Warriner.....*Treasury*

10 Years

R. G. Akers.....*Production*
W. G. Baldridge.....*Exploration*
J. C. Hill.....*Production*
C. E. Nadeau.....*Legal*

MIDLAND AREA

20 Years

E. C. Pale.....*Land*

15 Years

W. M. Arledge.....*Treasury*
L. A. Dunlap.....*Production*

10 Years

M. L. Pierce.....*Production*
W. W. Ware.....*Production*

NEW ORLEANS AREA

20 Years

W. C. E. Brandau.....*Land*
A. Parker.....*Production*
H. F. Winham.....*Production*
F. C. Zeltmann.....*Personnel & Ind. Relations*

15 Years

J. N. Brown.....*Production*
J. C. Corbello.....*Production*
P. P. Guizerix.....*Land*
R. E. McCain.....*Production*
E. McMills.....*Production*
E. Meaux.....*Exploration*
H. G. Neal.....*Production*
G. H. Samuels.....*Exploration*
A. G. Stutsman.....*Gas-Gasoline*
I. T. Theriot.....*Production*

10 Years

B. S. Land.....*Production*
F. B. Loomis.....*Exploration*

TULSA AREA

20 Years

J. B. Crosthwait.....*Exploration*
C. O. Kemp.....*Production*
W. A. Oliver.....*Production*
E. F. Phillips.....*Gas-Gasoline*
C. L. Redman.....*Automotive*
H. A. Say.....*Gas-Gasoline*
F. D. Stone.....*Production*
J. L. Wright.....*Treasury*

15 Years

J. F. Banks.....*Production*
R. R. Farmer.....*Production*
R. G. Herndon.....*Exploration*
J. W. Williams.....*Production*

10 Years

J. F. Cheadle.....*Land*
J. W. Davis.....*Production*
G. C. F. Lynn.....*Production*
W. Ogden.....*Exploration*
C. F. Osterholtz.....*Production*

LOS ANGELES REGIONAL OFFICE

15 Years

J. P. Ensch.....*Personnel & Ind. Relations*
H. G. Hart.....*Exploration*
H. W. Hindry.....*Production*
L. V. Leonard.....*Gas-Gasoline*

COASTAL DIVISION

20 Years

A. E. Busse.....*Production*
A. E. Smith.....*Production*

15 Years

G. W. Mikuls.....*Gauging*

LOS ANGELES BASIN DIVISION

20 Years

C. L. DesNoyer.....*Production*
M. Ellison.....*C. & M.*

15 Years

W. P. Hall.....*Production*

ROCKY MOUNTAIN DIVISION

20 Years

A. Clark.....*Exploration*

SAN JOAQUIN DIVISION

20 Years

H. F. Crandall.....*Land*
H. M. Jones.....*Drilling*
L. Porter.....*Personnel & Ind. Relations*

15 Years

F. E. Freeman.....*Production*
D. M. Kelly.....*Production*
M. G. Kennedy.....*Production*
R. F. Klausner.....*Gauging*
H. E. Radford.....*Production*
H. E. Ward.....*Production*

Manufacturing

HOUSTON REFINERY

20 Years

A. W. Calhoun.....*Dispatching*
D. B. Ellis.....*Dispatching*
L. W. Gibbons.....*Treating*
E. C. Harris.....*Cracking*
D. Harrison.....*Engineering*
C. E. Hill.....*Effluent Control*
C. J. Jimenez.....*Engineering*
P. E. Keegan.....*Administration*
T. V. Overstreet.....*Stores*
C. Raguth.....*Control Laboratory*
L. Richard.....*Engineering*
J. J. Roark.....*Effluent Control*
R. Shipp.....*Dispatching*

15 Years

T. B. Hobbs.....*Engineering*

10 Years

J. F. Bower.....*Cracking*
G. H. Cousins.....*Engineering Field*
I. A. Daniel.....*Lubricating Oils*
R. T. Deen.....*Engineering Field*
W. E. Gray.....*Utilities*
A. M. Gore.....*Gas*
B. L. Jacks.....*Engineering Field*
H. C. Langer.....*Engineering Field*
J. R. Roberts.....*Engineering Field*
C. T. Williams.....*Utilities*

MARTINEZ REFINERY

20 Years

J. H. Bowen.....*Lubricating Oils*
C. E. Burns.....*Engineering*
J. W. Coburn.....*Cracking*
M. D. Ferreira.....*Engineering*
G. A. Foster.....*Engineering*
P. Leardini.....*Engineering*

15 Years

A. M. Frazer.....*Engineering*

10 Years

C. H. Rice, Jr.....*Control Laboratory*

NORCO REFINERY

20 Years

E. F. Delaune.....*Treasury*
W. E. James.....*Cracking*
M. J. Richard.....*Gas*

W. J. St. Amant.....*Engineering Field*
M. A. Waguespack.....*Distilling*

WILMINGTON REFINERY

20 Years

J. P. Berner.....*Cracking*
J. B. Chilcott.....*Mechanical*
J. V. Durbin.....*Dispatching*
G. T. Reynolds.....*Engineering Field*

15 Years

J. A. C. Kirkwood.....*Alkylation*
D. F. Milbradt.....*Mechanical*
J. L. Rhodes.....*Cracking*

WOOD RIVER REFINERY

20 Years

J. Beck.....*Lube D. & D.*
W. E. Dependahl.....*Gas*
C. E. Hawthorne.....*Engineering Field*
J. A. Moore.....*Engineering Field*
M. L. Schupbach.....*Treating—Light Oil*
F. L. Surratt.....*Treasury*
G. C. Walker.....*Alkylation*

15 Years

L. M. Collins.....*Alkylation*
R. M. Dodson.....*Engineering Field*
H. I. Green.....*Engineering Field*
J. H. Heinemeier.....*Engineering Field*
E. C. Larson.....*Research Laboratory*
R. H. Pine.....*Alkylation*
J. L. Rhodes.....*Gas*
W. Schreiber.....*Engineering Field*
F. L. Settles.....*Engineering Field*
H. M. Wetter.....*Alkylation*

10 Years

W. E. Begley, Jr.....*Utilities*
L. T. Boverie.....*Stores*
C. R. Chamness.....*Distilling*
G. C. Dodson.....*Lube C. & S.*
P. Gentille.....*Engineering Field*
J. S. Gregory.....*Engineering Field*
H. H. Lamb.....*Engineering Field*
S. H. Overbeay.....*Engineering Field*
O. C. Peal.....*Engineering Field*
J. A. Reschak, Jr.....*Engineering Field*
H. L. Rodebaugh.....*Engineering Field*
C. H. Roesler.....*Engineering Field*
A. A. Shasek.....*Engineering Field*
L. E. Shelby.....*Engineering Field*
F. L. Vazzi.....*Engineering Field*

Marketing Divisions

20 Years

A. E. Houck.....*Atlanta, Sales*
W. S. Milton.....*Atlanta, Sales*
C. M. Shutt.....*Baltimore, Sales*
E. C. Wilton.....*Baltimore, Sales*
J. M. Frank.....*Boston, Sales*
A. M. Fyler.....*Boston, Operations*
L. P. Jenkins.....*Boston, Operations*
E. K. Jennings.....*Boston, Operations*
E. F. Jones.....*Boston, Sales*
C. H. Tyler.....*Boston, Operations*
J. A. Rice.....*Chicago, Marketing Service*
J. R. Brush.....*Cleveland, Operations*
G. H. Davis.....*Cleveland, Sales*
H. L. Sellers.....*Cleveland, Sales*
E. T. West.....*Cleveland, Operations*
W. C. Smith.....*Indianapolis, Sales*
O. A. Vernon.....*Indianapolis, Operations*
E. L. Chapman.....*Los Angeles, Operations*
T. J. Glover.....*Los Angeles, Sales*
J. R. Lynch.....*Los Angeles, Sales*
Ruby E. Messman.....*Los Angeles, Treasury*
J. D. Walker.....*Los Angeles, Sales*
L. W. Catling.....*New York, Sales*
J. Dowden.....*New York, Operations*
M. J. Hannon.....*New York, Operations*
E. R. Lewis.....*New York, Treasury*
H. F. Schultz.....*New York, Operations*
H. W. Mende.....*Portland, Operations*
R. V. Wilkinson.....*Portland, Treasury*
P. L. Moynier.....*Sacramento, Operations*
J. F. Lewis.....*St. Louis, Sales*
R. P. McAlpin.....*St. Louis, Sales*
M. M. Myers.....*St. Louis, Treasury*
G. P. Williams.....*St. Louis, Purch. & Stores*
D. E. Fuller.....*San Francisco, Treasury*
V. W. Swartfager.....*San Francisco, Mktg. Service*
E. P. Sweeney.....*San Francisco, Operations*
P. J. Callan.....*Seattle, Treasury*
A. T. Hoeck.....*Seattle, Operations*
E. A. Peterson.....*Seattle, Operations*

15 Years

F. Amaral.....*Boston, Operations*
Fern Kessling.....*Chicago, Treasury*
W. J. Wimmer.....*Chicago, Treasury*
Muriel L. Andrews.....*Cleveland, Treasury*
E. M. Menke.....*Cleveland, Sales*
J. L. Parsons.....*Indianapolis, Sales*
R. L. Reynolds.....*Indianapolis, Operations*
J. F. McKone.....*Los Angeles, Sales*
S. B. Samerjian.....*Los Angeles, Treasury*
C. C. Snyder.....*Sacramento, Operations*
Isabel M. Collins.....*San Francisco, Treasury*
R. F. Hale.....*San Francisco, Operations*
J. O. Heine.....*San Francisco, Sales*
E. J. Stevenson.....*San Francisco, Operations*
F. E. Baker.....*Seattle, Treasury*

10 Years

J. J. Nally.....*Boston, Operations*
Agnes Cotsiana.....*Chicago, Treasury*
H. L. Tilton.....*Chicago, Sales*
R. J. Helmstetter.....*Cleveland, Operations*
F. V. Behm.....*Los Angeles, Sales*
J. R. Yale.....*Los Angeles, Operations*
W. R. Jobson, Jr.....*New York, Sales*
W. H. Sprague.....*Portland, Operations*
C. J. Oxnam, ...*Sacramento, Operations*
R. F. Ingham.....*San Francisco, Operations*
W. L. Martin.....*San Francisco, Operations*
P. F. Taylor.....*Seattle, Operations*

Products Pipe Line

20 Years

M. C. Whitehill,.....*Harristown, Ill.*

15 Years

J. S. Cooper.....*East Chicago, Ind.*
G. D. Paton.....*Zionsville, Ind.*

Sewaren Plant

15 Years

S. G. Ringer.....*Compound*
E. Simonsen.....*Compound*

SHELL CHEMICAL CORPORATION

20 Years

G. W. Beale.....*Shell Point*
N. B. Fields.....*Houston*
W. P. Gage.....*Head Office*
F. Wheeler.....*Martinez*

15 Years

F. P. Connelly.....*Martinez*
G. E. Duschamp.....*Houston*
W. C. Hanson.....*Shell Point*
G. F. Johnson.....*Head Office*
C. M. Jones.....*Head Office*
V. L. Keldsen.....*Houston*
D. S. Mendez.....*Shell Point*
L. M. Roberts.....*Head Office*
E. D. Walford.....*Martinez*
H. I. Wolff.....*Houston*

10 Years

T. S. Barnett.....*Shell Point*
F. H. Clark.....*Shell Point*
D. I. Douglas.....*Martinez*

SHELL DEVELOPMENT COMPANY

20 Years

A. W. Alexander.....*Head Office*
W. E. Hand.....*Head Office*

15 Years

P. R. Hoyt.....*Head Office*
J. H. Parker.....*Head Office*
Constance M. Probert.....*Head Office*

10 Years

R. G. Austin.....*Emeryville*
Edna F. Evert.....*Head Office*
E. B. Fountain.....*Emeryville*
D. R. Patterson.....*Emeryville*
T. I. St. John.....*Emeryville*
L. D. E. Te Selle.....*Emeryville*
A. J. L. Toombs.....*Emeryville*

SHELL PIPE LINE CORPORATION

20 Years

N. B. Eaves.....*Bayou System*
J. B. LeFlore.....*Mid-Continent Area*
C. White.....*Texas-Gulf Area*

15 Years

C. F. Oden.....*West Texas Area*

10 Years

D. B. Hutchinson.....*Texas-Gulf Area*
C. L. Jarrett.....*Mid-Continent Area*

matters of *Fact*

can you fill them?

Promotion from within the organization is a Shell policy of long standing. Qualified employees are constantly being moved up as opportunities occur. Have you prepared yourself for such an occasion?

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FAMILY PORTRAIT

BOILERMAKER

CHARLES ARZILLI

In petroleum refining and chemical manufacturing where emphasis is on heat and pressure, the tubular equipment used for transferring heat must be kept in first class condition at all times. That's why each refinery and plant employs a team of skilled craftsmen to keep this important equipment working efficiently. Charles Arzilli, for example, Boilermaker First Class at the Wilmington Refinery, spends a good part of his time doing maintenance work on condensers, heat exchangers, reboilers and coolers. He replaces furnace tubes, repairs tanks and vessels, and does miscellaneous repair on other heavy equipment.

Charley left a job in a railroad shop to join Shell in July 1927. All of his 22 years of service with the Company have been at Wilmington.

A widower, he lives alone in a house in Long Beach. There he is occasionally visited by his married daughter, Ruth, who at one time was a File Clerk in Shell's Los Angeles Office. Charley is a devoted baseball fan, but his real hobby is cooking. His talents in the kitchen make his home a frequent gathering place for friends who work with him at the refinery.