



"Music is the universal language of mankind," wrote Longfellow. And in this same universal spirit, Shell embraces and serves all races, creeds, and colors across America. From the great cities and marts of trade to the most humble cross-roads hamlet, Shell is known for the superb quality of its products.

SHELL OIL COMPANY
INCORPORATED



SHELL NEWS

OCTOBER, 1940



JIMMY DOOLITTLE—aids
in national defense

Be Sure to Read

SHELL CHEMICAL COMPANY

PAGE 15



Night view of the new Alkylation Plant at Wood River Refinery



OUR COVER

BECAUSE of his new and important role in the program for national defense, a picture of Jimmy Doolittle appears on our front cover, and a story about him and his work appears on page 10.

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Shell News Greet Its New Readers

SHELL NEWS—the publication of which was suspended during the recent move from St. Louis to New York—makes its reappearance from the new headquarters. Previously confined in coverage to the "Mid-Continent Territory" (a designation now discontinued), SHELL NEWS in future will cover employee activities in all of that vast area east of the Rocky Mountains now administered from New York.

This issue deals substantially with the previous coverage, but new associate editors have been appointed in the eastern sales divisions so that next month and thereafter the magazine will be truly representative of the entire Shell family "East of the Rockies." The policy of mailing each issue to the homes of the employees will be continued. Your editor prays that SHELL NEWS may find the same warm acceptance in the East that it has heretofore enjoyed amongst its older friends.



Shell News was not issued during the months of July, August and September, 1940

“Business As Usual”

THE Biblical account of the exodus from Egypt has stirred the imagination of many generations, but few ever have realized the immensity of it. Those of us affected by the merger of Shell's Mid-Continent and Atlantic Coast organizations can now begin to appreciate the genius of Moses in its true perspective.

To move a thousand people, their household goods and personal effects, and 44 freight-car loads of office equipment a thousand miles within a ten-day period—while not a Mosaic epic—is no mean undertaking. That it has been successfully accomplished is a tribute to all concerned.

When the merger was announced by President Fraser last June 6th, he named a committee comprising of Messrs. Guepin, Cumming, and Galloway to “blue-print” the job. The chief problems were: how to dovetail the talents of hundreds of individuals into a unified operating organization; how to move the employees and their families to selected locations with the least amount of inconvenience; how to conduct business as usual with more than half of the personnel in transit; how to help those who could not be assimilated in the new organization.

Nerve center of much of Shell's production territory is Houston where the 22-story

Shell Building has housed several hundred employees for the past decade. It was logical that exploration and production administration should be transferred there. This, the initial step in the committee's plan, was consummated several weeks ago when A. J. Galloway and his staff took up residence there. The Head Office of Shell Pipe Line Corporation, with two of its three main lines converging on the Houston Refinery, followed suit. Sixty-five employees and their families, a total of 140 persons, were moved from St. Louis to Houston, so that today that oil city of the south is truly a key spot on the Shell map.

Simultaneously many Company operations were decentralized, involving the transfer of sizeable groups of employees to Wood River, Chicago, Centralia and Tulsa. Each of these moves was given individual consideration by the committee, sitting day and night in session to complete the task.

Dwarfing these and all other moves in Shell history, was the exodus to New York. Informed moving men claim that, considering both the numbers of people and the distance involved, this move is one of the largest on record. The dead-line for its completion was set at September 2nd, since the New York school year officially starts on the 10th. The

With customary smoothness, work of the Head Office in the Shell Building at St. Louis was carried on to the last. Even on August 23, the day before the move, in most quarters the only tell-tale evidence of the big change to take place next day was the corrugated packing boxes which had been distributed for packing desk contents.



IN THE SHELLIMELIGHT

DRIVING without a single accident a total mileage equal to ten round trips from the earth to the moon was the accomplishment of seven Shell men which led to their distinguished recognition in the safe driving contest of the International Petroleum Exposition.

Based on a record of driving 862,690 miles without an accident, B. F. Steincamp, Superintendent at Wichita Falls, Texas, won first place in the passenger car contest and was awarded an engraved gold watch. L. C. Feray, truck and bus driver at Houston Refinery, won first place in the refining division by virtue of his record of 430,500 miles of accident-free driving and was also awarded an engraved gold watch.

The five other Shell men to win honors in various divisions of the contest, receiving appropriate parchment certificates, were: A. S. Gardenhire of Houston, Texas, for his record of 425,058 accident-free miles; F. D. Harvey of Pampa, Texas, for his record of 328,600 accident-free miles; H. J. Best of Great Bend, Kansas, for his record of 228,170 accident-free miles; William Keller of Wood River Refinery for his record of 135,000 accident-free miles; and H. L. Ohlinger of Houston, Texas, for his record of 764,040 accident-free miles.

These awards — presented by W. G. Skelly, President of the International Petroleum Exposition and President of Skelly Oil Company—bespeak an excellence in driving of which the entire Shell organization may well be proud!

Top row, from left: B. F. Steincamp, L. C. Feray, H. J. Best. Second row, from left: A. S. Gardenhire, F. D. Harvey. Third row, from left: William Keller, H. L. Ohlinger.



Unusual as was the arrival of Shell's 44-car train of furniture in New York, it had no effect on the weather. The siege of unusually heavy rains which the city had been experiencing continued, and all of the unloading had to be done in the midst of a downpour. Individuals, however, fitted themselves to the situation. A typical instance is shown in the photograph when Charlie Wager, Shell's Assistant Traffic Manager, (left), G. W. Blaser, City Freight Agent of the New York Central Railroad and Louis Schramm, Jr., Vice-President of Chelsea Fireproof Storage Warehouses, Inc., took refuge under an umbrella to discuss some of their problems.



Things hummed down at the railroad freight house in St. Louis when the office furniture descended there for speedy but expert packing by the General Van & Storage Company preparatory to its thousand-mile journey to New York.

move, as well as the preparation of the New York offices, was carried out under the direction of H. H. Anderson.

Shell's Atlantic Coast administrative offices already occupied spacious quarters in the R. C. A. Building, where 50,000 square feet of additional space were leased to accommodate the enlarged organization. To meet the needs of the various departments, however, it was necessary to rebuild not only the newly acquired areas, but also the entire 80,000 square feet already in use. Almost every partition on each floor was razed, and a completely new scheme of office layout introduced to make the best use of space.

To completely rebuild 130,000 square feet of offices in a building almost fully occupied is no small undertaking in itself, and would hardly have been possible in a place of lesser magnitude than Rockefeller Center. In preparation for the job, about 270 of the Atlantic Coast employees were moved temporarily into an adjacent building.

"The best laid scheme of mice and men" according to the poet Burns, "Gang aft agley" and, for a time, that famous couplet aptly described the reconstruction situation. Essential materials failed to appear on delivery dates, record-breaking humidity turned plaster into paste, and a city-wide painters' strike threatened to change confusion into chaos. But patience and perseverance won out, and

the new offices were occupied within six weeks after demolition was started.

Meantime, activity was rampant on the St. Louis front. While it was practical to start a few people on their way prior to August 24th, the general exodus took place in the nine-day period between that date and September 2nd. Movement of household goods was effected by motor van, office furniture by rail, and employees and their families by any means they desired. Furniture delivery in the New York area was made directly to the new home, if one had been located, and otherwise to a warehouse for subsequent local delivery. About 250 vanloads of household goods were moved, the Company paying all packing, hauling and unpacking charges, including warehouse storage in New York for a maximum of thirty days.

Every employee was paid in cash a full allowance for railroad ticket, pullman berth and meals for himself and each member of his or her family. Accommodations were provided at Company expense in several first-class hotels, while suitable permanent living quarters were being sought. Food, laundry, garage and even meal tips were paid. In one of the hotels a nursery with governesses was

established to assist house-hunting parents, and a special real estate office was set up to give further aid in finding homes.

More than two-thirds of the 850 people, consisting of 320 employees and their families, made the trip by automobile, many taking devious routes to visit friends and relatives. A storm kept many of them on the road a day longer than planned. One young man made the trip by way of Miami and another by way of Chicago and the Great Lakes, but the important thing is that everybody arrived.

Identifying and reassigning six thousand pieces of office furniture and equipment presented a major "headache" for the Office Service Department. After every piece had been tagged for identity and position, it was moved by motor van to a St. Louis railroad terminal for crating and stowage into box-cars. A 44-car train was assembled. "Special" by railroad benediction, the train covered the distance to New York in 40 hours, one day less than normal "third morning delivery" of freight.

Arrival in New York was at 6:00 A. M. on Sunday, September 1st as planned, but it occurred in a cloud burst which was not planned. This arrival time was chosen to take advantage of minimum traffic in freight yards, streets, and elevators over Sunday and Labor Day. The furniture and equipment were unpacked, transported 30 blocks by motor van, and set up in correct positions by Monday midnight. Although, again, some departments were temporarily located in the adjacent building pending movement of the Asiatic Petroleum group from space taken over by Shell, by 11:00 A. M. Tuesday morning, all employees were at work at their own desks. The order of the day was "Business as Usual."

Special attention was given to the problem of helping those who could not be assimilated in the new organization. A placement bureau was established in the Personnel Department at St. Louis which, by October 1st, had helped to find positions for 160 of the employees affected. All those terminated were given a dismissal check based in part on past salary and years of service. Those who had earned vacation without taking it were given an additional two weeks' pay. Those eligible were pensioned, full pension representing 40 percent of average salary for the last five years.

This article would not be complete without a word of thanks to those both in and outside of the Company whose fine work enabled the move to be completed in the time set.

Splendid cooperation was given by all employees involved. Much hard work was done by the department moving supervisors and those who handled the office layouts and hotel and real estate arrangements in New York. Besides other departments already mentioned, special credit is due the Purchasing Department for dispatching the movement of household goods. About ten moving companies shared in this van shipment. The office furniture move was ably handled by the General Van & Storage Company of St. Louis and the Chelsea Fireproof Storage Warehouses, Inc., of New York, who respectively loaded and unloaded the special freight train provided by the New York Central Railroad Company. The management of Rockefeller Center, Inc., cooperated to the fullest in expediting the reconstruction of the office space. At one time, in order to clear the Shell floors, practically every unrented foot of space in the enormous Center was turned over to Shell for temporary use.

Business is as usual again in Shell's Head Office, as is shown by this glimpse of a portion of the 38th floor of the R. C. A. Building. Most of this floor is occupied by the Marketing Department.



SHELL AT WORK



(Above) Sherwood Buckstaff, Senior Geologist of the Exploration Department at Tulsa, studying a well log in connection with a geological map.



(Left) E. W. Hessel pours oil at the Compound House at Wood River Refinery.

(Below) Crew setting up Kelly joint on portable drilling plant unit at M. Dumler No. 12, Trapp pool, Russell County, Kansas.

ON THE Kilgore-Houston ten-inch pipe line, forty-two miles from Houston, Shell Pipe Line employees recently completed a reconditioning and treating job. These pictures tell the story of some of the work involved.

(Right) Here was a road crossing job, where oil was found coming up through the highway. Since the men were not permitted to dig through the road, it was necessary to tunnel under.



General view of the work. On the line is the "doping" and paper-wrapping machine. To the left is the sand blaster which was used to help clean the line, while in the background are the "dope pots." At extreme left are the workers eating lunch. (Below, left) Close-up view of the tunnel and pipe under the highway. (Below, right) T. A. (Jack) Smith, welder and maintenance foreman, in charge of the job.



Aviation Department Head To Devote Year To National Defense

JAMES H. DOOLITTLE, Manager of Shell's Aviation Department, was called by the Chief of the Army Air Corps for one year's active duty, beginning July 1, in connection with national defense. At the expiration of that time, Doolittle is to return to the Company and resume his duties as Manager of the Aviation Department.

"Jimmy" Doolittle, who holds a commission as Major in the Air Corps Reserve, came to Shell Petroleum Corporation in 1930 from the Air Corps. Prior to that time, he was trained in flying in the Aviation Section of the Signal Corps in 1917, and served as a pursuit, combat and aerial gunnery instructor during the World War. He served on the Mexican border with the Border Patrol from 1919 to 1921, and in 1922 made his first one-stop flight across the United States. Beginning in 1922, he was successively Test Pilot, Chief of Flight Test Research, Chief Test Pilot and finally Chief of the Flying Section in charge of all Army Air Corps experimental flying, at McCook Field, Dayton, Ohio. He was sent to the Massachusetts Institute of Technology by the Air Corps, and in 1925 received degrees of Master of Science and Doctor of Science from that institution. He is also a Fellow of Aeronautical Engineering from M. I. T.

In 1925 Mr. Doolittle won the International Schneider Cup Race for seaplanes at Baltimore, Maryland, and established a new world's high speed record for seaplanes of 245 miles per hour. In 1926 and 1928 he made trips to South America for the purpose of demonstrating American built airplanes to the South American Republics. In 1929 he conducted fog flying experiments for the Guggenheim Fund for the Promotion of Aeronautics. During the conduct of these experiments, the first complete blind flight was made. The plane was taken off, flown over a specified course, and landed without the pilot having been able to see out of the cockpit. In 1930 he made a trip to Europe to demonstrate American planes to some twenty European countries. In 1931 he established a Transcontinental record from Los Angeles to New York of 11 hours and 16

minutes, this being the first time the North American continent had been crossed in less than half a day. In 1932 he established a new world's record for speed for land planes and a new world's speed record for a closed course. In 1933 he made a trip to China to demonstrate American Aircraft and to study the aviation gasoline and oil situation. In 1934 he served as a member of the Baker Board (Air Corps Investigating Committee). In 1935 he established a new transcontinental non-stop flight record of 11 hours and 59 minutes for commercial airplanes. In 1935 he was elected Vice-President of the National Aeronautic Association, and in 1940 was elected President of the Institute of the Aeronautical Sciences. He was presented with the Mackay Trophy jointly with Lieutenant Cyrus Bettus, for the outstanding military achievement in 1925. He was decorated with the Distinguished Flying Cross with oak leaf cluster for work done in the testing of strength of airplanes under actual flight conditions, and for the first one-stop transcontinental flight. He was also decorated with the Bolivian Order of the Condor for Trans-

As Manager of Shell's Aviation Department, one of Mr. Doolittle's chief interests was the research conducted on aviation products in the Shell laboratories.



James H. Doolittle with the coveted Thompson Trophy after winning the finals of the 1932 National Air Races.

Presentation of the Spirit of St. Louis Gold Medal to Major James H. Doolittle by Dr. Harvey N. Davis, President of the American Society of Mechanical Engineers, in June, 1938.

(Courtesy Mechanical Engineering)



Andean flight, as well as the Harmon Trophy, with the Medaille d'Honneur and Diplome d'Honneur for the experimental work done in fog flying in 1929. In 1938 he was awarded the "Spirit of St. Louis" Medal by the American Society of Mechanical Engineers for his outstanding contributions to aviation.

TIME, The Weekly Newsmagazine (July 29, 1940 issue) in an article under National Defense, and entitled *Doolittle on the Job*, said: "Stubby, go-getting Reserve Major James Harold Doolittle, famed speed pilot and Sc.D. in Aeronautical Engineering (M. I. T.), was recalled to active duty from civilian life, was glad to answer the call. From Shell Petroleum Corp., which had lured him away from the Air Corps to be head of its aviation department, he took a year's leave of absence, dusted off his uniform and reported for duty. Air Corps men who remembered Jimmie Doolittle's varied talents, his urge to get things done, suspected that someone in Washington had put the finger on just the right man."

SHELL AT PLAY



Just to prove that he really did catch a 40-pound catfish in the Kiamichi Mountains, Harold Shanks (right) of Purchase and Stores Division, Tulsa, sent in this picture. On the left is Shank's fellow fisherman, C. B. Wellborn.

(Left) A tug-of-war with husky Products Pipe Liners giving it all they have! This was just one feature of the recent Products Pipe Line Picnic held near Zionsville, Indiana, and attended by 376 employees and their families.

(Below) Shell men and their families picnic by night on the Loird "B" lease picnic grounds near Kilgore, Texas.



(Above) An interesting event was the Sports Carnival sponsored early this summer by the Shell Employees' Recreation Association at Wood River Refinery.



(Left) The occasion for these smiles was the Wood River Refinery Store House Picnic held at the American Legion Park in Edwardsville.



(Left) It's small wonder the Glodewater, Texas, picnic was such a big success when you see this group of participants! If you wonder whether their barbecue was good, just look at the view below.



President Fraser Announces Military Leave Policy

THE following policy with respect to military leaves is effective immediately and supersedes all previous notices relating to this subject. It is applicable to members of the various reserve organizations, of the National Guard or Naval Militia, and to employees included by draft or enlistment under the Selective Service Act.

I. Special Leave of Absence

Any regular employee who is called or volunteers for training for a period not exceeding one year with Federal or State armed forces will be granted a leave of absence for such training (plus a period of forty [40] days for re-entering employment.)

II. Pay and Benefits During Training for Employees With One or More Years of Service With the Company

(a) Each employee with one or more years of service with the Company, who is granted a leave of absence for military training, will be given a "Military Service Allowance" equivalent to his normal wages or salary for a period of two months. In no instance, however, will the allowance be for a period longer than the leave of absence. Normal wages shall be calculated on the same basis as vacation pay. This allowance will be given within ten days after receipt of a statement from the employees' commanding officer that he has entered active military training.

(b) The Company will continue in effect and undertake to pay premiums for a maximum period of one year and forty days for group life insurance for employees with one or more years of service who are on leave of absence for peace-time training.

(c) No employee shall receive the benefits, enumerated in (a) and (b) above, for more than one leave of absence.

(d) *Disability Benefit Plan and Income Protection Insurance Plan.* These plans will be inoperative during the time that an employee is on leave of absence.

III. Job Protection for Employees in Training

(a) *Seniority.* Any seniority standing which an employee may have will be unaffected by such leave of absence.

(b) *Return from Leave of Absence.* Upon the return of an employee from military leave he shall be restored to his former position or to a position of like seniority, status and pay, unless the Company's circumstances have so changed as to make it impossible or unreasonable to do so.

(c) To qualify for re-employment an employee must be physically able to satisfy the requirements of the job and must return to the Company within forty days after satisfactory completion of training.

IV. Voluntary Service in Regular Armed Forces

An employee who resigns to enlist in one of the regular armed services of the United States for a period of more than one year (at present regular enlistment for the Army is three years and for the Navy six years), prior to a declaration of war, will be treated as terminated. He will, however, be given pay in lieu of any earned vacation. The Company will record on all such employees' personnel records the circumstances attending their termination of service, and they will be given special consideration in the event of their later applying for re-employment.

V. General

While the foregoing is announced as a statement of policy, the Company necessarily reserves the right to change this policy from time to time in the light of changing conditions. Any such change, however, will not affect leaves previously granted in accordance with the provisions of this notice.

The Company reserves the right to decide any question arising under this policy and its decision shall be conclusive.

ALEXANDER FRASER.

October 10, 1940.

Shell Chemical Company

By Donaldson B. Thorburn*

Commercial production of new petroleum products

IN SANTIAGO, CHILE, a butcher hangs a side of beef in his room-size refrigerator. . . .

In a jungle village of the Congo an African belle anoints her dusky skin with treasured perfume. . . .

In Shanghai a Chinese painter sprays a gorgeous colored lacquer on a Model T Ford destined for a wedding procession.

These remote happenings have one thing in common. In each case there is a Shell product at work.

To those acquainted with the work of Shell Development Company, it is no surprise that ammonia for refrigeration, alcohol for perfume base and solvents for lacquer are products of the petroleum industry, but the means by which these Shell products are created commercially and reach all nations of the world is a new story—the story of Shell Chemical Company.

Shell Chemical's California plants at Dominguez, Martinez, and Shell Point furnish scores of industries with indispensable chemicals manufactured from what were once the waste portions of petroleum oil and petroleum gases. To those unacquainted with petroleum derivatives, the products of Shell Chemical seem bizarre and unbelievable—carbon briquettes, for example, and anti-freeze for car radiators; fertilizer for soil, and shaving lotion base.

Yet these are only a few of the things the company produces. It would be impossible to enumerate them all, or even to list entirely the varied industries to which they contribute. In general, the principal users of Shell Chemical's products are fruit and vegetable growers and the manufacturers of lacquers and varnishes, synthetic resins and plastics, synthetic fibers, artificial leather, safety glass, photographic films, printing inks,



Shell Chemical Company's Plant at Dominguez, Calif.

cosmetics, perfumes, medicinal preparations, explosives, mineral oils, and industries engaged in extracting vegetable and animal materials, in manufacturing rubber articles, etc.

All this has come about in comparatively few years, in fact within the last decade. It would not have been possible much before that, because in the old days oil was refined by distillation, which simply divided petroleum into two classes—fuels and lubricants. Because it was unthinkable to alter the chemical structure of petroleum, its derivatives were limited. Oil companies could deal in nothing but oils, kerosene, and gasoline. Then Carbon P. Dubbs, backed by the Shell organization, invented the cracking process of refining, thus opening the whole petroleum field to the chemists. He changed the oil industry from the business of producing and marketing fuels and lubricants to the business of producing useful products from all kinds of hydrocarbon compounds which could be obtained from crude oil.

As a result of this change, Shell Chemical Company was incorporated in 1929, and a year later bought 600 acres of land near Pittsburg, in the San Francisco Bay district, as the site for a nitrogen fixation plant. In

* Published through courtesy SHELL PROCESS—New York City

the same year a plant to produce secondary butyl alcohol from butylene was erected at the Martinez Refinery of the Shell Oil Company. Expanding operations necessitated extension of this plant in 1933, to manufacture tertiary butyl alcohol and the versatile solvent, methyl ethyl ketone. In the following year at the same location a plant was built to regenerate spent alcohol acid so that it might be used in manufacturing sulphate of ammonia. In 1936 the company built an alcohol and ketone plant at Dominguez, in Southern California, which it since has enlarged to produce acetates and higher boiling ketones such as diacetone, mesityl oxide and methyl isobutyl ketone, which find use as solvents.

The company's growth in production and sphere of influence has been phenomenal. Its total production of ammonia in its first year of commercial operation was 4,500 tons. Growth has been steady, year by year, until its production of ammonia in 1939 totaled 27,000 tons, while the production of ammonium sulphate grew from 9,800 tons to more than 58,000 tons. The company turned out about 90,000 pounds of solvents in 1931, but in 1939 the annual volume had increased to 57,000,000 pounds.

Reasons for establishing the ammonia plant at Shell Point are apparent. The farmers of California, Hawaii and the Philippines have long since become accustomed to the use of nitrogen fertilizers. And when Shell Chemical found itself in the ammonia business it also found itself in the nitrogen fertilizer business. It has long been known that the abundance of a crop yield is largely determined by the availability in the soil of nitrogen, phosphoric acid, and potash, in that order. Unfortunately, most crops remove those substances from the soil on which they are grown, which means that they are lacking in the soil from which crops are continuously harvested. So, the farmer must either let his fields "lie fallow" for a season or two—which farmers have done since the cock-crow of civilization—or add one or more of the substances lacking. Now, although the air we breathe is 80 per cent nitrogen, plants unfortunately cannot absorb enough nitrogen in the elemental form to do them much good. To become plant food, the element must be made into chemical compounds. Ammonia is the simplest of such compounds, and also contains the largest percentage of nitrogen. So Shell Chemical takes nitrogen from the air and hydrogen from natural gas piped 300

miles from Buttonwillow oil field, and makes ammonia. Three railroads give the plant at Shell Point access to the West Coast markets, while steamship lines operating from San Francisco Bay provide economical transportation to the agricultural islands of the Pacific.

Shell Chemical's earliest investigations disclosed numerous natural markets for ammonia. Where irrigation is employed, farmers use it as a fertilizer in liquefied form. Converted to ammonium sulphate, it is a crystal form of fertilizer which farmers from coast to coast scatter on soil prior to irrigation or on nonirrigated land. Refrigerator manufacturers use it as a refrigerant in the pipes of their ice machines. It is used by several large cities as a purifier in their water. In oil refineries ammonia is widely used as a neutralizing agent and corrosion preventive. When dissolved in water, it forms aqua ammonia, which is what is in that bottle of ammonia in everyone's kitchen cupboard. Ammonia is used as a raw material for the production of nitric acid for manufacturing explosives.

The manufacture of ammonia, as carried on at the Shell Point plant, seems complicated to the layman, but is really simple in principle. The plant starts with a gas which has something they want and many things which they do not want. All they have to do is remove the unwanted substances, to obtain pure hydrogen which they can combine with nitrogen from the air, as we mentioned before. The gas with which they start is a well-nigh hopeless conglomeration of ethane, methane, nitrogen, oxygen, and several other things. The first step is to crack this gas, which immediately makes drastic chemical changes in it. It produces carbon, which is washed out with water and removed by electrical precipitation; it leaves a gas composed of hydrogen mixed with unwanted methane, ethylene, carbon monoxide, and several other gases.

To purify the hydrogen, it is sent through iron oxide boxes, which remove nitrous oxide, through an oil scrubber, which removes naphthalene, and through another oil wash under pressure which removes benzol. A water scrubber and two caustic soda scrubbers effectively do away with the stubborn carbon dioxide. Finally, it is ready for the final process of purification, the Linde process. The gas is cooled to a temperature of 380 degrees below zero, during which arduous process it gives up most of its remaining impurities, in-



C. B. de Bruijn
President



Dr. L. Rosenstein
Chief Chemist



S. S. Lawrence
Sales Manager



E. Reillac
Office Manager

cluding methane, ethylene and acetylene. At this point, the gas is washed with liquid nitrogen, which has been obtained from the air. The result is twofold: a mixed gas of 75 per cent hydrogen and 25 per cent nitrogen is produced; and carbon monoxide is removed at the same time. Finally, in the synthesis plant, the gas loses the last of its oxygen and carbon monoxide and is synthesized into ammonia, which emerges as a gas, ready for liquefaction or conversion into ammonium sulphate.

In the description of the creation of ammonia, described above, we have called certain substances as "unwanted." That is not strictly true, for at least three of these become tremendously important by-products themselves. The useful products made from these by-products constitute a perfect example of the ingenuity of Shell Chemical—something useful made from the waste products of the oil fields!

The first of these by-products of ammonia production is carbon, which was once thrown out as a waste in the early days of the chemical-petroleum industry. It is now filtered from the wash-water and dried. It is so pure it can be, and is, successfully sold to the metallurgy industry. In addition, after undergoing a process of pulverizing and screening, it is sold in powder form as Shell Carbon 53B, which is used in making tires, belts, brake blocks, flooring, tubing, hose, inflated products, molded goods, sponge rubber, soles and heels. It is also sold in briquette form for carburizing purposes in the steel industry and for frost prevention in orchards; it would also find a ready market for burning in open fireplaces in homes, the briquette having a long burning time with no ash deposit.

Second by-product is naphthalene, which is recovered from the absorption oil which extracts the naphthalene from the gas, and which, after purification, is sold in flakes for such purposes as the manufacture of cleaning

Ready to improve the yield and quality of farmers' crops, these cylinders of ammonia are being filled and weighed, preparatory to leaving Shell Chemical's plant.

After processing, the pulverized carbon is sacked, large quantities of it going to the U. S. rubber industry.

A valuable by-product of ammonia manufacture is carbon, shown here coming out of a filter into the Shell Carbon Plant.





Nitrogen exists in great quantities in the air, but it takes this Linde apparatus, operating at 380° below Zero, to get it out.

These enormous pressure regulators control the natural gas entering Shell Chemical's Gas Reform Plant.



fluids and moth balls. The third by-product, benzol, is distilled out of the absorption oil, purified, and finally finds its market as a solvent and as an ingredient to increase the aromatics (anti-knock qualities) in gasoline.

At the conclusion of the ammonia manufacturing process, the ammonia itself may go to the sulphate plant, where it is combined with sulphuric acid, which is derived as waste from Shell Chemical's alcohol plants and from the refineries of Shell Oil Company. The result is ammonium sulphate, which is crystallized out and stored for sale in bags or in bulk to agriculturists. As an alternative, the ammonia may go to the compressor and become a liquid, which is shipped in tank cars or in metal cylinders; or it can be dissolved in water, becoming aqua ammonia, for shipment in tank cars or drums.

The plant at Shell Point takes in 125

million cubic feet of natural gas each month, and from it produces 2,200 tons of ammonia, 700 tons of carbon, 400 pounds of naphthalene and 6,000 gallons of benzol.

The novel method used to apply liquid ammonia as a fertilizer is interesting. Shell Agricultural Ammonia is delivered to farms in cylinders at the time of irrigation. A service man of Shell Chemical Company's agents connects the cylinders to a metering device and then turns on the valve which releases the liquid ammonia from the cylinder. The ammonia, which is readily soluble in water, becomes uniformly distributed into the irrigation water and is carried by it to the soil. By this means, Shell ammonia has increased crop yields materially for orchardists and growers of field crops. For example, actual tests conducted under rigid supervision disclosed that soil fertilized with 400 pounds of Shell Agricultural Ammonia to the acre produced 736 crates of celery as against 565 crates produced from an acre of soil fertilized with a ton of mixed fertilizer.

A plot of ground yielding 120 crates of carrots per acre increased its production to 209 crates through application of ammonia.

In the San Joaquin Valley of Central California, test plots were sown with Baart wheat and comparisons were made between unfertilized fields and those to which ammonia had been applied. It was found that the increase in pounds of wheat produced on each acre, per pound of ammonia applied, ranged from 14.5 to 18.4.

The new method of applying ammonia to the soil has also been used successfully on a large number of other crops. It has increased the yield and quality of citrus, prunes, peaches and pears; strawberries, blackberries, raspberries; cabbage, cauliflower, broccoli, tomatoes and practically all other truck crops; sugarbeets; grapes; lima beans; flax, and cotton.

This outline of the production and utilization of ammonia is typical of the operations of Shell Chemical Company. Ammonia is an important product, but it is only one of many. The organic chemicals manufactured by the company include, in chemical terms, ketones, esters, alcohols, and ethers. As a measure of their uses, let's look at just one, isopropyl alcohol, our familiar anti-freeze ingredient. It is a colorless liquid with a pleasant odor but with a bitter taste, slightly stronger than the more common ethyl alcohol. Its uses are

manifold: It is an excellent solvent for gums, shellac, and many other materials, both organic and inorganic. It is used as a germicide or preservative in cosmetic and toilet preparations. It is in nearly everyone's medicine cabinet in perfumes, toilet waters, hair tonic, wave lotions, shampoos, hand lotions, shaving lotions, mouth washes or some other familiar product. It is a dehydrating agent for sugars, starches, gelatine, animal and vegetable tissue. It is used as a drying agent in developing photographic films and in preparing metal for electroplating. In the process of lubricating oil refining, isopropyl alcohol is used to break emulsions formed after the neutralization of acid-treated oils. It is also a component of a chemical used as a collector in ore flotation processes and probably most important of all, it is the raw material for acetone, which is the largest selling ketone.

It is evident from the uses of this one product alone that the marketing operations of Shell Chemical offer some fascinating complexities. From C. B. de Bruijn, its president, on down, every member of the company's staff acts in a sales capacity. All travel, in order to keep touch with the many industries which it supplies and to determine future needs which will create markets for new products. Because of the complexities of the business, however, actual sales are handled through agents and sub-agents throughout the country. During the ten years of the company's existence its progress has been rapid: it has secured a substantial amount of both the domestic and the export business in its lines. Shipments are made to every state in the Union, and, in normal times, to every country of the world.

The company has a notable record of discoveries. The production of di-isobutylene in the alcohol plants of Shell Chemical led to the hydrogenation process by means of which it produced the first iso-octane aviation gasoline, which has received the acclaim of the aviation industry. Agricultural ammonia, received skeptically at the outset by chemical research men and agriculturalists alike, has proved an outstanding success. Acetone, a relatively inexpensive low-boiling solvent, has proved to be a boon to the cellulose acetate rayon industry, which uses it to prepare the spinning solution for artificial silk materials. Development of the acid sludge process for manufacturing ammonium sulphate made possible the profitable use of

a disagreeable waste product of the petroleum refineries.

Yet if you question the management regarding the accomplishments of Shell Chemical, you will find that it is not the actual manufacturing developments of which they are most proud. They pride themselves more on the attainment of standards of purity which had never before been achieved. Their purification of methyl ethyl ketone opened up its commercial possibilities, and the same thing is true of secondary butyl alcohol. They put out acetone in a state of purity never before accomplished. Pure tertiary butyl alcohol was only a laboratory curiosity until Shell Chemical produced it in tank-car quantities, so that it was useful in the manufacture of plastics, molding resins, and artificial musk.

With its manufacture and sale of chemical products, Shell Chemical completes a triumvirate among the Shell Companies that produce and utilize the oil from Texas, the Mid-Continent, and the fields of California.

With its 5,265 wells the Shell Oil Company, Inc., produces the crude oil from the earth; with its eight refineries it converts this oil into salable petroleum products in the form of fuels, lubricants, insecticides, and solvents; and with its 4,721 miles of pipeline and its 5,235 tank cars, it transports these products to strategic locations from which the sales department puts them into productive use in the automotive, industrial, and agricultural fields.

Cooperating with this operation, Shell Development conducts research to maintain rigid standards of the quality of Shell products, to discover new and improved manufacturing processes and to find new products and uses by exploring the chemistry of petroleum.

Shell Chemical Company, third member of the trio of associates, is the manufacturer and marketer of petroleum chemicals throughout the United States and the world. It imparts economic tangibility to Shell's scientific discoveries by meeting the needs of widely divergent industries with an ever growing supply of chemical necessities. Operating profitably in a field adjacent to but beyond competition with petroleum marketing, Shell Chemical is leading the oil industry beyond its present horizons into new spheres of activity where it is proving in a thousand ways its growing usefulness in advancing civilization.

Information, Please!

UNDERGROUND RAILWAYS of our industry, its 115,000 miles of crude oil and gasoline pipe lines, have had a major share in the continuing price reductions of petroleum products to the consumer.

Pipe lines offer by far the cheapest land transportation for petroleum, but, where geography permits, the ocean-going tank ship affords the cheapest transportation of all. Comparative rates, according to a transportation authority, approximately are 8.3 mills per ton-mile by railroad, 3.2 mills by pipe line, and 1.25 mills by tank vessel.

The pipe line conforms exactly to the needs of the refiner, the one-way movement of bulk liquids, and its use grew naturally and rapidly as a plant facility of the refinery. From the earliest days of the industry, piped long-distance oil transportation has been the saving answer to one of the toughest refinery problems, assurance of a continued supply, and lowest-cost transportation, of the essential raw material.

RAILROADS COLLECT for the gasoline, fuel oil, and other refined petroleum products they haul for our industry more freight revenue than from the products of any other United States manufacturing industry. In 1938 hauling of these products, plus a small amount of crude oil, brought the railroads \$248,000,000—one-eleventh of their total carload freight revenue from all classifications of products handled. It is of interest that practically all of the 146,000 oil tank-cars on the American railroads are owned by oil companies and tank-car leasing companies, the railroads owning only those cars required to serve their own needs.

PURCHASES BY OIL FOLKS keep more than 44,000 retail stores going, and nearly 150,000 shopkeepers and their employees in jobs. Census figures show the annual business of the average retail store at about \$20,000. The annual petroleum payroll is \$1,500,000,000, and about 58 percent of it is spent in stores and shops.

It looks as if 22 percent of each oil pay dollar is spent for meats, groceries, and other foods. Restaurants, shows, and drug and

tobacco stores get 19 percent. Department stores take 10 percent, rent 15 percent. The balance is distributed: public utilities, seven percent; professional services, four percent; upkeep of family car, eight percent; and 15 percent to savings and insurance.

INDIANS, ridiculed in history for their \$24 sale of Manhattan Island, apparently had a better appreciation of the value of petroleum. A report made in 1788 said Indians were selling crude oil to whites for \$25 a quart. This works out to \$4,200 a barrel, probably the highest price ever paid for oil.

While the price of land on Manhattan has risen, the prices of crude oil and petroleum products have been reduced. Today they are at record lows compared with all other essentials.

BEFORE-THE-WAR costs of gasoline in the world's capitals reveal clearly that in no other country are motor-fuel prices so low as in the United States, thanks to American oil people.

Compared with an average United States cost of 18.84 cents a gallon, including taxes, costs in other countries ranged up all the way to 81 cents a gallon in Rome. In London the price was 30.9 cents; in Paris, 30 cents; in Berlin, 59.6 cents; in Prague, 41.6 cents. In many of these, as well as in other world capitals, incidence of war has raised prices still higher. In the United States, as of September 1, average price of gasoline in 50 cities was 13.40 cents a gallon, plus 5.44 cents tax.

PENNSYLVANIA'S BRADFORD FIELD has produced oil steadily for 65 years, and, by careful use of induced pressure from water-drive wells, the volume of production in its later years is closely approaching its early peak output.

Use of the water drive and, in other fields, the gas drive, are examples of modern engineered production which continually is increasing the proportion of oil realizable from a field. Modern engineering practice predicts ultimate yields at more than 99 percent of the recoverable oil in fields known today with avoidable waste virtually eliminated.

A Box of Petroleum Dates

1527

Spaniards landing in Peru named the spot La Brea, for the asphalt obtained there. The Incas mixed it with lime and gravel and used it as mortar for their stone houses, and to build excellent roads. The Spaniards used it to caulk their boats.

1748

A publication on America by a Russian traveler and naturalist, Peter Kalm, contained a map with the location of petroleum springs on Oil Creek, Pennsylvania. Seven years later, in 1755, Lewis Evans' "Map of the Middle British Colonies in America" showed, near the present site of Titusville and Oil Creek, the word "petroleum."

1819

Dr. S. P. Hildreth of Marietta, Ohio, reported that "petroleum is beginning to be in demand for lamps for work shops and manufacturers. It affords a brisk, clear light when burned this way, and will be a valuable article for lighting the street lamps in the future cities of Ohio."

1860

Seneca Oil Company sent a sample of crude oil to A. Gelee, a French chemist, for analysis. Gelee reported: "If that oil can be gathered in quantity enough, its illuminating and lubricating qualities are such that for those purposes it will revolutionize the world."

1877

Robert Locke, who had worked as a "driller's helper" on the Drake well, drilled a well for the Chinese government among the head-hunters in Formosa.

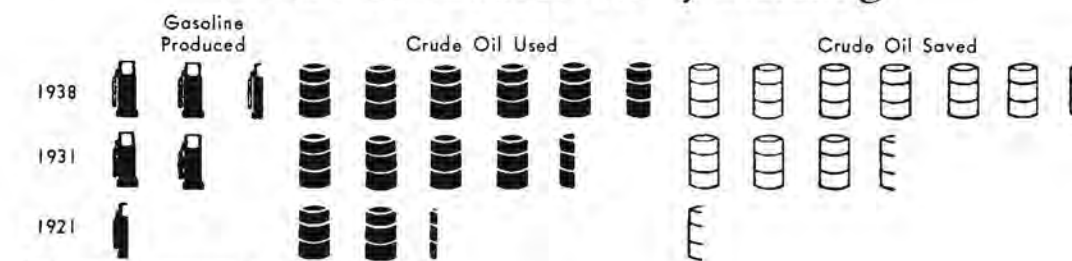
1882

Vic Gretter and S. E. Humphrey extinguished an oil-well fire by shooting off the top of the casinghead with a cannon, made especially for the purpose; a bolt was used as the projectile.

1883

Prospectors discovered an oil spring within six miles of the Navajo Reservation in western New Mexico, but they were driven away by the Indians before determining either the quantity or quality of the oil.

Crude Oil Conserved By Refining



Each symbol represents 2000 barrels.

MORE THAN 12 billion barrels of crude oil are estimated to have been conserved since 1920 by the improved refining methods discovered by our researchers.

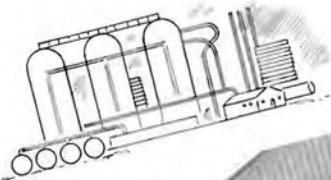
This oil was "saved" because, if we were still refining by the same methods in use early in the industry's history, we would have needed 12,000,000,000 additional barrels of crude oil to make enough gasoline to supply the demand since 1920. Furthermore, the gasoline we make today by these newer methods is so much more powerful, does so much more work per unit, that some scientists estimate the savings of crude oil at even

greater levels.

Chief among the modern refining processes is cracking, which is responsible for most of the conservation in the last 20 years. Newer processes, however, such as the polymerization of waste refinery gases, are producing an increasing amount of high-octane motor fuels without using additional crude oil.

Scientists estimate that from all the refinery gases and from natural gas, eventually we can process more than 9,000,000,000 gallons of high-octane motor fuel annually without any increase in crude-oil consumption, further aiding conservation.

HERE AND THERE WITH SHELL



"Growing Shell" — designed by J. L. Thompson, Shell Pipe Line engineer at Eldorado Station.



(Left) Looking northwest over the main office road toward the T. V. P. Plant at Wood River Refinery.

A glimpse of Shell operations in the Centralia, Illinois, oilfield.



Houston Refinery's Main Office Building.



(Left) All teams hard at work for the grand prize in the First Aid Contest which was a feature of Products Pipe Line's first annual picnic held recently near Zionsville, Indiana.



The Other Fellow's Job

The Safety Engineer

No. 21 of a Series Portraying Typical Jobs With Shell

*By P. E. Keegan**

ONE NEED NOT be as old as Methuselah to recall the day when accident prevention in industry was looked upon as each employee's individual problem—or in case the problem was not successfully solved, as his hard luck. Accidents, in fact, were accepted as a by-product of industry.

Then came a bit of page-turning in the history of accident prevention. "Safety First" became a familiar slogan. There appeared on the scene a man commonly known as the "Safety First Man," and sometimes referred to as "Safety Sam." The lot of the "Safety First Man" in the beginning was a difficult one. To employee and foreman alike he was an altruist who "meant all right" but who had rather absurd ideas. Take his idea of wearing goggles when grinding metal on an emery wheel. Every one knew goggles weren't really necessary—and, besides, they were inconvenient. Also, his suggestion that a man working at a precarious height should use a safety belt was something of an insult to the craftsman's skill and experience. And to the foreman who was asked to blind all lines leading to a tank or vessel before permitting his men to enter, he was the world's champion pest who "sat up nights" thinking of ways to throw away the company's money. Not that the employee or foreman wanted to be injured, or wanted to see a fellow workman injured, but habits of a lifetime are not changed in a day. Accidents, moreover, were thought of as something that happened only to "the other fellow."

In the last fifteen years, however, accident prevention activities in industry have come to be pursued on such a comprehensive scale that the safety engineering department constitutes an integral and permanent part of any large company. Of this fact, Shell is a good example. Exclusive of the West

Coast operations, its safety organization consists of twenty-three persons, five of whom are safety engineers, six fire and safety inspectors, three fire inspectors, seven part-time safety and fire inspectors, and two junior safety engineers. These men cover the operations of the Manufacturing, Production, and Marketing departments, as well as the gasoline pipe line and Shell Pipe Line. The greatest concentration of personnel, of course, is in the refineries for it is there that the greatest hazards exist.

To understand the work of the safety engineer, it must be realized that accident prevention is not merely a matter of eliminating hazards which have already caused trouble but of recognizing potential hazards and preparing for them. Since the petroleum industry is in a constant state of advancement and pioneering, there is a constant uncovering of new hazards. It is the safety engineer's job to ferret out these hazards in advance so everyone concerned will be aware of their nature and prepared to overcome them, without waiting for accidents to bring them to notice.

The fact that the duties of a safety engineer cover a wide range and are by no means routine makes his job interesting, but at the same time difficult to describe in detail. Broadly speaking, however, he is charged with the responsibility of minimizing the frequency and severity of personal injuries to employees, and he attempts to do this through education, inspection, constant observation of safe and unsafe practices, assisting in the proper design of new equipment and the revision of old equipment, as well as disseminating safety information.

In accident prevention, the axiom "Familiarity breeds contempt" has particular significance, for one who is in constant contact with a dangerous condition often becomes

oblivious to it. To counteract this tendency, the safety engineer devotes as much time as possible with workmen right on the job in order that he may observe their movements from the viewpoint of safety. Ever present in his mind is the question: "Is this operation being performed in the safest way possible, or can it be done in some other way to make an accident less likely?"

Since the frequency of accidents occurring to new employees is considerably higher than to those who have been employed long enough to become familiar with their jobs, the safety engineer endeavors to meet each new employee at the time he is hired and instruct him in the hazards of his job. Often the new employee is a young man with little or no industrial background, and coming to

Before issuing a permit for a welding repair job on this cooling water return line, Safety Inspector Louis Grossheim of Houston Refinery, left, tests the gas content of the pipe line. A small hole has been drilled in the line for the test. Louis Richards, Pipefitter, awaits the decision. Steam has been put into the line for the past hour. When the permit is issued, Richards will inform the welders that his part of the job, that of making ready, is completed and the welders can take over. The instrument held by Grossheim is a gas indicator and is a vast improvement over the system used to detect gases fifteen years ago. In those days the procedure was to lower a water-filled bottle into a tank, let the water run out, thereby sucking in tank atmosphere. The bottle was hastily withdrawn, capped, and taken some distance away. It was uncapped and a match struck to the bottle. If there was gas in the bottle, there was gas in the tank and the "fire test" proved it.

(Below) C. S. Lindsey, Welder at Houston Refinery, and M. L. Welch, helper, welding a flange on a pipe. Welders are provided with asbestos gloves and sleeves, as well as shields for protection against injurious rays of welding arc. Both men are wearing safety shoes, purchased through the company. Safety rules require that electric welders place a screen between the arc and any nearby workmen to protect their eyes.



*Industrial Relations Department Head, Houston Refinery

work in a plant of such complexity as an oil refinery is an entirely new experience to him. Often, one of his first jobs is sampling or gauging tanks containing highly toxic and explosive vapors. Without proper instructions in necessary precautionary measures, this job could be exceedingly dangerous. As it is, however, proper instruction and safe wearing apparel and equipment, such as modern gas masks, make it possible for him to encounter the hazards of his job with immunity.

In working with the engineering department in designing new equipment, the safety engineer often makes suggestions for the inclusion of safety equipment such as pressure

the history of some accident. The safety engineer, therefore, investigates all aspects of every accident or near accident that comes to his attention. Not only does he investigate those occurring within his own domain but he attempts to learn as much as possible about accidents occurring elsewhere so he may have the benefit of any lessons thus taught.

Another large responsibility of the safety engineer is to train employees in the proper handling of accidents after they occur. These men have trained thousands of employees in First Aid Methods—one hundred per cent of the personnel of some localities having completed the course in First Aid to the Injured. It is significant that employees who have been

An employee at an emery wheel wearing protective goggles.



(Extreme right) M. W. Hendricks, Dubbs Pump House Gauger, at Houston Refinery gauging a tank. Note the conister gas mask for protection against toxic vapors; electric cap lamp for safe illumination in explosive gas; and drip pan around gauge hatch to prevent slipping hazard from oil on tank top. On tanks containing hydrogen sulphide, a second gauger remains on the firewall to render assistance in case of emergency. G. F. Jack, Gauger, is seen watching Hendricks from the firewall of the tank.



releases, for the location of sources of vapor with reference to sources of ignition, for proper hand-railing, working platforms, etc. While in the safety program the safeguarding of equipment is secondary to education of employees, the failure of the human element is sufficient, even among skilled workmen, to make it necessary for the job site to be as "accident proof" as possible.

Developments and use of personal protective equipment are also matters of great interest to the safety engineer since such equipment can prevent many injuries. New types of equipment are constantly being introduced to the market, old equipment is continually being improved, and it is necessary that the safety engineer keep abreast of all such developments in order to study their applications to his particular problems.

Behind every safety rule, it is said, lies

trained in First Aid have a lower frequency of injuries than those not trained. Thus this training, which was originally intended to reduce the *severity* of accidents after they had happened, actually operates to reduce the *frequency* of accidents.

The widespread efforts of our Company directed toward safety have not been in vain. Shell's accident records for the last ten years are proof of this fact. The disabling injury frequency rate for the Company for the year 1929 was 34.6, which means 34.6 disabling injuries for each 1,000,000 man-hours of work. The rate for 1939 dropped to 9.1. In the refineries, where more concentrated efforts are possible, the 1929 rate was 24.48 as compared with 4.71 for 1939. Some of the refineries have completed several million-man-hour periods without a single disabling injury. Speaking for Houston Refinery alone,



Cleanout crew at Houston Refinery preparing to open unit for cleanout. All members of this department, as well as all other maintenance and construction employees, are provided with protective hats. Top row, from left: A. M. Vana, G. A. Smith and W. E. McCord. Bottom row, from left: Alex Vincent, Mike Robinson, T. A. Borker, Leo Fullerton and M. L. Roller. Note the sweat bands worn on the foreheads of some of these men. These prevent perspiration from fogging their goggles.



(Left) A. E. Blonkenschap of Houston Refinery, hydrojetting topping plant heat exchanger tubes. To prevent serious accident due to slipping and falling from a height of approximately thirty feet, workers on this job are provided with safety belts, secured with rope to the framework of the tower. Below is W. B. Read, Boilermaker.

this plant proudly displays two Certificates of Honor awarded by the Joseph A. Holmes Safety Association for the completion of two periods of over one million man-hours of exposure without a disabling injury. The first period was from July 18, 1930, to June 18, 1931, when a record of 1,176,823 hours was compiled. The second record of 1,130,000 hours covered the period October 19, 1935, to July 13, 1936. A disabling injury on September 17, 1940, terminated a new record of 276 days or 1,906,670 man-hours without a disabling injury. This accident-free period started December 14, 1939.

Thus, the "Safety First Man" of yesterday, who often met discouragement in his task of preventing accidents which long had been tolerated because they were "bound to happen," has become the safety engineer of

today who has full and hearty cooperation of both the men and the management. In some places the enthusiasm of the personnel in establishing enviable safety records is so great that the term "Safety Sam" might be applied appropriately to every employee.

Yet, great as the strides which the safety engineer has already taken, his work continues with increasing rather than decreasing importance. He must not only hold the ground he has already gained but must constantly learn by experience of hazards which previously he had not recognized—and he must constantly search for ways to overcome such hazards. He realizes it is only with this attitude—and with the wholehearted cooperation of all Shell employees—that accidents can truly be limited to their Websterian definition of "unexpected events."

LITTLE MOMENTS IN A BIG DAY...

at Eastern Area's annual picnic

BRIEF, but convincing, is this photographic evidence which shows that for the seven hundred persons who attended, Eastern Area's annual picnic at Rose Lake, Iuka, Illinois, was truly a red-letter day. In addition to Eastern Area employees and their families, the merry-makers included a group of visitors from Head Office.



A tense period in the balloon-swatting contest.

(Below) C. B. Singleton (left) and Alexander Froser pause for a chat.



The spirit of the occasion, as expressed by one trio—Ed Shakely, A. J. Galloway and Pat Sullivan.

(Below) A soft ball game which will go down in history was this one between the office and field men. The score? —11 to 4 in favor of the field!

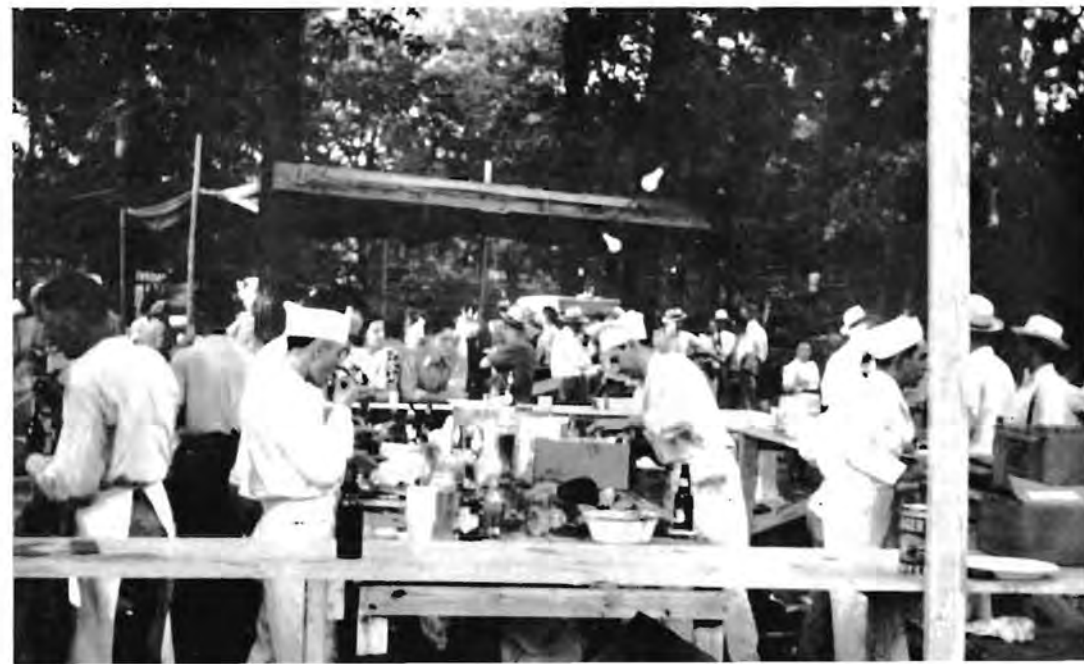


Moonlight and roses might be all right in their place, but here's a case where sunlight and trees added to the pleasure of those in a dancing mood.

(Right) Yes, there was reason for the popularity of third base in the soft ball game! Here is George Starritt coming in to third, while Pat Sullivan, in official regalia, extends the prize.



(Below) The food stand—a point from which much pleasure emanated.



Service Birthdays

JULY AND AUGUST—20 YEARS

(September and October 20-Year Service Birthdays to be shown next month)

J. F. Bossier

In July, 1920, a young man by the name of J. F. Bossier made his first acquaintance with Norco Refinery. His position was that of yardman. In October, 1928, however, he was transferred to the Shipping Department as loader, and in 1934 was transferred back to the position of yardman—continuing in that position to the present. Throughout this long period, Bossier has been a safe, dependable, and congenial worker. His leisure time is well occupied with his activities as fisherman, shrimper, turtle catcher, and hunter. He not only brags about his "catch" but is one of the few who tells where he finds them.

H. D. Chappell

At Wood River Refinery affable H. D. Chappell for twenty years has been a familiar figure. Starting at the bottom in the labor department, through hard work as well as ability he has advanced to the position of foreman of the Car Department. In this journey he has worked in practically every department of the plant. Outstanding in his interest in the activities of Wood River, Chappell has served as president of the Shell Club, has been in charge of three plant picnics, has been chairman of two Christmas parties, and is very active in the Shell Service Club. His friends know him as a man singularly devoted to his home.

E. P. Claytor

E. P. Claytor, pumper-special in the Dispatching Department of Wood River Refinery, joined the Company twenty years ago as a member of the Topping Department. Later he was transferred to the Cracking Department and then to the Dispatching Department, where he has continued. Claytor enjoys staying home and reading and is also interested in the activities of his lodge.

D. M. Cunningham

Two unusual facts are attached to the record of D. M. Cunningham, oil pumper at Avant Consolidated Block—Avant, Oklahoma. Headquarters. The first is that for exactly half of his life he has been working for Shell; the second is that during all of this twenty year period he has worked on the same lease. He has never had a lost time accident and is greatly interested in the policies and activities of the Company. Cunningham subscribes to the sports of hunting and fishing.

O. C. Gent

During his twenty years at Wood River Refinery, O. C. Gent has risen from laborer to assistant head stillman in the Cracking Department. Between those extremes, he worked in both the laboratory and Topping Department. Keenly interested in athletics—and an athlete of no mean prowess himself—Gent manages departmental athletic teams. Every year during vacation he goes to Minnesota to fish for trout. He enjoys working with his men and has formed many close friendships with them. During the first World War, Gent served in the U. S. Marines.

C. L. Jeffries

At any first aid and safety meeting held at Union, Missouri, one man is always certain to be present, and that is C. L. Jeffries, maintenance foreman for Shell Pipe Line at Union. Starting as a maintenance worker at Shell-ton Station in June 1920, he later worked at Chelsea, Oklahoma; Richland, Missouri, and Chesterfield, Missouri, before assuming his



J. F. BOSSIER
Engineering Field
Norco Refinery

present position. Jeffries is chairman of the pipe line social and recreational committee at his location. Target practice is one of his hobbies.

R. C. Jones

As head roustabout in Copan District—Avant, Oklahoma, Headquarters—Ralph C. Jones can look back on a twenty-year career with Shell which commenced at Bartlesville, Oklahoma, where he worked for three years as garage foreman. During the next twelve years he worked as engine repairman, and for the last five has been holding the position of head roustabout. Jones has the distinction of having driven approximately 350,000 miles without a chargeable accident. Also he has to his credit forty-three years in the oil industry and, incidentally, claims that Shell is the best company he has ever worked for. His leisure interests are wide, including baseball, automobile racing and hockey.

O. E. Landry

The name of O. E. Landry was inscribed on the records of Norco Refinery on July 19, 1920, when he went to work as waste oil burner. Later he worked in various departments in the Engineering Field Department. In April 1936, he was transferred to the Industrial Relations Department as patrolman, and he continues to hold that classification. Landry, a quiet and efficient worker, is a hundred percent family man. He cares nothing for the usual hunting and fishing but derives much pleasure from his family which includes four fine children.

J. E. Long

When a baseball-playing youth of seventeen, J. E. Long cast his lot with Shell, his job



D. M. CUNNINGHAM
Production
Avant, Oklahoma



O. C. GENT
Cracking
Wood River Refinery



C. L. JEFFRIES
Shell Pipe Line
Union, Missouri



R. C. JONES
Production
Avant, Oklahoma



O. E. LANDRY
Transportation
Norco Refinery



J. E. LONG
Lubricating
Wood River Refinery



H. D. CHAPPELL
Car
Wood River Refinery



E. P. CLAYTOR
Dispatching
Wood River Refinery



S. S. MABRY
Production
Great Bend, Kansas



H. E. RETHORN
Boiler and Power Houses
Wood River Refinery



A. J. SCHEXNAYDER
Automotive
Norco Refinery



E. F. SOWLES
Production
Lucien, Oklahoma



C. H. STEINER
Engineering Field
Wood River Refinery



H. J. TREPAGNIER
Switching
Norco Refinery



J. C. TRICHE
Dispatching
Norco Refinery



F. B. WHAYMAN
Gas-Gasoline
Tulsa, Oklahoma



G. W. WHITESELL
Shell Pipe Line
Ryan, Oklahoma



L. F. YOUNG
Shell Pipe Line
Cushing, Oklahoma

being that of sample boy in the laboratory at Wood River Refinery. Transferred to the St. Louis office in 1923, he later returned to Wood River as assistant compounding house foreman and in 1931 assumed his present position of foreman of the compounding house. Long has the distinction of being a charter member of every organization at the refinery. He plays golf, poker and bowls. He has two children—a boy and a girl—who contribute to making his home the greatest interest in his life.

S. S. Mabry

Working as roustabout in the production fields at South Bend, Texas, was S. S. Mabry's first job with Shell. Promoted successively to the positions of gang pusher, tool dresser, head roustabout and production foreman, he finally stepped up to his present position as assistant superintendent at Great Bend, Kansas. A dyed-in-the-wool fisherman, Mabry has some definite theories concerning fishing technique. Says he, "I'd like to spend another twenty years with Shell."

H. E. Rethorn

In reminiscing over his first acquaintance with Wood River Refinery—when that plant boasted only two Trumble units and a boiler house—H. E. Rethorn also recalls that at that time, twenty years ago, he worked in the labor gang. He was transferred to the cooling water system two weeks later and six weeks after that was transferred to the boiler house, where he has remained. His position now is assistant boiler house foreman. Rethorn enjoys both duck hunting and gardening—and, although his young appearance might lead people to doubt the fact, he has seven children and two grandchildren.

A. J. Schexnayder

Employed as machinist at Norco Refinery on August 1, 1920, A. J. Schexnayder was promoted to assistant machine shop foreman in April 1929. In December 1939, he was transferred to the Automotive Department as garage foreman and has continued in that capacity. As evidenced by his promotions, Schexnayder is an efficient worker who is liked by all the men working for and with him. He is a former star baseball player on the local Shell team, a past Commander of the local American Legion Post, and has had a finger in nearly every local event which has ever been staged at Norco.

E. F. Sowles

Employed twenty years ago as roustabout in the Covington, Oklahoma, district, E. F. Sowles was promoted first to pulling unit and truck driver and then to his present position of pumper, working now in Marshall District. He has never suffered an occupational injury and has lost only three days on account of sickness during the entire period of his employment—a record of which he may well be proud. Sowles has two interesting hobbies which he greatly enjoys. They are old-time fiddling and woodworking.

C. H. Steiner

With a good record in electrical work behind him, C. H. Steiner was employed at Wood River Refinery twenty years ago as an electrician. The refinery boasted only one other electrician at that early date, and Steiner recalls that the volume of work "kept them on the jump." Since that time he has participated in all the rebuilding and extension work of the plant. His position is now that of general electrician foreman. With a yen for fishing and hunting, he spends his vacation each year in Minnesota. His motor boat on the Mississippi is also a source of much pleasure to him. Steiner is active in the affairs of the Shell Club, is married and has a son in high school.

H. J. Trepagnier

Ever since July 1920, there has been a familiar figure around Norco Refinery who is quiet, efficient and always dependable. His name is H. J. Trepagnier. A resident of the "village," he seldom takes an active part in promoting activities—yet he is always on hand to render assistance. He came to Norco as a treater helper, was promoted to stillman helper in October 1922, became stillman in April 1926, and in August 1933, was transferred to the Switching Department as steam locomotive engineer. Later the steam locomotive was replaced with a gasoline locomotive, and Trepagnier now operates this. He is an ardent baseball fan and occasionally enjoys "snatching" a few trout.

J. C. Triche

J. C. Triche, second in command in the Norco Refinery Dispatching Department, joined Shell in August 1920. "Clem," as he is known throughout the refinery, has been

associated with almost every Norco activity. He has served on Plant Day committees, has served officially in the various Service Clubs, and is prominent in Credit Union work. While on occasion he goes hunting and fishing, "Clem's" favorite pastime is jockeying his '36 Chevy about on week ends.

F. B. Whayman

Frank Whayman, gas supervisor at Tulsa, joined Shell twenty years ago as roustabout. The promotions leading to his present position were successively to pumper, warehouseman, truck driver, and gas tester. He has worked in the production fields of the Mid-Continent, Gulf Coast, and Illinois areas. He has the distinction of having driven for ten years without an accident and for this meritorious record received an award. Director of the Gas Testers and Metermen's Association at Tulsa, as well as a member of the Rainbow Division Veterans' Association, Whayman also finds time to follow his favorite sport of football.

G. W. Whitesell

George W. Whitesell, chief engineer for Shell Pipe Line at Ryan, Oklahoma, joined the company twenty years ago, working as station engineer before being promoted in 1928 to his present job. Whitesell has always had the reputation of being a capable and conscientious worker and has been active in safety chapters. His out-of-work interests are varied—he enjoys growing all kinds of plants, including flowers and trees; he likes to study rock formations, and is an ardent follower of the sports of fishing, hunting, and baseball.

L. F. Young

L. F. Young, area superintendent of Shell Pipe Line at Cushing, Oklahoma, completed his twenty years of service with the company in July of this year. Starting as construction superintendent of the original pipe line station construction program in 1917, he became assistant superintendent of operations in the Mid-Continent Area in June 1923, and was promoted to his present position as superintendent of the area in March 1939. Young has always taken a keen interest in the problems of the pipe line, with particular concern for the welfare of his men. Gardening is his hobby.

15 YEARS — JULY, 1940

W. A. BOLES	HOUSTON, TEXAS
Administrative	
T. J. BURKE	NEW YORK, NEW YORK
Auditing, H. O.	
H. R. BUTCHER	GREAT BEND, KANSAS
Production	
F. T. CHANDLER	WOOD RIVER REFINERY
Cooling Water System	
H. I. CHAMBERLAIN	WOOD RIVER REFINERY
Engineering Field	
R. H. COWAN	INDIANAPOLIS, INDIANA
Marketing	
W. C. COLLINS	INDIANAPOLIS, INDIANA
Marketing	
F. C. CUTTING	WOOD RIVER REFINERY
Superintendence	
H. O. DENOHO	NEOSHO, MISSOURI
Shell Pipe Line	
E. D. ERICKSON	MINNEAPOLIS, MINNESOTA
Marketing	
J. R. EWERS	WOOD RIVER REFINERY
Engineering Field	
J. F. FAIR	ELMORE CITY, OKLAHOMA
Shell Pipe Line	
S. E. GEHRKE	WOOD RIVER REFINERY
Storehouse	
L. R. GRAY	WOOD RIVER REFINERY
Technological	
B. A. GWYNN	INDIANAPOLIS, INDIANA
Marketing	
W. R. HOLMES	NEW YORK, NEW YORK
Advertising, H. O.	
T. A. HOTARD	NORCO REFINERY
Engineering Field	
J. G. JORDAN	CLEVELAND, OHIO
Marketing	
O. L. KESTERSON	KILGORE, TEXAS
Shell Pipe Line	
R. D. KIZER	INDIANAPOLIS, INDIANA
Marketing	
I. L. LACEY	TOKAWA, OKLAHOMA
Production	
R. G. LARSEN	CHICAGO, ILLINOIS
Marketing	
J. MARINO	NORCO REFINERY
Engineering Field	
HESTER NEEHOUSE	INDIANAPOLIS, INDIANA
Marketing	
E. J. O'DONNELL	DETROIT, MICHIGAN
Marketing	
C. J. OUBRE	NORCO REFINERY
Transportation	
J. ROBISON	WOOD RIVER REFINERY
Engineering Field	
C. SANDERS	EFFINGHAM, ILLINOIS
Marketing	
W. A. SMITH	DeVELLE, TEXAS
Shell Pipe Line	
W. R. SNYDER	TOKAWA, OKLAHOMA
Production	
L. L. ST. PE	HOUSTON REFINERY
Loading and Unloading Light Oils	
C. ST. PE	NORCO REFINERY
Engineering Field	
MARIAN TEACHOUT	WOOD RIVER REFINERY
Main Office	
C. G. VENABLE	McPHERSON, KANSAS
Production	
W. L. WARD	WOOD RIVER REFINERY
Lubricating Extraction	
M. WILLIAMS	WOOD RIVER REFINERY
Topping	

10 YEARS — JULY, 1940

J. C. ADKISON	GREAT BEND, KANSAS
Production	
M. BARRICK	CUSHING, OKLAHOMA
Shell Pipe Line	
P. BEVAN	GOLDSMITH, TEXAS
Shell Pipe Line	
H. G. BROWN	McCAMEY, TEXAS
Production	
L. BURKHART	BIG SPRING, TEXAS
Shell Pipe Line	
B. W. CLARK	EAST CHICAGO, INDIANA
Loading and Unloading Light Oils	
R. L. CULVER	HOUSTON, TEXAS
Engineering Field	
H. E. CUNNINGHAM	BIRMINGHAM, ALABAMA
Marketing	

F. E. DIEHL	CHICAGO, ILLINOIS
Marketing	
J. P. DOBSON	HOUSTON REFINERY
Engineering Office	
R. E. DOLLAR	GREENCASTLE, INDIANA
Products Pipe Line	
J. F. DOSSETT	KILGORE, TEXAS
Shell Pipe Line	
J. Z. DUNCAN	McPHERSON, KANSAS
Production	
C. B. EVANS	EAST CHICAGO, INDIANA
Cracking	
LORETTA FLANIGAN	ST. LOUIS, MISSOURI
Marketing	
C. L. FORS	WOOD RIVER REFINERY
Laboratory	
E. T. GERHART	NEW YORK, NEW YORK
Manufacturing, H. O.	
MARIAN GIBSON	ST. LOUIS, MISSOURI
Marketing	
C. B. GOODMAN	MINNEAPOLIS, MINNESOTA
Marketing	
J. S. HARRIS	NEW ORLEANS, LOUISIANA
Marketing	
H. L. HEGMANN	WOOD RIVER REFINERY
Topping	
J. O. HILLIARD	IOWA, LOUISIANA
Gas Plant	
E. J. HULKENBERG	ORLANDO, FLORIDA
Marketing	
D. R. INGRAHAM	DAYTON, OHIO
Marketing	
J. M. LAUGHLIN	WHITE CASTLE, LOUISIANA
Production	
H. J. LEAMY	WOOD RIVER REFINERY
Treating	
C. F. McCAFFERTY	CINCINNATI, OHIO
Marketing	
T. A. McGAHEY	JACKSONVILLE, FLORIDA
Marketing	
J. A. PARKER	HOUSTON REFINERY
Technological	
C. A. REHBEIN	NORCO REFINERY
Technological	
K. W. ROARK	EAST CHICAGO, INDIANA
Treating	
F. F. RUDD	WOOD RIVER REFINERY
Engineering Field	
O. H. RUCH	TULSA, OKLAHOMA
Personnel	
H. N. SCHWAAB	WOOD RIVER REFINERY
Topping	
T. H. SEXTON	WOOD RIVER REFINERY
Boiler and Power House	
H. D. SOLSBERY	HOBBS, NEW MEXICO
Shell Pipe Line	
H. E. STRONG, JR.	WOOD RIVER REFINERY
Technological	
C. L. STOLTZ	CENTRALIA, ILLINOIS
Production	
W. P. SVEC	HOUSTON REFINERY
Gas	
R. H. WHITE	DETROIT, MICHIGAN
Marketing	
J. W. WATSON	NEW YORK, NEW YORK
Treasurer	

15 YEARS — AUGUST, 1940

R. M. ASBURY	TOKAWA, OKLAHOMA
Production	
R. S. AUSTIN	TULSA, OKLAHOMA
Land	
R. S. BELSHE	BELLE MISSOURI
Shell Pipe Line	
H. O. BINKLEY	HOMINY, OKLAHOMA
Shell Pipe Line	
J. M. BOWEN	HOMINY, OKLAHOMA
Shell Pipe Line	
W. C. BROWN	LUCIEN, OKLAHOMA
Office Managers	
J. W. CLINE	BUFFALO, MISSOURI
Shell Pipe Line	
R. A. DOWELL	MARLAND, OKLAHOMA
Shell Pipe Line	
C. K. DOWNING	TULSA, OKLAHOMA
Automotive	
MARIAN FENCLE	HOUSTON, TEXAS
Shell Pipe Line	
L. F. GROSS	GREAT BEND, KANSAS
Production	

SHELL NEWS

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

EUNICE HORTLEDER, Editor

ASSOCIATE EDITORS

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E. H. MULLER

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T. S. HAYWOOD	BLACK BAYOU, LOUISIANA
Production	
L. H. HELLRUNG	WOOD RIVER REFINERY
Engineering Field	
C. R. HOTARD	NORCO REFINERY
Asphalt	
W. J. HOEHE	WOOD RIVER REFINERY
Engineering Field	
E. H. HOSTO	WOOD RIVER REFINERY
Car	
M. C. KELLBACH	WOOD RIVER REFINERY
Engineering Field	
W. J. KELLEY	CUSHING, OKLAHOMA
Shell Pipe Line	
D. A. LEMON	WOOD RIVER REFINERY
Stores	
E. M. LEVI	WOOD RIVER REFINERY
Automotive	
J. F. LELAND	DRUMRIGHT, OKLAHOMA
Production	
B. W. MCBRIDE	WOOD RIVER REFINERY
Cracking	
W. D. McCLURE	COLORADO, TEXAS
Shell Pipe Line	
J. E. McMICHAEL	WOOD RIVER REFINERY
Car	
R. O. MOIST	DAYTON, OHIO
Marketing	
N. C. NAQUIN	NORCO REFINERY
Loading and Unloading	
A. NELSON	MELROSE PARK, ILLINOIS
Marketing	
C. T. NICHOLAS	ST. LOUIS, MISSOURI
Marketing	
O. R. OGLESBY	WOOD RIVER REFINERY
Laboratory	
E. F. PFEIFER	WOOD RIVER REFINERY
Cracking	
G. E. PRAHL	WOOD RIVER REFINERY
Cracking	
T. C. RAYNES	OXFORD, KANSAS
Shell Pipe Line	
E. W. RAUB	HOUSTON, TEXAS
Shell Pipe Line	
C. D. KEMBLE	COLORADO CITY, TEXAS
Shell Pipe Line	
J. R. ROBERTS	HOUSTON REFINERY
Engineering Field	
W. J. ROUSSEL	NORCO REFINERY
Engineering Field	
J. R. ROBERTS	WOOD RIVER REFINERY
Engineering Field	
W. M. SCOGES	SARCOXIE, MISSOURI
Shell Pipe Line	
A. M. SIMON	NORCO REFINERY
Dispatching	
B. J. SOWKA	CHICAGO, ILLINOIS
Marketing	
J. C. WOODS	HOUSTON, TEXAS
Automotive	

10 YEARS — AUGUST, 1940

G. D. ALLEN	WOOD RIVER REFINERY
Engineering Field	
CHARLOTTE BUCHANAN	ST. LOUIS, MISSOURI
Marketing	
H. W. COPELAND	JACKSONVILLE, FLORIDA
Marketing	
I. L. DeLONG	CLEVELAND, OHIO
Marketing	
L. F. FABER	ST. LOUIS, MISSOURI
Marketing	
G. L. FREEMAN	CINCINNATI, OHIO
Marketing	
A. G. GEARHEARD, JR.	NORCO REFINERY
Gas	
O. D. HUTTO	HOUSTON, TEXAS
Production	
D. C. JONES	KILGORE, TEXAS
Shell Pipe Line	
C. T. LAURIE	WICHITA FALLS, TEXAS
Production	
H. F. LARGE	LUCIEN, OKLAHOMA
Production	
W. MASON	TOKAWA, OKLAHOMA
Production	
J. R. MASSEY	EVERTON, MISSOURI
Shell Pipe Line	
V. C. OLSON	MINNEAPOLIS, MINNESOTA
Marketing	
C. REYNOLDS	HOUSTON, TEXAS
Production	
E. SNAJDZ	WOOD RIVER REFINERY
Testing	
C. S. TISON	STREATOR, ILLINOIS
Marketing	
S. M. TREADWAY	OMAHA, NEBRASKA
Marketing	
A. J. VEDDER, JR.	ST. LOUIS, MISSOURI
Marketing	
E. F. WATKINS	CENTRALIA, ILLINOIS
Exploration	
D. WOOD	HOUSTON REFINERY
Dispatching	

15 YEARS — SEPTEMBER, 1940

C. A. BEARDEN	NORCO REFINERY
Storehouse	
R. L. BEDWELL	WOOD RIVER REFINERY
Lubricating	
J. A. BENSON	WOOD RIVER REFINERY
Engineering Field	
W. E. BLACKWELL	KANKAKEE, ILLINOIS
Products Pipe Line	
J. S. BLANCHARD	NORCO REFINERY
Dispatching	
A. C. BOTT	WOOD RIVER REFINERY
Laboratories	

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J. R. BRASHIER	NORCO REFINERY
Treating Light Oil	
R. C. CHAPMAN	WOOD RIVER REFINERY
Cracking	
J. B. CUNNINGHAM	WASSON, TEXAS
Gas Plant	
O. P. DEPPE	WOOD RIVER REFINERY
Cracking	
O. DERRINGTON	HOUSTON REFINERY
Dispatching	
H. A. EICHEN	WOOD RIVER REFINERY
Vacuum Still	
H. B. ELLIOTT	WOOD RIVER REFINERY
Engineering Field	
J. R. FERGUSON	WOOD RIVER REFINERY
Cracking	
C. E. FUSSELL	GREAT BEND, KANSAS
Production	
F. R. GIBSON	WOOD RIVER REFINERY
Cracking	
R. C. GORDON	ST. LOUIS, MISSOURI
Marketing	
W. C. HAMBLETON	WOOD RIVER REFINERY
Engineering Field	
W. E. HARPER	WOOD RIVER REFINERY
Engineering Field	
G. S. IRWIN	KILGORE, TEXAS
Exploration	
C. J. JOHNSON	WOOD RIVER REFINERY
Engineering Field	
R. T. JOHNSTON	McPHERSON, KANSAS
Production	
C. C. JONES	TONKAWA, OKLAHOMA
Production	
J. W. KING	GREENWICH, KANSAS
Production	
F. O. KING	WOOD RIVER REFINERY
Engineering Field	
A. C. LANDECHE, SR.	NORCO REFINERY
Dispatching	
L. F. LONGMAN	WOOD RIVER REFINERY
Dispatching	
J. F. MULLER	NORCO REFINERY
Engineering Office	
O. OWENS	WOOD RIVER REFINERY
Boiler and Power Houses	
J. H. PAWELSKI	WOOD RIVER REFINERY
Engineering Field	
J. V. PORCAL	CHICAGO, ILLINOIS
Marketing	
J. A. SMITH	WOOD RIVER REFINERY
Boiler and Power Houses	
J. J. SPRUILL	HOUSTON REFINERY
Laboratories	
I. E. STULL	WOOD RIVER REFINERY
Lubricating	
W. D. VICKNAIR	NORCO REFINERY
Polymerization	
G. L. WADE	WOOD RIVER REFINERY
Cracking	
C. H. ZIMMERMAN	ST. LOUIS, MISSOURI
Marketing	

10 YEARS — SEPTEMBER, 1940

C. F. ABBOTT	ST. LOUIS, MISSOURI
Marketing	
W. F. ARNOLD	HOUSTON REFINERY
Loading and Unloading	
G. BARKER	CENTRALIA, ILLINOIS
Marketing	
E. A. BINSTAD	WOOD RIVER REFINERY
Cracking	
J. W. CHAPMAN	NORCO REFINERY
Laboratories	
J. B. CRITTENDEN	LANSING, MICHIGAN
Marketing	
G. E. CRUM	EAST CHICAGO, INDIANA
Engineering Field	
SARAH W. CUMMINGS	INDIANAPOLIS, INDIANA
Marketing	
D. G. GASCOIGNE	MT. VERNON, ILLINOIS
Marketing	
R. T. GEGGIE	KIRKWOOD, MISSOURI
Marketing	
J. R. HARMON	HOUSTON REFINERY
Loading and Unloading	

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Shell Natural Gasoline Plants Win National Recognition for Safety Records

ADDITION to their already outstanding record in accident prevention, employees of Shell's Mid-Continent Area Gas-Gasoline Division recently received recognition for two more achievements. These achievements concerned the gasoline plants at Braman and Tonkawa which finished a ten-year period — or a total of 620,700 working hours—of continuous operation without a disabling injury, and the two Bryan plants near Skellytown, Texas, which completed a similar ten-year record with a total of 441,400 man-hours.

Of the approximately 40 regular employees at these four plants, the following sixteen have participated in the entire ten-year record: T. L. Allison, E. C. Bonner, W. R. Butler, O. E. Carlson, Reuel Casey, A. R. Givens, R. E. Hamman, O. W. Hollingsworth, F. L. McCarty, H. T. Renfrow, J. B. Roe, K. A. Sorenson, A. R. Stout, G. D. Taylor, M. K. West, and T. T. Whitley.

These excellent records are not surprising when it is remembered that during 1939 the entire group of Shell's Mid-Continent Area plants (ten in number) received nation-wide recognition by winning first place in the National Safety Council contest. This honor was achieved by reason of all ten plants working for one full year without a disabling injury.

Going beyond mere figures, it is interesting to understand some of the actual conditions under which these records were made. The number of employees at each gasoline plant varies from six to 23 for continuous 24-hour operation. At smaller plants, such as Braman and West Bryan, only one operator is on duty per shift. Unlike refinery units, field gasoline plants do not enjoy the services of a completely

equipped and staffed central maintenance department, but each plant must be self sufficient in handling its own repairs and up-keep. Hence, versatility as well as efficiency becomes an important requisite of the gasoline plant worker.

To many it might seem that natural gasoline plants, handling highly inflammable materials under elevated temperatures and pressures, are hazardous; yet the remarkable safety records accomplished by Shell men in these Mid-Continent plants demonstrates that good judgment, alertness, and the habit of thinking about the job while on the job can offset hazards and insure safety.

Compared with normal accident experience of the Petroleum Industry, the ten year no-accident records of the Bryan, Braman and Tonkawa plants represent a total savings of approximately \$8,000 to the men and the Company in direct accident expense and loss of income which would have occurred had these men been only "average" in their safety endeavors.

(Below) Employees of Bryan Gasoline Plants No. 2 and No. 17. Back row, from left: W. A. Worthington, Elisha Bonner, John Forbes, Arthur Beauchamp, Emmett Lane, Reuel Casey, Willis Compton, Fred McCarty, Oscar Carlson. Middle row, from left: Pete Morgan, Arline Givens, Ben Armer, Kell Sorenson, William Adams, Harry Francis, Gerald Walker. Front row, from left: Lonnie Feigenspan, Sam Young, C. E. Smith, Thomas Allison, John Roe. Not present: Carl Williams.



Employees of Braman Gasoline Plant. Standing, from left: C. A. Roberts, W. R. Butler, R. E. Hamman and J. M. Wilhite. Seated, from left: J. N. Kennedy and M. R. West.



Employees of Tonkawa Gasoline Plant. Standing, from left: H. F. Renfrow, Robert Vogt, A. R. Bohannon, T. T. Whitley, R. H. Medler (Superintendent), R. R. Rigney and A. R. Stout. Front row, from left: L. B. Bradford, G. D. Taylor, E. D. Bellmyer and O. W. Hollingsworth. Not present: Vollie Webb, Joe Howard, A. Wilson.

FOLKS WHO MAKE NEWS

AT THE Products Pipe Line Picnic held near Zionsville, Indiana, a first-aid contest was featured between the teams of Lima, Ohio; Columbus-Springfield, Ohio; Zionsville, Indiana; Casey, Illinois; and Wood River, Illinois. First place winner in the contest was the Zionsville team, while the Columbus-Springfield team captured second honors. The Zionsville team was presented with a beautiful trophy which will become the property of any team winning it three times.

(Above) First place winners in the Products Pipe Line first aid contest were these members of the Zionsville team. From left: G. E. Minturn, H. E. Hackley, H. C. Bacastow, E. F. Reichard, F. Plessa, R. L. Ayers.

(Middle) Second-place winners in the contest were these members of the Columbus-Springfield team. From left: H. M. Coggins, T. A. Fountain, R. A. Bayless (back to camera), Carl Phillips, G. Morrison. N. H. Olson was not present when the picture was made.

(Right) These members of the Houston Refinery Research department are leaders in the activities of chemists in Houston. E. P. Doremus, left, is president of the Houston Professional Chapter of Alpha Chi Sigma, national chemical fraternity, and Dr. I. S. Cliff, right, is chairman of the Southeast Texas Section of the American Chemical Society. The two organizations are cooperating in furthering the interests of the large number of chemists and of chemical engineers in the Houston area.



(Left) In a critical emergency, J. W. Macke of the Springfield, Ohio, Products Pipe Line terminal recently put his first-aid training to skillful and important use. Walking along the street one evening he saw a large crowd of people gathered around a man who had been struck by an automobile. Since no one could offer assistance, Macke stepped forward and assumed full charge. He discovered the man suffered a compound fracture of the right forearm with protruding bone and severed artery. Unable to locate clean cloths for bandage, Macke applied digital pressure and then accompanied the patient to the hospital—continuing to apply digital pressure until the patient was taken in charge by the hospital. In a letter, the hospital doctor stated: "I feel Mr. Macke is deserving of praise for his quick work and clear thinking in this emergency."

(Below) Here is a meeting of Norco Refinery's Twenty-Year Club. Fifty-one of the Club's fifty-two members were present and received service emblems. Youngest member of the Club is Cormen Brashear (age 35), and the oldest member is "Pops" Schexnaidre (age 74). Guests at this meeting of the Club were Vice-President E. D. Cumming, J. H. Doolittle, "Red" Walker, and R. C. Roberts.



SHELL'S INTERESTING PEOPLE



THIRTY some-odd years ago down near old Fort Washita in Indian Territory a dark-eyed papoose opened his eyes upon a new world and probably said, "Goo . . . safety first!" The incident marked the birth of Harold "Chief" Moore; "Chief" by virtue of one-fourth good Chickasaw stock, and Moore by three-fourths rugged Scotch-Irish.

His early childhood days were spent in and around the little town of Aylesworth, Oklahoma, where the Moore homestead was located. Eventually the family moved to San Angelo, Texas, where Chief continued his high school studies. However, the call to adventure got the better of him and he joined Uncle Sam's navy for an eight-month stretch. Returning from his seafaring experience, he entered the State Teachers College at Durant, Oklahoma, where, according to his own story, he majored in football for three years.

By this time Chief had decided to begin shaping a career for himself, so in 1924 he attended Southwestern University at Memphis, Tennessee, to study medicine . . . with a little more "post-graduate" football.

In 1927, 1928 and 1929 Chief was peddling ice in the Earlsboro-Seminole field for the Earlsboro Ice Company, of which he was manager. During this period he had acquired a rebuilt Jenny airplane and was spending considerable time hedge-hopping around the country. His flying career was cut short very abruptly by a thoughtless farmer, who years before had constructed a fence across a field where Chief was ultimately destined to land. The ice business was cut short by a disagreement with the owner upon the methods and procedure pertinent to the conducting of a successful ice dispensary.

Chief first hired out to Shell in December, 1929, as roustabout in the Earlsboro district where he worked until August, 1931.

During this period he took time out for ten months to obtain more pre-medical schooling at Southwestern. When the depression started kicking everybody around, Chief packed up his duffel and started back to what was left of the old homestead . . . flat broke. For the next three years he farmed on the "Barter and swap" basis and, to his own surprise, did very well.

In June, 1934, the oil business began to pick up so he joined the Shell construction



Harold "Chief" Moore with his son, Tay, and his temporary ward, Wauleah Bohanon.

division as gang-pusher, later transferring to the production department in Kansas. Since then he has worked continuously for Shell.

Moore first became interested in safety work in 1936. He believed that safety meetings, to be effective, should be entertaining as well as instructional, and he set about to accomplish that long-sought effectiveness. The safety record for the Kansas Division during the last four years indicates that he was successful. His qualities as a constructive, analytical thinker and a natural psychologist make him ideal for this work.

Just to illustrate this man's capacity for work we cite some of the many activities in which he has taken part, practically all of which have been for the benefits of safety and



"Chief" Moore and some examples of his craftsmanship. The bow which he holds in his hand is an honest-to-goodness Indian bow. It was made years ago by Geronimo's wife and is still a fine shooting piece.

personnel. At McPherson, Kansas, he was a member of the Board of Directors of the McPherson City Safety Council and a member of the Executive Committee of the McPherson County Chapter of the American Red Cross. He conducted vocational training classes throughout the area and monthly safety meetings in all of the scattered Kansas Districts. Yet, in the meantime he managed in his spare time to complete his B. S. degree in chemistry at the McPherson College. While at McPherson he helped organize the number one chapter of the Munsch National First Aid

Instructors' Association, in which he acted as president.

Chief is editor-in-chief and one of the founders of that pertinent little publication known as the *Grapevine*. Through the medium of this bi-monthly paper he has succeeded in keeping everybody in the Kansas Division safety conscious.

Everyone has a hobby, or should have, and Chief's is a "natural." From native Bois d'Arc wood he manufactures bows and arrows that are second to none. Furthermore, he is a pretty good shot, although he has never yet realized his ambition to split an arrow at twenty paces. But if he is as persistent in shooting as he is with safety work, he will no doubt turn the trick.

Chief Moore is married and has one adopted child, Tay, a little Indian boy almost a year old. The youngster, says Moore, is destined to become "the best All-American fullback since Jim Thorpe." All-American or not, if he follows in the footsteps of his father, he'll make a mark for himself.



Products Pipe Line

It was announced by Vice-President N. J. McGaw on October 18, 1940, that the name *Products Pipe Line Department* is the official designation of the operation heretofore known as the "Gasoline Pipe Line Department."

The following interesting item appeared in a recent issue of the magazine *The New Yorker*:

Gratitude

ABOUT a year ago, we printed what seemed to us a funny picture, in which an Army officer, directing summer maneuvers, says to a subordinate who has just brought him a map, "This is a Sunoco map. I said an Esso map!" Well, in the window of the Shell Touring Service office, at 50 West Fiftieth Street, is a display of letters from grateful tourists, and among them a note from Lieutenant Colonel H. E. Small, thanking Shell for routing a convoy of Coast Artillery trucks from Fort Benning, Georgia, to Fort Totten, New York.

Sheik

PROBABLY the

(Service Birthdays—10 Years, September 1940—
continued from page 36)

J. C. HARPER	Marketing	CLEVELAND, OHIO
W. J. HENDERSON	Exploration	HOUSTON, TEXAS
P. A. HOUSER	Marketing	DECATUR, ILLINOIS
H. JANSSEN	Gas Plant	IOWA, LOUISIANA
E. J. JOHNSTON	Marketing	DETROIT, MICHIGAN
J. M. KERWIN	Engineering Field	WOOD RIVER REFINERY
J. F. LYNG	Marketing	CHICAGO, ILLINOIS
C. W. MCBRIDE	Exploration	HOUSTON, TEXAS
B. R. MARTIN	Gas	NORCO REFINERY
EARL K. MILLS	Engineering Field	WOOD RIVER REFINERY
R. S. MITCHELL, JR.	President's Office	NEW YORK, NEW YORK
R. RIEFFER	Products Pipe Line	WOOD RIVER, ILLINOIS
R. R. RUEDIN	Laboratories	WOOD RIVER REFINERY
H. A. SCHLOSSER	Marketing	MILWAUKEE, WISCONSIN
C. M. SIMPSON	Marketing	ST. LOUIS, MISSOURI
W. E. UHLMAN	Engineering Field	WOOD RIVER REFINERY
C. M. WILLIAMSON	Marketing	ST. LOUIS, MISSOURI

A FISHING HOUSTON GOES



IN TRUE sportsman spirit, members of the Houston Office and their families (115 in all) went for a day of fishing this summer at Bet-tison's Pier, which is located on the jetties seven miles out from Galveston in the Gulf of Mexico. Here are a few of the highlights caught by the camera lens.



With camera and pipe, Clint Rogers heads for the jetties to "shoot" the catch of the day.

(Below) Come the dawn—and members of the Shell party appeared on the jetties, ready for the day's fishing.



(Left) Wilson Ellison looks around for another world to conquer when his "spot" fails to yield a fish.



(Above) Mrs. Guy Lynch, George Hartman and Guy Lynch consider how that red would look in a frying pan, while Bill Gaines looks on from the background.

(Below, right) Mrs. H. C. Beckerman and J. O. Brodigan get a whale of a kick out of a whale of a red snapper.



(Circle) Lucy Kennesson tries to keep the wind from damaging her hair-do, while Gilbert Barnes pays no attention to a lady in distress.

(Right) Serenity personified, Mrs. Guy Lynch basks in the sun and salt air.



(Below, left) A quizzical expression appears on the easy-to-look-upon face of Mrs. J. R. Willett as the camera catches her by surprise.



(Left) Elizabeth Quick hangs on to her hat while George Harris tries to get out of the camera's range.