SHELL NEWS

THE MIGHTY

WAR LOAN

MAY • 1945

V-E DAY

THIS is a solemn but a glorious hour. I only wish that Franklin D. Roosevelt had lived to witness this day. General Eisenhower informs me that the forces of Germany have surrendered to the United Nations. The flags of freedom fly all over Europe.

For this victory we join in offering our thanks to the Providence which has guided and sustained us through the dark days of adversity.

Our rejoicing is sobered and subdued by a supreme consciousness of the terrible price we have paid to rid the world of Hitler and his evil band. Let us not forget, my fellow-Americans, the sorrow and the heartache which today abide in the homes of so many of our neighbors —neighbors whose most priceless possession has been rendered as a sacrifice to redeem our liberty.

We can repay the debt which we owe to our God, to our dead and to our children only by work—by ceaseless devotion to the responsibilities which lie ahead of us. If I could give you a single watchword for the coming months that word is—work, work, and more work.

We must work to finish the war. Our victory is but half won. The West is free, but the East is still in bondage to the treacherous tyranny of the Japanese. When the last Japanese division has surrendered unconditionally, then only will our fighting job be done.

We must work to bind up the wounds of a suffering world—to build an abiding peace, a peace rooted in justice and in law. We can build such a peace only by hard, toilsome, painstaking work—by understanding and working with our allies in peace as we have in war.

The job ahead is no less important, no less urgent, no less difficult than the task which now happily is done.

I call upon every American to stick to his post until the last battle is won. Until that day, let no man abandon his post or slacken his effort.

HARRY S. TRUMAN,
President of the United States of America.
May 8th, 1945.

SHELL NEWS

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

MAY • 1945 VOL. 13 • No. 5

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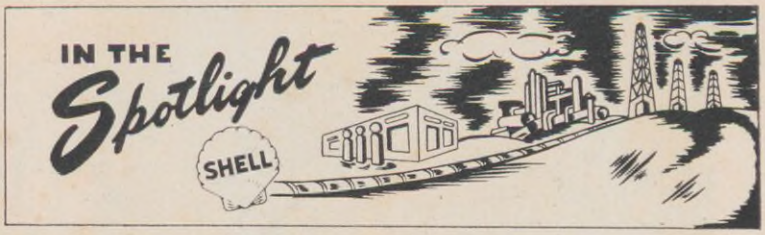
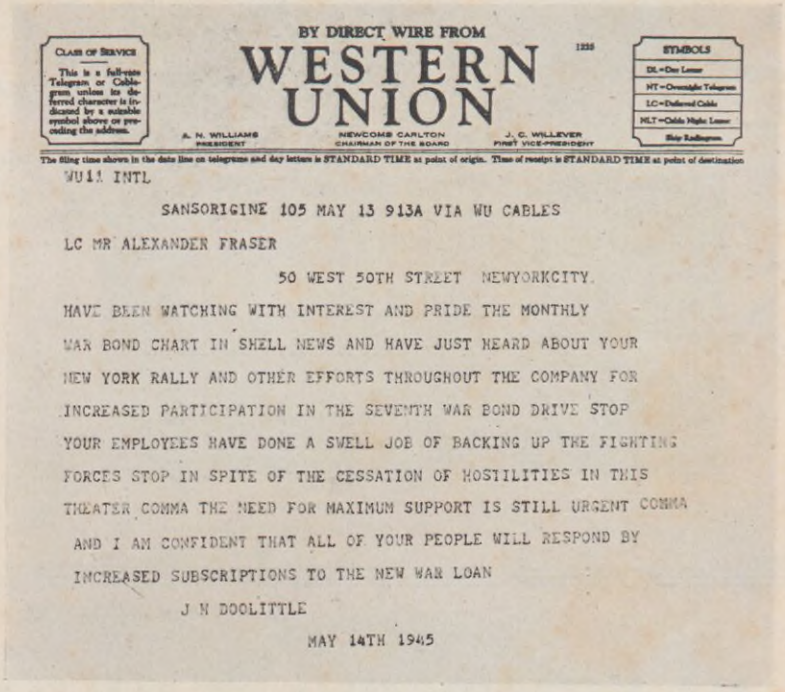
Published by Shell Oil Company, Incorporated, (Alexander Fraser, President; E. C. Peet, Vice-President, Treasurer; C. S. Gentry, Vice-President, Secretary), for its employees and those of Shell Pipe Line Corporation, Shell American Petroleum Company and Shell Union Oil Corporation. Address communications to the Industrial Relations Department, Shell Oil Company, Inc., 50 West 50th St., New York 20, N. Y.





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LC MR ALEXANDER FRASER

50 WEST 50TH STREET NEWYORKCITY.

HAVE BEEN WATCHING WITH INTEREST AND PRIDE THE MONTHLY WAR BOND CHART IN SHELL NEWS AND HAVE JUST HEARD ABOUT YOUR NEW YORK RALLY AND OTHER EFFORTS THROUGHOUT THE COMPANY FOR INCREASED PARTICIPATION IN THE SEVENTH WAR BOND DRIVE STOP YOUR EMPLOYEES HAVE DONE A SWELL JOB OF BACKING UP THE FIGHTING FORCES STOP IN SPITE OF THE CESSATION OF HOSTILITIES IN THIS THEATER COMMA THE NEED FOR MAXIMUM SUPPORT IS STILL URGENT COMMA AND I AM CONFIDENT THAT ALL OF YOUR PEOPLE WILL RESPOND BY INCREASED SUBSCRIPTIONS TO THE NEW WAR LOAN

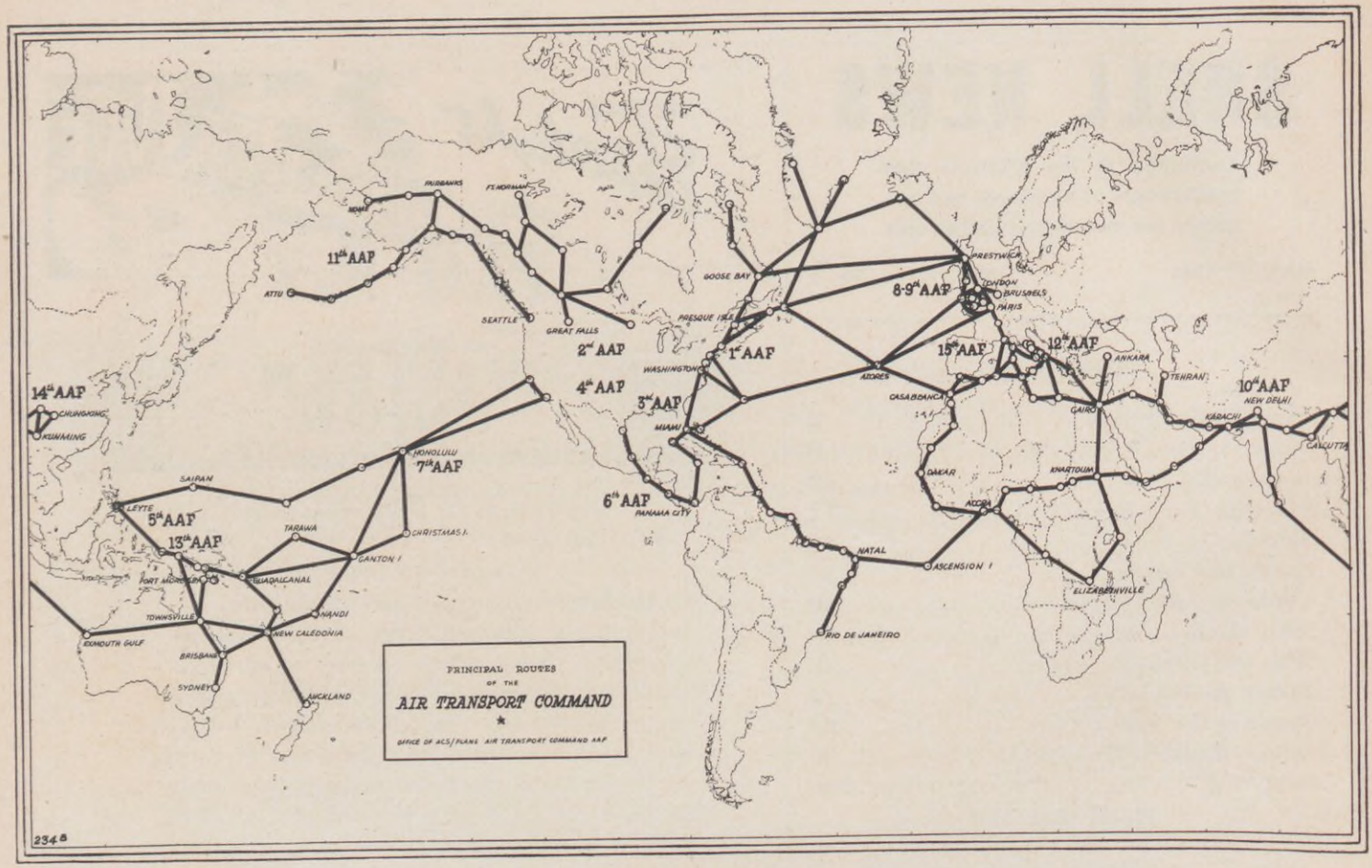
J N DOOLITTLE

MAY 14TH 1945

General Doolittle's cablegram expresses in his own words the importance of the 7th War Loan. Three years and one month have passed since the electrifying news flashed to the world that Jimmy Doolittle had led seventy-nine other fliers on a raid over Tokio. This was the first offensive blow in the Pacific war . . . a war that still has to be fought and won.

In the three years that have elapsed, America's fighting forces have regained much of the land which the Japs conquered. Today our fighting forces are back in the Philippines—ready to launch an all-out attack on the Japanese Empire.

Lt. General James H. Doolittle, one of the thousands of Shell men on military leave, has fought in the Pacific, Mediterranean, and European theatres. He knows the importance of the Seventh War Loan. Don't let him down, don't let any member of the armed forces down—Buy an extra bond in the mighty Seventh!



Where the ATC flies.

FLIGHT TO EVERYWHERE

by Alan Miles

Many Shell employees are among the men and women in the armed forces who make up the Air Transport Command, one of the newest branches of the services.

NOW that the war in Europe has come to a successful conclusion one of the chief jobs ahead is to transport millions of fighting men to the Pacific. During the rest of this year an average of 50,000 men a month will be flown from Europe to the United States and then to the Pacific in planes of the Air Transport Command. But this is just one job of many performed by an organization which has been in existence barely four years.

On the 28th of May, 1941, a little more than six months before Pearl Harbor, the President sent a letter to the Secretary of War directing the Army to assume full responsibility for delivering aircraft to the United Kingdom. The following day the late Major-General (then Colonel) Robert Olds was assigned the task of formally establishing the Ferrying Command, since designated the Air Transport Command.

On June 7th, exactly six months before the Japs attacked the United States, the first ferrying order was issued and two days later a command pilot winged away from a factory to make the first delivery. Before the month of June was over the Command had opened a North Atlantic route, and within another month had successfully surveyed African routes.

At first the ATC consisted of two officers, four enlisted men, a map of the world and a job that had to be done. In four years it has developed into the largest air transport system known. The ATC carries key personnel and vital material, and flies combat planes, to all of the theatres of war. It brings back casualties from battlefronts to American hospitals and flies strategic materials from all over the world to home-front war plants. It does this and does a thousand other jobs.

Today these thousand-and-one activities require more than 200,000 officers, enlisted men and women, and civilians. At any moment of the day or night there are at least 500 ATC transports in the air. Their routes traverse the Sahara, the Himalayas, the islands of the South Seas, all the continents, the Arctic, and the land and water in between.

Under the present direction of Lt. General Harold L. George, these unarmed planes operate in nine foreign divisions. The ATC has its own banking and foreign exchange system, medical units, chaplains, restaurant and hotel systems, and the many other parts which go to make up the whole.

The statistics about the ATC would make a mathematician's head whirl. Every twenty-four hours its planes fly almost 2 million miles; most of the trips in overseas flights or over foreign lands. The total distance traveled last year was approximately 600 million miles, equivalent to 24 thousand trips around the world at the equator. ATC planes cross the Atlantic once every 19 minutes and the Pacific once every 51 minutes.

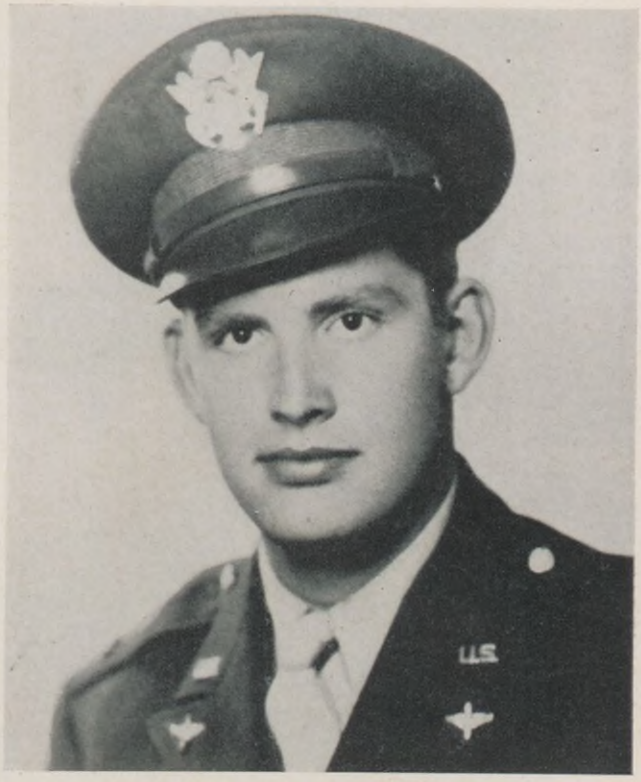
The virtues of speed, flexibility, and elusiveness are the keynotes of air transport in wartime. It is the only existing method of getting certain supplies into some parts of the world. And it is the fastest method of getting them anywhere.

The ATC uses four principal planes: C-47 (Skytrain), C-46 (Commando), C-54 (Skymaster), and the C-87 (Liberator). Losses of planes have been extremely small in both ferrying and transport operations. In 1944, the ATC made safe delivery of 99.7 percent of all the planes it accepted for delivery. ATC transported more than 580 thousand tons of high priority cargo safely abroad, as well as 3½ billion pieces of troop mail. During the first six months of last year an additional 15 million pounds of strategic materials were flown back to the U. S. from abroad . . . all of them arrived in good shape.

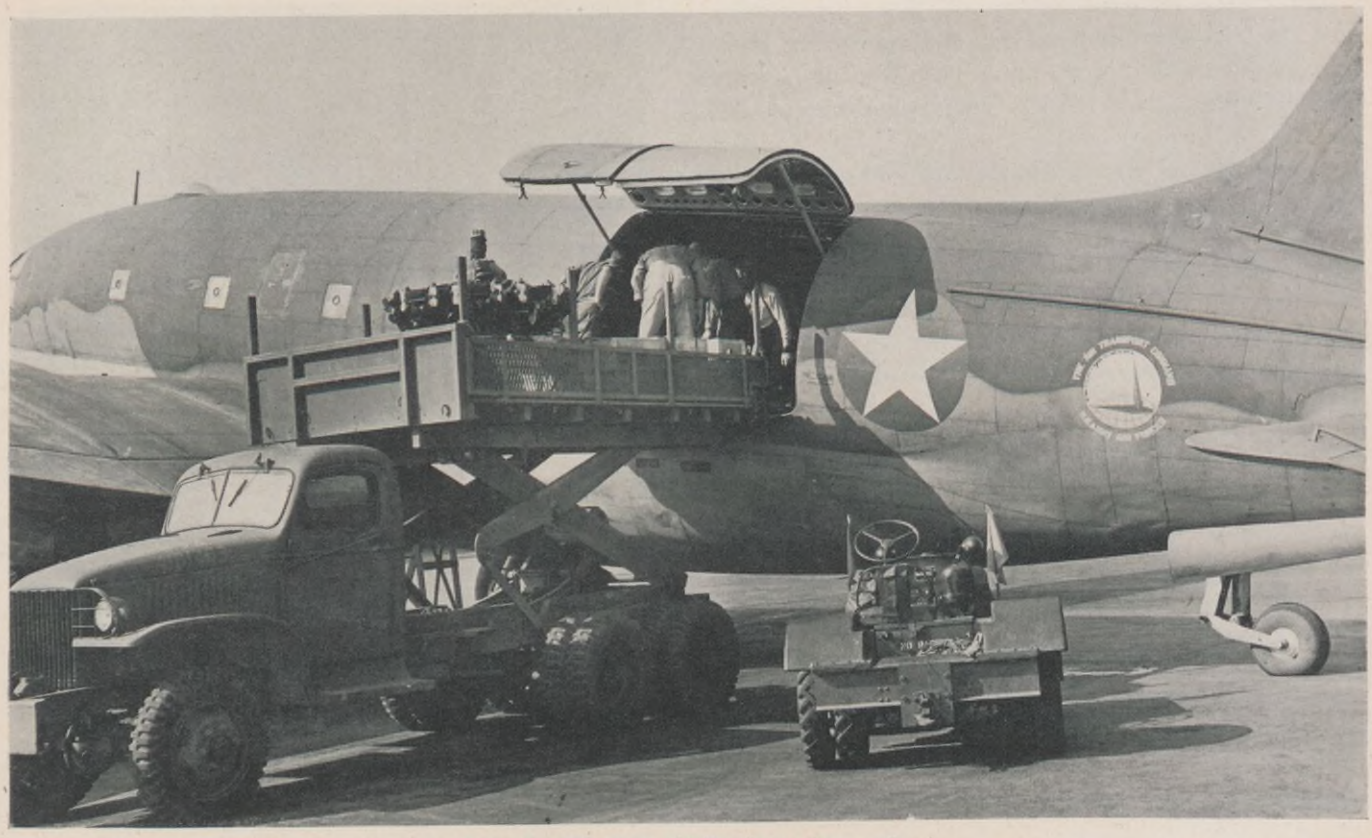
Among the Shell employees with the ATC are:

Lt. Lane R. Baird, Mid-Continent Area
Pvt. Wilbur F. Bird, Wood River Refinery
Cpl. Charles A. Brooks, Wood River Refinery
Major J. A. Carville, Jr., Norco Refinery
Pfc. Harold Cockburn, Mid-Continent Area
Master Sgt. M. A. Englebrecht, Houston Refinery
Cpl. Orion W. Green, Wood River Refinery
Pfc. Lester Jennings, Wood River Refinery
Cpl. Alfred P. Johnson, Texas-Gulf Area
Cpl. E. S. Johnson, Norco Refinery
Lt. J. A. Mawhinney, New York Marketing Div.
Sgt. V. R. McCubrey, Boston Marketing Division
Lt. Garland F. Smith, Texas-Gulf Area
Pfc. Charles E. Stone, Wood River Refinery
Lt. Rex Tucker, Houston Refinery

Cpl. Orion Green of Wood River Refinery is in a Petroleum Section of the ATC somewhere in the European theatre.

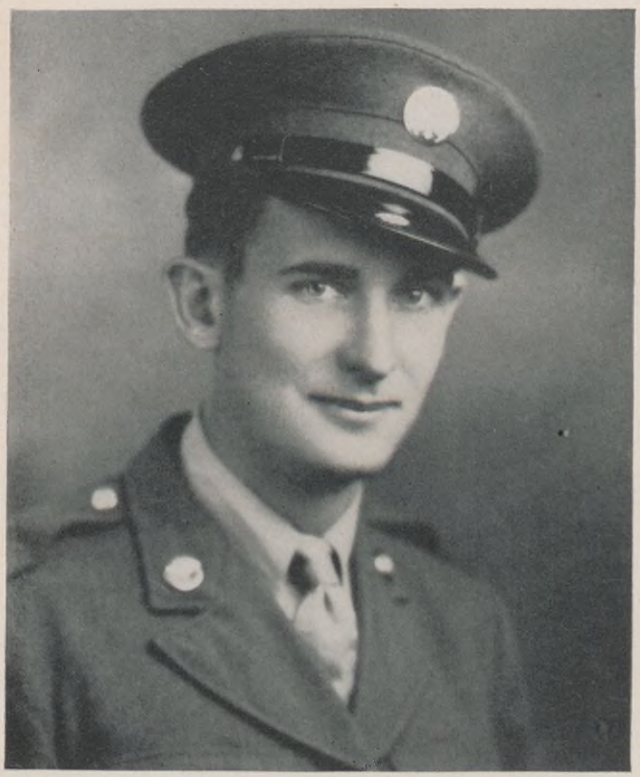


Captain J. F. Klein of Wood River flew the Atlantic 14 times in the past six months. His plane evacuated patients from a French hospital to Presque Isle, Maine.



Loading an ATC plane. (Official Air Forces photo)

A C-54 in flight. (Official Air Forces photo)



Master-Sergeant Marquard A. Engelbrecht of Houston Refinery is at an ATC base in India.

Before the war the air route between New York City and Chicago was considered one of high traffic density. Today, between certain points in overseas theatres, the ATC is operating some four to five times as many daily trips as ever operated between New York and Chicago. The daily crossings of the Atlantic approach the great pre-war density of the New York-Chicago air route.

ATC's architects recently designed the first air terminal built specifically for international air traffic. The ATC Terminal in Washington, D. C. combines utilitarian purpose with modernistic design to create a complete, single unit able to handle all of the intricacies involved in international travel in these war days. Customs, immigration, medical services, passenger briefing, baggage handling, censor, FBI, Army Intelligence, transient services, and the actual arrivals and departures are handled in this single terminal.

HOTEL DE GINK

Have you heard of the Hotel De Gink? To several million people the hotels De Gink are as well known as New York's Waldorf, the Claridge in London, or the Ritz in Paris. As a matter of fact, the latter hotel now has the less elegant name of De Gink since it has become a part of the world's largest hotel chain . . . operated by the ATC. There are De Gink hotels in almost every one of the United Nations; some are in familiar places such as Cairo, Naples, Guam or Marseilles, others are located in little heard of Funafuti, Kiwani, Sharjah, Wadi, or Yof. The De Gink hotels are really varied in types. They range from luxury hotels in Miami and Casablanca, and the aforementioned Ritz, to thatched jungle billets, Nissen huts, wooden barracks or canvas tents. But important as it is to operate the world's largest chain of hotels, nevertheless the De Gink system is merely a minor segment of the overall task of its operators . . . the AAF's Air Transport Command.

THE WOUNDED

At present more than 4000 sick and wounded troops are flown to the States each month. Those flown from the European theatre present no particularly difficult problem. But the Pacific, scene of most future wartime transportation problems, presents a special challenge because of the long over-water hops. In four great island "jumps," the planes of the ATC can span the Pacific to bring the wounded and battleweary home from the Philippines in less than two days. The average patient flies approximately five thousand miles.

The command's own flight surgeons are active along all routes seeing to it that modern medical attention is available at all stopping points. In the aerial transport of the wounded from Makin, Tarawa, Kwajalein, Saipan, and the Philippines, only one patient was lost while in flight.

Each ATC medical squadron consists of four flights (groups) with each composed of six nurses, six medical technicians, one surgeon, one supply clerk and one administrative clerk. These teams average 350 hours of flying time for every three months period. During that same time ATC pilots are limited to 300 hours flying time.

The hospital ships are either C-47s which can carry 18 litter cases or the C-54s which can carry 28. Generally the patients are both litter cases and ambulatory.

The average ATC nurse has had civilian experience of several years and has been in the Army for two or three years. The Flight Nurse must have her patients ready a half-hour before takeoff time. She then oversees the loading, assisted by a technician. Ambulances back up to the plane and the litters are lifted on, then strapped firmly into place without jarring the patient. The nurse sees that hot coffee, soup, sandwiches, candy and chewing gum, are loaded along with medical equipment, magazines, and games. After the takeoff, she goes to work seeing that every patient is comfortable and happy. Air sickness capsules are given out when needed.

Medical care for ATC's personnel and passengers is also available round-the-world. All passengers are immunized, briefed in first aid and the use of oxygen, and in survival techniques for the climate and terrain into which they journey.

Lt. Rex Tucker (right) of Houston Refinery is an officer with the ATC in England. He is shown at his desk in an ATC office.

This is an outside view of the same office. (Official Air Forces photos)

CHAPLAINS

There are 140 chaplains attached to the ATC. They are stationed in all parts of the world to minister to the spiritual needs of ATC personnel, and to the millions of travelers who are borne over the routes. On foot or horseback, by dogsled or airplane, they share hardships with the men.

One of the duties of the ATC chaplains is meeting the many hospital planes that fly from the battlefronts to hospitals and rest camps in the States. In all kinds of weather and at all hours of the day and night, the ATC chaplain must be on hand.

Since there are not sufficient chaplains to assign one to every ATC station several chaplains make their rounds by air, thumbing rides from one station to another; holding services in the morning, afternoon, and night.

FOOD FOR MILLIONS

ATC messes at all ports of call are on a 24-hour service basis. Air travelers arriving and leaving at all hours are given hot meals. Prices, for non-military personnel, are kept at a minimum, even though facilities for feeding vary in different sections of the world. Snack bars are located at most of the stopover points.

In 1944, 15 million meals were served at terminals and hotels and another 2 million were eaten on long hops over oceans, deserts, mountains, or jungles. One recent ATC "passenger" was a cow flown to a remote base along the coast of the Indian ocean to provide fresh milk for personnel of the station.

JOBS WITHOUT END

Many and varied are the other tasks of the ATC. A recent achievement of which they are justly proud is the flying of 18 five-ton locomotives to Burma from Miami. This required only 27 planes. The India-China Division created a new record in January of this year when it moved more than 44 thousand tons of supplies over the Hump, most hazardous airway in the world. This was more than four times the goal set less than two years ago.

Six thousand American soldiers who fought on the European fronts this year will not soon forget the ATC. The six thousand were among the replacements ordered overseas to help meet the emergency of the German offen-

sive late last year. Originally it appeared that all furloughs had to be cancelled. But by the specific direction of General Marshall all were given special emergency furloughs.

Except for those men whose homes were near their camp, ordinary transportation means would not suffice because of the lack of time . . . it was necessary to resort to air travel. Acting on orders from AAF Headquarters in Washington, the ATC, in cooperation with the First Troop Carrier Command and the Army Ground Forces, in one all-night session prepared a detailed plan for 657 flights in 400 transport planes to carry the infantrymen from twelve Replacement Camps to 39 selected centers in various parts of the country. When the furloughs were over the men were then flown to an east coast camp from which they were rushed overseas. The average distance each soldier flew was 2500 miles.

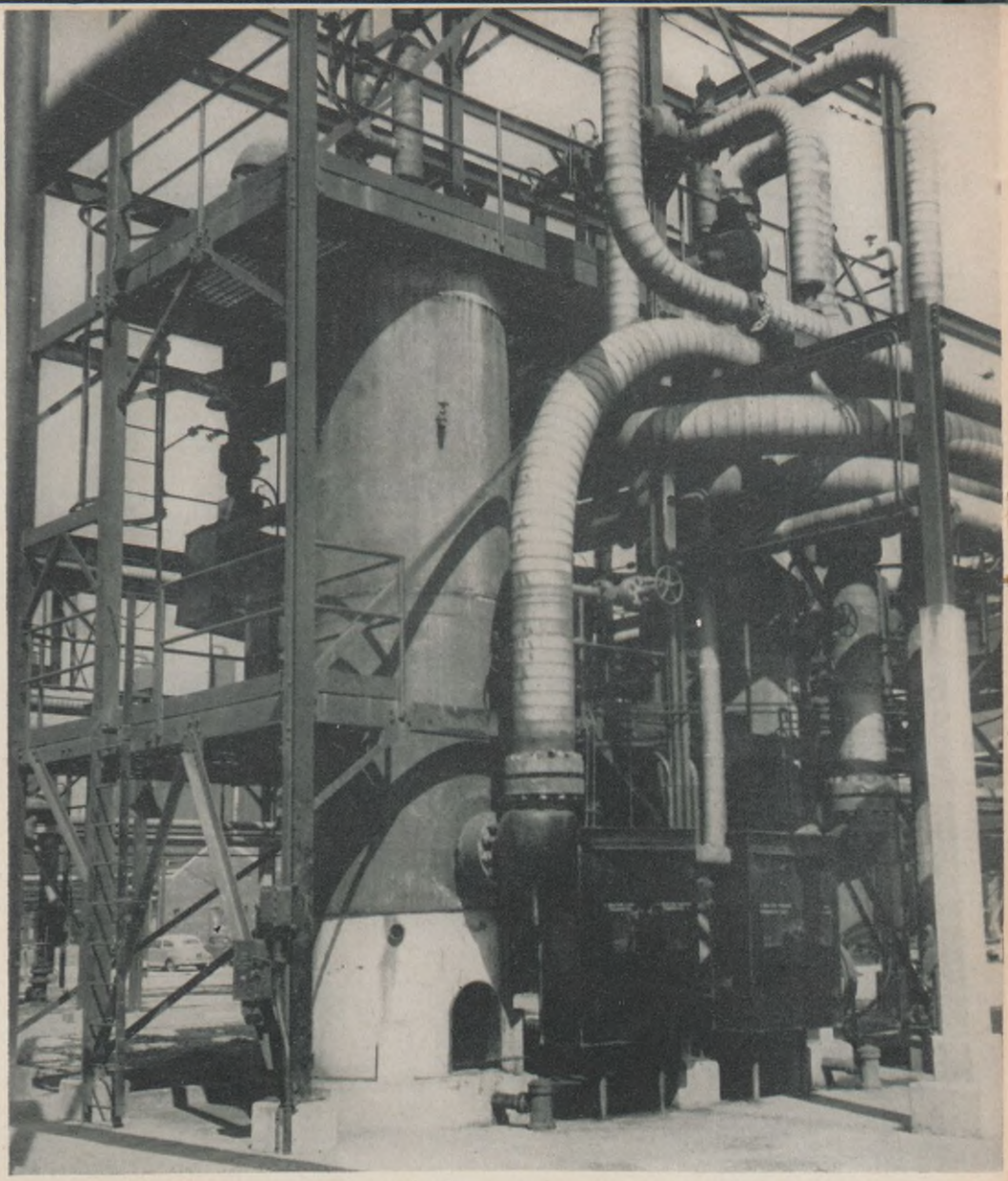
To the ATC this was just "another job" . . . and now the resources of the more than 200,000 men and women are joined together to fly men and material to the Pacific to bring nearer final victory.

Lt. J. A. Mawhinney of the New York Marketing Division is also overseas with the ATC.

Pipe was urgently needed in Calcutta . . . a C-47 flew it overseas for the ATC. (Acme)

MAGIC POWDER

by Herbert Squires



Reactors in catalytic hydrogenation base unit—alkylation department, Wood River Refinery.

ELEVEN years ago this month, when 100-octane gasoline was first delivered to the Army, approximately 42 gallons of crude oil would yield only one-fifth of a gallon of the aviation fuel. Today, the same amount of crude will yield at least 20 times that much. Catalytic cracking (the breaking down of petroleum fractions with the aid of a catalyst) is largely responsible for this increase of about 2000% in the production of 100-octane.

If the word "catalysis" sounds like Greek to you, that isn't surprising at all . . . it is Greek. And it means the speeding up (or hindering) of a chemical reaction by a substance (a catalyst) which itself undergoes no permanent change. A small amount of catalyst can aid the reaction of large quantities of other materials, while it theoretically remains unchanged. Actually there are limitations on the power of a catalyst. Its life may be shortened either by disintegration or by side reactions which take place during a large operation. Parts of a catalyst may, for example, become blackened with coke (the hard residue in certain refining processes) and then be lost in the necessary removal of this coating before the catalyst can be used again.

More and more, catalytic action is becoming synonymous with speed, cutting valuable minutes and even hours from chemical operations. This action also helps to simplify an operation. A demonstration of this simplification is Shell's isomerization of the petroleum gas, butane.

Isomers are compounds which have the same percentage composition and molecular weight but are different in their construction and function. To draw a parallel let us visualize the building of two sheds . . . each with the same amount and kind of lumber. If the two sheds are to serve different purposes each may have to be constructed differently; perhaps one will be square, the other rectangular. In the minute molecular world of chemistry, where atoms are the building material, such

similar and yet different structures are built. They are isomers.

When the component atoms of an isomer are rearranged, its function and character change. For example, iso-butane (one of the ingredients of aviation fuel) is an isomer of butane. Without the aid of a catalyst, the conversion of butane to iso-butane would require exceptionally high operating temperatures. The presence of the catalyst, however, enables the conversion to take place under moderate temperatures, thus simplifying the process considerably.

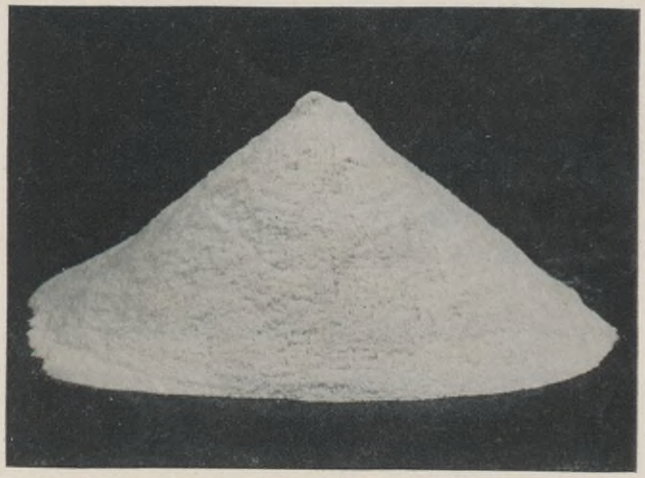
When a material is capable of undergoing several chemical changes at one time, catalysts help control the type of reaction desired. A feed stock such as gas oil becomes more valuable when a catalyst is used. When this oil is fed into a heating chamber it produces gas, gasoline, heavy oils and coke. The catalyst may accelerate the production of anti-knock components within the gasoline.

Let's see what actually happens in an operation. In the twin "cat" crackers at Wood River Refinery, silica alumina, a yellowish gray clay, is introduced as a fine powder into a cracking cylinder where the reaction is to take place. This cracking operation is known as a fluid bed process because the catalyst has the easy-moving qualities of a liquid in spite of the fact that it is really a powder. It is carried into a reaction chamber with the oil, which vaporizes in the pipes. This mass seethes and bubbles inside the reaction chamber until the light fractions, used for aviation fuel, pass off through special pipes. The catalyst, by that time, almost completely blackened with coke, is drawn off at the bottom of the cylinder.

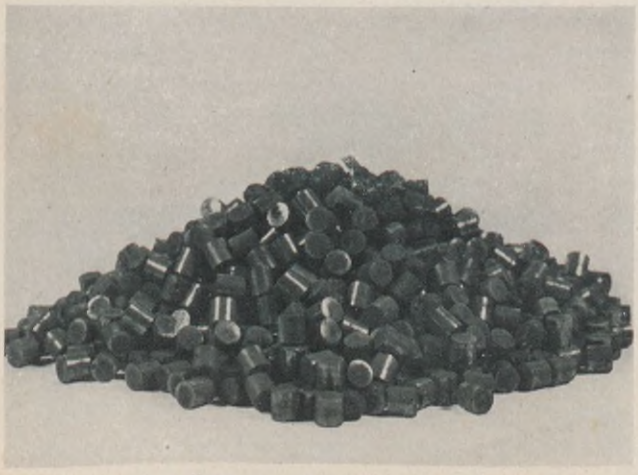
A steam chamber separates the gasoline vapor from the catalyst as it leaves the reactor; the coke is then removed by burning, and the regenerated catalyst is piped back to the cracking cylinder. In the fixed bed process a solid pellet-type catalyst lies in the reaction chamber; when it has become coked the process in that reactor is temporarily discontinued to allow burning of the coke from the catalyst.

There are many other applications of catalysts in petroleum refining and in the manufacture of chemical by-products. One of these, alkylation, differs from the ordinary industrial catalyzation because it employs a liquid, sulphuric acid, rather than the usual powdered or solid catalysts. In this process light olefins (hydrocarbons not present in crude petroleum, but found in gases from thermal and catalytic cracking plants) are combined with isobutane to make alkylate, a very desirable component of aviation gasoline.

But not all catalysts are useful. Certain metals, sometimes used in engines, act as harmful catalysts by increasing the rate of oxidation of gasolines and lubricating oils. They reduce the quality of gasoline, causing it to

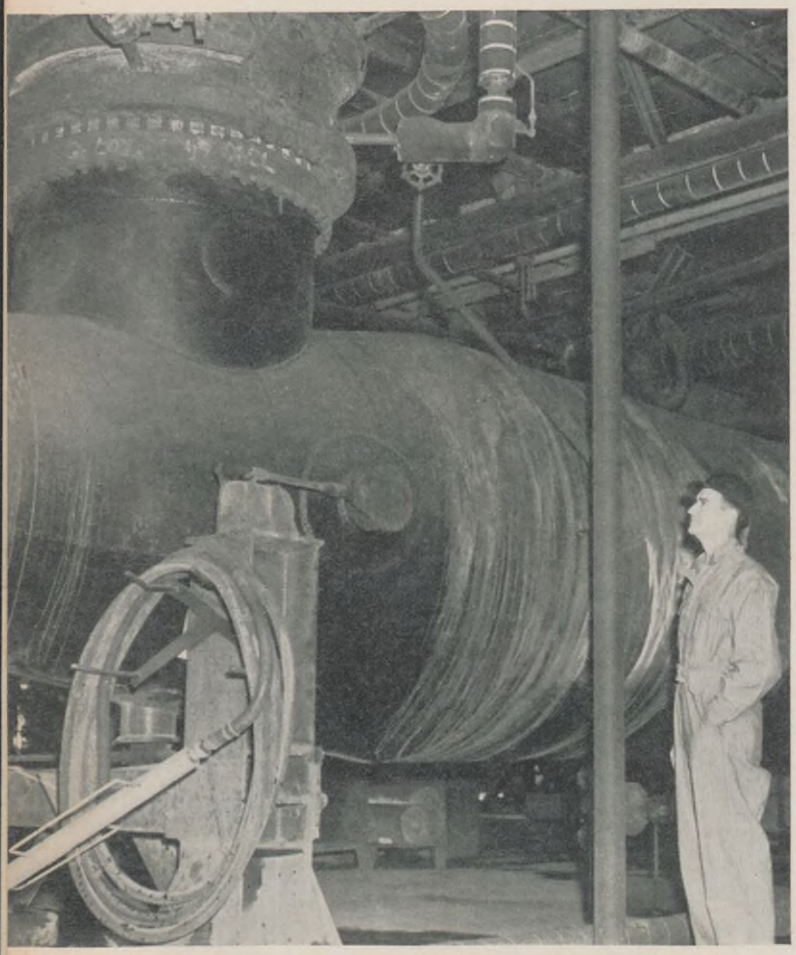


Fresh white powdered catalyst used in twin catalytic cracking units.

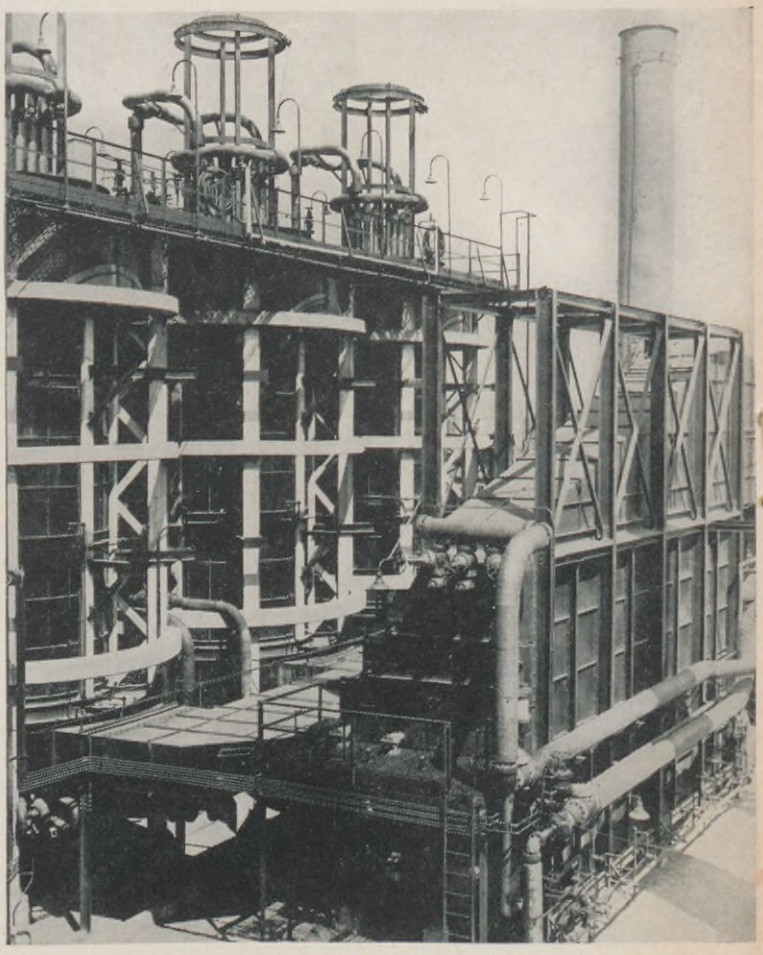


Solid 1/4-inch pellet-type catalyst (black) used at catalytic base hydrogenation unit; also used at synthetic toluene plant.

Regenerated catalyst (gray in color) after being used in catalytic cracking unit.



Spent catalyst carrier line—catalytic cracking unit.



Reactors, left background, and economizer, right foreground—synthetic toluene plant.

(All photos are of Wood River Refinery)

deposit gum or decrease in octane number . . . and also necessitate more frequent oil changes.

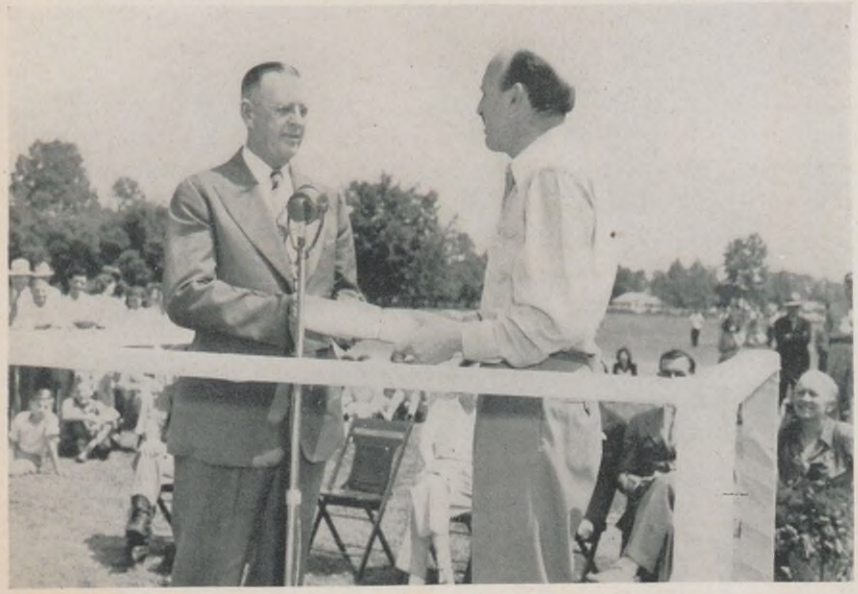
These non-beneficial catalysts must be hindered or "poisoned." To do that an anti-catalyst is employed, which reacts with the catalyst to make it inactive. More often, however, materials known as inhibitors are called into play. They are the anti-oxidants added in very small amounts to gasoline and oils; in storage or in engines the inhibitors keep petroleum products from getting gummy.

Shell scientists and engineers have studied the effect of catalysts for years, but it still is difficult to understand just why they work . . . but they do. Solid or powdered . . . they act on the same principle, "adsorption." To adsorb means to hold at the surface. When a molecule of the reacting substance touches the surface of a catalyst a chemical bond is created between them. The catalyst has been compared to a magnet. It picks up the reactant and holds that substance on its surface, as a magnet picks up steel pins . . . without altering its own appearance or composition. Then another reacting material comes along and combines with the first, while the catalyst remains aloof.

The property of adsorption is possessed by many substances which are not catalysts. A catalyst has the additional advantage of forming a bond of such nature that it makes the subsequent chemical change easier. After the reaction occurs between the adsorbed molecules the product escapes from the catalyst's surface . . . as if a hand had brushed the pins from the magnet.

The selection of catalysts for specific reactions is still a matter of trial and error, but progress is being made as a result of continuing studies. New uses for catalysts are being found, and technologists are specializing in catalysis. They are opening the future to broader uses of substances which have been long known. Positive catalysts which have speeded the making of petroleum products and inhibitors which have kept those products in usable condition . . . along with many other varieties . . . will aid peacetime industry.

NORCO REFINERY'S 25th ANNUAL PLANT DAY



Paul Trepagnier receives 25 year service awards for employees from W. B. Stewart, Manager of the Refinery.

Harry Dufresne, president of the Norco Employees Association, with Mrs. Jimmy Doolittle and Stewart.

A portion of the crowd watching some of the proceedings from the main grandstand.

The annual golf tournament on the Norco links was a feature for employees and visitors.

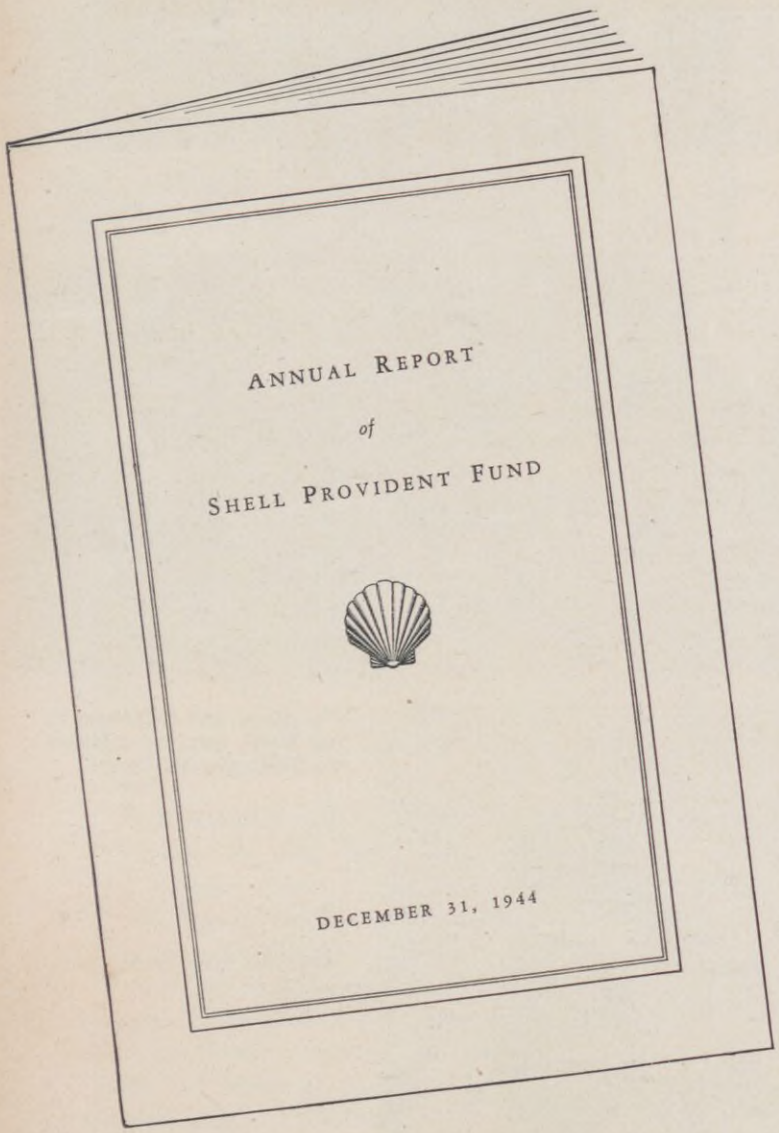
Alexander Fraser addresses the crowd.

ANNUAL REPORT OF SHELL PROVIDENT FUND

MEMBERS of the Shell Provident Fund had a total investment of $27,987,738.52 in the Fund on December 31, 1944, according to the annual report which has just been distributed. Net income last year amounted to $610,936.30.

There were 22,873 Shell men and women members of the Fund at the close of 1944; this was 96.5 per cent of all eligible employees.

Members are allowed to contribute to the Fund 2½% of their base pay during the second and third years of their service with Shell; 5 per cent during the fourth, fifth and sixth years, and 10 per cent thereafter. The employing Company matches each employee's deposits dollar for dollar.



An employee leaving Shell after five years or more of accredited service with Shell receives all the money standing to his credit in the Fund, including Company contributions and earnings thereon. A member who leaves Shell before completing five years of service receives all money paid in by him plus earnings, but does not receive Company contributions or earnings thereon. (It is length of service with Shell and not length of membership in the Fund which determines this right.)

In cases where an employee withdraws from the Fund and does not receive Company contributions made on his behalf, these Company payments do not return to the Company which made them but remain in the Fund and are credited to the Reserve Account for the ultimate benefit of all members.

Total credits to members' accounts in the Fund increased from $18,325,341.75 at the end of 1943 to $27,449,539.66 on December 31, 1944. This increase is net after paying to members who withdrew from Shell the amazing sum of $1,024,904.51.

The funds are invested in high-grade securities which are listed in the report. They include $9,655,000 in United States Government bonds, $750,000 in Canadian Government guaranteed railroad bonds, $3,229,000 in American railroad bonds, $10,806,000 in American public utility bonds, $1,272,000 in the bonds of industrial firms, and $250,000 in industrial preferred stocks. All the amounts stated are face value. U. S. Government bonds made up 37 per cent of the Fund's resources.

Net earnings for the year, as stated above, were $610,936.30. Of this amount, $55,041.43 was transferred to the Reserve Account to safeguard members' deposits against the possibility of loss on any of the securities held. The reserve built up for this purpose amounted at the end of the year to $512,687.19.

As a result of the year's operations, trustees of the Fund were able to credit member accounts with 2½% on the monthly balances standing to their credit. This distribution amounted to $555,699.30.

C. S. Gentry with his secretary, Charlotte Cook.

SPEAKING OF PEOPLE . . .

by Fred Connor

These are the men and women who make the Legal Department (Head Office) function. This is the sixth of a series telling in words and pictures how many of Shell's departments operate, what they do, and who does it.

THE Chinese, it is said, pay their doctors to keep people well. When a patient becomes ill, his sickness is accepted as proof that the doctor has failed in his job. While the attorneys in Shell's Legal Department recognize that they can no more keep the Company out of all lawsuits than the doctor can keep all people well, they do consider it their primary function to see that the Company keeps out of trouble. For this reason Shell's Legal Department considers not only the number of lawsuits won, but also the number filed by or against the Company, as a barometer of its work. Contrary to the general belief that the legal profession is continually engaged in a courtroom battle of wits between lawyers, Shell's attorneys make it their aim to stay out of court by anticipating and avoiding in every possible way the legal pit-falls that lead to courtroom contests.

Shell has three Legal Departments in its East of the Rockies territory. C. S. Gentry, Vice President and General Counsel, coordinates all legal activities in this territory. One of the departments is at Houston, under the management of R. H. Whilden, while G. W. Cunningham directs the activities of another at Tulsa. Both are concerned primarily with legal problems in Shell's exploration and production activities. The third is Shell's Head Office Legal Department in New York. The General Tax Attorney, J. D. Watkins, too, works with the other departments on all tax matters.

A visit to the Head Office law library and a brief glance at a few of the several thousand of its law books give some idea as to the complex nature of the job to be done. Each state in which Shell operates East of the Rockies has its own system of statutes and laws, not to mention the Federal Government and its numerous administrative agencies, each of which issues regulations and orders of its own. It would be foolish to pretend that anyone is familiar with all these laws and regulations, and certainly Shell's attorneys make no such claims. They know what to look for, where to find it and how to interpret what they find, even if they cannot keep it all in mind. When the occasion arises, reference to the law books most generally will provide an answer. Because of the scope of Shell's operations and the varied nature of the legal problems encountered, the work of the Legal Department does not lend itself well to specialization by any attorney in any one field. While each does have primary responsibility for some particular phase, or for the work of a par-

J. W. Pegg.

J. D. Watkins.

ticular Shell department, each attorney is expected to, and does, handle almost any problem with which the Legal Department may be confronted.

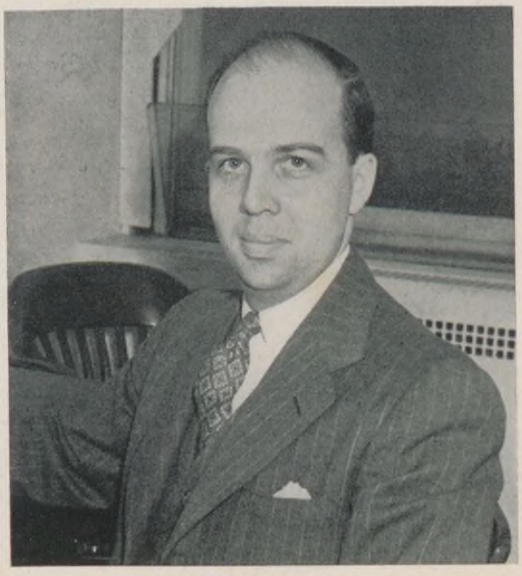
Most of us are confused and bewildered each year when we file our income tax returns. We may believe that the form of return is needlessly complex. Yet filling them out is simple when compared with the everyday problems of J. D. Watkins. Shell pays literally hundreds of kinds of taxes to the various states, cities, and to the Federal Government. Mr. Watkins' job is to answer the complex legal questions arising in connection with the payment of these taxes.

If you've ever bought a house you were probably surprised at the number of legal problems which you encountered. There was the preparation of a sales contract, examination of the seller's title, purchase of title insurance, preparation of deed and mortgage, and so forth. Multiply these steps by the number of states in which Shell operates and you'll have some idea of the day-to-day work of J. T. Cashman and E. A. Martin. It is their task to handle the legal matters connected with the lease or purchase of service station sites and other properties.

Perhaps you've become perplexed at times in trying to understand how the Office of Price Administration computed your fuel oil ration, or you've wondered how the corner grocer determined his ceiling prices, T. S. Parker could furnish information on these and related questions. Practically every product Shell purchases and sells is subject to one of scores of ceiling-price regulations. Among other things, it is Parker's responsibility to furnish the Company with up-to-the-minute information and advice on these matters.

With the advent of the submarine menace to the Atlan-

E. A. Martin.



J. T. Cashman.

T. S. Parker.

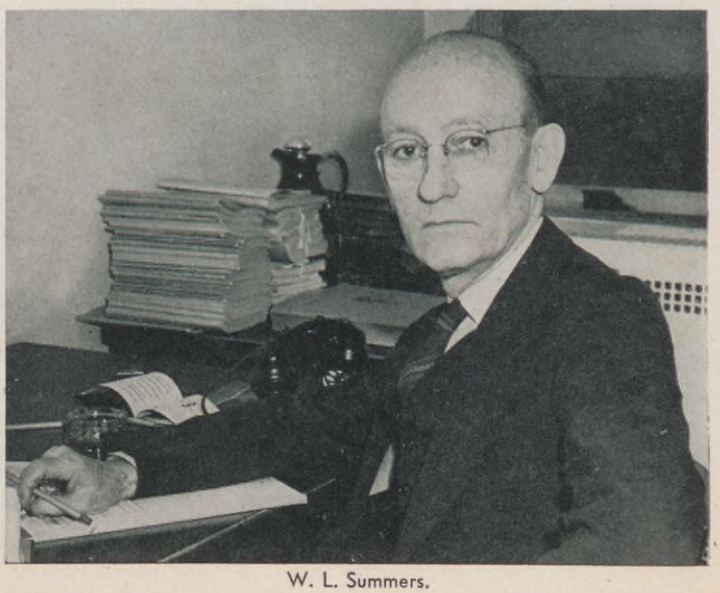
L. V. Roberts.

tic and Gulf Coasts, and the critical shortage of petroleum products along the Eastern Seaboard, the Petroleum Administration for War, through its Directive 59, organized a cooperative system among all oil companies operating along the Atlantic Coast. PAW arranged for a common supply of petroleum products, and the sharing of these supplies, by all participating companies, including Shell. L. V. Roberts served for approximately 18 months as Counsel for PAW in District One, embracing all states along the Atlantic Seaboard from Maine to Florida. In that capacity he acquired an intimate knowledge of Directive 59 and other PAW orders . . . a knowledge which he puts to good use in handling Shell's legal questions which arise out of PAW's supply and distribution program.

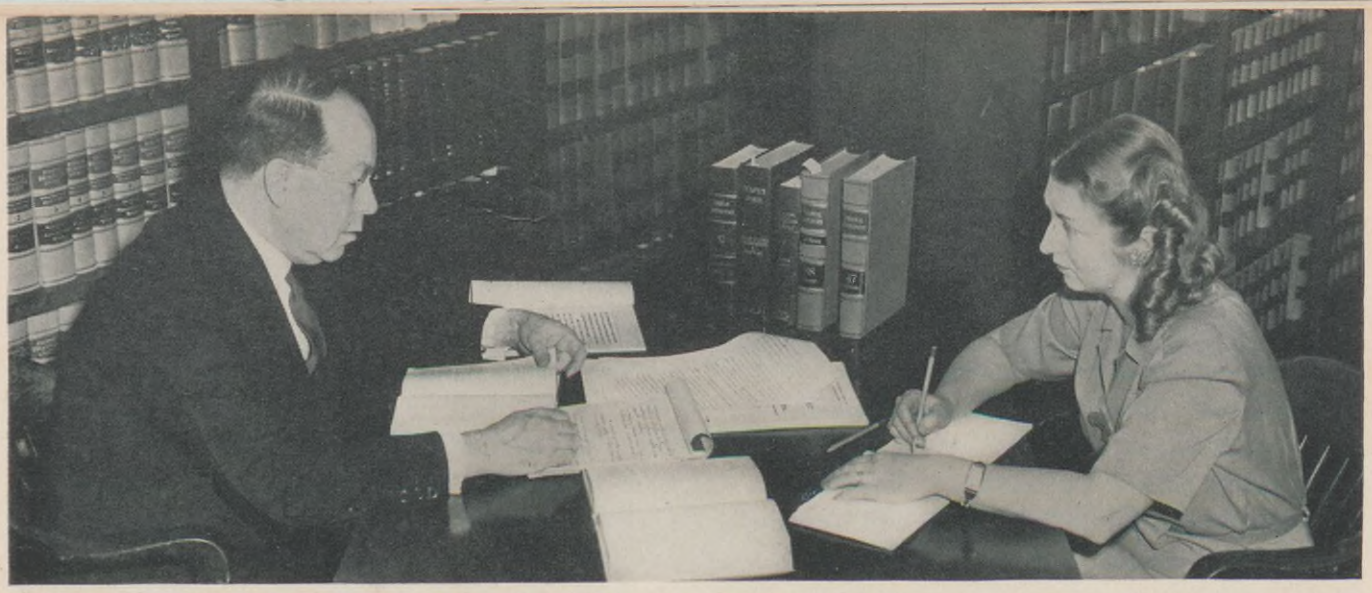
In selling its products the Company must be assured that it will collect for the merchandise it delivers. J. L. Beauchamp, Jr., works closely with the Credit Department. He also keeps abreast of the various Federal and State laws regulating wages, hours of work, and working conditions. It is his responsibility to furnish advice to the Personnel and Industrial Relations Departments on these and related problems so that no possible conflict may arise between the Company's personnel policies and the law of the land.

W. L. Summers, who is on a leave of absence from the University of Illinois Law School, is a specialist on oil and gas law. He is the author of an eight-volume text which is accepted by judges and lawyers as an authoritative treatment in this field of law. Since the legal phases of Shell's production activities are not handled in New York, Summers is enjoying a "vacation" from his favorite field. But his experience is utilized in advising the entire staff on almost every type of legal problem that may arise.

J. L. Beauchamp.



W. L. Summers.



P. M. Payne and Florence Eiseman, stenographer.

Since the Department considers its primary function to be that of avoiding the legal pitfalls that may lead to court, it is natural that there should be only one attorney specializing in litigation. P. M. Payne spends his full time in defending suits filed against the Company or in prosecuting actions which it institutes. Considering the scope of Shell's operations, there is a surprisingly small number of suits. The Company agrees with a famous statesman who believed in "millions for defense, but not one cent for tribute." The general policy is to defend any action filed against Shell with all possible vigor, especially when the case may be considered a precedent for similar situations which may come up in the future. Numerous instances have occurred where, in order to vindicate itself and its position against an unjust charge, Shell has spent as much or more in defense than the amount involved in the claim.

No small part of the Department's effectiveness is the result of the work of its stenographers under the supervision of Edna Stecko. Lawyers have a language all their own to the dismay of most laymen, but nevertheless certain legal requirements must be satisfied in the preparation of many documents. Familiarity with these matters is essential in stenographic work for the Department.

To unify all of the activities of Head Office attorneys is the work of J. W. Pegg. On his shoulders also falls the responsibility for advising the Marketing, Transportation and Supplies, and Manufacturing Departments, on all major questions.

Good citizenship is the duty and privilege of a company as well as for an individual . . . and it is a keystone of Shell's policy to fulfill its obligations as a good citizen. It is the function of the Legal Department to aid and advise the Company in making this policy its watchword.

Elizabeth Esposito, Margaret Janssen, Edna Stecko, and Irene McCormack, stenographers.

RETURN TO ENGLAND

by Lewis Cochrane

DOUGLAS BADER

ANOTHER chapter has been added to the odyssey of Douglas Bader, the legless Wing Commander of the R.A.F., whose earlier exploits were the subject of an article in SHELL NEWS of October, 1943. After almost four years of imprisonment in Nazi camps, Bader was recently freed when American troops seized the Oflag castle-prison near Leipzig. His return to England means the continuation of a career remarkable for its conquest of exceptional handicaps.

Bader joined the Asiatic Petroleum Company, a member of the Shell Group, a few years after his professional flying career had apparently been terminated by a plane crash in which he lost both legs. Although his flying experience proved a valuable asset at his job in Asiatic's Aviation Department, he never abandoned the idea of flying again, and practiced diligently in private planes.

In September, 1939, when England went to war with the Axis, Bader volunteered for his old place in the Royal Air Force. He argued that with his artificial limbs he could still handle a plane as well as ever, but was turned down time and again. At last his persistence won him a flying test which he passed with ease. He was given a plane in which several small changes had been made to suit his needs. During the next two years, before his capture by the Germans, Bader was twice awarded the Distinguished Service Order and the Distinguished Flying Cross. He is reported to have shot down thirty enemy planes . . . three of them in one afternoon.

A recent Herald Tribune dispatch describes for the first time the details of how the British ace fell into the hands of the Nazis. On a mission over occupied France in August, 1941, Bader attacked two Messerschmitts. He shot down one, but collided with the other, disabling his own plane completely. He discovered that one of his artificial legs had become wedged in the cockpit, and coolly unstrapped it before bailing out. His squadron circled around him as he parachuted down in enemy territory. Shortly afterwards, by means of an unprecedented arrangement with the German Government, Bader's English buddies dropped him another limb to replace the one he had lost.

Bader's prison record paralleled his record as a fighter pilot. He made many attempts to escape. On the last try he was stopped at a German airstrip seventy miles from the camp as he was about to steal a plane. After that his captors resorted to the expedient of removing his artificial legs every night. Bader had to content himself with writing abusive anti-Nazi pamphlets which, on windy nights, were wafted over to his reading public . . . the puzzled citizenry of Leipzig and the irate prison guards.

Bader presumably will now return to his command. His courage and unquenchable spirit as a man, a soldier, and a prisoner of war have set a conspicuous example for all the world.

A model garden.

GARDENING WITH VARIATION

by J. W. Johnston

Horticulture Editor, New York Herald Tribune and Special Advisor for the Shell Grow-a-Garden Clubs.

AFTER traveling nearly 8,500 miles in Shell territory, East of the Rockies, I am convinced that Shell Grow-A-Garden clubs will set a new high in 1945 for garden activities and enthusiasm. The members of every group from Houston to Minneapolis and from Tulsa to Boston made it plain that they were aware of the need for greater quantities of food from home gardens.

Although problems and methods of gardening seemingly are different in various localities East of the Rockies, actually they are much alike. In most of Louisiana and parts of Texas, gardens are grown on elevated plateaus because of the high water table. Strawberries there were already ripe. But in Minneapolis, luckily, no ploughing of the soil had been attempted at the time of my visit to that Marketing Division. A few days later a fourteen-inch snowfall struck the vicinity. But despite this variation in climatic conditions all gardeners must plough and cultivate the soil . . . all face the same general problems. Certain rules hold good no matter where the work is carried on. For example, organic matter provided through commercial humus, leaf mold, or animal manures generally is needed. Good preparation of the soil, whether it be sand or loam, gravel or clay, includes reasonably deep digging of the soil and the incorporation in it of materials of this sort.

PLANT FEEDING

Once the physical operation of digging the soil is completed, many soils will require an application of lime. Do not indiscriminately spread and dig under commercial plant foods or fertilizers; use them directly in planting. Wait for the plant to develop—or apply a small quantity of food directly in the row, depending upon the vegetable planted. With beets, radishes, lettuce or other seed items, a sprinkling of plant food should be applied directly in the seed row and raked into the soil before sowing. This is followed by a light dressing placed on either side of the row and worked into the soil a

couple of weeks after the seedlings are up. The side dressing method may also be used at planting time by making rows parallel to the planting row. At the time plants are set out, plant food may be applied in a circle five inches away from the plant or it may be withheld until the plant actually roots; then it may be applied in a circle as a side dressing exactly as described for seed planting.

Plant feeding is practiced the world over. The nearer you approach the standard of good nutrition for human beings and apply it to growing things, the more successful you will be. For instance, you would not give a baby a beefsteak dinner; yet, when you put a heavy application of plant food on a young and tender plant, you are doing a similar thing. Feed young plants as you would young children: often but sparingly.

SPRAYING

Louisiana has squash bugs while New Jeresey has Japanese beetles; but they are both insects which will damage the garden, and to control them plants require spraying or dusting. It is practically impossible to completely exterminate some insect pests, but it is possible to hold them down to a minimum if a vigorous spraying or dusting program is followed. The best rule to follow with insects is to stop them before they start. Do not wait for an invasion of insects or the resulting diseases . . . spray or dust early in the season to prevent them.

TO STAKE OR NOT?

In the same way that you care for an infant and help it to grow, you can help certain plants toward maturity. Many need support as they approach the productive stage. The age-old argument of whether or not to stake tomatoes is a case in point. I have tried both methods on an experimental farm, growing fifty varieties with stakes and on the ground. I found that although many types of tomatoes produced more on the ground, invariably I harvested a larger quantity of edible, unblemished fruit on stakes.

WHAT VARIETY?

The universal practice of gardening with variations results in a wide range of selectivity in planting. A certain variety of tomato, strawberry, or corn will succeed in Illinois but not in Texas. But fortunately there are varieties to suit every locality. In this connection, the various State Experiment Stations have done an outstanding job of testing varieties which they will recommend for local use.

I should like to thank the committees in each of the Shell locations I recently visited for their courtesy and cooperation. I am sure that I benefited as much as they did! However, I shall attempt to remedy that deficiency in the coming months. In the meantime, "Grow A Garden" . . . believe me, they are needed this year!

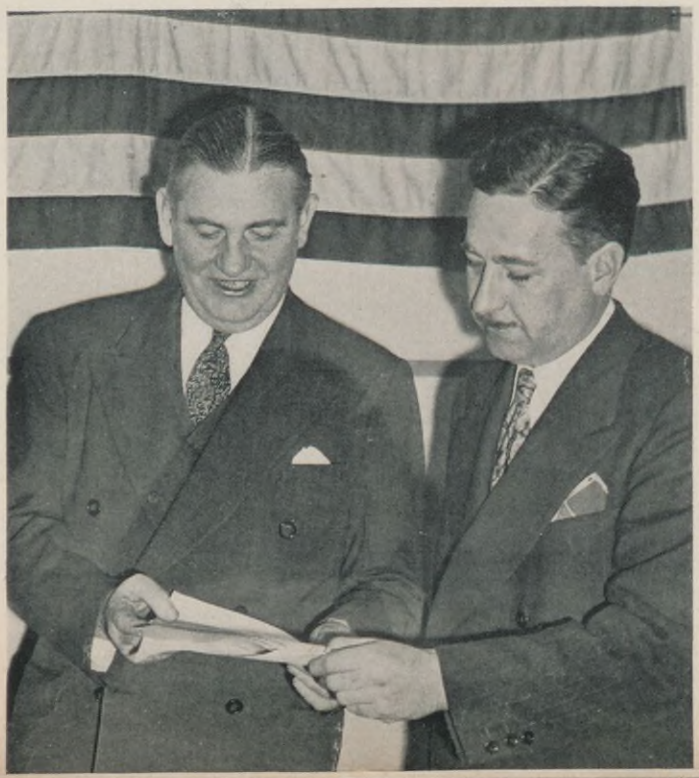
Gardeners of the Rockford (Illinois) bulk depot of the Chicago Marketing Division are off to an early start. They are: R. A. Brenneman, R. C. Augstine, A. S. Pentland, V. H. Boettcher, Jr., and R. E. Ridgeway.

Johnston's trip to Shell's areas, divisions, and refineries was, he says, successful. At Norco, Johnston inspected some of the newly planted gardens. Those pictured are K. L. Beaton, Head Office; Messrs. Skolfield, Gugielmo, Laurent, Troxler, and Bertram of Norco; and Johnston.

James F. Mueller, Norco Refinery, displays his prize turnips; the one on the left weighs 4½ pounds while the other is a modest 3½ pounds.

AFTER HOURS

Twenty employees of the Boston Marketing Division visited the Red Cross Blood Donor Center in a group. G. E. Ninde was making his tenth trip. Those in the front row are Emilie Beatty, Julia Mullins, Loretta Curran, Esther McManus and Betty Hanley. Standing are Rita Dwyer, Helen McIsaac, Madelyn McGown, Sylvia Levinson, Florence Burns, Helen McGrain, Agnes Buckley, Irene Curran, Elizabeth Reardon, Lenere Sanford, and Alfred Burns; in the back, Walter Forbes, Ninde, Emery Taylor, and Clifford Wheeler.



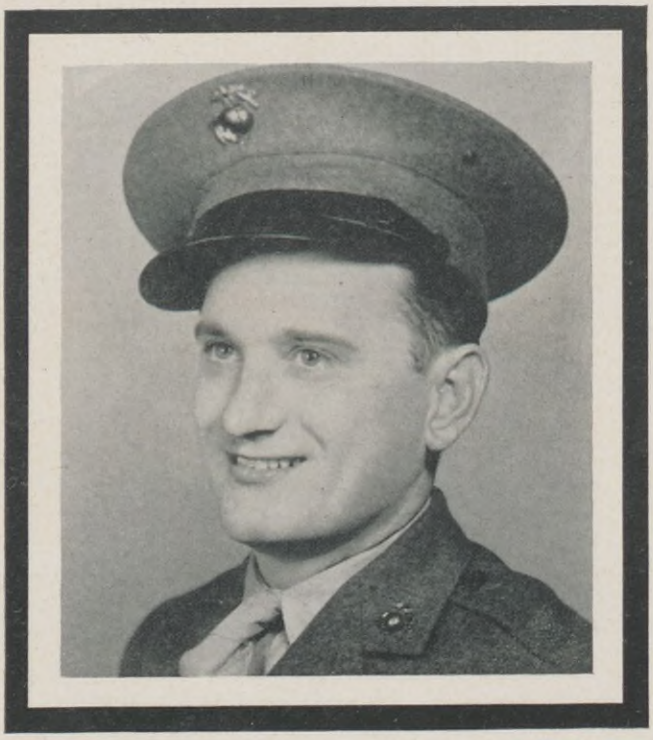
J. H. Bos, (right) District Manager in the New York Marketing Division, is presenting the contributions of his district for the Red Cross drive to J. J. Lyons, President of the Borough of the Bronx in New York City.

Charles W. Shugert, Head Office Advertising Department, has been elected Secretary-Treasurer of the Industrial Advertising Association of New York. The Association is the oldest industrial advertising group in America and the largest of the many chapters. For the past year he has edited "Tips," the association's publication.

Erik L. Halbert, Chicago Marketing Division Purchasing-Stores Supervisor, who completed twenty-five years of service with the Company in February was given a luncheon by a number of his fellow-employees. They presented him with a War Bond and a plaque (right) signed by all members of the Division office. The scroll was drawn by Ken Miller, Division Engineer.

R. K. Deutsch of the Chicago Marketing Division is the leader of a Boy Scout troop of 42 boys. During Scout Week a display designed by Deutsch appeared in the window of a large Chicago building. The troop has been outstanding in patriotic drives such as salvage and War Bonds.

WITH THE COLORS

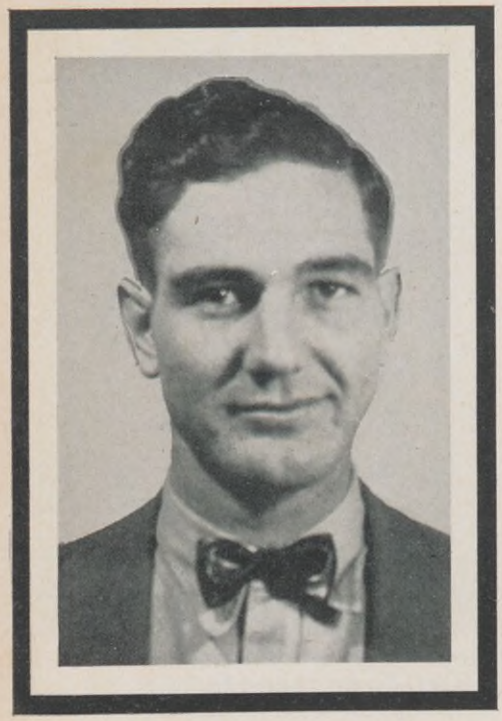


Pfc. LeRoy Zahradka, East Chicago Terminal of Products Pipe Line, was killed in action on Iwo Jima during March. Private Zahradka entered the Marine Corps in October, 1943, and went overseas the following July.

Cpl. Russel A. "Rusty" Boggess, Texas-Gulf Area, was killed in action on Iwo Jima. Cpl. Boggess was a member of a Marine demolition squad and had seen action on Bougainville, Guadalcanal, and New Georgia before landing on Iwo. He had been overseas for twenty-five months.

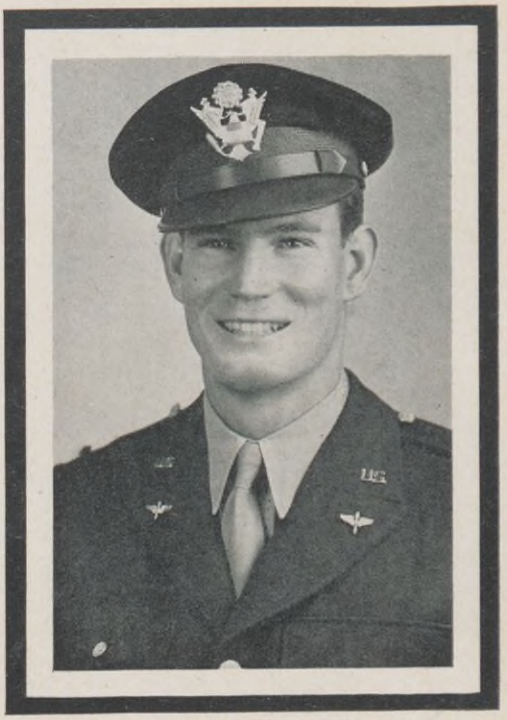
Pfc. Jonas W. Kidd, Jr., Wood River Refinery, was killed in action in Germany during April. Pfc. Kidd entered the armed forces in July, 1944, received his basic training at Camp Hood, Texas, and had been overseas with the Third Army for two months before his death.

Ensign Harold F. Metzger, Wood River Refinery, is missing in action in the Pacific Theatre. Ensign Metzger, a fighter-pilot, entered the Navy in September, 1942, and received his commission at Corpus Christi, Texas, fifteen months later.



Sgt. Kenneth P. Davis, Houston Refinery, is officially reported killed in action after previously having been reported missing. Sgt. Davis was a waist gunner in a B-24 Liberator bomber. He entered military service in October, 1942, received his basic training at Ellington Field, Texas, and was sent overseas in December, 1943.

Lt. R. L. Haxthausen, Texas-Gulf Area, was killed in an airplane accident in the Hawaiian Islands in February. He entered the Naval Air Corps in September, 1942, received training at a Georgia base, and was commissioned at Pensacola, Florida, in November, 1943. Lt. Haxthausen was transferred to the Marine Corps and served with a fighter group in California before being sent to Hawaii.



Lt. R. W. Beard, Jr., Texas-Gulf Area, was killed in action on Luzon in January. Lt. Beard entered the service in November, 1942, and was commissioned the following September. He was assigned to duty with a weather squadron in the South Pacific. Lt. Beard saw service in the Admiralties, at New Guinea and in the Netherlands East Indies before moving on to the Philippines.

Sgt. Joseph Savula was killed in action on Luzon in February. Sgt. Savula was employed at Wood River Refinery before entering the Army in September, 1941.

Pfc. Roy F. Johnson, Boston Marketing Division, was killed in a plane crash over Kunming, China, in February. Private Johnson, a radio operator, had been in the Army Air Forces since November, 1942.

Three Texas-Gulf Area men were decorated recently. Capt. Errol Cloutier (left) flew seventeen missions over the Shell Group's Ploesti Refinery. He is back in the states after completing sixty-two combat missions. Capt. Cloutier received the Distinguished Flying Cross, the Air Medal, with ten Oak Leaf Clusters, and three Presidential citations. In the center picture, Lt. Jack K. Larsen's Air Medal and Oak Leaf Cluster are being accepted for him by his brother, John Larsen, at a special review at Ellington Field. Lt. Larson was a prisoner of war in Germany. In the picture at the right, Pfc. Melvin L. Vaughan is shown receiving the Silver Star from Brigadier General G. C. Beach, commanding general of Brooke General Hospital, San Antonio, Texas. The citation which accompanied the medal stated, "The competence, boldness, and intrepid action of this enlisted man reflect the highest credit upon himself and the armed forces of the United States." Private Vaughn, then with the Second Infantry Division, is now with the hospital's Reconditioning Unit. (Official U. S. Army Photo.)

Herbert A. Bott, Atlanta Marketing Division, was promoted to the rank of colonel in March. Colonel Bott, a pilot, is commander of the 3rd Combat Cargo Group in the China-Burma-India theatre. He was recently awarded the Distinguished Flying Cross with Oak Leaf Cluster.

Major Allen Taylor, Sewaren Plant, has received a certificate of commendation from Major-General Philip Hayes of the 3rd Service Command. Major Taylor is stationed at the Indiantown Gap Military Reservation, Pennsylvania. The citation was given for Major Taylor's work in expanding, modernizing and improving the post's maintenance shops.

S/Sgt. E. O. Dapolite, Albany Marketing Division, is one of three men who played important roles in the construction of an eight-inch pipeline in the Philippines. The line, 4700 feet long, handles a direct delivery of aviation gasoline from ships to tank installations. The three are members of an Engineer Petroleum Distribution Company. (Official Signal Corps Photo.)

The Marine Corps, in a delayed dispatch from Iwo Jima, tells of the important part played in the landings on that island by Captain George Blackmore, Head Office. He was one of three officers, assistant shore party commanders, who supervised the shuttling of supplies from the beaches to the front lines. The three men, all veterans of Bougainville and Guam, were with the first elements of the Third Division. While directing their commands they were under continual Japanese artillery and mortar shelling.

Lt. Col. Walter Wulfkuehler, Wood River Refinery, is now Adjutant-General of Army Troops in the Palau Islands. He was originally stationed at Fort Scott, California, for a year; then became Post Executive of a large artillery post at Oahu. He has been in the Palaus since they were occupied last September.

Captain S. R. Evans (right), Shell Pine Line Corporation, is one of many Shell employees in an Engineering Petroleum Distribution unit which has been in various campaigns on the western front since D-Day. At first most of the work consisted of construction and rehabilitation of pipelines, tanks and dispensing stations. For the past several months the unit's work has consisted of operating a part of the system. Captain Evans is with a member of his company.

Pfc. Helen C. Carroll, Head Office, is with the WAC, Far East Air Service Command in the Netherlands East Indies.

Corporal C. W. Berryman, Mid-Continent Area, has recently returned to the states after twenty-two months overseas.

Forrest Hollenbeck, MM 1/C, Shell Pipe Line Corporation, has been with the Seabees in the Aleutians for almost two years.

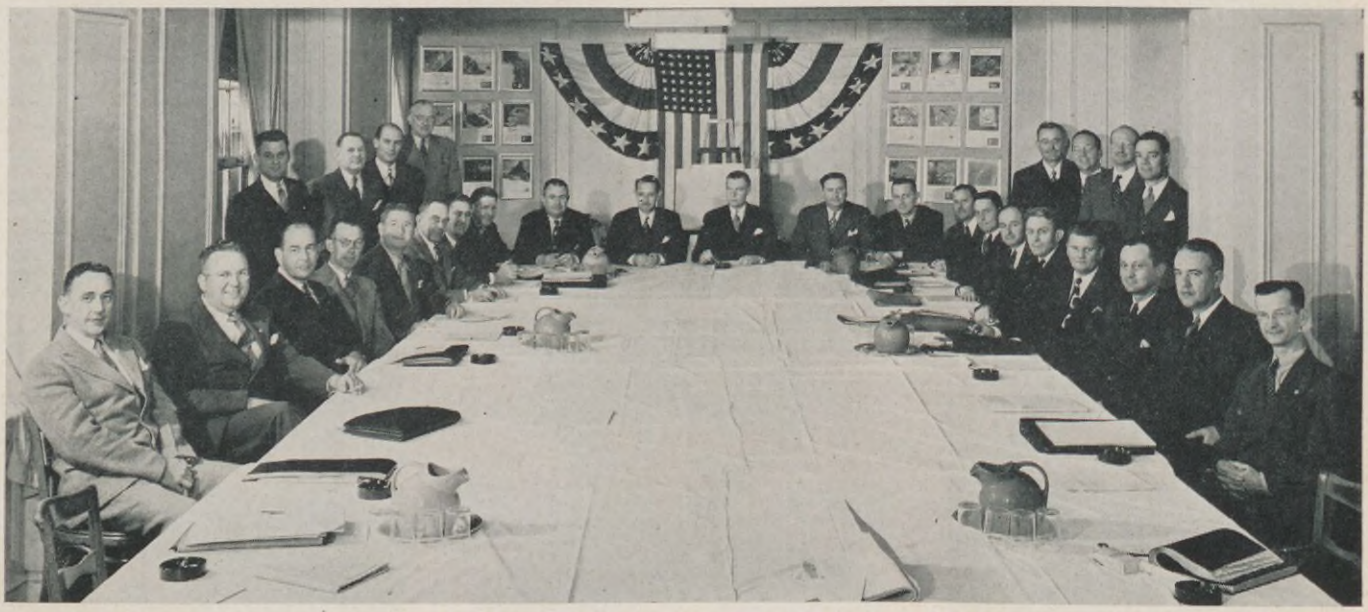
Capt. Forrest L. Underwood, Shell Pipe Line Corporation, is in the Philippines.

Helen Murphree, WAVE, Y 1/C, Texas-Gulf Area, is stationed in Hawaii.

Corporal James L. Dykes, Mid-Continent Area, is serving in the Philippines.

'ROUND THE REFINERIES, AREAS, AND DIVISIONS

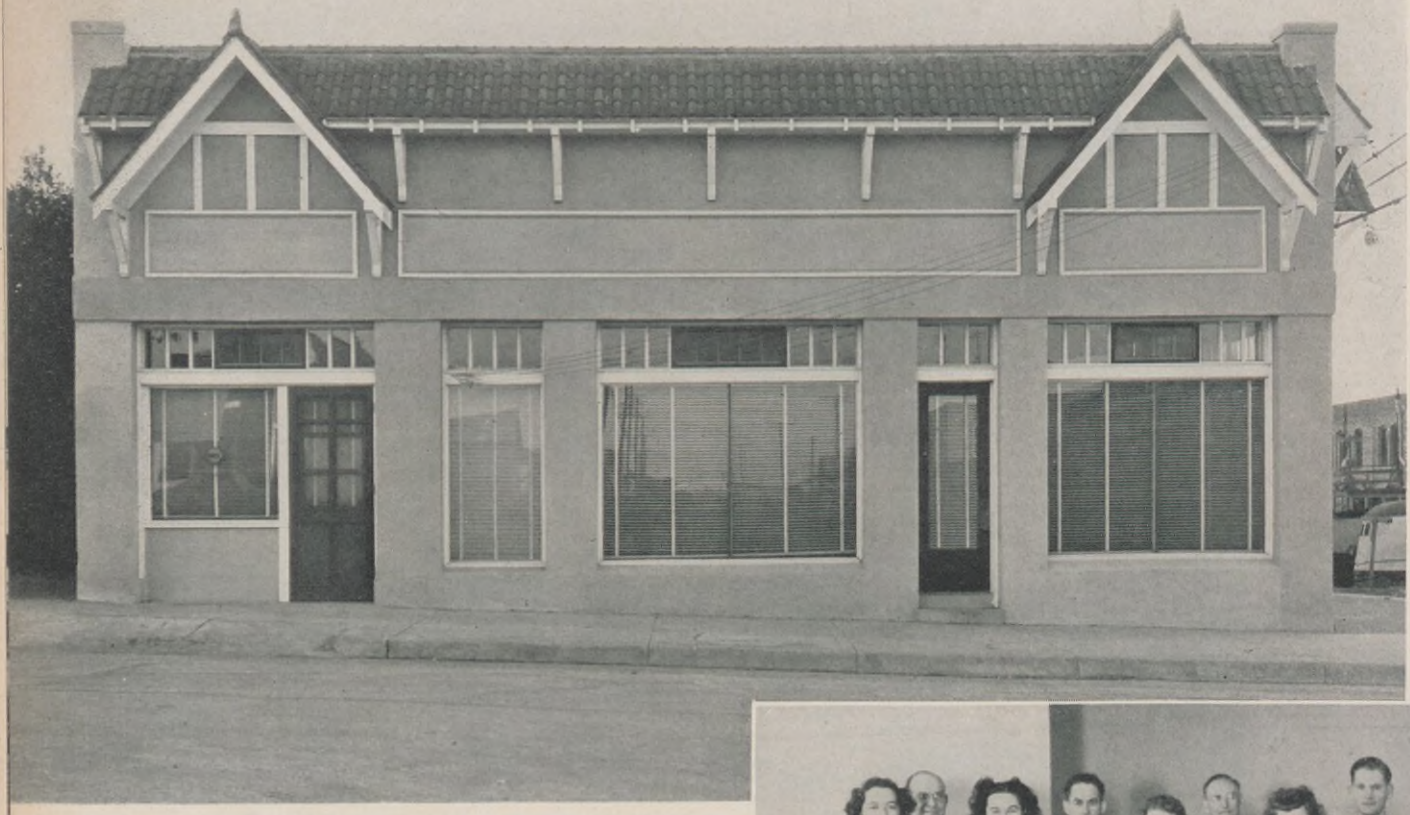
These signs serve as a constant reminder to employees of Wood River Refinery to work regularly and safely.



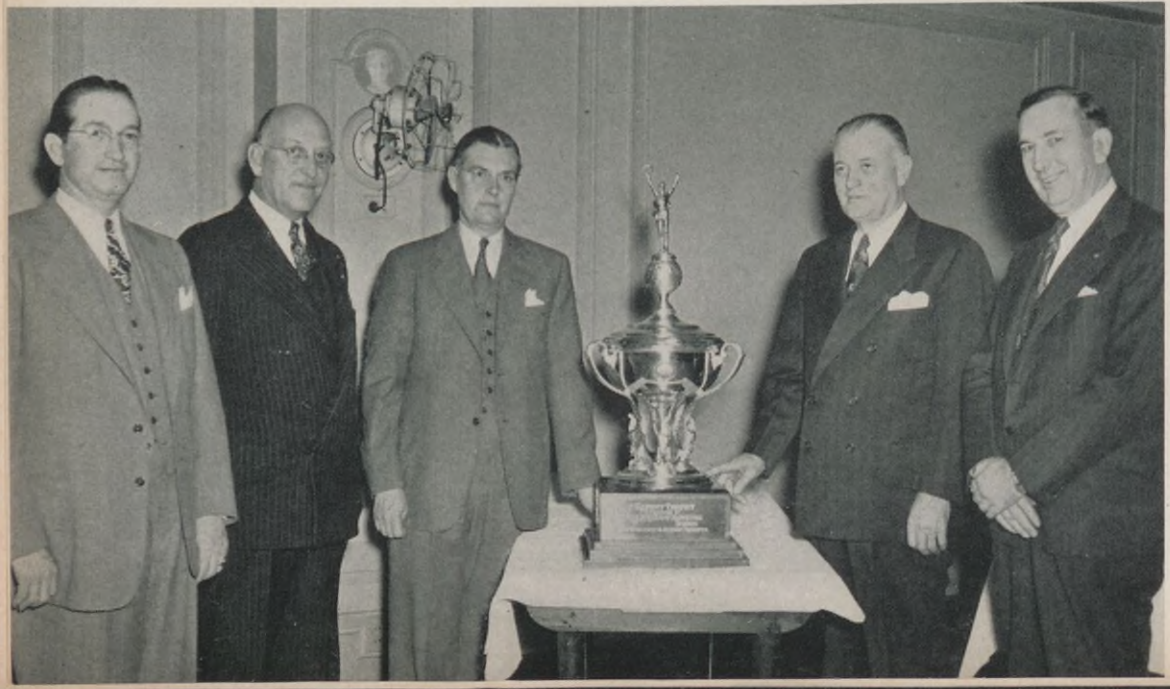
The eleven marketing divisions have had a series of meetings during which marketing plans for the future were presented. At the head of the table at the Atlanta Marketing Division meeting are G. L. Switzer, Head Office; J. L. Wadlow, Atlanta Marketing Division Manager; P. E. Lakin, Vice President, Marketing; J. M. Parks, Atlanta Marketing Division, and D. C. Marschner, Head Office Sales-Promotion Advertising Department.

For the first time since its construction in 1931, the Kilgore Station of Shell Pipe Line Corporation was under water recently. Heavy spring rains made working difficult as this photograph testifies.

TXL is the name of a new oil field in West Texas where Shell, operating jointly with the Cities Service Oil Company, recently completed a discovery well which flowed at the rate of almost 2,000 barrels a day on its first day. The day crew on Thomas A. No. 1, are L. M. Patterson, G. G. Jordan, O. E. Sadberry, M. L. Roberts, L. D. Boothe, W. G. Ibanet, and J. C. Smith.



Out in the Mid-Continent Area they are justly proud of the new Shell building in Graham, Texas. Shown at the right in the air-conditioned office are Kay Cousineau, W. C. Brown, Dorothy Hayes, M. A. Sherwood, Louise Atcheson, F. R. Bodien, Imagene Landress, and W. L. Botkin.



The Shell 1944 Marketing Safety Trophy was presented by P. E. Lakin to the Indianapolis Marketing Division which had the best safety record of the divisions East of the Rockies. Shown at the presentation ceremony are R. H. Cowan, Indianapolis Operations Manager; V. M. Armstrong, Chairman, State Police Board; Lakin; J. G. Sinclair, Indianapolis Division Manager; and Wallace O. Lee, Indianapolis Chamber of Commerce Safety Council.

PEOPLE IN THE NEWS

LIEUT.-COLONEL B. C. ASTRUP

LIEUT.-COLONEL B. C. "BERT" ASTRUP, Boston Marketing Division Manager before receiving a military leave of absence, has returned to the Company as Acting Assistant Sales Manager. Astrup entered the service in June, 1942, and went overseas the following April. He took part in campaigns in Africa, Italy and France. Astrup came with Shell in 1924 as a laborer at the Los Angeles Depot. Two years later he became a salesman in the Seattle Marketing Division and in 1929 became Manager of the Great Falls, Montana, office. In 1936 Astrup was appointed Sales Manager of the Eastern Division in Boston and two years later became Division Manager of the Boston Marketing Division.

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DR. H. GERSHINOWITZ

DR. H. GERSHINOWITZ has been named Director of Exploration and Production Research. In this capacity he will coordinate research activities both East and West of the Rockies. He will have his offices in Houston, Texas. Gershinowitz joined the Company in 1938 as a Technologist in the Head Office Manufacturing Department at St. Louis. In February, 1940, he was named Chief Research Chemist at Houston Refinery and two years later was made Director of Research there. In October, 1942, he came to New York as Research Director of the Manufacturing Department, and in May, 1943, became Research Director in charge of the Laboratories at both Wood River and Houston Refineries. In the latter position his headquarters were in New York under the supervision of the Research and Development Department.

SERVICE BIRTHDAYS

. . . TWENTY-FIVE YEARS . . .

G. C. ALMON
Topping
Wood River Refinery

B. J. LEHMANN
Topping
Norco Refinery

V. W. PARKER
Ass't. Supt.
Wood River Refinery

I. M. PINNELL
Shell Pipe Line Corp.
Mid-Continent Area

MISS E. M. SCRIBNER
Shell Union Oil Corp.
Head Office

P. SOUTHARD
Car
Wood River Refinery

H. E. TROXLER
Asphalt
Norco Refinery

O. C. VAUGHN
Shell Pipe Line Corp.
Mid-Continent Area

. . . . TWENTY YEARS . . . .

J. F. BAKER
Operations
St. Louis Mktg. Div.

A. E. BAYER
Lube
Wood River Refinery

L. A. BROWN
Car
Wood River Refinery

W. H. BUHS
Engineering
Wood River Refinery

C. O. DEATON
Production
Mid-Continent Area

C. M. FRIDLEY
Operations
Clev. Mktg. Div.

H. A. GILMORE
Store
Houston Refinery

G. W. HERZOG
Land
Texas-Gulf Area

B. M. HOLDREN
Shell Pipe Line Corp.
Mid-Cont. Area

W. M. JOHNSON
Land (mil. leave)
Texas-Gulf Area

C. L. JONES
Production
Mid-Cont. Area

C. C. NICHOLS
Lube
Wood River Refinery

A. G. NOONAN
Lube
Wood River Refinery

L. W. POWERS
Engineering
Wood River Refinery

S. R. RICE
Engineering
Wood River Refinery

R. O. SCHAEFER
Treasury
Mid-Cont. Area

T. F. SHAW
Gas
Texas-Gulf Area

G. S. SHREEVE
Production
Mid-Cont. Area

G. W. TRAVISS
Shell Union Oil Corp.
Head Office

G. S. TRUITT
Main Office
Wood River Refinery

C. J. WILSON
Engineering
Wood River Refinery

C. M. WILSON
Engineering
Houston Refinery

F. L. CROXTON
Lube
Wood River Refinery

J. P. GURRISTER
Operations
Chicago Mktg. Div.

G. H. LEE
Prod. (mil. leave)
Mid-Cont. Area

HEAD OFFICE

15 years

W. A. BURNETT* . . . . . MARKETING
R. W. DUNHAM . . . . . MARINE
MISS L. McB. GALL . . . . . MARKETING
E. B. GREEN . . . . PURCHASING - STORES
E. L. HAIN . . . . . TREASURY
W. C. HANDY . . . . . MARKETING
E. LEFFERT* . . . . . MARKETING
MISS M. LION . . . . . SHELL UNION
F. E. SULLIVAN* . . . . MANUFACTURING
J. E. WALSH* . . . . . TREASURY

10 years

R. M. COKINDA* . . . . . MARKETING
M. P. SMITH . . . . . T. & S.

WOOD RIVER REFINERY

15 years

M. L. FLETCHER . . . . . CRACKING
H. A. HEIGERT . . . . . COOLING
F. V. HEINTZ . . . . . LUBE
R. F. OTT . . . . . TOPPING
C. M. ROGERS, JR. . . . . AUTOMOTIVE

10 years

H. C. DOLAN . . . . . ENGINEERING
G. H. FRANKLIN . . . . . GAS
H. FRENCH . . . . . ENGINEERING
R. H. FULTON* . . . . . LUBE
N. W. GOEHE . . . . . CRACKING
I. W. GOUY . . . . . LUBE
L. E. HAYNES* . . . . . CONTROL LAB.
W. M. JACOBY . . . . . GAS
J. R. KANE . . . . . ENGINEERING
E. L. LLOYD* . . . . . LUBE
M. I. McMILLEN . . . . . CRACKING
E. L. ROWAN . . . . . ENGINEERING
C. S. RYAN . . . . . ENGINEERING
A. E. SAUNDERS . . . . . CRACKING
C. E. WILKINSON . . . . . ENGINEERING

HOUSTON REFINERY

15 years

W. O. MILLER . . . . . LOADING
W. W. SMITH . . . . . ENGINEERING

10 years

H. M. BAINES . . . . . ENGINEERING
C. E. BATTESTIN* . . . . . CRACKING
T. L. BILLINGSLEY . . . . . CRACKING
O. BREEDING, JR.* . . . . . CRACKING
L. BROSSETTE . . . . . TREATING
M. S. CALLOWAY* . . . . . CHEMICAL DIV.
C. F. CONE . . . . . TOPPING
C. N. EVANS . . . . . ENGINEERING
H. EVERETT . . . . . ENGINEERING
D. E. FOWLER . . . . . ENGINEERING
E. J. GALLE . . . . . ENGINEERING
ELSA GRAHAM . . . . . MAIN OFFICE
R. J. GRIFFIN, JR. . . . . TOPPING
L. B. HARRIS . . . . . ENGINEERING
J. M. HATCHER . . . . . CONTROL LAB.
T. L. HILL . . . . . ENGINEERING
W. H. JONES . . . . . ENGINEERING
J. KANDAL . . . . . LOADING
L. R. McCOLLUM . . . . . ENGINEERING
F. D. MACY . . . . . ENGINEERING
J. E. MANTOOTH* . . . . . ENGINEERING
L. D. MARSAC* . . . . . TREATING
J. B. MASTERSON . . . . . ENGINEERING

* MILITARY LEAVE.

J. V. NEWSOM . . . . . ENGINEERING
W. A. PHILLIPS . . . . . TOPPING
L. J. SCHUMACHER . . . . . CRACKING
A. H. SILBER . . . . . ENGINEERING
J. W. SPENCER . . . . . ENGINEERING
J. R. WACEY* . . . . . ENGINEERING
H. WALTZ . . . . . ENGINEERING
A. L. WILLIAMS . . . . . TREATING

NORCO REFINERY

10 years

C. D. CUNNINGHAM . . . . TECHNOLOGICAL

TEXAS-GULF AREA

15 years

S. M. COKER . . . . . EXPLORATION
J. D. GABLE . . . . . PRODUCTION
F. M. HAMILTON . . . . . PRODUCTION
R. E. HENDREN . . . . . EXPLORATION
H. L. HUSKEY . . . . . PRODUCTION
G. U. YOACHUM . . . . . PRODUCTION

10 years

E. E. BOOTH . . . . . PRODUCTION
R. J. DILL* . . . . . EXPLORATION
P. E. DuPLANTIS . . . . . EXPLORATION
C. FUTCH . . . . . PRODUCTION
B. F. KLECK . . . . . EXPLORATION
R. L. MIMS* . . . . . EXPLORATION
C. M. MOFFETT . . . . . PRODUCTION
R. D. MONKRESS* . . . . . LAND
M. L. MORRIS . . . . . TREASURY
F. B. PUGH . . . . . PRODUCTION
M. J. RODGERS* . . . . . PRODUCTION
R. R. ROGERS . . . . . PRODUCTION
J. C. STOLZLE . . . . . PRODUCTION
E. H. WINGETT . . . . . PRODUCTION

MID-CONTINENT AREA

15 years

C. W. BEEBE* . . . . . EXPLORATION
K. L. HOUSTON* . . . . . TREASURY
W. M. HAMILTON* . . . . . PRODUCTION

10 years

O. P. CARGILE . . . . . LEGAL
A. W. LAMPADIUS . . . . . PRODUCTION
E. F. ESTEEP . . . . . EXPLORATION
J. E. PECK* . . . . . TREASURY
E. G. ROSENSTIEL . . . . . PRODUCTION
E. L. JONES . . . . . PRODUCTION
W. S. WINSTEAD . . . . . PRODUCTION
W. F. ROGERS . . . . . PRODUCTION
A. KERN* . . . . . PRODUCTION
A. C. DAHL* . . . . . PRODUCTION
C. C. LUDWICK . . . . . EXPLORATION

SHELL PIPE LINE CORP.

15 years

J. R. DARBY . . . . MID-CONTINENT AREA
D. W. MURRELL . . . . . HEAD OFFICE

*Military Leave

F. I. RICHARDSON . . MID-CONTINENT AREA
B. E. SMITH . . . . MID-CONTINENT AREA

10 years

J. K. ALFRED . . . . . WEST TEXAS AREA
S. BLANYER* . . . . . TEXAS-GULF AREA
J. E. GEHLERT . . . MID-CONTINENT AREA
L. L. GENTRY . . . . . WEST TEXAS AREA
D. A. HEATHERINGTON . . WEST TEXAS AREA
J. M. HOMAN . . . . . TEXAS-GULF AREA
J. R. MANNING* . . . MID-CONTINENT AREA
L. C. ORR . . . . . MID-CONTINENT AREA
G. C. ROBERTS* . . . . . WEST TEXAS AREA
T. SANDERS . . . . . TEXAS-GULF AREA
H. A. SCHNEIDER* . . . . . HEAD OFFICE
G. E. SCHULZE . . . . . WEST TEXAS AREA
W. D. SMITH . . . . . WEST TEXAS AREA
F. L. UNDERWOOD* . . . WEST TEXAS AREA
C. M. WHITTEN . . . . . TEXAS-GULF AREA
J. E. WILSON . . . . . WEST TEXAS AREA
A. F. BECKER . . . . . WEST TEXAS AREA

PRODUCTS PIPE LINE

15 years

J. J. FOLEY . . . . . TERMINAL

10 years

G. C. WHITE . . . . . TERMINAL

SEWAREN PLANT

15 years

MISS H. E. McCANN . . . . . COMPOUND

ALBANY MARKETING DIVISION

15 years

H. J. FREEMAN . . . . . SALES
E. A. COMBS . . . . . OPERATIONS

ATLANTA MARKETING DIVISION

10 years

G. F. BECKER . . . . . OPERATIONS
MISS J. O. YOUNG . . . . . SALES

BALTIMORE MARKETING DIVISION

15 years

F. R. MERRILL . . . . . TREASURY
W. P. NELSON . . . . . TREASURY
J. R. ROUDEN . . . . . OPERATIONS

10 years

W. H. GRAPE . . . . . TREASURY

BOSTON MARKETING DIVISION

15 years

C. K. MULLINS . . . . . OPERATIONS
L. G. FRASER . . . . . OPERATIONS

CHICAGO MARKETING DIVISION

10 years

E. G. GREIGER . . . . . OPERATIONS
W. P. O'LEARY . . . . . OPERATIONS

CLEVELAND MARKETING DIVISION

15 years

O. R. APEL . . . . . OPERATIONS
H. J. NEU, JR. . . . . OPERATIONS

10 years

WM. McKEE . . . . . OPERATIONS
P. H. BERGENER . . . . . TREASURY

DETROIT MARKETING DIVISION

15 years

P. TURNER . . . . . SALES
C. TOST . . . . . OPERATIONS

INDIANAPOLIS MARKETING DIVISION

15 years

O. A. PEFFLY . . . . . OPERATIONS

MINNEAPOLIS MARKETING DIVISION

15 years

J. J. KENNEY . . . . . OPERATIONS

10 years

I. E. JOHNSON . . . . . OPERATIONS

NEW YORK MARKETING DIVISION

15 years

F. A. BRUGGEMANN . . . . . OPERATIONS
E. L. DELLATORE . . . . . MARKETING
W. C. KOWALSKI . . . . . MARKETING

ST. LOUIS MARKETING DIVISION

15 years

A. M. FRITZ . . . . . TREASURY

10 years

E. A. MUELLER . . . . . OPERATIONS
MISS T. DAMAL . . . . . SHELL BUILDING
W. MARCHANT . . . . . SHELL BUILDING

WAR BOND

CHART

APRIL

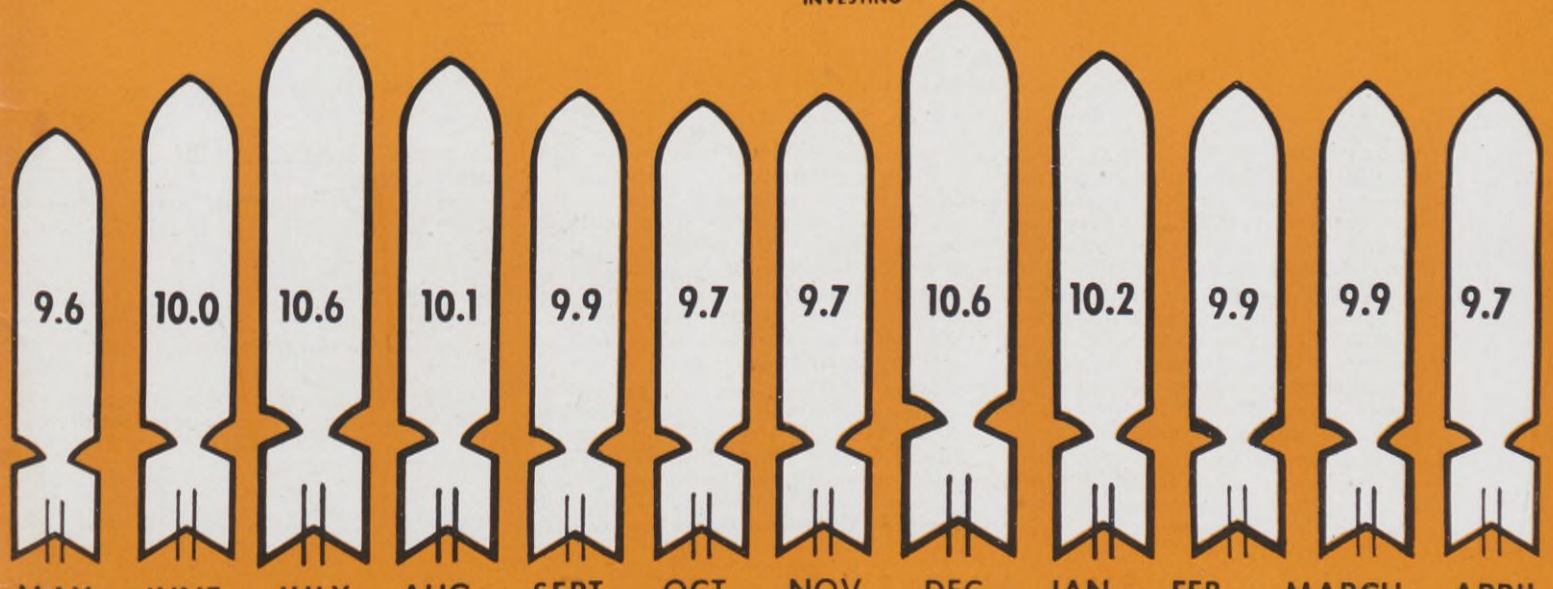
1945

CUMULATIVE PURCHASES OF WAR BONDS UNDER THE PAYROLL SAVING PLAN HAVE BEEN

$10,834,891.50

SHELL

	PERCENTAGE OF EMPLOYEES INVESTING	PERCENTAGE OF EMPLOYEES' PAYROLL
PRODUCTS PIPE LINE	95	13.6
NORCO REFINERY	98	13.5
SHELL PIPE LINE CORP.	100	13.0
CLEVELAND DIVISION	100	10.7
DETROIT DIVISION	93	10.7
TEXAS-GULF AREA	87	10.6
INDIANAPOLIS DIV.	100	10.4
MINNEAPOLIS DIV.	99	10.4
BOSTON DIVISION	100	10.3
MID-CONTINENT AREA	94	10.3
CHICAGO DIVISION	99	10.1
ALBANY DIVISION	94	10.0
ATLANTA DIVISION	100	9.7
BALTIMORE DIVISION	89	9.5
SHELL AMER. PET. CO.	100	9.0
WOOD RIVER REF.	91	8.6
ST. LOUIS DIVISION	95	8.4
HEAD OFFICE	91	8.4
HOUSTON REFINERY	75	7.8
SEWAREN PLANT	100	6.9
NEW YORK DIVISION	88	6.8



AVERAGE OF PAYROLL SUBSCRIPTION OF ABOVE AFFILIATED SHELL COMPANIES

A SHELL ADVERTISEMENT CURRENTLY APPEARING IN SEVERAL NATIONAL MAGAZINES

Four Relays... 14000 Miles

"8-DAY PONY EXPRESS" is the pilots' term for the rugged 28,000-mile run they "sweat out" from an Air Force Supply Headquarters in Ohio to the Orient and back. 4 days out—4 days back—with four "relay stations" thousands of miles apart!

"Ponies" used are big 4-engined C-87 Liberator Expresses. One leaves daily—*must* get through no matter what. For in the Orient—halfway around the world—are important American airbases with a steady *urgent* demand for the aircraft parts and supplies the giant brings.

The Liberator Express is an exclusive development of Consolidated Vultee—first company to mass-produce huge transports on a moving assembly line.

Consolidated Vultee production—ranging from the Liberator Express and famous Liberator bomber down to the Sentinel "Flying Jeep"—gave birth to multiple lubrication problems.

Shell Lubrication Engineers—working closely with Consolidated Vultee technicians—were on the job from the start. Special lubricants were developed at Shell's research laboratories:

One of these stepped up cutting speed and at the same time substantially increased tool life in a Consolidated Vultee plant. Another reduced tool wear—lessened operator fatigues. Other Shell Industrial Lubricants helped Consolidated Vultee achieve one of the lowest maintenance costs in the industry.

AS WAR PRODUCTION GOES ALL-OUT for Victory, proper lubrication is vital. Yesterday's solution is seldom good enough for today!

Lubricants are constantly being improved at Shell's research laboratories. Shell Lubrication Engineers apply these improvements in the field.

Make sure the machines in your plant get the benefit of all that's new in lubrication. Call in the Shell Lubrication Engineer.

Leaders In Industry Rely On
SHELL INDUSTRIAL LUBRICANTS

SHELL