



FEED STARTS FLOWING

SHELL NEWS

JULY 1959



These pictures of V. E. Yust, above, and J. L. Bame, right, were taken six years ago, when Shell's premium gasoline with TCP additive was introduced. At the time, they were Research Engineers at the Wood River Research Laboratory working on the research project that led to the development of TCP additive, which eliminates spark plug fouling in both automobiles and aircraft. Yust is shown above with some of the 336 spark plugs used in a B-36 bomber, and Bame is pictured with bottles containing various additives used in the research. They recently were issued a patent covering gasoline compositions containing certain phosphorous compounds, including TCP additive.



SHELL NEWS

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

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New York, N. Y.

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ABOUT THE COVER

On this month's front cover, W. H. Schuber, Assistant Operator "A" of the Wilmington-Dominguez Refinery's Alkylation Department, turns a valve to start feed flowing to a platformer, the refinery's newest process unit. This multi-million dollar unit, which has a capacity of 12,500 barrels a day, produces high octane gasoline components. It helps strengthen Shell's ability to supply the West Coast gasoline market. In this picture, Schuber typifies the more than 10,000 employees of Shell's six refineries in the United States who make up more than one-quarter of the Company's working force.

A SHELL FIRST WINS AGAIN

Nine-year legal battle ends with a Shell patent on gasoline composition

A PATENT was issued last month by the U. S. Patent Office covering gasoline compositions containing certain phosphorus compounds, including Shell's TCP* additive. During the nine years since the patent was applied for, Shell's now-famous additive has revolutionized the automotive gasoline field around the world and continues to be of growing importance.

The patent, No. 2,889,212, was issued to two Shell research engineers at the Wood River Research Laboratory—V. E. Yust, Manager of Research Services, and Group Leader J. L. Bame. They assigned it to Shell Development Company, which owns all Shell U. S. patents.

Research which led to the patent was initiated at the Wood River Laboratory in 1948. While most of the research was done at



The patent is being examined above by Bame, now a Group Leader, and Yust, now Manager of Research Services, at the Wood River Research Laboratory.

* Trademark Shell Oil Company

A Shell First WINS Again continued

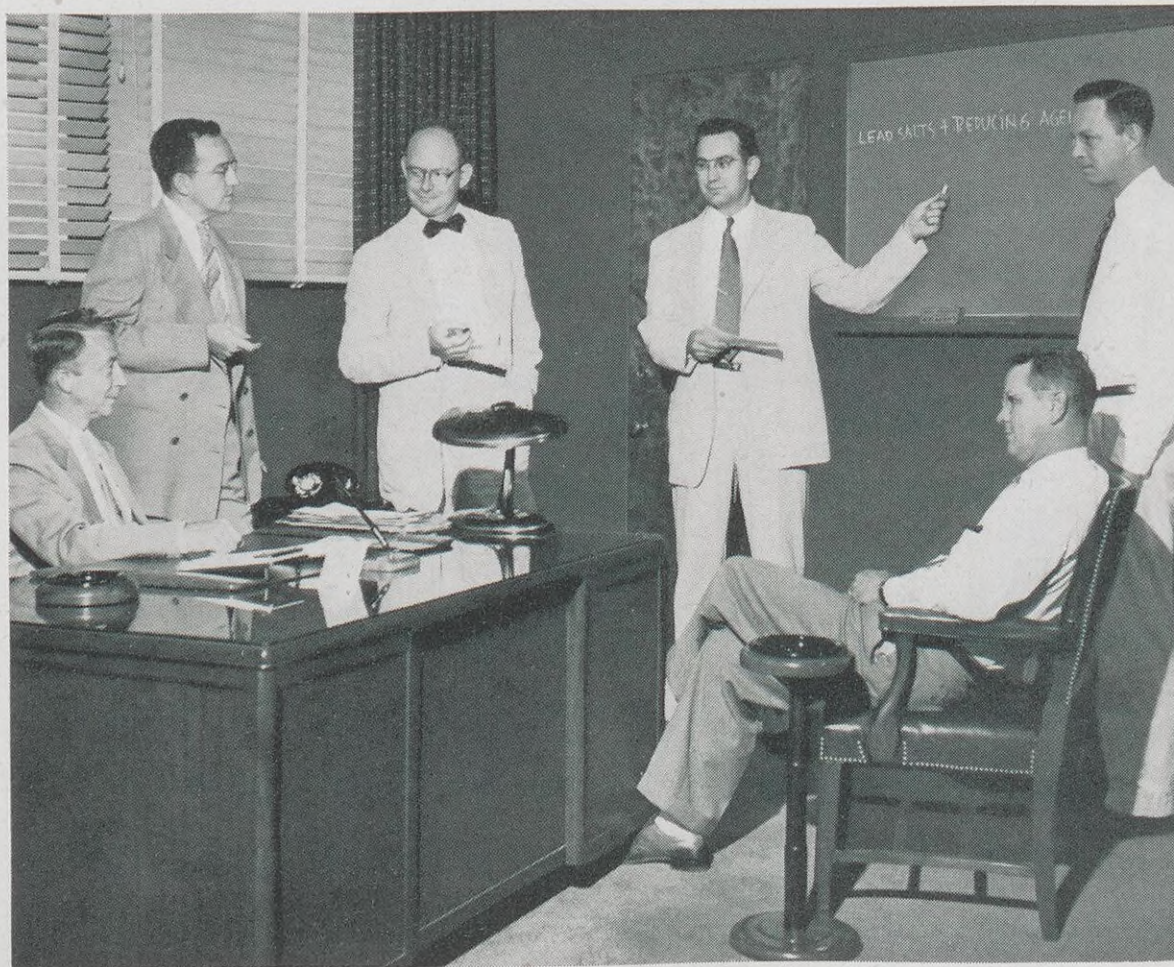
Wood River, Shell personnel at other locations also contributed at different stages. The Products Application Department at San Francisco handled the flight evaluations. Participating in automotive field tests were scientists and engineers from the Martinez Research Laboratory, Emeryville Research Center, the Products Application Department, and the Wood River Laboratory.

Shell filed the first patent application in 1950. After the Patent Office Board of Appeals rejected the application in July, 1954, the Company took an appeal to the U. S. District Court, District of Columbia, and the court held that Yust and Bame were entitled to a patent. The preparation and prosecution of the application was under the direction of A. B. Bakalar, Director of Shell Development's Patent Division at Emeryville Research Center.

Despite the court's decision, the issuance of the patent was delayed because another company (not an oil company) had in the meantime filed an application for a similar gasoline composition and the Patent Office had to determine whether Yust and Bame were the first inventors. These proceedings recently were resolved in their favor.

When research on the project was started in 1948, the first problem was to find the cause of spark plug fouling in aircraft engines. At the time, the Air Force was having difficulty keeping the Strategic Air Command's B-36 and B-50 bombers operating efficiently on long-range flights because of spark plug fouling. Also, 27 airlines had reported that spark plug fouling was their major ignition system problem.

The major problem with spark plugs was misfiring. Careful studies showed that there were a number of causes for this failure. But all involved deposits which formed during



Some of the men who had a part in early additive research at Wood River are in this 1953 photo. They are, left to right, R. J. Greenshields, Research Director; Yust; L. S. Echols, Jr., now Chief Research Engineer; F. F. Farley, now Chief Research Chemist at Martinez Laboratory; B. W. De Long, now Special Engineer in the Products Application Department; and R. A. Burdett, now Chief Research Chemist.

the combustion of the gasoline and all resulted in the electrical current leaking off through the deposits instead of producing the hot spark needed to ignite the gasoline. In effect, the deposits short-circuited the plug.

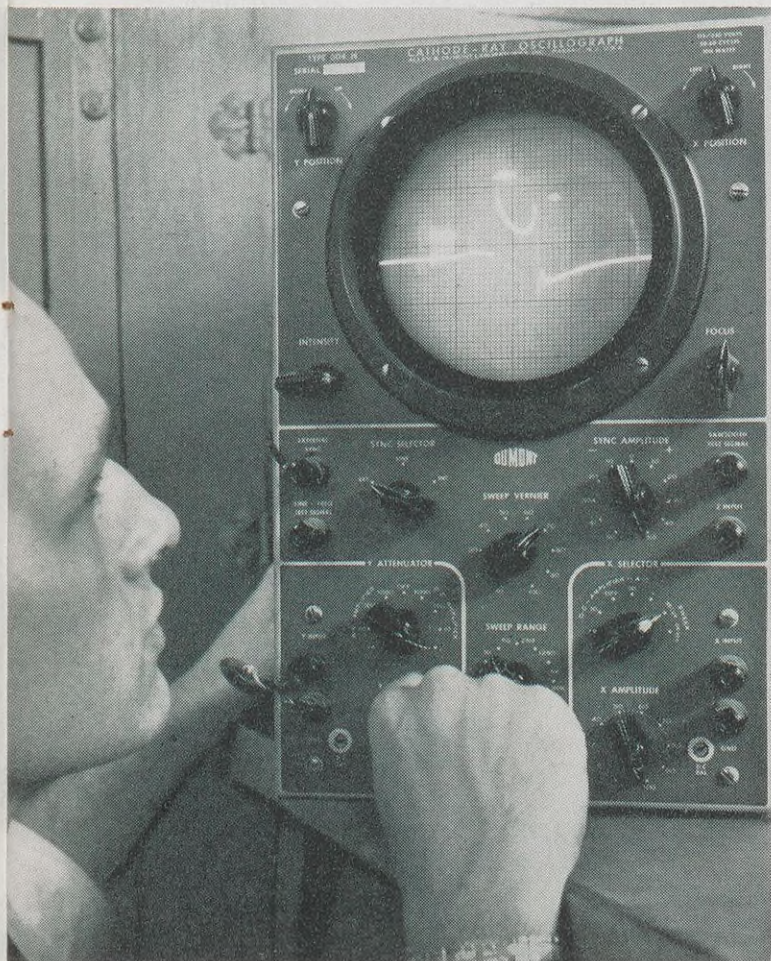
The next step was to find a way to prevent or control the deposits. After testing many different gasoline compositions, Shell's scientists and engineers discovered that the spark plug fouling problem could be eliminated by using a phosphorus compound additive introduced under the trademark TCP.

The many tests of gasoline with TCP additive showed that it changed the chemical composition of the deposits so they no longer conducted electricity. The deposits remained, but only as a harmless ash. The life of spark plugs before fouling was increased several fold. In addition, the additive worked on deposits in the

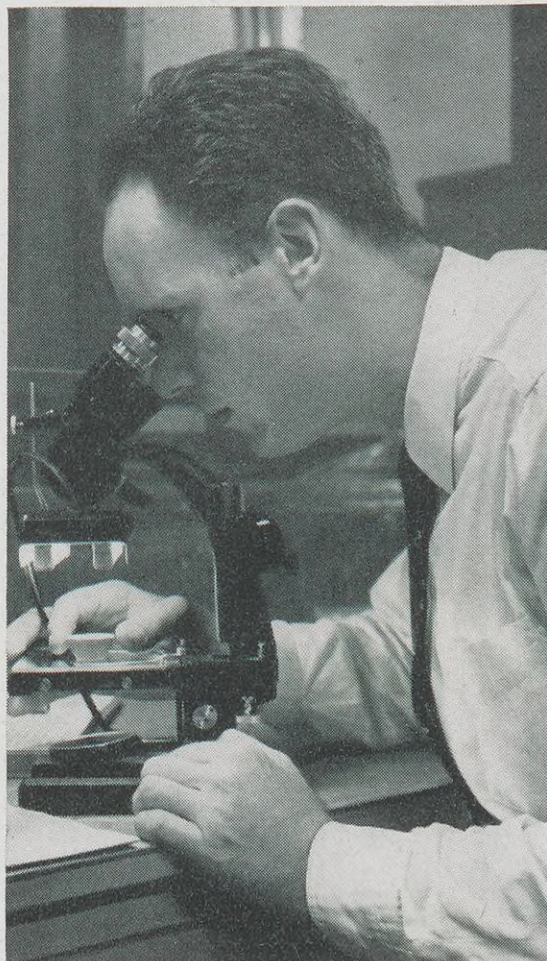
combustion chamber to prevent deposit ignition, which occurs when the heat in the chamber causes deposits to glow and ignite the fuel mixture at the wrong time and in the wrong places, sometimes causing damage to the engine.

TCP additive was first used in aviation gasoline and quickly proved its value in preventing spark plug fouling in aircraft engines. The additive also kept vitally needed military helicopters aloft during the Korean conflict when fouling would have grounded them.

Shell introduced TCP additive in its premium automotive gasoline in May, 1953. The following year, it was added to Shell's regular gasoline. So far as is known, when Shell started marketing gasoline with TCP, it was the only gasoline in the world containing a phosphorus compound additive for ignition control.



The first problem was to find the cause of spark plug fouling. One of the instruments used in this research was the cathode-ray oscilloscope, which is shown here being operated by Bame.



Microscopic studies of deposits from spark plugs which had mis-fired in road and flight tests were made by H. D. Burnham, now Group Leader, to help find the cause of spark plug fouling.



An X-ray diffraction apparatus also was used in analyzing the crystal structure of various spark plug deposits. Above, Laboratory Assistant E. V. Kepner operates the unit.

The introduction of gasoline with TCP additive caused a worldwide revolution in the automotive gasoline field. It met with immediate public acceptance. Because it kept spark plugs operating at top efficiency, it gave the average car up to 15 per cent more power plus increased gasoline mileage.

Shell's claims for TCP additive were so dramatic and fundamental that they drew fire from competitors. A few were openly antagonistic, seeking to belittle spark plug and deposit problems and even implying that phosphorus additives in general were harmful to engines. However, they came to recognize the value of a phosphorus gasoline additive.

Several large oil companies adopted a phosphorus additive shortly after the introduction of TCP and since then other phosphorus additives have been developed. Today, about 65 per

Independent tests by the Southwest Research Institute at San Antonio, Tex., in 1955 and 1956 proved the effectiveness of Shell's premium gasoline with TCP additive against spark plug fouling. Below, C. R. Johnson, now Manager of the Products Application Department in Chicago, checks radar instruments that are charting an automobile's speed and recording its acceleration time.





Flight tests of aviation gasoline with TCP additive were evaluated by members of the Products Application Department. In this six-year-old photo, L. P. Haxby, right, now a Senior Engineer with PAD in New York, examines spark plugs from one of the B-36 bombers used in the tests with three members of the plane's crew at Carswell Air Force Base at Fort Worth, Tex.

A Shell First WINS Again continued

cent of all premium gasoline and 12 per cent of regular gasoline sold in the United States contain phosphorus additives.

Shell's TCP additive was introduced outside the U. S. early in 1954 as I. C. A. additive because the letters "TCP" were already in use as a trademark for pharmaceutical products in Europe. Today the additive is covered by Shell patents in 81 countries.

The need for a phosphorus additive in automotive gasoline has grown greater since the introduction of TCP additive. Automobile engines have increased in size as well as in compression ratio—two factors which contribute to the problems of spark

plug fouling and deposit ignition.

The larger the engine and the higher the compression ratio, the greater the problems of spark plug fouling and deposit ignition. A larger engine uses a smaller percentage of its horsepower and operates at cooler temperatures during normal city driving. And this low temperature operation causes deposits to build up quickly on spark plugs and other surfaces in the combustion chamber. These deposits cause spark plug fouling and deposit ignition when the engine is operated at higher temperatures, i.e., during acceleration or hill climbing. A high compression engine aggravates these problems even more during acceleration because it op-

erates at relatively higher temperatures.

Phosphorus compounds, such as Shell's TCP additive, have helped motorists get full benefit from their more powerful automobile engines by controlling both spark plug fouling and deposit ignition. During the six years since TCP additive was first added to Shell gasoline, Shell has continued its research on engine fuels and combustion phenomena. While many gasoline compositions have been examined, so far nothing has been found that is as good for combating engine combustion deposits as Shell gasoline with TCP. It is still the greatest gasoline discovery since tetraethyl lead was developed in 1922 ●

news and views

CENTENNIAL FORECAST



J. H. LOUDON

In a special "Centennial Forecast" report by 50 leaders of the oil industry, PETROLEUM WEEK magazine recently published the following statement by J. H. Loudon, President of the Royal Dutch Petroleum Company and Chairman of the Board of Directors of Shell Oil Company:

Free Europe will be vitally dependent upon petroleum for a great many years to come. It is true that nuclear energy will be providing commercial power in many European countries by 1975. But it is a complete misconception to suppose, as is sometimes done, that atomic power has arrived in the nick of time to rescue Western Europe from dependence on oil. It still seems unlikely that nuclear power will account for more than 7% to 10% of Europe's energy supply by 1975.

The price of atomic power is determined more by capital costs than by running costs. And the capital costs of existing and prospective atomic power stations now work out roughly two to three times greater per unit of energy than the costs of conventional power stations fired by coal or oil.

It is also the case that atomic power, like hydropower, is, for the foreseeable future, primarily a method of producing electricity. Although electricity has a great diversity of application, there remain many things that need other forms of motive power. Atomic power can do little to relieve the demand for automotive fuels. Our vehicle fleets are growing at a rapid pace, and many railroads are dieselized. Our transport system, which is such a vital part of modern economic life, is very heavily reliant on oil. As we see it, the different energy sources are not competitive, but complementary.

Therefore, it must still be expected on economic grounds that the demand for oil in Europe will double or triple by 1975.

How can we be sure that sufficient supplies of oil will be forthcoming?

There is little doubt that enough oil will be available. Probably, for reasons of comparative cheapness in production costs, a substantial part of the oil will be imports from the Middle East, unless conditions deteriorate to a degree that seems to me unlikely.

But exploration work is going on in a very large number of countries in the world. Although new reserves matching those in the Middle East may not be found, we feel that important discoveries will be made that will make it possible to draw on many new sources of supply.

Furthermore, it is worth remembering that the oil-producing countries in the Middle East are very dependent on their oil revenues. They need our outlets as much as we need their oil. I cannot believe that we shall ever have to face 100% denial to us of Middle East oil, unless there is an international political cataclysm.

For these reasons I am confident that, to the extent that anything is certain in this uncertain world, oil will be in heavy demand for a long while to come—and that adequate oil supplies will be forthcoming.

TOP STUDENTS

Twenty-three children from Shell families have been honored as being among the top high school seniors this year in the United States by winning Certificates of Merit in the National Merit Scholarship program.

Competing with 480,000 students from 14,500 schools they were among the 10,000 finalists. The Shell sons and daughters are:

Wilson E. Allen, son of D. E. Allen, employed by Compañia Shell de Venezuela, Ltd., as a Methods Engineer at Maracaibo. Wilson is attending school in Shelbyville, Ind.

Betty Ann Barnes, daughter of R. L. Barnes, Operator No. 1, Industrial Chemicals Division, Shell Chemical Corporation, Houston Plant.

news and views

Jack S. Buehler, son of J. S. Buehler, Senior Research Chemist, Shell Chemical Corporation, Torrance Plant.

Harold Chase, son of R. H. Chase, Manager, Purchasing-Stores, Shell Development Company, Emeryville Research Center.

George B. Christianson, son of E. G. Christianson, Chief Exploitation Engineer, Denver E&P Area.

Sela Ann Condo, daughter of F. E. Condo, Assistant Department Head, Thermoplastics, Shell Development Company, Emeryville Research Center.

Robert E. Dean, Jr., son of R. E. Dean, Utility Supervisor, Treasury Department, Tulsa E&P Area.

William E. Evenson, son of R. F. Evenson, Manager, Refinery Laboratory, Martinez Refinery.

Barbara Jean Gallinger, daughter of H. F. Scheeler, Draftsman, Coastal Division, Pacific Coast E&P Area.

Jerome D. Goodrich, Jr., son of J. D. Goodrich, Production Manager, Tulsa E&P Area.

Lawrence P. Layman, Jr., son of L. P. Layman, Exploitation Engineer, New Orleans E&P Area.

Richard B. Lewis, II, son of R. B. Lewis, Manager, Asphalt Department, Head Office Marketing.

Robert H. Luten, son of D. B. Luten, Supervisor-Physical Chemistry Department, Shell Development Company, Emeryville Research Center.

Dennis L. Milford, son of C. D. Milford, Pipefitter—First, Engineering Field Department, Wood River Refinery.

Diana Jane Owen, daughter of W. E. Owen, Senior Exploitation Engineer, Head Office E&P.

Margaret Louise Rockwood, daughter of S. H. Rockwood, Area Petro-physical Engineer, Midland E&P Area.

John E. Shell, son of C. B. Shell, Supervisor, Accounting-Purchasing-Stores, Four Corners Division, Shell Pipe Line Corporation.

Dana L. Smith, daughter of L. W. Smith, Division Exploration Manager, San Joaquin Division, Pacific Coast E&P Area.

Alan N. Stockton, son of F. G. Stockton, Supervisor-Applied Mathematics Department, Shell Development Company, Emeryville Research Center.

Barbara Stross, daughter of F. H. Stross, Supervisor-Analytical Department, Shell Development Company, Emeryville Research Center.

Han W. Swyter, son of H. W. Swyter, Assistant Manager, Zone B, Anacortes Refinery.

Lyndel L. Tucker, daughter of L. R. Tucker, Foreman, Service Engineering, Shell Development Company, Houston E&P Research Laboratory.

Alan C. Wright, son of R. E. Wright, Section Leader, Plastics and Resins Division, Shell Chemical Corporation, Houston Plant.

The National Merit Scholarship Corporation conducts the annual competition in which about 850 scholarships are provided by various companies, foundations and other groups.

The Shell Companies Foundation, Incorporated, this year provided 25 Merit Scholarships through the National Merit Scholarship Corporation to qualifiers who intend to teach mathematics or science at the high school level. Following its original intent, the Shell Foundation is adding 25 scholarships each year. By 1961, when the program will have reached its full maturity of 100 scholarships, the annual budget to cover the cost of the program will be about \$150,000.

WILDCAT TELECASTS

Dave Garroway's nationally-televised "Today" show will focus its cameras six times during the summer on the drilling of a wildcat well.

The well, located near the city of Enid in northwestern Oklahoma, has been named "Big Dave No. 1" in honor of Garroway. The telecasts started on June 25 and subsequent shows from the well site are scheduled to be aired on July 2, July 16, July 30, August 13 and August 27. The last telecast will be part of the show that will originate from Titusville, Pa., where the oil industry will be celebrating the 100th anniversary of the drilling of the first oil well by "Colonel" Edwin L. Drake.

The "Big Dave No. 1" is being drilled by two brothers, Carl and Henry Gungall (left and right in the photograph below), 30-year veterans in the oil business who got their start by buying and selling leases. They have drilled

other wildcats, but have yet to make an important oil strike. Their personal stake in "Big Dave," their faith in the oil potential of northwestern Oklahoma and the risks involved in such a venture will be covered by "Today" interviewers.

The shows will develop step by step the progress of the well from the decision to drill to the point when it is known whether the wildcat is an oil and gas producer or a dry hole. The television audience will be told on each program such things as the depth of the well, the rock strata being encountered and the cost of operations.

Coverage of the wildcat is an outgrowth of the "Today" show's interest in bringing a greater understanding of various phases of American industry to television viewers.



DENVER AND TULSA

The consolidation is an adjustment of Company organization

ADMINISTRATIVE, technical and service functions now handled in the Tulsa and Denver Exploration and Production Area offices are being consolidated in Denver.

The consolidation is an adjustment of Company organization as a result of developments during recent years. Division E&P offices now carry more of the load of current operations formerly handled by Area headquarters. Also, modern developments in office methods and communications make it possible to provide administrative and service functions for a larger

number of Division offices from a single point.

In view of these developments, a review was conducted during recent months to determine whether any Area organizations should be reshaped. The conclusion was that a consolidation of the Denver and Tulsa Areas should be made. It was determined that planning and coordination of Division activities in the consolidated Area and the Area service functions could be done efficiently and economically by a single Area organization rather than two.

Denver was selected as the location for the consolidated Area office as being appropriately located to serve the various Division offices, in view of geographic relationships and activities.

The consolidation, of course, does not mean there will be any lessening of Shell's activities in Oklahoma. The operational direction of Shell's exploration, production and land activities in Oklahoma and nearby adjoining states remain in the Oklahoma City Division, which will be a part of the consolidated Area.

POSITION	NAME	FORMER ASSIGNMENT
Exploration Manager	C. C. LUDWICK	Exploration Manager, Denver
Production Manager	J. D. GOODRICH	Production Manager, Tulsa
Land Manager	W. S. HENRY	Land Manager, Denver
Gas Manager	F. H. RATHJEN	Gas Manager, Tulsa
Legal Manager and General Attorney	P. H. HOWARD	Legal Manager and General Attorney, Tulsa
Assistant to Vice President	A. S. GILLES	Assistant to Vice President, Denver
Treasury Manager	D. H. FILBERT	Treasury Manager, Denver
Personnel and Industrial Relations Manager	A. H. VINEYARD	Personnel and Industrial Relations Manager, Tulsa
Purchasing-Stores Manager	J. R. BRANINE	Purchasing Manager, San Francisco
Area Public Relations Representative	J. R. RICHARDS	Area Public Relations Representative, Denver
Transport Manager	L. L. LEONHARDT	Transport Manager, Denver
Crude Oil Representative	OLAN RUNNELS	Crude Oil Representative, Denver

A AREAS CONSOLIDATED

any organization as a result of developments in recent years



W. A. ALEXANDER

The majority of E&P employees located at present in Tulsa are expected to be placed in Denver, Oklahoma City or other Area and Division operating points. An employment committee has been formed and office and telephone facilities provided to help find jobs in Tulsa for employees who cannot be absorbed elsewhere in the organization.

Consolidation of technical and other administrative facilities in the Denver office is expected to be largely completed by September 1. Effective by that date, the exploration, produc-

tion and land Division facilities at Wichita Falls, Tex., which is responsible for direction of activities in North Texas, will be placed under the jurisdiction of the Midland (Tex.) Area.

(The Mid-Continent Division of Shell Pipe Line Corporation will continue to have its headquarters in Tulsa.)

R. W. Bond, Vice President in charge of the Tulsa Area, will be retiring early in 1960. Meanwhile, he has been appointed to act in an advisory capacity to the Head Office E&P Organization.

W. A. Alexander, now Vice President in charge of the Denver Area, has assumed responsibility for the management of both the Tulsa and Denver Areas. He will head the Area headquarters organization in Denver when consolidation of Area services there is completed.

Those named and shown in photographs below have been selected as the managerial staff of the consolidated Area under Mr. Alexander at Denver. Announcements regarding other related staff moves will be made later ●



C. C. LUDWICK



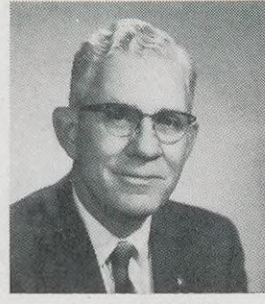
J. D. GOODRICH



W. S. HENRY



F. H. RATHJEN



P. H. HOWARD



A. S. GILLES



D. H. FILBERT



A. H. VINEYARD



J. R. BRANINE



J. R. RICHARDS



L. L. LEONHARDT



OLAN RUNNELS

A QUESTION OF CHOICE

*Choosing a service station site
is considered an "art"*

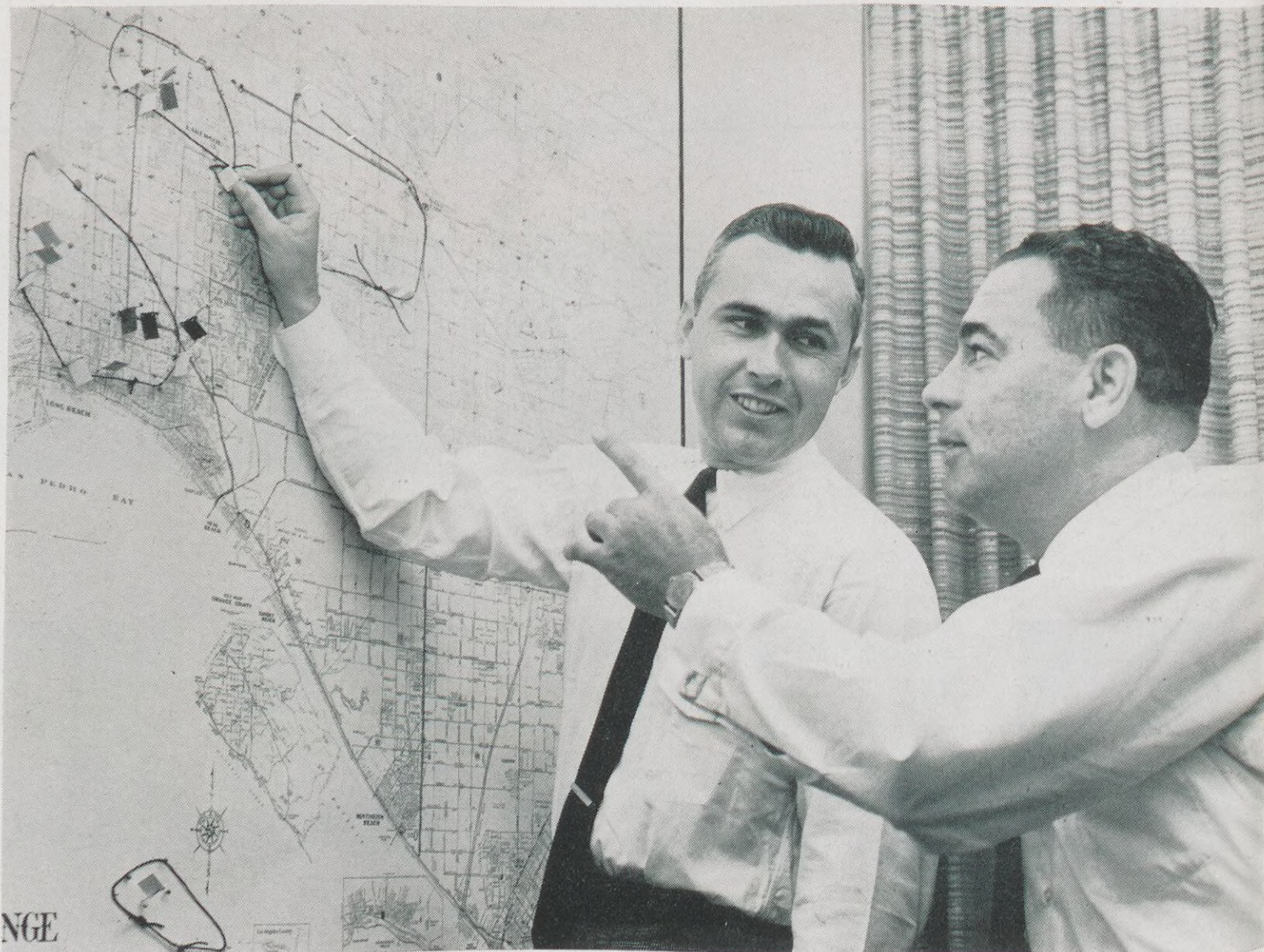
DURING a question-and-answer session after his speech to a civic club recently, a veteran Shell Marketing man was asked how Shell picks its service station sites.

"Well, it's sort of like kissing a girl," the Marketing man replied. "We follow the same procedure every time, but the experience is different in every case."

Shell's experience in a residential area near Long Beach, Calif., about 30 miles south of the center of Los Angeles, offers a recent example of how the Marketing Organization performs one of its most important functions—deciding where to build retail outlets for Shell's automotive products.

Ten years ago the area just east of Long Beach was largely bean fields. But population growth of Southern California—probably the fastest-grow-

Pinpointing a proposed service station site are A. J. Smith, left, District Salesman-Real Estate, and Sales Supervisor A. T. Kelsey, both of the Wilmington Marketing District. The flags indicate locations of Shell and competing service station sites.



ing in the nation—led to a spurt of residential development in the early 1950's in this as well as other undeveloped areas around Los Angeles.

The growth of this area was studied from its beginning by the Wilmington Marketing District of Shell's Los Angeles Marketing Division. (Such developments are continually under observation by all Shell marketing divisions as a clue to possible new or expanding markets.)

As part of the first step in choosing new service station sites a detailed investigation of the area in question was made several years ago to determine its potential. Population growth is a major factor in such considerations, but there are scores of others, ranging from the number of Shell credit-card holders in the region to the quality of products sold at local

supermarkets. In this case, the findings were promising.

Most residents of the area, which covers about 25 square miles, have jobs in Los Angeles, Long Beach or other cities some distance from their homes—which means they have to drive to and from work because public transportation is limited. Division records showed that a large number of Shell credit-card holders live in the region. In a street-by-street survey, district representatives noted an unusually high proportion of two-car garages. Chamber of Commerce figures give the area a high rating on family income, price range of houses and home improvements.

These findings led the District to the conclusion that Shell should seek a service station site in the area.

This second major step in devel-

oping a new marketing outlet is made up of many check-points to insure that a practical decision is made.

"We looked for a site on the corner of a main thoroughfare," said S. E. Traner, Wilmington District Real Estate and Development Representative, in explaining the District's procedure. "More traffic usually means more customers. We always try to get a site large enough to build the size of station we believe we'll need to meet demand. We also try to avoid sites where buildings have to be removed or where we have to do expensive grading and drainage work. Perhaps most important, the estimated amount of gasoline that would be sold by a new station has to be high enough to warrant the investment."

Estimating the sales potential of a proposed station is an "art" acquired by experience, said Dealer Salesman L. A. Reymer, whose sales zone included the neighborhood under study. There are many elements to be considered, including traffic counts (taken annually on major thoroughfares by county or state agencies), proposed road or highway construction in the neighborhood, the number of competing stations and their distance from a proposed Shell site. The art of estimating sales lies in translating these factors and many others into a potential gallonage figure.

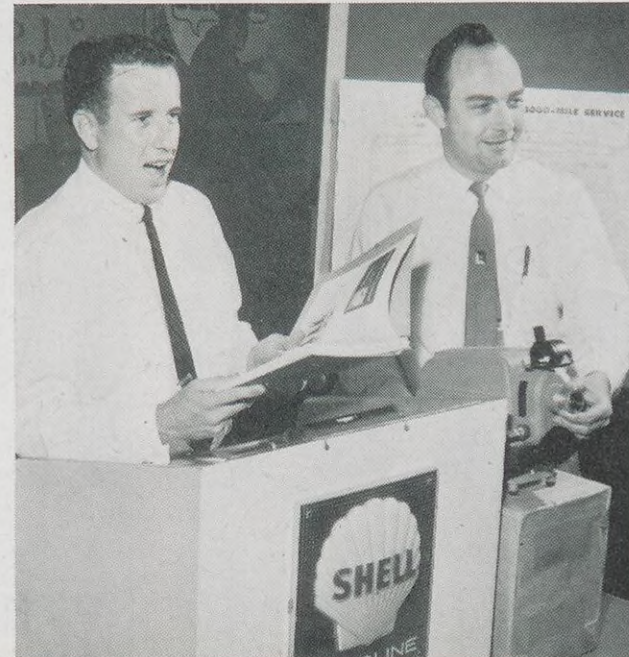


Checking the number of two-car families in a residential area by riding through it, Merchandising Salesman R. D. Allen notes most residents drive to work because of limited public transportation.

Estimating size of residential area served by Lakewood Shopping Center (in background)—one of the world's largest—are Dealer Salesman L. A. Reymer (left) and Allen.



Teaching a new service station dealers' class are Allen, left, and Reymer. The subjects covered range from information on Shell products to business management methods.



A Question of Choice continued

Estimates were carried out on several sites. Finally, one was selected in a neighborhood where only five competing stations were serving an area embracing 800 new homes and several shopping centers. All these stations were doing good business. The relatively small number of competing stations in a still-growing, prosperous neighborhood indicated that a Shell station would have a high sales potential.

Separate estimates were made on the site by the District people involved—dealer salesman, real estate salesman, merchandising salesman, sales supervisor and district manager. Their estimates averaged about 18,000 gallons a month with increased sales to be shown as the region grew.

A proposal to build the station was forwarded to Los Angeles Division management and was in turn relayed to Marketing Organization management. These steps were necessary to insure that the Wilmington proposal fitted into the Division and country-wide marketing expansion programs for the year, including the budget. These programs are based on several considerations including the Company's financial resources for the year, the need for new marketing outlets in relation to supply of products, and

general economic conditions.

The Wilmington proposal was approved and Shell leased the site from the landowner for 20 years. This was in line with Shell's practice of leasing instead of buying sites whenever possible. Shell thus avoids making substantial capital investments in real estate, thus helping to provide capital funds to expand other facilities in Marketing or other branches of the business.

The Wilmington District built a station with three pump islands and two bays. The nature of the neighborhood and expected volume of sales determine the selection of the type of station. Shell's standard station designs are changed only if local ordinances make it necessary. In one town near Long Beach, local ordinances limit the height of signs in front of the station to nine inches.

While the station was being built, Shell selected the dealer who would take it over.

"We get dozens of calls from men who want to become the dealer in a new station," said A. T. Kelsey, District Sales Supervisor. "But most of them are eliminated because they lack either experience or the necessary finances. We try to give established Shell dealers first chance to take over

a new and better location. If we don't have a dealer available who wants to move, then we bring in a new man."

A dealer must have about \$10,000 in cash to open a station for business. This amount pays for a month's rent, gasoline and lubricants, a month's payroll, stocks of accessories, taxes, utilities and other expenses.

When the new station went into operation its sales were greater than expected. By the end of the first year it was pumping more gasoline than it was expected to sell after three years.

Because of its success, and the continued growth of the area, Shell leased another site, about a mile east of the first station. The new site was in a neighborhood where 3,000 homes were up and another 1,500 were being built—so it would not take away sales from the first station. When the second station was built, two of the three other corner lots at its intersection, and the lot beside the station, were empty. Shortly after the station opened, stores were built on all the empty lots, which brought a large traffic flow to the corner.

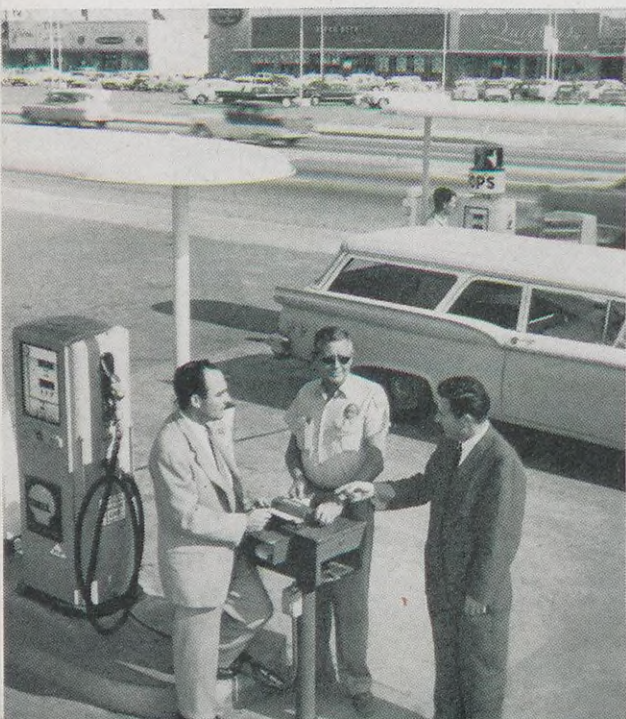
This station also proved to be a good choice. Its results supported the Wilmington District's prediction that because of a scarcity of good service station sites in the area, "there will never be enough service stations to equal the potential."

Success of the first two stations led to building a third. It also proved its potential by the end of its first year, though when it was opened it was surrounded by open fields. The fields soon gave way to homes.

Now, as the area continues to grow, so does the number of customers for the three Shell stations. Last year, gasoline sales at the stations totaled 1,680,000 gallons—an average of almost 47,000 gallons a month for each station. These figures confirm Wilmington District's choice of service station sites ●

Dealer K. R. Wehinger discusses operation of his station east of Long Beach, Calif.—the second Shell built in the area—with Reymer, left, and Allen.

Discussing a District's proposal to build a new service station are R. D. Stetson, right, Manager, Los Angeles Marketing Division, and D. J. LaMont, the Division's Real Estate and Development Manager.



Public Hearing on Oil Prices

“WE seem to have the constant problem of trying to determine which comes first, the chicken or the egg. Now, from your experience in the gasoline business, do the price wars start at the retail level, or do they start at the wholesale level?”

This question was posed by a member of a committee set up by the New Hampshire Legislature to make “a thorough and impartial investigation of the whole subject of gasoline and fuel oil prices.”

The person to whom the question was addressed is J. C. Bowen, then Shell’s New Hampshire District Manager and now District Manager at Wilmington, Calif. Bowen answered this question and many others in a clear, straightforward manner, as shown in the testimony on the following pages.

Inquiries into petroleum prices and pricing practices have been undertaken by legislatures of several states during recent years. The persons pressing for such inquiries are not the same in every case. In some instances, dealers who have recently been through a price war ask for a legislative investigation of prices because they believe prices are too low. In other cases, some members of the legislature may press for investigations or restrictive measures because

they feel prices are too high. In still other instances (the New Hampshire investigation was an example of this), the impetus comes from observation of differing prices over the geographical area of the state; legislators—particularly those from the higher-price areas—are interested in knowing the reason why.

The number of state legislatures that have investigated gasoline prices in recent years indicates that even the best-informed members of the community have only a sketchy understanding of oil marketing, exhibiting

a distrust which people reserve for things they do not understand.

This situation points up the need to explain the operation of our business on a continuing basis, whenever the opportunity presents itself.

Following is part of Bowen’s testimony in the New Hampshire hearings, condensed and rearranged for convenience:

PRICE WARS

Q. Mr. Bowen, have you any opinion as to how price wars get started? And spread?

A. Yes, sir, I do.



J. C. Bowen, formerly Shell’s New Hampshire District Manager and now District Manager at Wilmington, Calif., pauses near the entrance to the New Hampshire Legislature at Concord, where he gave testimony before a legislative committee inquiring into gasoline and fuel oil prices.

Q. We would surely appreciate it if you would expound on that, because that is what we are trying to find out.

A. I think a price war is like any war. First off, two people get mad at each other, with or without cause, and the battle starts. They may have a friend and then instead of two, there are four. Then instead of four, there are eight, and, consequently, before you know it, a whole area is enveloped. *Price wars are not good for anybody.* They are particularly bad for the dealer because the dealer has his margin cut back; or if he is not competitive, he loses volume—which is more important to him, because volume of gasoline relates to the other services he does. The dealer loses, the supplying company loses; the public, from a shortsighted point of view does gain, but actually, they truly don't gain either.

That (dealer price-cutting) is one of the common ways that they start. Another way is the economic question of supply and demand. From time to time there is surplus product around and independent companies* sometimes buy this up at quite an advantageous price and in turn sell it to independent dealers at an advantageous price and these independents sell to the public. Ultimately they hurt the major-supplied dealer.

Q. Mr. Bowen, we seem to have the constant problem of trying to determine which comes first, the chicken or the egg. Now, from your experience in the gasoline business, do the price wars start at the retail level, or do they start at the wholesale level?

A. I would say, in most cases, they start at the retail level. There are as many philosophies of pricing gasoline as there are types of dealers. I think you gentlemen can think of men in

each category. You've got the fellow who goes after the volume, who will post the price to get the volume, figuring that he is better off with volume and a small mark-up.

Then you have the antithesis of him, the fellow who says, "The heck with the volume, I want a fixed margin of profit, I don't care what John Smith sells for. My service will bring them in."

Then you've got the fellow in the middle. He might not post the high price, he might not post the low price. He tries by good service, modern facilities, etc., to capture his share of the market.

And the fourth category is the fellow who posts way up high and to his friends says, "You're a good customer," and gives one, two and three cents off.

In each case you have the possibility of a price war starting.

Q. Let's assume that you have a community where you have several

competing dealers. Dealer A cuts his price two cents a gallon; Shell Oil Company also has a dealer operating in that community and he calls on you for relief, to meet his competition. Don't you think, Mr. Bowen, if you just held fast, if you isolated the fellow who started to cut the price, that perhaps the spread of these price wars might be reduced?

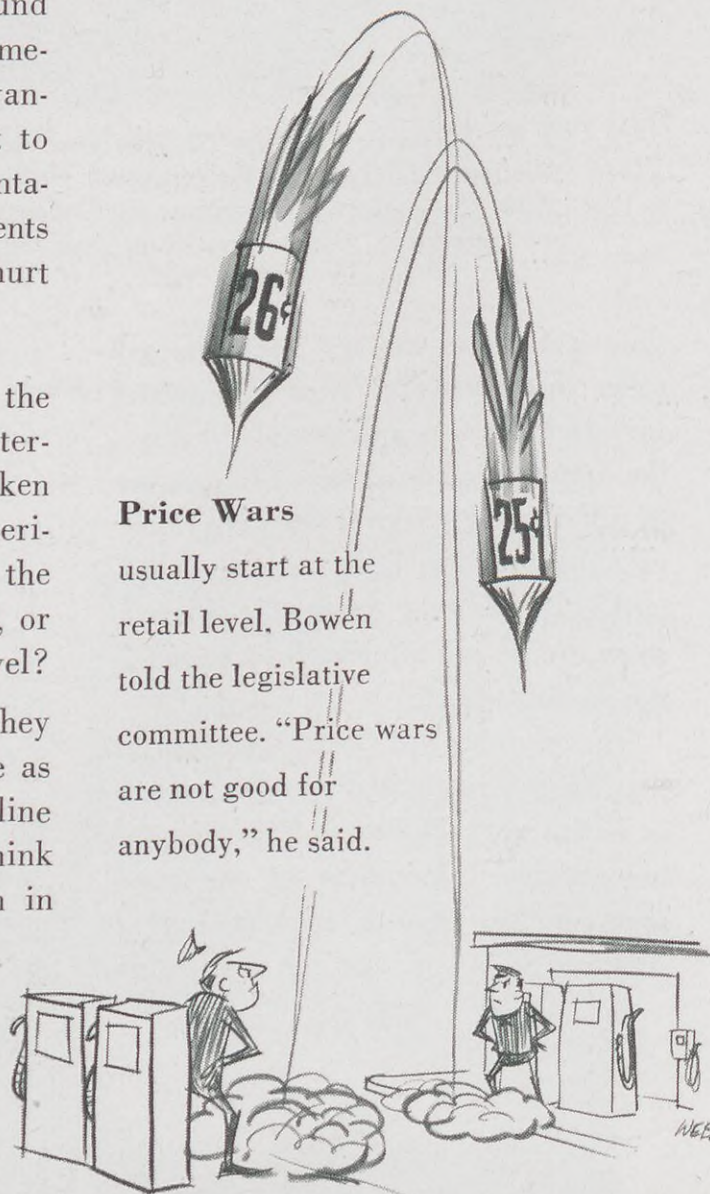
A. No. As I pointed out a little bit earlier, we don't jump too quickly. In the case of a single dealer in a given town, if one dealer cut his price, the chances are, I would wait and see. One dealer alone, at least for a short time, would not hurt our dealer to the extent that we would reduce the price in the whole trade area. But, unfortunately, it doesn't work that way. If our dealer held his price, perhaps some other competitive dealer would move, or an independent would move two cents below, which would broaden the spread. The conflagration has started and sooner or later we would be in it. A price war is with two or more people: he generally has a close competitor who will be right on his heels, so initially there are two and shortly there are four and then eight. But, to answer your question of not helping the dealer, I think that in the instance that you cite, probably, at least initially, we would not help him.

Q. When does a price war, in your interpretation, cease to be a price war? I'm thinking of that situation en route to New York. For fifteen years, to my knowledge, the prices have been way below what they are at either side.

A. For the past couple of months up to a month ago, and maybe two or three months prior to that, the situation in Hartford (Connecticut) on the Berlin Turnpike was fairly static. As you drive to New York, it is the only

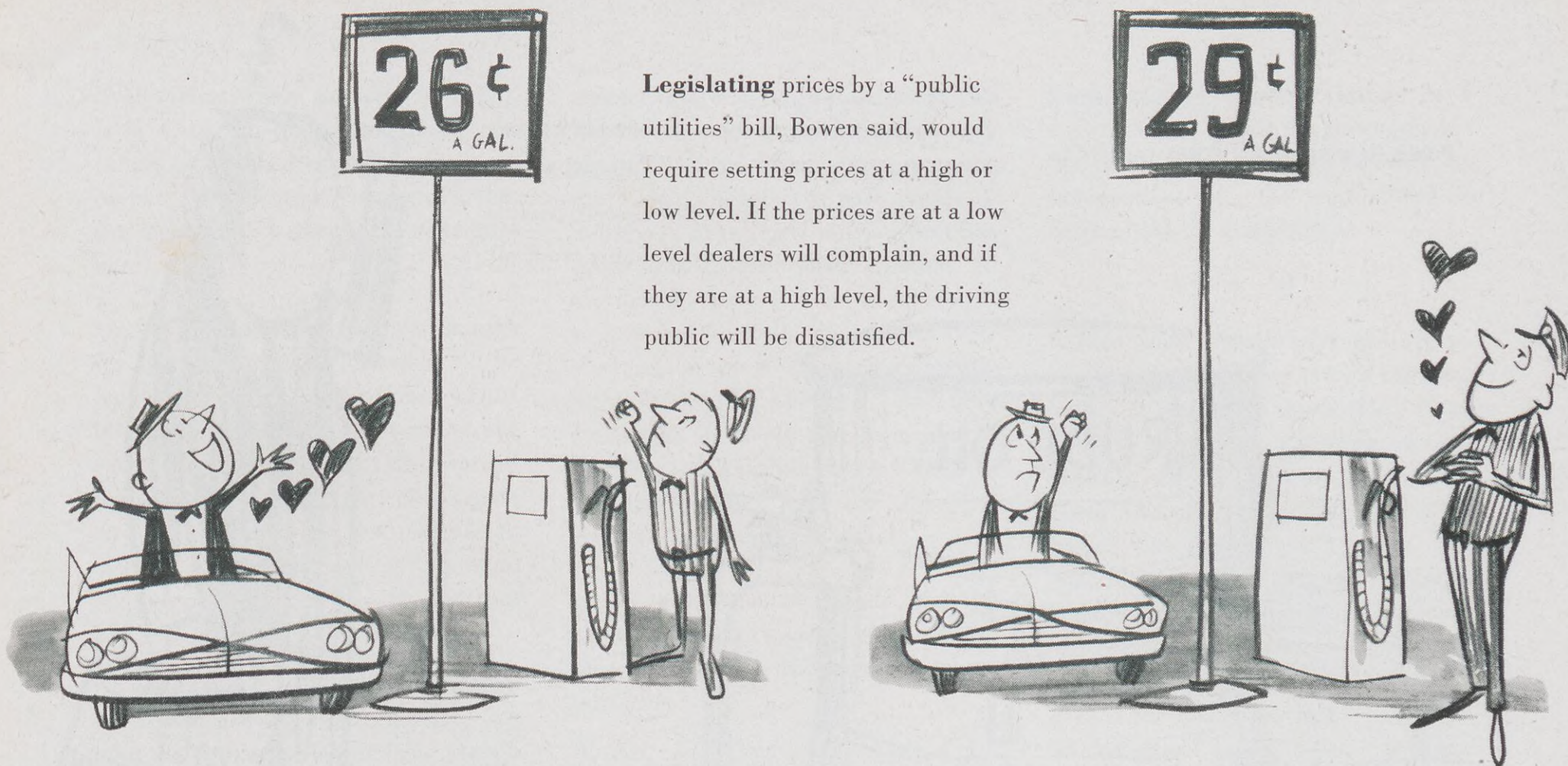
Price Wars

usually start at the retail level, Bowen told the legislative committee. "Price wars are not good for anybody," he said.



* Marketers of local or regional brands (also called "unbranded" or "private brand" marketers), who traditionally price their product below major company price levels.

Legislating prices by a "public utilities" bill, Bowen said, would require setting prices at a high or low level. If the prices are at a low level dealers will complain, and if they are at a high level, the driving public will be dissatisfied.



place, as you know, that you can buy gasoline without getting off toll roads and superhighways. The result is that every major company has come in there, and a few independents, fighting for that potential. There are more stations than potential available and consequently all of the dealers, fighting for their share, cut the price. It so happens that the temperament of the dealers in that particular area is quite volatile.

Q. Since they are selling six cents less than they are selling anywhere else, does that mean that all the companies selling gasoline there are losing money for ten or fifteen years in sales in that stretch? Why are they so anxious to be in there?

A. Most of those companies have made a substantial commitment, bought an expensive piece of property and built an expensive building, or have gone to an investor and made a commitment of ten, fifteen, or twenty years. Whether they like it or not they are married to this commitment—plus the fact that we all hope that, ultimately, price wars will be a thing of the past and that it *will* be profitable

business.

LEGISLATIVE "CURES" FOR PRICE WARS

Q. As a result of your experience in the business, is there anything that you can recommend to this committee in the form of legislation that would, perhaps, minimize the effect of price wars?

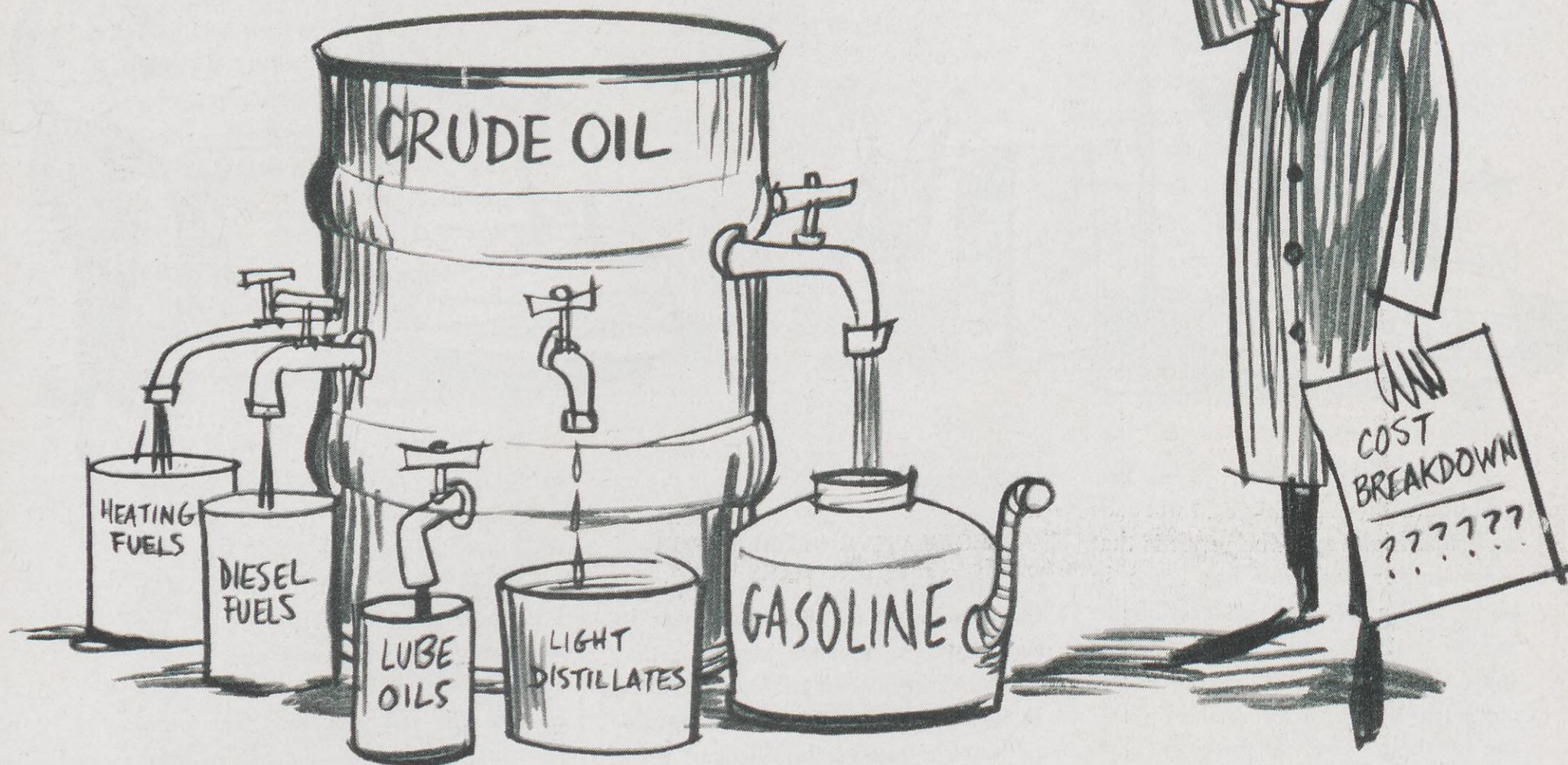
A. I'm not an attorney, but I have thought about this a great deal, and I come back to the feeling that the solution of this thing is not in legislation. When you have a dealer who has been hurt, as many have been in price wars, when you have, perhaps, a jobber who has had his margin cut down, as many have in price wars, you become sympathetic and you wonder. They (dealers and jobbers) turn to the legislature to try to seek some cure-all for this terrible mess.

If you legislate by a so-called public utilities bill, you're either going to have to fix a price at a high level or a low level. If you fix it at a high level, the public is going to scream, and rightfully so; if you regulate it at a low level, the dealer is going to scream.

Q. It is a complex situation. We are groping here, trying to find out just what the causes are, and what, if anything, can be done to cure it. May I go into what is in my mind? We drive along the highway and we see signs at a service station; they may be six feet tall and five feet wide, showing a price of 28 cents in huge figures and 9/10 in an infinitesimal figure, and still a smaller one that says "plus tax." Now, do you feel that, perhaps in legislation, either limiting the size of the signs, or prohibiting the presence of those signs other than on the pump, might have a salutary effect in minimizing price wars?

A. I believe it should. Yet they've had a sign law on in Massachusetts now for ten years. I believe the specifications of the sign are 8 by 10 inches, and it must be affixed to the pump. People who shop price, buy new spectacles and they can see that sign just as easily as can be. In Massachusetts, dealers can and do put ads in the newspaper; and they can and do, away from the premises, put out hand circulars to advertise the price. I have no objection to it, but

Determining the cost of manufacturing a gallon of gasoline versus a gallon of fuel oil is virtually impossible, Bowen said, because of the complex process of refining crude oil.



I would say that the price-sign law in Massachusetts has not curtailed price wars in any respect.

COST OF PRODUCTS

Q. Which is the cheapest to manufacture, fuel oil or gasoline?

A. This is a very difficult question, and right here is a seat of one of our fundamental problems. If you gentlemen could determine the cost of gasoline, and knowing the cost, could say we make a legitimate profit, you would feel more favorably disposed toward us, particularly if the cost was in direct relation to the price we sold it for. But to determine the cost of a gallon of gasoline versus a gallon of fuel oil is virtually impossible. I know the analogy has been drawn in previous testimony of the packer or

farmer being in the same predicament as the oil refiner. Both of them know their total costs, but neither can say just what an individual pork chop or a gallon of gasoline costs.

Q. Then that information couldn't be gotten from anyone?

A. I doubt it very much if we could, sir, because the complex process of refining. . . . Take a 42-gallon barrel of crude oil. From that you get aviation gasoline; you get two grades of gasoline, housebrand and super; you get several grades of fuel oil; you get several grades of lubricating oil; and today you get many chemicals. The refining process can be run in such a way that in the winter time we squeeze a little more fuel oil out of it. In the summer time, we squeeze a

little more gasoline out of this same 42-gallon barrel. To allocate directly to a specific single gallon of the product what it cost is virtually impossible. It is too bad that it is so because I think we could make a lot of friends if we could determine the cost, for we could convince them that we are not profiteering.

DIFFERENCE IN TANK WAGON PRICES

Q. Are you in a position to tell the committee, Mr. Bowen, what the range of tank wagon* prices is of Shell Oil Company gasolines in New Hampshire at the present time?

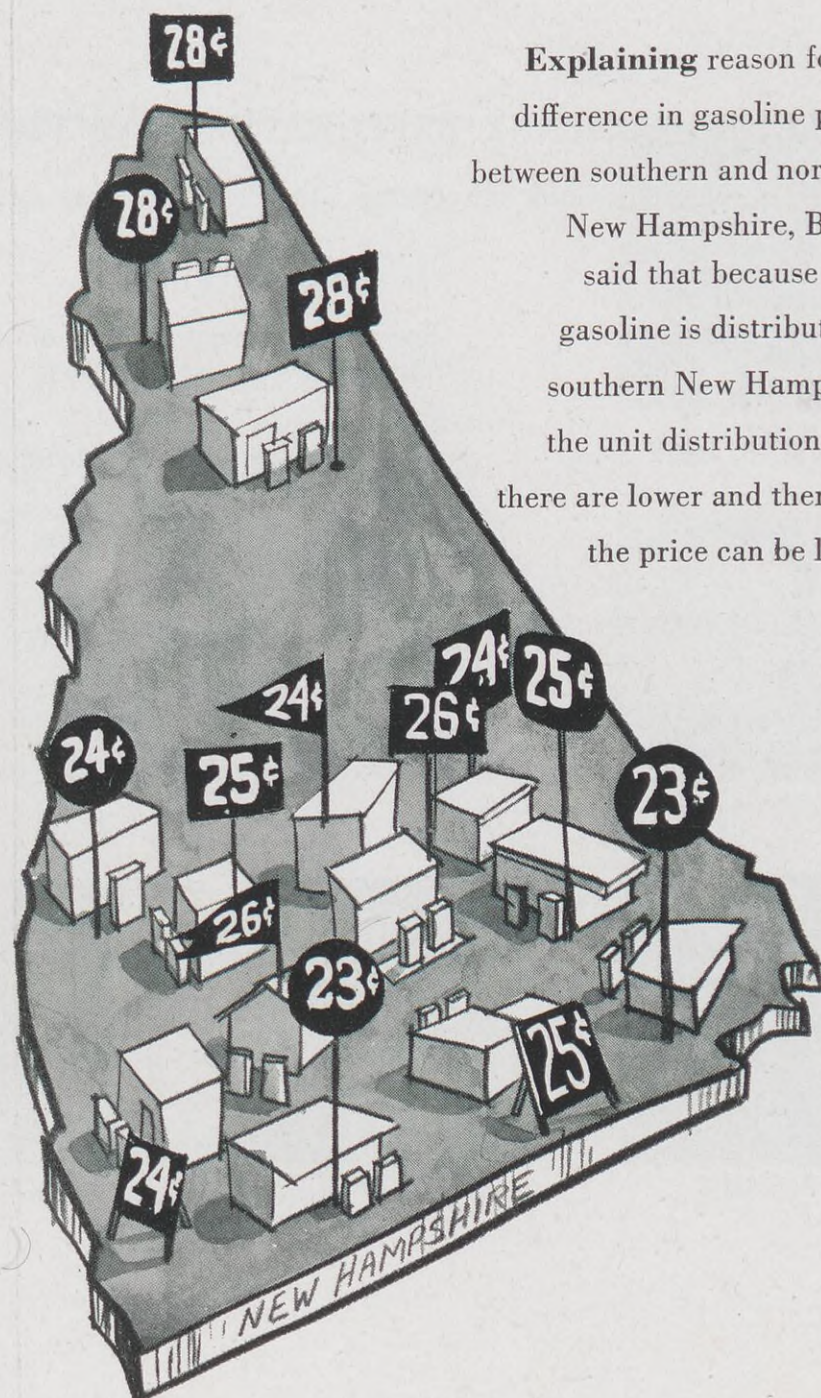
A. The lowest price in the State of New Hampshire last Friday was 14.9 in Salem Depot; to the best of my knowledge, the highest price today is in Colebrook, our northernmost de-

* "Tank wagon," a term dating back to the days of the horse-drawn wagon, is the delivered wholesale price the dealer pays.

A. No, sir, it is not. Competition stems from numbers; in the city of Manchester you have many people, you have more suppliers in Man-

A. No, sir. That's why I first answered on the basis of competitive factors and unit cost, as opposed to

Few Shell people have the opportunity to testify about the oil industry before a legislative committee. However, in answering questions or just chatting with friends and neighbors about Shell and the industry, all Shell people can express themselves. The effectiveness with which 40,000 Shell employees speak up on such occasions can bring even greater acceptance of the Shell companies. And such acceptance is the final determining factor in whether Shell succeeds as a company — and consequently, whether Shell people prosper ●



Explaining reason for the difference in gasoline prices between southern and northern New Hampshire, Bowen said that because more gasoline is distributed in southern New Hampshire the unit distribution costs there are lower and therefore the price can be lower.

SHELL PEOPLE in the news

SHELL OIL COMPANY EXECUTIVE COMMITTEE



R. C. McCURDY

R. C. McCURDY has been elected by the Shell Oil Company Board of Directors as a member of the Executive Committee of Shell Oil Company. He fills the position on the Committee formerly held by James H. Doolittle. The Committee is now composed of: H. S. M. Burns, Chairman; G. G. Dominick, R. C. McCurdy, M. E. Spaght and Forsyth Wickes.

Mr. McCurdy, who received his A.B. and Engineering Mines degrees from Stanford University, joined Shell Oil Company in 1933 as a Roustabout at Ventura, Calif. He later worked in various capacities in most of the Company's California oil fields and was appointed an Exploitation Engineer in the Los Angeles Office in 1939. In 1943 he became Chief Exploitation Engineer there, and two years later he was named Manager of the San Joaquin Division. In 1947 he accepted employment abroad with Shell Caribbean Petroleum Company in Venezuela, and became General Manager there in 1950. He was elected President of Shell Chemical Corporation in 1953, and was elected to the Shell Oil Company Board of Directors in 1955.

SHELL OIL COMPANY EXPLORATION AND PRODUCTION ORGANIZATION

D. B. Kemball-Cook, Executive Vice-President, has announced the following changes:

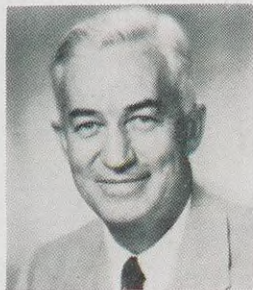
NAME	NEW POSITION	FORMER POSITION	EFFECTIVE DATE
W. F. BATES	Special Assignment on staff of Vice President, Pacific Coast Area	Production Manager, Pacific Coast Area	In effect
M. S. METZ	Special Assignment for Head Office Exploration	Exploration Manager, Houston Area	June 15, 1959
O. L. ODALE	Production Manager, Pacific Coast Area	Production Manager, Denver Area	By September 1, 1959
J. W. INKSTER	Exploration Manager, Houston Area	Exploration Manager, Tulsa Area	By September 1, 1959
R. L. TROTT	Executive Assistant to Vice President, Houston Area	Executive Assistant to Vice President, Tulsa Area	Fall, 1959



W. F. BATES



M. S. METZ



O. L. ODALE



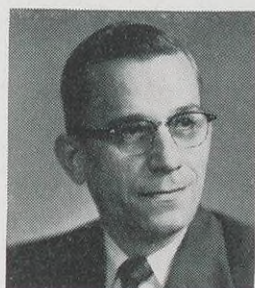
J. W. INKSTER



R. L. TROTT

The following additional changes, effective September 1, have been announced in connection with the consolidation of the Denver and Tulsa E&P Areas:

NAME	NEW POSITION	FORMER POSITION
J. T. LAMB	Attorney, Denver Area	Legal Manager and General Attorney, Denver Area
E. B. VAN SAUN	Special Assignment, Head Office Financial Organization	Treasury Manager, Tulsa Area
A. A. McLEOD	Personnel Supervisor, Denver Area	Personnel and Industrial Relations Manager, Denver Area ✓
E. L. VILANDER	Public Relations Representative, Head Office	Public Relations Representative, Tulsa Area
C. A. NYHOF	Crude Oil Representative, Midland Area	Crude Oil Representative, Tulsa Area



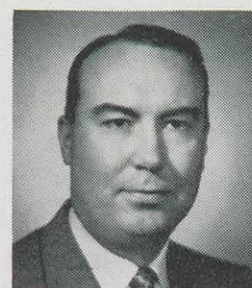
J. T. LAMB



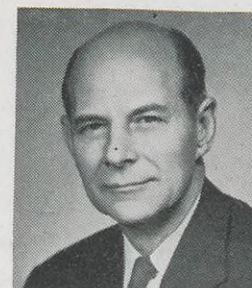
E. B. VAN SAUN



A. A. McLEOD



E. L. VILANDER



C. A. NYHOF

D. B. Kemball-Cook, Executive Vice President, has announced the establishment of a newly created Administrative Services Department in the Head Office Exploration and Production Organization, with **K. W. MARTIN** as Manager. **J. W. PITTMAN**, former Production Manager on special assignment in New Orleans succeeds Mr. Martin as Manager, Transport and Materials, in the New Orleans Exploration and Production Area.

The new department provides the Head Office Exploration and Production departments with staff, administrative and liaison services; coordinates transport and communications matters; assists in all phases of staff planning; provides liaison with Purchasing-Stores, Personnel and Industrial Relations, Transportation and Supplies, etc., and provides general office services such as drafting, files, correspondence procedures, the handling of visitors, and the coordination of office space.

R. M. LEE, Manager of the Head Office Wage and Salary Division, will be appointed to the position of Staff Manager, within the E&P Administrative Services Department, effective September 1. He will replace **B. VAN DYKE**, Staff Assistant, who is now named Staff Manager pending his reassignment to Shell Development Company's Exploration and Production Research Division, Houston, effective October 1. (See Shell Development Company's Exploration and Production Research Division on page 20.)



K. W. MARTIN



J. W. PITTMAN

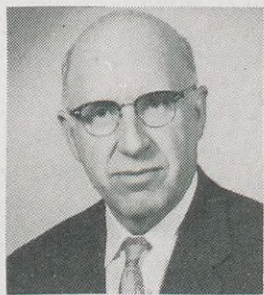


R. M. LEE

SHELL PEOPLE in the news Continued



J. M. SULLIVAN

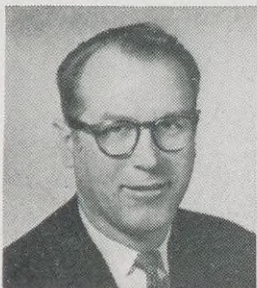


E. J. STRAWN

J. M. SULLIVAN, Assistant to Vice President, Exploration, Head Office, was appointed Office Manager, in the new department. He replaces **B. D. Vishanoff**, Administrative Assistant, who has elected to retire on August 1.

The E&P Transport and Communications group at Houston, with **E. J. STRAWN** as Manager, is also part of the new Administrative Services Department.

SHELL OIL COMPANY MANUFACTURING ORGANIZATION



V. G. HARRISON

V. G. HARRISON has been named Administrative Superintendent at the Wood River Refinery, succeeding **L. A. Lohman**, who will retire August 1. Mr. Harrison, who attended Whittier College, Calif., and the University of Southern California, joined Shell Chemical Corporation in 1943 as a Clerk at the Torrance Plant. Following assignments at the former San Francisco Head Office and the Shell Point Plant, he became an Assistant Manager of the Personnel and Industrial Relations Department at Shell Point in 1949. In 1950 he joined Shell Oil Company as Assistant Manager, P&IR, at the Martinez Refinery. He was reassigned to Shell Chemical Corporation in 1952 as Manager of the P&IR Department at the Denver Plant, and was transferred to Head Office as an Industrial Relations Representative in 1955. He was named Administrative Superintendent at the Norco Refinery in 1957.

SHELL DEVELOPMENT COMPANY

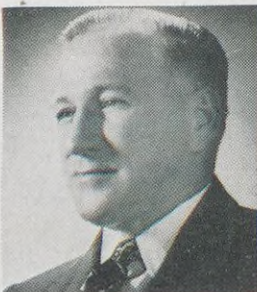


H. T. BYCK

N. D. Smith, Vice President, Shell Development Company's Exploration and Production Research Division at Houston, has announced the appointment of **H. T. BYCK** as Manager of Administration and Services there. He succeeds **Frank Goldstone**, who has accepted a Special Assignment with Shell Oil Company's Exploration and Production Organization at Houston until his retirement October 1.

Mr. Smith has also announced the appointment of two Assistant Managers of Administration and Services: **W. L. McKINNON**, who is responsible for the activities of Purchasing-Stores, Service Engineering and Budget, will act for Mr. Byck during his absence; and **BARCLAY VAN DYKE**, who will assume responsibility for the activities of Personnel, Technical Information, Training and Treasury, effective October 1.

Mr. Byck, who holds a Ph.D. degree in chemistry from Johns Hopkins University, joined Shell Development Company in 1936 as a Research Chemist at the Emeryville Research Center. In 1948 he became a Section Leader at the E&P Research Division at Houston. He was named a Technical Assistant in the President's Office in 1953 at Head Office. In 1958 he became Assistant to the Vice President at Houston.



W. L. McKINNON

Mr. McKinnon, who holds a Bachelor's degree in business administration from Rice Institute, Texas, joined Shell Oil Company in 1929 as a Clerk at the Houston Refinery. He was named Treasury Manager there in 1936 and assumed a similar position in the Houston Exploration and Production Area in 1945. In 1953 he became Laboratory Manager in Shell Development Company's Exploration and Production Research Division at Houston. He was named Assistant to the Manager of Administration and Services there in 1958.



B. VAN DYKE

Mr. Van Dyke, who holds a Bachelor's degree in mathematics and physics from Westminster College, Mo., and a Master's degree in marketing from Harvard University, joined Shell Oil Company in 1938 in the Personnel Department at the former Head Office at St. Louis. From 1939 through 1941 he was assigned in turn to the former Texas-Gulf Exploration and Production Area, the Wood River Refinery and the New York Head Office. In 1945 he was named an Administrative Assistant in the President's Office. He became an Administrative Assistant to the Vice President, Exploration and Production at Houston in 1947. When the headquarters of the Exploration and Production Organization was moved to New York in 1951, Mr. Van Dyke moved with it as Staff Assistant to the Executive Vice President.

THE SHELL COMPANY (PUERTO RICO) LIMITED

J. G. Jordan, Vice President Marketing, Shell Oil Company, has announced that the following employees have accepted positions with The Shell Company (Puerto Rico) Limited: **C. L. TOWERS, JR.**, General Manager; **G. R. FRANCESCHINA**, Marketing Manager; and **K. B. FIELD**, Finance Manager.



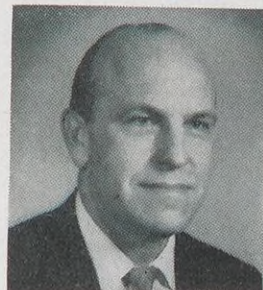
C. L. TOWERS, JR.

Mr. Towers, who holds a Bachelor's degree in liberal arts from the University of Southern California, joined Shell Oil Company in 1937 as an Inspector at the Wilmington Refinery. He became a Salesman in the Los Angeles Marketing Division the same year, and in 1945 a Division Service Representative there. He was named, in turn, a District Manager in the Chicago Division in 1951 and the Boston Division in 1953. He was appointed Sales Manager of the Indianapolis Division in 1955 and became Operations Manager there in 1957. He was named Sales Assistant to the Vice President East Coast Marketing Divisions in 1958.



G. R. FRANCESCHINA

Mr. Franceschina joined Shell Oil Company as a District Service Representative in 1946 in the Minneapolis Marketing Division. Following various sales assignments, he became a Real Estate Representative there in 1952. He was assigned as a District Sales Supervisor in the Chicago Division in 1954 and two years later became a District Manager there. He has been employed abroad with an affiliated company since January, 1959.



K. B. FIELD

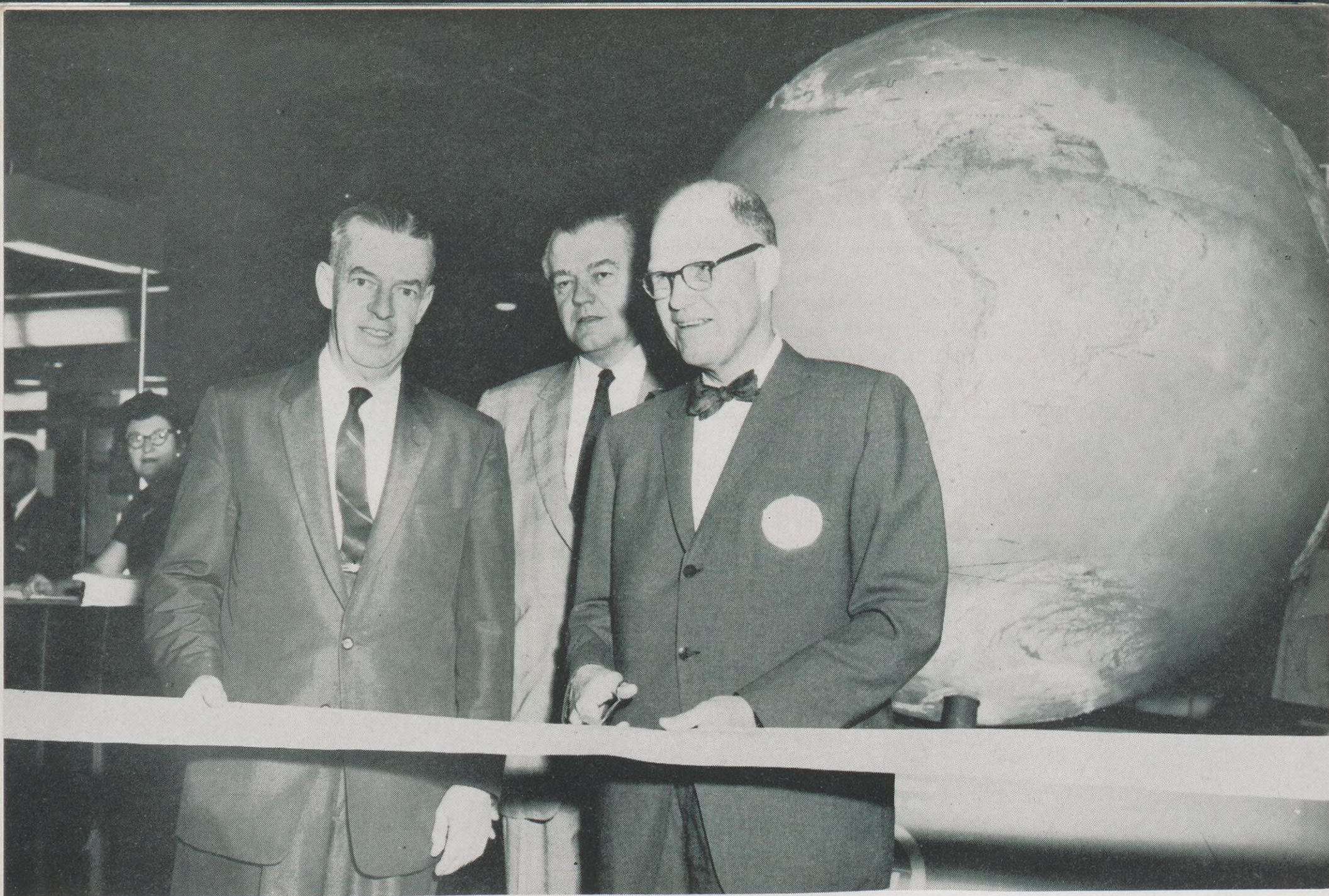
Mr. Field joined Shell Oil Company in 1925 as a Clerk in San Francisco. He became a Traveling Auditor in 1936 and in 1947 was transferred to Shell Development Company as an Office Assistant at San Francisco. In 1949 he was reassigned to Shell Oil Company as an Auditor at Head Office. He was transferred to Shell Chemical Corporation in 1952 as Treasury Manager at the Dominguez Plant, and in 1955 was named to the same position at the Houston Plant.

SHELL OIL COMPANY MARKETING ORGANIZATION

S. C. BURNET, has been named Sales Assistant to the Vice President, East Coast Marketing Divisions, succeeding C. L. Towers. Mr. Burnet, who holds a Bachelor's degree in commerce from the University of Toronto, joined Shell Oil Company of Canada, Limited, in 1934 as a Service Station Salesman in Toronto. In 1939 he was named Assistant to the Manager of Technical Products at Head Office in Toronto. He was appointed Manager of the Montreal Marketing Division in 1945 and transferred to the Toronto Marketing Division in 1949 as Manager. He was named General Sales Manager at the Toronto Head Office in 1955. In May, 1959, he accepted employment with Shell Oil Company as a Special Assistant to the General Manager of the Head Office Marketing Departments.



S. C. BURNET



Cutting the tape to open the Exposition at the Congress is E. V. Murphree, Congress Chairman and President of Esso Research and Engineering Company. In the center is C. E. Davis, Congress Secretary-General and retired Vice President Refining of Shell Oil Company. V. J. O'Shea, New York City Deputy Commissioner of Commerce and Public Events is at left.

A WORLD OF INFORMATION

The Fifth World Petroleum Congress provided a wealth of knowledge for oil scientists from 53 countries



"THE world looks to us to provide much of the energy to make a better life possible. We are serving the peaceful interests of the world. We are dedicated to aiding in improvement of living standards around the world."

With these words, H. S. M. Burns, President of Shell Oil Company, out-

lined the long-range purpose of the petroleum industry as he opened the Fifth World Petroleum Congress on May 30. As President of the Congress, he set the tone for the week-long series of meetings which brought 4,500 oilmen and more than 900 of their wives to New York from 53 countries.

For the Congress members, the Congress provided a world of scientific and technological information on all phases of the oil industry and in fields ranging from atomic science to the social sciences. After listening to 285 technical papers in more than 100 sessions, members took home with them more than 125,000 copies of the papers for further study. Those with room in their luggage also packed away inch-thick special issues of oil trade journals and bundles of literature from many of the 250 exhibitors of oil industry equipment and services at the Congress Exposition.

As the largest exhibition of petroleum science ever held in the United States, the Exposition covered two floors of the mammoth New York Coliseum. Displayed there were the latest equipment and ideas in engineering design and services, provided by leading companies serving the petroleum and chemical industries. The exhibits included elaborate working models that bubbled and gurgled

as they illustrated complex processing units, and electronic computers that hummed quietly as they solved analytical and production problems while visitors watched. In all, some 15,000 persons toured the Exposition, which also had several special displays by oil companies, including Shell.

On two floors above the Exposi-

tion, special rooms were set up for the main work of the Congress—presentation and discussion of the technical papers by leading oil scientists and technologists. These included 13 papers from Shell Oil and Shell Development Company contributors (whose papers were outlined in SHELL NEWS last March) and 14 from other

Linguist Miss Michal Heron of Shell Oil Company who speaks French and Spanish, helps Congress delegates from abroad register for sessions at the Coliseum.



H. S. M. Burns, President of Shell Oil Company and President of the Congress, addresses delegates at a banquet at the Waldorf-Astoria Hotel. Seated are J. A. Buekers, left, a Congress Council Vice-Chairman from the Netherlands and Mr. Murphree.





Registering for social events, arranged for wives of delegates by the New York Desk and Derrick Club, is the wife of a Philippine's delegate. D&D members helping are, standing left to right: Helen Lambert, Gertrude Munafo, Irene Girolame, Rosemary Goodrich and Tora Tillstrom. Seated left to right are: Virginia Seinsoth and Helen Knudsen. All are of Shell except Miss Lambert and Mrs. Munafo. More than 900 wives registered.

◀ **Bouwe Dykstra**, Vice President of Shell's New Orleans E&P Area, presents his technical paper on "Economics of Offshore Petroleum Developments in the U.S.A.," in a Congress session on drilling and production.

Royal Dutch/Shell Group companies.

The technical papers were divided into 10 categories covering the range of oil industry scientific interests from geology and geophysics to the applications of atomic energy. The majority of the papers were of a highly technical nature, such as "Extraction of Aromatics with Sulfolane," one of the Shell contributions. But there were also many of wide general interest, particularly those looking to future petroleum supply and demand and those concerning the effect on the industry of the development of atomic energy.

Papers on the future of oil, which received particular interest from members and many of the 250 newsmen who covered the Congress, predicted sharp increases in demand for oil by 1975 and a larger role for oil in relation to other energy sources.

Petroleum, which now supplies about one-third of the world's energy requirements, will provide about 39 per cent in 1975, according to a paper by N. B. Guyol of Standard Oil Company of California. This growth will

entail increasing world oil supply from 19 million barrels a day in 1958 (nearly triple that of 1941) to 46 million barrels a day in 1975. Oil may lose some markets to nuclear fuels and natural gas, Mr. Guyol said, but these losses will be more than offset by gains in other markets traditionally supplied by other fuels.

The problem of providing incentives for the huge investments necessary for oil industry growth was noted in a paper by Bouwe Dykstra, Shell Oil's Vice President in charge of the New Orleans Exploration and Production Area. He said that to reverse the downward trend in offshore drilling activities in the Gulf of Mexico, it will be necessary to lighten the governmental burden on offshore operators and to set higher allowables for offshore wells in deeper waters. The cost of a well in 66 feet of water and 10,000 to 11,000 feet deep, he said, is about \$750,000 and there are some wells that cost over \$1 million. Of all wells drilled off the Louisiana Coast, one-third have been dry holes; of those drilled in water more than 60

feet deep, 43 per cent have been dry.

"From these high costs and the fact that a well 10,000 to 11,000 feet deep is now permitted to produce only 173 barrels per day, one can readily conclude that a very large capital investment would be needed to build up any sizable daily production," Mr. Dykstra said.

Discussions of the effect of atomic energy on the oil industry were highlighted in papers by Dr. Robert E. Wilson, a member of the General Advisory Committee to the Atomic Energy Commission, and by Dr. Edward Teller, a leading atomic scientist and one of the developers of the hydrogen bomb.

Dr. Wilson, former Chairman of Standard Oil Company of Indiana, said atomic energy will not be a competitor of the oil industry but rather "something that will come along in the nick of time" to help meet the vast increases in demand for power.

There will be a tremendous and growing demand for liquid fuels of various types for a long time to come, he said. In the distant future, when

oil may not be able to supply all energy demand, liquid fuels will be made from coal, oil shale and tar sands. For the first time, he added, the world is assured of the adequacy of its liquid fuel supplies for the indefinite future.

Dr. Wilson said the principal U. S. oil market that might be threatened by atomic power in the next 20 or 30 years is that of fuel for electric power generating stations. But he noted that only about 2.5 per cent of total heavy fuel oil supply is used now for this purpose. The oil industry would not be disturbed if it lost all this business in the next 10 years. The industry would merely continue the process of converting heavy fuel oil to more valuable products.

In another session, Dr. Teller discussed some of the long-range possibilities of using atomic explosions in petroleum production. But he stressed the great difficulties that must be overcome before this could become a reality. Recovery of oil from shale deposits and tar sands using atomic explosions might be a possibility, he said, although chances of success were only about 10 per cent.

Current use of nuclear physics in oil production was outlined in a paper by W. E. Mott of Gulf Research and Development Company and N. M. Ediger of British American Oil Company. They said use of nuclear techniques to survey rock formations in well logging had become "one of the most important peaceful applications of the principles of nuclear physics." The U. S. oil industry spent \$80 million on nuclear well surveying from 1955 to 1957 and the Atomic Energy Commission estimated annual savings of \$16 million to \$24 million a year from the methods. However, these techniques are still in their infancy and development of better interpretation procedures is needed.

In all discussions of oil's future,

prospects were described as bright. However, L. F. McCollum, President of Continental Oil Company, included a word of warning in a special lecture delivered at famed Carnegie Hall. He said present abundance of oil supplies could lead to destructive price wars and waste in use of oil by consumers and producers on a world-wide scale.

The world now has a far greater supply of known oil reserves in relation to demand than at any time in recent history, he noted. This means that the world will be able to meet its oil needs with little difficulty. But the abundance also creates a situation in which economically wasteful production and marketing practices can develop.

"These I hope we can find the wisdom and the means to avoid," he said. "It is only through mutual understanding of each other's needs, a sense of tolerance, and a true sense of justice, that oil can be used as an effective tool for accelerating world economic development."

This plea for mutual understanding despite the competitive drive for progress in the industry was a keynote of the Fifth World Petroleum Congress, as it was for previous Con-

gresses—stretching back a quarter of a century—at Rome, The Hague, Paris and London. Before the Fifth Congress ended, plans were under way to continue work towards this goal at the Sixth Congress scheduled for 1963 in the Federal Republic of Germany.

In completing his duties as Chairman of the Fifth Congress, E. V. Murphree, President of Esso Research and Engineering Company, turned over the chairmanship of the Congress' Permanent Council to Sir Stephen Gibson, former Managing Director of Iraq Petroleum Company and now a member of the Council of Britain's Institute of Petroleum.

Sir Stephen told members at the closing session that the papers presented will contribute materially to the technical progress of the oil industry. He said the papers indicate the industry's rate of progress in the next few years will be greater than average.

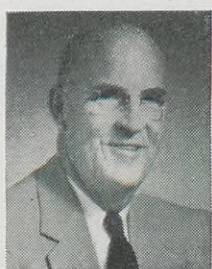
Mr. Murphree said "it would be impossible to calculate the effects of this truly international exchange of information on the over-all progress of the oil industry, in fact, on the scientific, economic and social progress of the world itself" ●

The Shell exhibit at the Congress Exposition was viewed by many of the 15,000 persons who visited the Exposition. At right is a map showing the locations where companies of the Royal Dutch/Shell Group operate in countries around the world.





RETIREMENTS



L. A. BECK
San Francisco Division
Operations



R. H. BLAKELY
Tulsa Area
Land



A. L. BROWN
Wood River Refinery
Engineering Field



V. L. BURRESS
Shell Pipe Line Corp.
West Texas Division



L. W. CASE
Wood River Refinery
Engineering Field



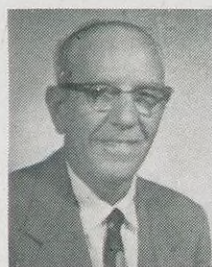
E. CHAPMAN
Wilmington Refinery
Engineering Field



W. C. COLEMAN
Pacific Coast Area
Gas



O. G. COONS
Shell Pipe Line Corp.
Mid-Continent Division



E. C. DAVIS
Houston Refinery
Engineering Field



KATHERINE HAZELHURST
Baltimore Division
Marketing Service



A. H. HOEKE
Shell Pipe Line Corp.
Texas-Gulf Division



E. R. HOWARD
Boston Division
Operations



Z. IZZO
Sewaren Plant
Compound



S. JOHNSON
Shell Chemical Corp.
Houston Plant



D. C. JONES
Shell Pipe Line Corp.
Texas-Gulf Division



G. K. KENDALL
Portland Division
Operations



L. W. KILLEN
Portland Division
Operations



J. L. KNIGHT
Houston Refinery
Engineering Field



OPAL H. KNUDSON
Houston Refinery
Aromatics



A. C. KRUEGER
Wood River Refinery
Engineering Field



G. A. LEEDY
Wilmington Refinery
Engineering Field



M. M. LUKETICH
Wood River Refinery
Engineering Field



C. G. McLAREN
Tulsa Area
Purchasing-Stores



J. B. MORRIS
Pacific Coast Area
Land



J. S. MOYNES
Atlanta Division
Sales



H. PINO
Martinez Refinery
Engineering Field



H. A. POPPE
Houston Area
Gas



L. D. POTTER
Houston Area
Production



E. P. ROBERTSON
Baltimore Division
Operations



W. F. ROGERS
Tulsa Area
Production



L. L. SARGENT
Pacific Coast Area
Production



M. F. SHAPPELL
Tulsa Area
Production



C. C. SHARPE
Sacramento Division
Treasury



T. J. SMITH
Shell Pipe Line Corp.
West Texas Division



R. C. STAPLETON
Shell Pipe Line Corp.
Mid-Continent Division



C. TROMBATORE
Wilmington Refinery
Dispatching



J. W. VANNI
Wilmington Refinery
Pers. & Ind. Rel.



W. WALLACE
Martinez Refinery
Distilling

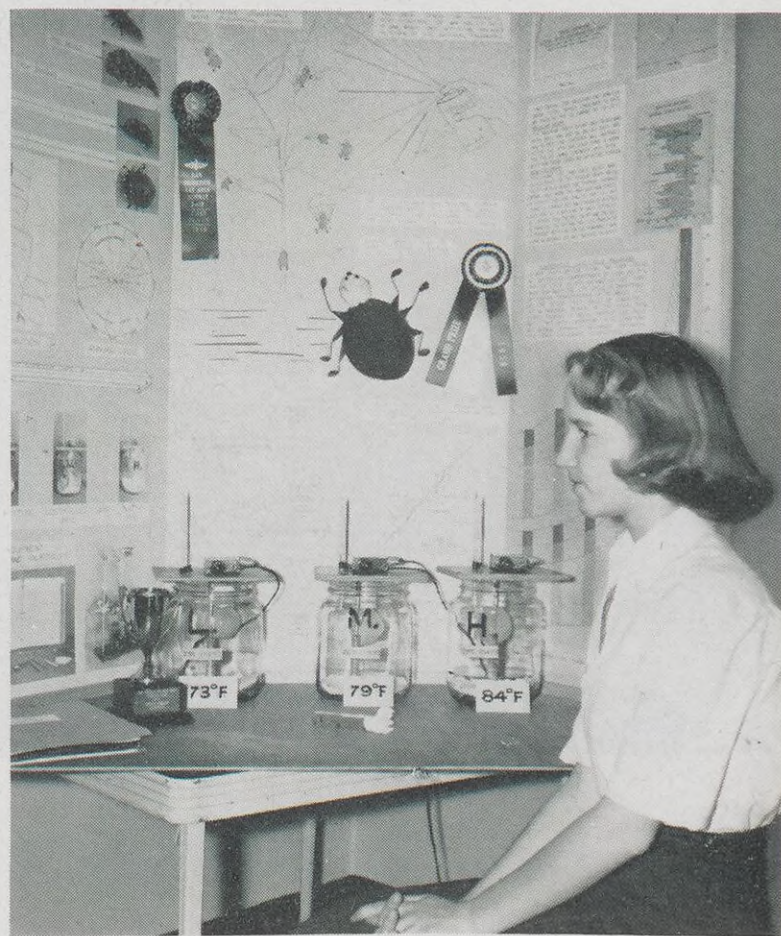
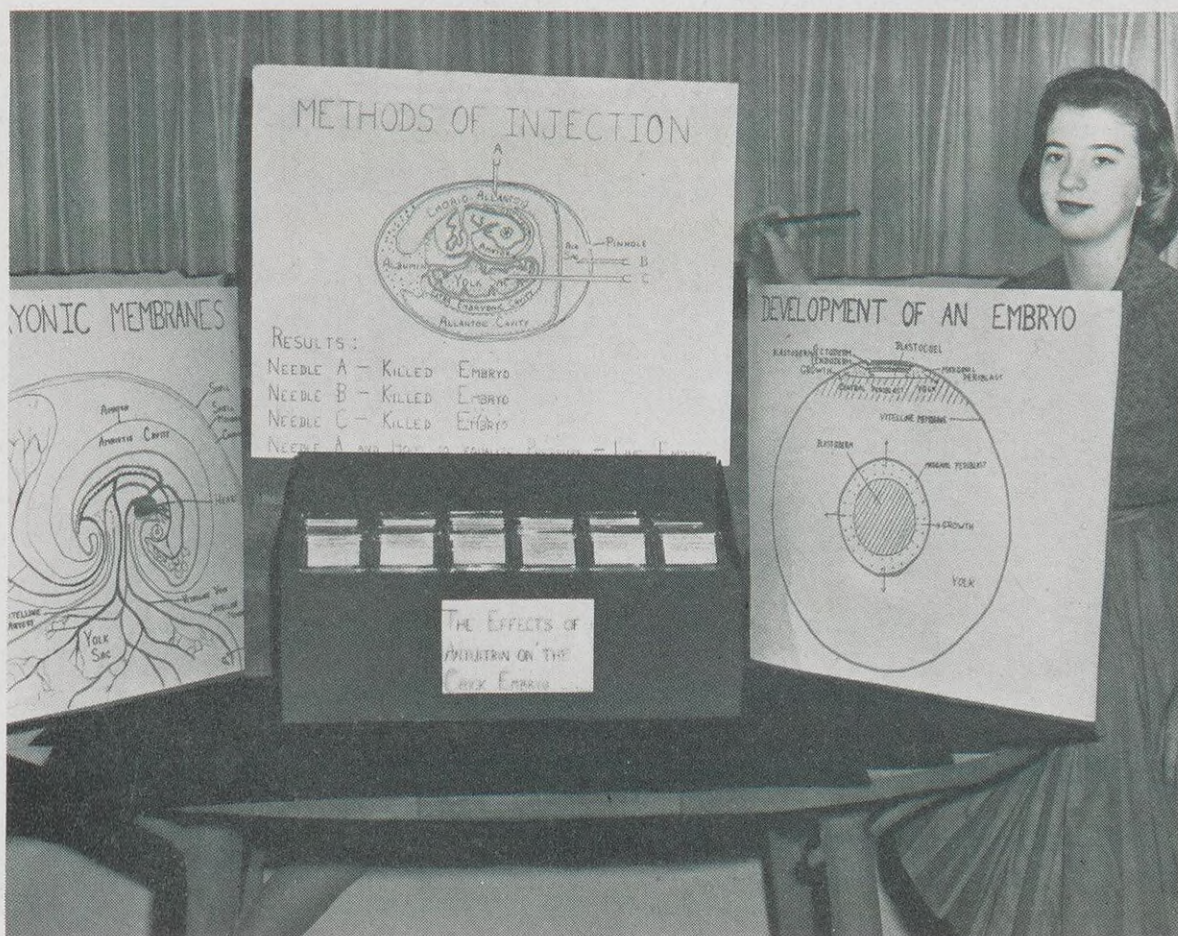


E. A. WICK
Denver Area
Purchasing-Stores



C. A. WILLIAMS
Houston Refinery
Thermal Cracking

SHELL Coast to Coast



YOUNG SCIENTISTS WIN TOP AWARDS

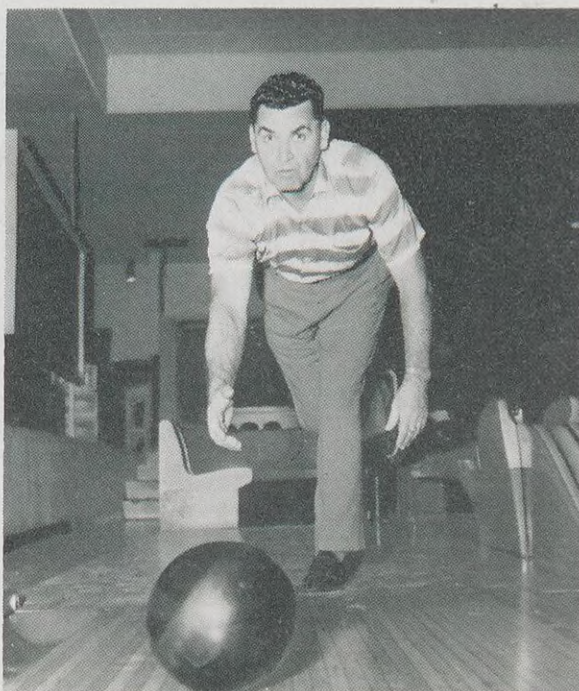
Two Shell daughters recently won grand prizes at regional science fairs. In the photo above left is Sharon Rae with her exhibit entered in a District Science Fair of the Texas Academy of Science, held at Galveston. She is the daughter of Senior Chemist John Rae, Jr., of Shell Development Company's Exploration and Production Research Division at Houston.

Sharon's exhibit, "Antuitrin and the Chicken Embryo" (a study of the effects of Antuitrin growth hormone on the embryo), won the Junior High School Division grand prize — the Grolier Society Award.

The picture above right shows Trudy Noller and her exhibit at the

Annual Bay Area Science Fair in San Francisco. Her father is Engineer G. W. Noller of the Emeryville Research Center. Trudy's exhibit, "Growth Relation of *Coccinella Californica*," took first-place honors in

the Ninth Grade Biological Division at the Fair. (*Coccinella Californica* is a type of beetle.) As a grand prize winner, Trudy appeared on a local television program called "Science in Action."



TWELVE STRIKES

After many years of bowling, M. T. Hartwell of Shell Chemical Corporation's Dominguez Plant recently bowled his first perfect 300 game. He made his 12 strikes in a row during a practice session, but now that he's bowled a perfect game, he has hopes to repeat it during competition.

SHELL Coast to Coast

continued

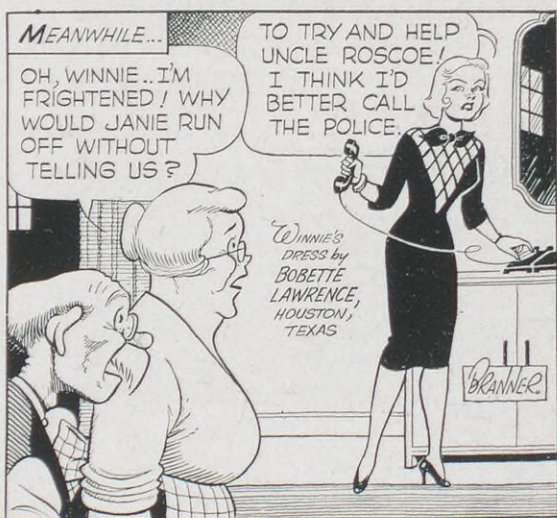
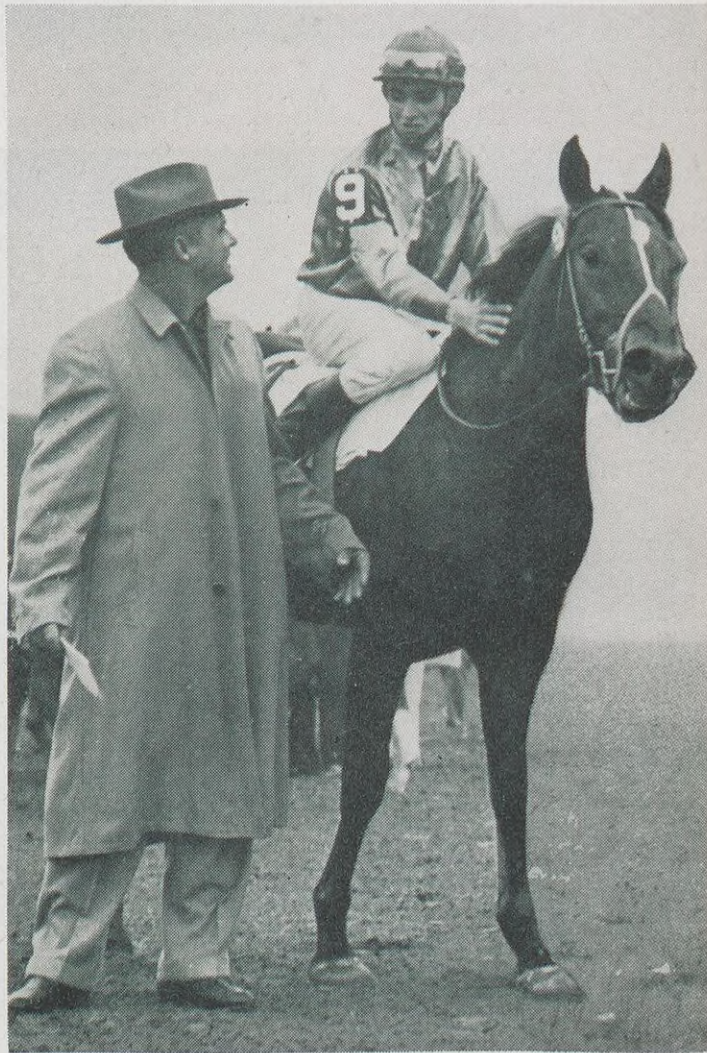


SECRETARIES' WEEK

Lucille French, Secretary in the Area office of the Denver Exploration and Production Area, recently served as Chairman of the Secretaries' Week Committee in Denver. She is shown above accepting a National Secretaries' Week proclamation from Gov. Stephen L. R. McNichols of Colorado.

HOBBY HORSES

Raising horses is the hobby of Lawrence Robideaux, Maintenance Leadman in Shell's Iowa, La., Field. He now owns 20 horses, including two thoroughbreds. Below, he stands beside his two-year-old colt, Vison's Son, after he had won a race in New Orleans.



Courtesy Chicago Tribune-New York News Syndicate, Inc.



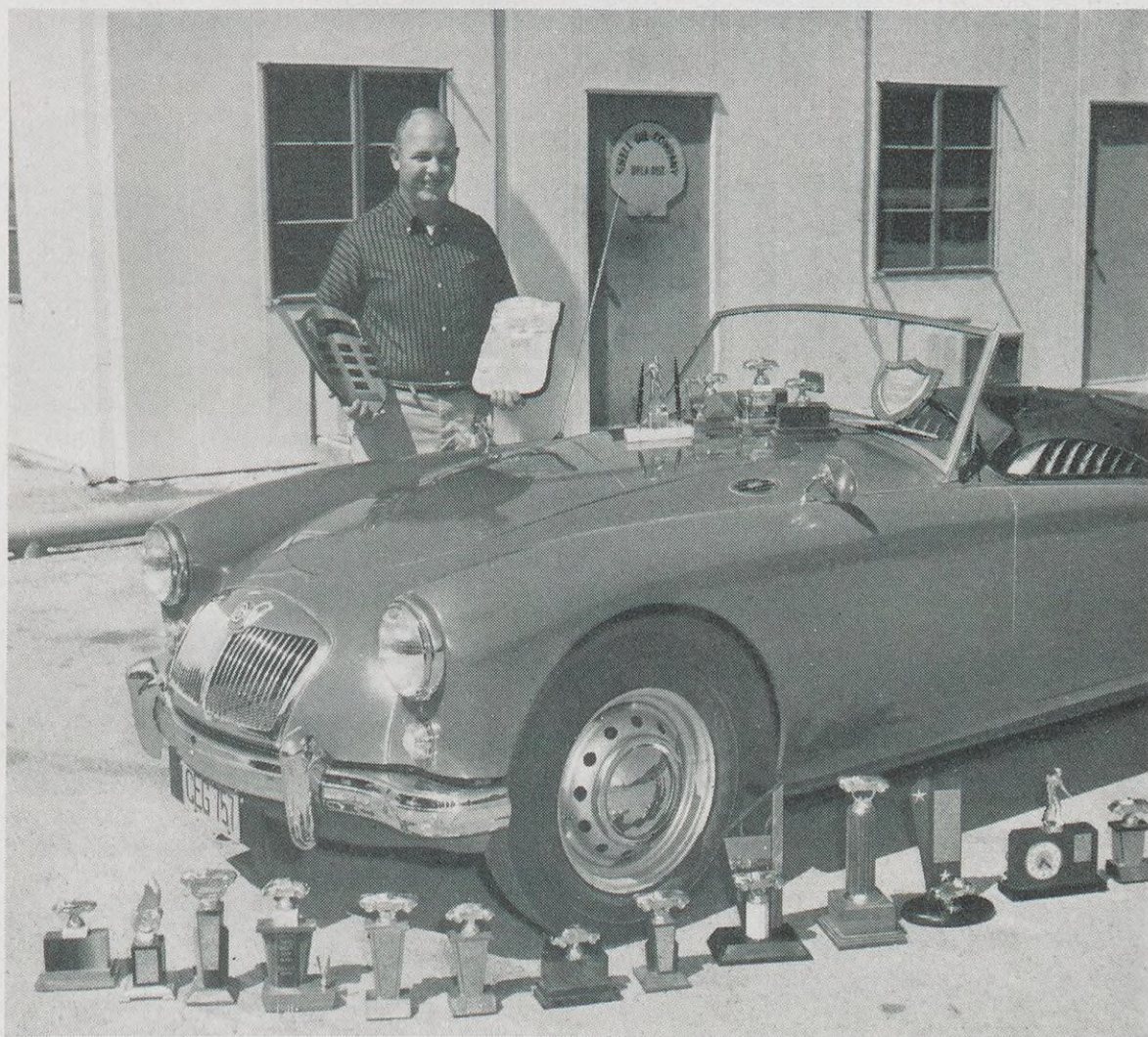
YOUNG LADY WITH DESIGNS

Dress designing is a six-year-old hobby for Bobette Lawrence, 17, daughter of Seismic Engineer R. O. Lawrence of Shell Development Company's E&P Research Division in Houston. She recently won recognition for her talents in the syndicated comic strip, Winnie Winkle. The winning dresses are shown above. At right, Bobette works on new designs.



RALLYE - HO!

Nine trophies were won by Mr. and Mrs. K. E. Himmler during the last year in foreign car competitions, called "rallyes," which test driving abilities over complicated courses. Himmler, Electrician in the Los Angeles Basin Division of the Pacific Coast E&P Area, is shown below with these and other trophies won since he and his wife started their hobby in 1956. In two recent wins they competed against more than 90 foreign car enthusiasts.



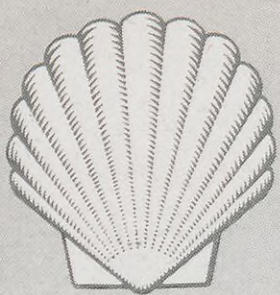
TOP DANCER

Dancing is the hobby of Greta Knutson of the San Francisco Office. She recently won the trophy she is holding below for her many performances with a troupe which entertains at various military bases and hospitals.



WORLD BEATER

Two world indoor track records were set recently by Bill Dellinger, son of Shirley Dellinger of the Portland Marketing Division. Bill toppled the world's indoor two-mile record at the Boston Athletic Association's 70th Annual Track Meet in 8:49.9, six-tenths of a second better than the previous indoor world mark. Later he set a world indoor record for the three-mile run in 13:37.0, cutting the mark made by famed Greg Rice in 1942 by almost seven seconds. Bill, who was on the U. S. Olympic team in 1956, is now a First Lieutenant in the Air Force. He is shown in action at left and with his father above.

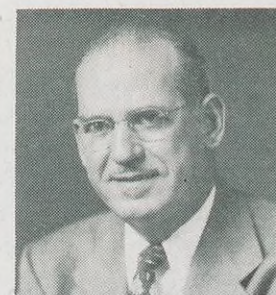


Service BIRTHDAYS

Forty Years



A. P. ROBERT
Norco Refinery
Engineering Field



G. F. WILL
Head Office
Purchasing-Stores

Thirty-Five Years



H. L. BARTON
San Francisco Division
Operations



E. M. BLACK
Wood River Refinery
Dispatching



H. J. LARMER
Wilmington Refinery
Eff. Cont. & Util.



R. L. POWER
San Francisco Division
Operations



R. E. RIEFFER
Pipe Line Department
Harristown, Ill.



R. R. ROBISON
Pacific Coast Area
Production



S. L. SMITH
Pacific Coast Area
Gas

Thirty Years



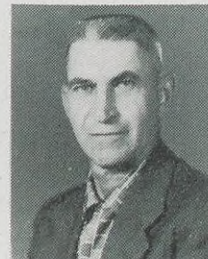
K. E. ADAMS
Tulsa Area
Exploration



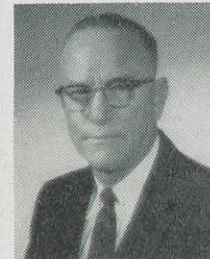
R. N. AINSWORTH
Sacramento Division
Operations



J. O. AWALT
Pipe Line Department
Vandalia, Ill.



V. M. BECK
Wood River Refinery
Dispatching



P. L. BENSON
Houston Refinery
Catalytic Cracking



C. F. BROWN
Wood River Refinery
Lubricating Oils



R. F. CAREY
Boston Division
Manager



R. L. CARTER
Sacramento Division
Sales



C. F. CHURCHILL
Boston Division
Marketing Service



F. D. COSTA
Martinez Refinery
Compounding



R. H. CROSBY
Head Office
Manufacturing



E. S. DARGER
Martinez Refinery
Fire and Safety



MARION A. DOLAN
Boston Division
Marketing Service



A. H. DONABEDIAN
Boston Division
Operations



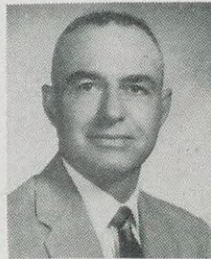
J. C. DONOVAN
Boston Division
Operations



W. C. DOWELL
Minneapolis Division
Administration



MARGARET M. FERGUSON
Head Office
Purchasing-Stores



D. B. GARDNER
Wood River Refinery
Lubricating Oils



A. L. GEER
Shell Pipe Line Corp.
West Texas Division



H. J. GRAY
Houston Refinery
Refinery Laboratory



B. S. GREENSFELDER
Shell Development Co.
Emeryville



V. E. HAMPTON, JR.
Los Angeles Division
Treasury



E. W. HANSEN
San Francisco Division
Operations



LORETTA M. HANSON
Boston Division
Treasury



J. A. HARTMAN
St. Louis Division
Treasury



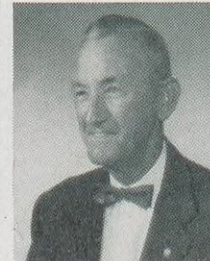
C. J. HENWOOD
Seattle Division
Treasury



B. A. HILL
Wood River Refinery
Dispatching



W. H. HUTTEN
Head Office
Pers. & Ind. Rel.

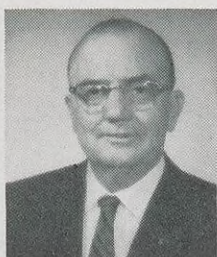


W. H. JACKSON
Houston Refinery
Dispatching

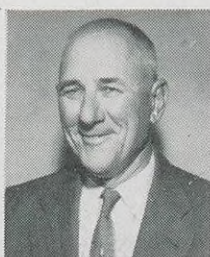


A. J. JOHNSON
Shell Development Co.
Vice President

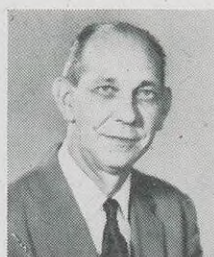
Thirty Years continued



O. R. JOINES
Houston Refinery
Dispatching



E. D. JONES
Tulsa Area
Production



W. B. KING
Wood River Refinery
Lubricating Oils



G. G. MCKENZIE
Cleveland Division
Personnel



W. L. MCKINNON
Shell Development Co.
Houston



D. I. MERINEY
Head Office
Financial



E. J. MIRE
Norco Refinery
Engineering Field



J. K. O'CONNOR
Portland Division
Operations



J. S. PATRICIO
Boston Division
Operations



P. W. PAYNE
San Francisco Office
Marketing Service



R. E. PENDLETON
Houston Refinery
Engineering Field



R. M. POLLARD
Pacific Coast Area
Production



C. A. PRATHER
Wood River Refinery
Light Oil Treating



E. H. QUICKERT
Chicago Division
Marketing Service



R. A. REILLY
Los Angeles Division
Treasury



J. P. ROBINSON
San Francisco Division
Treasury



O. J. ROUSSEL
Shell Chemical Corp.
Norco Plant



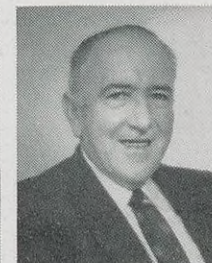
W. D. SETTLEMYER
Portland Division
Operations



G. J. SHAW
Minneapolis Division
Treasury



M. O. SIFFORD
Houston Refinery
Purchasing-Stores



L. J. SNYDER
Houston Refinery
Administration



W. H. STAFFORD
St. Louis Division
Operations



C. J. TAYLOR
Houston Refinery
Dispatching



W. N. TETRAULT
San Francisco Division
Sales



ELIZABETH M. UHL
Cleveland Division
Treasury



S. B. WAITE
Head Office
Financial



C. E. WALKER
Houston Refinery
Treasury



R. M. WANDLING
Wood River Refinery
Engineering Office



F. C. WILSON
Head Office
Purchasing-Stores



R. L. WARD
Houston Area
Production

Twenty- Five Years



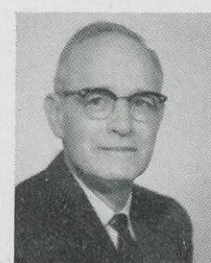
O. B. ALLISON
Los Angeles Division
Operations



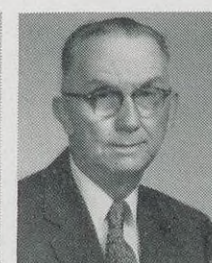
F. D. BAILEY
Tulsa Area
Production



R. L. BANKER
Head Office
Financial



E. C. BARTLETT
Shell Chemical Corp.
Martinez Plant



T. R. BOLING
Houston Area
Production



A. CARDOZA
Shell Development Co.
Emeryville



L. A. CASSNER
Houston Refinery
Gas



D. L. CLEVELAND
Wilmington Refinery
Alkylation



E. B. COLLINS
Head Office
Financial



C. E. DELK
Houston Area
Production



W. J. DIESTELHORST
Wood River Refinery
Light Oil Treating



M. S. DUDLEY
Tulsa Area
Production



T. S. EDRINGTON
Midland Area
Exploration

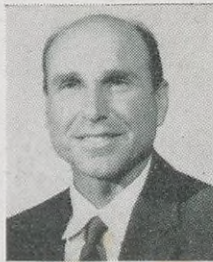


G. N. ERICKSON
Pacific Coast Area
Production

*Twenty-
Five
Years
continued*



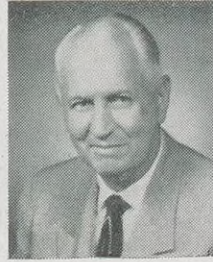
W. A. FLETCHER
Houston Area
Production



J. FONTANA
Martinez Refinery
Compounding



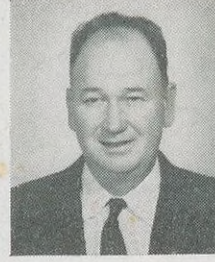
G. P. FORBES
Shell Chemical Corp.
Head Office



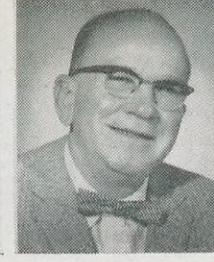
H. T. GAFFNEY
Pacific Coast Area
Purchasing-Stores



H. L. HANCOCK
Indianapolis Division
Operations



H. W. HARWELL
Shell Chemical Corp.
Shell Point Plant



V. HEWITT
Portland Division
Operations



H. S. HICKS
Anacortes Refinery
Administration



R. L. HIGDON
Tulsa Area
Production



F. J. HOWARD
Midland Area
Gas



G. HUNGERFORD
Pacific Coast Area
Transport



M. W. HURLEY
Pacific Coast Area
Exploration



C. S. JENSEN
Pacific Coast Area
Production



R. H. KEESEE
Pacific Coast Area
Production



W. KROSKY
Albany Division
Operations



W. J. LASCOE
Wood River Refinery
Engineering Field



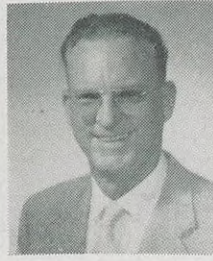
A. M. LAWRENCE
New Orleans Area
Transport & Materials



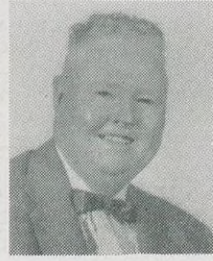
C. A. LOKER
Sacramento Division
Operations



W. R. MAC KAY
Detroit Division
Sales



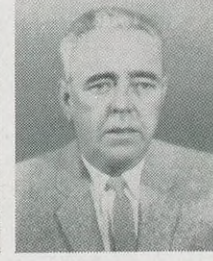
G. L. MATSON
Houston Refinery
Engineering Field



J. A. McCORMICK
Shell Pipe Line Corp.
Mid-Continent Division



N. J. MELVILLE
Shell Pipe Line Corp.
Mid-Continent Division



M. L. MILLARD
Boston Division
Operations



O. H. MILMORE
Shell Development Co.
Emeryville



A. E. MYERS
Head Office
Marketing



P. NASH
San Francisco Division
Operations



G. M. NEILSON
Pacific Coast Area
Production



E. O. OSBURN
Houston Area
Production



D. C. PARRIOTT
Pacific Coast Area
Production



J. O. ROLLINS
Houston Refinery
Engineering Field



A. T. RYLANDS
Denver Area
Production



J. J. SANKO
Martinez Refinery
Compound



W. F. SCHOENTHALER
Head Office
Transp. & Supp.



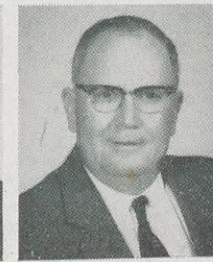
T. M. SHIELDS
Shell Chemical Corp.
Torrance Plant



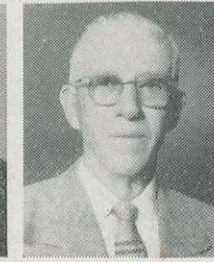
E. D. SMITH
Pacific Coast Area
Production



G. H. STARRITT
New Orleans Area
Transport & Materials



H. F. STILLWELL
Shell Pipe Line Corp.
West Texas Division



W. T. THOMAS
Midland Area
Production



T. A. TIERNEY
St. Louis Division
Marketing Service



M. E. TIMMER
St. Louis Division
Treasury



W. W. TRIPP
Boston Division
Operations



R. L. WATERS
Wood River Refinery
Light Oil Treating



G. T. WELIN
Wilmington Refinery
Refinery Laboratory



E. A. WILKINSON
Martinez Refinery
Dispatching



J. L. WILSON
Shell Pipe Line Corp.
Mid-Continent Division



C. E. YORK
Houston Area
Transport



T. YOUTSEY
Tulsa Area
Production

matters of fact



COVERED

Wrapped in the security of his blanket is Master Vincent Perry, Jr., who is six months old, tips the scales at 17 pounds and, like most babies, has an endless supply of energy.

Young Vincent's future also is well covered because his father, as a Shell employee, has a "blanket of security" in the form of a wide range of benefits which provide protection for his entire family. These benefits are kept up to date by periodic review to assure that Shell employees and their families will continue to have a comprehensive program of benefits.

SHELL OIL COMPANY

50 West 50th Street
NEW YORK 20, N. Y.

RETURN POSTAGE GUARANTEED

J. B. Bradshaw

10231 Eddystone Dr.
Houston 24, Texas

SPL

BULK RATE

U. S. POSTAGE

PAID

New York, N. Y.
Permit No. 1101

LANDMARKS OF PROGRESS



The Sewaren Plant

The 165-acre Sewaren (N. J.) Plant, strategically located in the port of Greater New York, ships a wide variety of petroleum and chemical products via truck, barge, rail and pipe line to markets, as shown on the map below.

The Plant was opened in 1929 as a deep-water terminal to receive, store and distribute gasoline and other products. Although this function is still the most important part of Sewaren's operations — throughput has risen from 12,000 to 65,000 barrels a day—other facilities have since been added. A compounding plant was installed in 1932 to convert lubricant base stocks into consumer products. This plant, enlarged several times since, turned out a million barrels of products last year.

Other facilities at the Sewaren Plant include: an asphalt plant, a control laboratory, and storage capacity for 3½ million barrels of gasoline, lubricants, asphalt and other products. The Plant also handles several million gallons of Shell Chemical Corporation products every month.

Sewaren ships gasoline, lubricants and other finished products to plants and customers of the Marketing Divisions it serves.

The 442 men and women employed at the Sewaren Plant use a wide range of knowledge and skills in operating Shell's largest marketing installation.

