Our Cover

When the Eastern Star that symbolizes the divine meaning of Christmas everywhere shines again upon the little stone church near Millerton, the setting will be much as it was 108 years ago when the building was erected.

Russell Pearson, artist for the planning board, drew the holiday cover from a photograph.

The church, named Wheelock Mission in memory of the first president of Dartmouth College, is located in McCurtain county one and a half miles northeast of Millerton and 11 miles north and west of Idabel. It was organized as a Choctaw Presbyterian mission December 9, 1832, by Reverend Alfred Wright, who had emigrated with the Indians from Mississippi.

The first log building served until the stone church was built and dedicated in 1846.

The Choctaws were anxious for their children to be educated and cooperated closely with the missionaries to develop a system of schools in the new land. Accordingly, in conjunction with the Wheelock Mission church, a day school was set up immediately by Rev. Wright.

In a few years when facilities were available, Mrs. Wright, who had been reared and educated in the east, opened a boarding school for the daughters of the Choctaw families in the area.

The first Christmases in the mission were simple and devoutly religious in character. They were observed by a Christmas sermon, and it is probable that Mrs. Wright taught the children special Christmas songs, as she had lived in Philadelphia, where the custom of caroling had spread from Bethlehem, Pennsylvania.

Perhaps, too, influenced by the practices in the south where she had lived for a while, Mrs. Wright arranged a candle lighting service for the children.

Part of the church was burned in a fire that destroyed the school building in the early history of the institutions. They were rebuilt and exist today as monuments to their founders.

The school is currently under the supervision of a faculty employed by the federal government and is confined to the education and domestic training of Indian children. The enrollment varies from about 160 to 175 girls.

Fur-bearing Animals Raised in Oklahoma

Oklahoma is going into the fur business in a big way. The state Game and Fish Department this year issued about 70 permits to raise fur-bearing animals, ranging from the lowly skunk to the high class mink. This number does not include the hundreds of trappers who ply their trade along the streams and forest paths in search of furry animals in order to placate madam's desire for a fur coat.

Mink, oppossum, muskrat, skunk, and raccoon are raised and trapped in abundance for the Oklahoma fur market. In the 1951-52 season there were more than 100,000 pelts marketed for an income of $147,652.82.

There are also in Oklahoma about 400 chinchilla ranches, one of which is the Bud Waldron Chinchilla Ranch in Oklahoma City. These furry little rodents are fast becoming a big industry over the state and as well as throughout the entire country. They were introduced in North America just 30 years ago by Mathias Chapman, a mining engineer who was working in the Andes Mountains in South America.

When Chapman first ran across the chinchillas, he immediately recognized their worth to the fur industry. He tried to raise the animals down from the native Andes climate, but they died, so he had to acclimate them gradually to the lower altitudes.

Of the 100 animals he started with, Chapman had 11 when he reached the United States. Since that time, however, there have been more than 18,000 ranches started in the country with anywhere from one pair to 1000 animals.

One of the largest mink ranches in the state is the 100-acre George W. King Ranch in Locust Grove. Starting with 43 minks in his backyard in Tulsa, King has enlarged his brood to 300, and it is still growing.

The raising of fur-bearing animals in Oklahoma is a fast growing industry. While all the pelts now go to the east to be made into garments, there has been some talk that someday Oklahoma will have its own fur garment factory.

CORRECTION

In the October issue of Resourceful Oklahoma an article was carried about electric power facilities in Oklahoma. In one paragraph the following was printed: "During July, 1954, GRDA sold more than 47 million KWH, with a gross revenue of $31,000." This was an obvious processing error as the gross revenue figure should have read $314,676.48. The Resourceful Oklahoma staff is glad to make this correction.
Carter Expands Lab

Oklahoma is fast becoming the world center for research in new methods of oil exploration and production.

The latest development in this field came last month when the Carter Oil Company officially dedicated a 19,500 square-foot addition to its ultra-modern research laboratory in Tulsa.

The new facilities include a two-story addition to the main laboratory, a six-story drilling research building and a fireproof storage building. Hard-surfaced parking facilities for 188 cars have also been added.

The dedication of these new additions marked the second major expansion of the laboratory since the end of World War II.

Dr. P. S. Williams, chief of research, explained that the expansions were made necessary because of increased efforts to discover better means of finding oil and more efficient methods of producing oil after it has been found.

"We have more than 200 scientists, engineers and technicians working in six research sections to solve these major oil industry problems and others, including better ways to drill for oil and how to improve our equipment," Dr. Williams added.

The research sections include geology, geophysics, geophysical engineering, recovery methods, exploitation and drilling methods. The laboratory also has a well-equipped research shop in which equipment is manufactured for Carter and the world-wide affiliates of the parent company, Standard Oil (NJ).

The modern facilities and large, well-trained staff are in sharp contrast to the handful of scientists who, in 1934, initiated Carter's research program in a small building on the site of the present laboratory.

In the Carter laboratory of today, the research staff can even design and make their own instruments to help them determine better ways to conserve our oil supply. One example is the oil pool analyzer. When fed certain data relating to an oil pool the analyzer will, within a matter of minutes, chart conditions which will exist in that pool 10, 20 or 30 years from now.

The staff also designs and manufactures annually $500,000 worth of exploration equipment for Jersey companies in such far-flung areas as Indonesia, Northern Canada and Venezuela. Another $250,000 is spent in servicing this equipment. Similar work of a world-wide nature is carried out in every section of the laboratory.

The result of these efforts was summarized by Wallace Pratt, internationally-known geologist, who spoke on October 22 at the dedication banquet held in connection with the opening of the new laboratory facilities. Praising the contributions of the Carter laboratory, Pratt said the company's research effort "has greatly expanded our knowledge of reservoir engineering and the efficient utilization of reservoir energy."

"It has improved drilling tools and practices," he said. "It has also clarified . . . the old question of the origin of oil, the migration and accumulation of oil and has vastly improved apparatus and techniques for seismic-reflection mapping."

Pratt added that a seldom recognized achievement of the pioneer research of companies such as Carter is the contribution their studies make to conservation.

"The tremendous savings in producing costs through wide well-spacing and the tremendous increases in recoveries through the efficient utilization of reservoir energy, both are direct results of Carter production research," Pratt said.

In conclusion, Pratt cited the world-wide influence of Carter research activity. As an example of this influence, he mentioned that Carter laboratory personnel had "rendered indispensable service" in perfecting seismic apparatus and techniques adapted to the French terrain which had a part in the finding of a major oil field near Bordeaux in Southern France, earlier this year.

These descriptions of Carter's expanded research activity are but a few examples of the work that hundreds of scientists and technologists are doing in the Tulsa and Oklahoma City areas. And their work is becoming increasingly more important. In the words of Pratt, "The staff of the geologic research laboratory will come to be the most effective oil finding agency in the petroleum industry."

If such prophecies as this come true, and our research facilities continue to expand, Oklahoma can say with pride that it is the world center for oil exploration and production research.
Gift of the People

The Interstate Oil Compact Commission is in a new building of its own, 900 North-east 23 Street, Oklahoma City. For twenty years the commission has occupied various offices and hallway space in the State Capitol.

An aluminum plaque on a wall of the reception area tells that the building, which serves as headquarters office for the entire commission, was contributed by the people of Oklahoma.

Governor Johnston Murray presented the deed of the building to the commission in dedication ceremonies November 16. Other participants were Governor Edward F. Arn of Kansas and Judge Seaborn L. Digby, member of the Federal Power Commission.

Previous to the dedication exercises, Judge Digby, who for the past several years has served as Louisiana's representative on the legal committee of the compact commission, addressed a special public luncheon of the oil and gas division of the Oklahoma City Chamber of Commerce. Representatives of about a dozen oil-producing states attended the luncheon and dedication.

Talking on the national importance of the oil compact commission, Judge Digby told the group that no movement could have a higher purpose than conservation and prevention of physical waste of this valuable and irreplaceable natural resource. "Oklahoma, in giving to the compact commission the office building, has performed a lasting service to its own people and to the nation as well," Judge Digby said. "It seems appropriate that the permanent home of the commission should be in Oklahoma City."

From an initial membership of six states that in 1935 united their efforts to conserve the nation's supply of oil and gas, the compact has grown to 28 members. Twenty-two states, as oil producers, are active members, and six states, with prospects of oil production, are associates.

The commission, made up of one representative from each member state, is the administrative agency organized to carry out the functions of the compact. Governors of some states are authorized to appoint their official representatives to the commission, but in Oklahoma, as designated in most of the states' enabling statutes, the governor is named official representative.

In 1953 Governor Murray was elected chairman of the commission, in accordance with the procedure prescribed by the commission by-laws. Officers are elected by the commission at the last meeting of each year.

Offices in the building will be those of Earl Foster, executive secretary of the commission, Lawrence R. Alley, assistant executive secretary, and Albert E. Sweeney, director of the secondary recovery division.

Principal materials in the modern one-story structure are brick, glass and stone. It was designed specifically for the compact commission to fill its need for work and conference areas and generous storage space. As specified in the bill authorizing construction, the Board of Affairs and the executive secretary of the commission worked closely with the architects in creating, at a reasonable cost, a building that is beautiful and functionally adequate.

"This building probably wouldn't suit anyone else," Alley commented. "We publish and distribute a tremendous volume of information on oil and gas conservation and require special facilities to handle the material."

Cost of the building, about $15 a square foot, was less per square foot than the price would have been for a tall structure, Alley said. Space for elevators was eliminated, and the minimum amount of connecting hallways was required.

The building is completely fireproof. Brick, glass, and Arkansas cherry limestone are used extensively in the interior. The only wood used is in doorways and in several partitions, of Philippine mahogany.

The commission meets at least twice each year to study methods and practices for prevention of physical waste in oil and gas production and to discuss conservation. These meetings are widely attended by representatives of the states and of industry. Representatives of the President, Congress, and federal agencies concerned with oil and gas, are invited to attend and participate in the meetings. They are privileged to be present at all open and executive sessions, to take part in deliberations and studies, and to make recommendations, but have no vote.

The commission has no power but the power of education. To accomplish its express purpose, "to conserve oil and gas by the prevention of physical waste thereof, from any cause," the commission distributes literature to a standing mailing list of more than 4,000. Regular publications include the "Quarterly Bulletin," the meeting report, "Compact Comments," a monthly newsletter, and an annual directory of the commission and of oil and gas agencies.

Voluntary contributions of member states finance the commission. There is full cooperation between industry and the commission, but its finances are controlled by the state governments.

Above — Governor Johnston Murray presents a gold key, symbolizing the key to the new Interstate Oil Compact Commission building, to Earl Foster,
right, executive secretary of the commission.

Right—Interstate Oil and Gas Compact Commission building.
Trees for Oklahoma Farms

Chinese elm seedlings are lifted from the ground in December.

Oklahoma nurseries are preparing for the largest shipments of forest tree seedlings ever made. Don Stauffer, director of the state planning board’s forestry division, said the division’s two nurseries, located southwest of Norman and west of Broken Bow, have produced a bumper crop of more than eight million seedlings.

Last year a total of more than four million seedlings were shipped to a total of about 2000 farms.

A large part of the increase will be absorbed by the Game and Fish Department in its wildlife habitat improvement work. Three species suitable for wildlife plantings, black locust, rosa multiflora, and lespedeza bicolor, are among the 25 produced at the Norman nursery and make up more than half its output. The nursery near Broken Bow produces two varieties of southern pine, shortleaf and loblolly.

Established in 1945, the nursery near Norman is one of the largest hardwood nurseries in the United States maintained to provide trees for woodlands, windbreaks and forestation purposes. Seedlings cover about half the 80-acre tract of land set aside for them in McClain County. The other half is in soil building crops. About half the five acres of land under cultivation at the Broken Bow nursery is in seedling production.

William B. Campbell, nurseryman, raises the seedlings at the Broken Bow nursery almost singlehandedly, but a larger force is needed at the Norman nursery. There the young trees are under the care of M. A. Walker, nurseryman, Arthur Perry, foreman, and Fred Campbell, mechanic. From 3 to 25 additional employees, according to the seasonal need, work at cultivating the seedlings.

The staff normally increases while the seedlings are being cut back and dug. The trees, many reaching shoulder height, will be pruned to 16 inches and dug out of the earth with about nine inches of root.

The forestry division of the planning board distributes applications for planting stock. County agents and the forestry division provide information requisite to successful planting and care of forest trees.

Applicants for shipments of trees agree not to sell any live trees with roots attached and not to use any of the trees for yard beautification, single shade trees, or in single rows along driveways or lawn borders. The planning board further stipulates that the planting areas be protected from fire, trespass, livestock and other destructive agents “insofar as practicable.”

Orders are taken in quantities of 100 or more. The trees are tied in bundles of 50, broken only to fill in skips for customers who have ordered trees in previous years.

In good weather the nurseries try to ship trees so that they will arrive on the day specified in each order. The planting season extends from December 1 to late in the spring when the leaves come out, or about April 15. The forestry division recommends early plantings and advises farmers to place their orders in the fall.

Farm windbreaks may be located on either the best or the worst soil on the farm. If good soil is used a wide selection of species can be planted. On poor sites selections may include only red cedar, Chinese elm and Russian mulberry. For most effective protection, all windbreaks should have an evergreen row.

Sites should be cleared of trash and plowed well in advance of planting time. The soil should be prepared as for the best agricultural crops. The forestry division warns planters to avoid exposing the roots to the open air. Evergreens are particularly easily killed by exposure.

Recommended methods of planting are to keep roots covered with a wet sack or carry the roots in a bucket of water. Trees should be set not over an inch deeper than they grew in the nursery. Soil must be tramped firmly around the roots.

Spacing of the trees often determines the practicality of planting projects. Rows should allow clearance for cultivation equipment. Trees in widely spaced rows can be planted closer than in narrower rows, but they should never be planted closer than four feet. Shrubs can be as close as two feet apart.

Packages of seedlings are carefully tied and weighed before shipment from the Norman nursery.
Douglas Thrives in Oklahoma

By JEFF GRIFFIN

When you enter the Douglas Aircraft Company of Tulsa, you begin groping for superlative adjectives to describe it. There is an atmosphere of bigness, and rightly so because this company is the largest privately-operated industry in Oklahoma.

A sense of unusual state pride envelopes you from the moment you enter the plant grounds that lie on the northeastern outskirts of Tulsa. Employee responsibilities are so precisely carried out that one can readily understand the factors that have made this company the industrial giant that it is.

The economic impact this Douglas company has in Oklahoma is a staggering achievement, and the $40,000,000 it has paid its 8,000 employees during 1954 is actually a figure from which greater heights are to be reached.

Oklahoma labor figures prominently in the astounding success of Douglas in this state, and friendly, England-born Harry Woodhead, the company's vice president and general manager, who came to Oklahoma from California, only needs an opportunity to convince anyone of that fact—and he should know.

The war clouds were gathering when in 1942 the government started construction of the first facilities in Tulsa. When “the day that will live in infamy” occurred—Japan's sneak attack on Pearl Harbor—the plant was half finished. This was a dark milestone in American history, and the shocking realization that our country was endangered spurred the government to complete the plant structures in haste.

The plant was accepted from the contractor on July 1, 1942, and its dedication was held the following August 15.

Douglas soon had production moving and the first planes that came off assembly lines for the Air Force were four-engine B-24 Liberator bombers, twin-engine A-26 Invaders, and single-engine A-24 dive bombers. During the war years production of these planes was as follows: 962 B-24s; 1,343 A-26s and 615 A-24s.

In addition, during the same period, the plant modified 3,700 airplanes of various models—flown in from elsewhere—and fitted them out for specific types of combat. During this peak production period employment reached 23,000.

When Japan surrendered, production was stopped. By June, 1946, Douglas completed the complicated task of taking inventory and disposition of supplies, etc., and turned the plant back to the government.

The Tulsa plant remained idle from June, 1946 to March 1, 1951, when Douglas again was commissioned by the Air Force to re-open the facilities. This time it was to manufacture the widely acclaimed Boeing Stratojet, the B-47, powered by six jet engines that enable the bomber to fly at a speed greater than 600 miles per hour. Manned by a crew of three, this plane, which has a wingspan of 116 feet and a length of 107 feet, has a range of 3,000 plus miles. It is capable of carrying either the “A” or “B” bomb to any enemy in the world.

Besides Douglas, only two other companies, Boeing of Wichita, and Lockheed of Marietta, Georgia, are commissioned to manufacture the Stratojet. The Boeing company designed it. The first plane of this type built in Tulsa made its initial flight December 12, 1952. Stratojet production has continued since that time.

That the Tulsa plant’s work meets the high standards fixed by the government is shown by new programs assigned to it. Since the B-47 commission, Douglas has become a modification center for the B-47. Planes that have been in service are being overhauled and latest improvements added. On October 12, 1953, the Air Force announced that in addition to the B-47 programs, the plant would also build a reconnaissance version of the Douglas B-46, a twin-jet bomber with a maximum speed of 600-700 miles per hour. None of these has been completed yet, but planes are in early stages of manufacture.

Plant employment from 1951 to 1953 grew to around 12,000 persons. When the Korean fighting ended, the Air Force reduced the production rate, which caused the employment total to drop to 8,000.

At this time, however, with new programs and contracts coming in, employment is 8,400. The company’s personnel staff is now hiring people at the rate of 100 per week. It is predicted that by this time next year employment will again reach a peak of 12,000. The payroll next year is expected to be around $55,000,000.

Company officials hold in high regard the many available subcontractors in Oklahoma who can readily handle specialized assignments in the line of supplies and equipment. This business alone amounts to more than $10,000,000 yearly.

The plant itself is tremendous. The main building is 4,000 feet long and 320 feet wide, massive enough that 10 football fields could be marked off inside it. It contains 1,297,172 square feet. Additional structures, including an office building, flight hangar, cafeteria, and paint building increase the total to 2,110,142 square feet under roof. Total valuation of all facilities, not including airplanes, is $65,000,000.

The company is the largest private employer in Oklahoma. Bulk of the personnel is comprised of men although there are several hundred women on the payroll.
Planes manufactured now are big and equipment is heavy.

Majority of employees live in Tulsa. But a good percentage of workers are residents of towns nearby. These include Coweta, Broken Arrow, Sapulpa, Kellyville, Okmulgee, Bristow, Beggs, Glenspool, Kiefer, Skiatook, Sand Springs, Collinsville, Owasso, Catoosa, Claremore, Wagoner and Inola.

Oklahoma's labor supply is a favorite topic of Woodhead's, who, incidentally, has been tabbed as "Oklahoma's No. 1 salesman." His sincere opinion about the efficiency of Oklahoma labor carries great weight as he tells about it forcefully in his rounds.

In Oklahoma City recently, just prior to the beginning of the industrial tour to eastern states, he told a group of business leaders that "if the Douglas company shuts down all its plants in the country, it won't close the one in Tulsa. And the reason is Oklahoma."

He strongly believes that Oklahoma is a good place to work and make a profit from one's efforts.

"We have found a good supply of qualified labor available," Woodhead said. "The Douglas-Tulsa turnover is one of the lowest nation-wide for the aircraft industry. It has averaged about 1.8 per cent for the past three years, other than layoffs caused by change of schedules which were beyond control of the company."

Absenteism has never been a problem from the beginning of Douglas' present operation, he claimed. He pointed out that the company's records indicate that absenteeism from all sources has been under two per cent and that there are not many chronic offenders who repeat regularly.

"Our Tulsa division records show that the work performance of the people is one of the highest in the company," he continued. "They more closely approach 100 per cent performance than is the case in any other of our plants. Records indicate that our employees have very stable backgrounds, have good work records elsewhere, and normally only change employment because work gave out where they were previously engaged, or they were obliged to change because of conditions beyond their control."

He said area surveys show that wages paid in the Oklahoma area approximate the national averages for the various occupations involved.

"There is sufficient skill available to fill the needs of most any industry contemplating establishing in Oklahoma," he added. "Our safety record is one of the best in the aircraft industry. At one period, we went some four million man hours without a lost-time injury."

Top—Harry Woodhead, vice president and general manager of the Tulsa division of the Douglas Aircraft Company.

Right—Outside the ramp area.

Below—A B-47 lands with a drag chute.
365 Christmases a Year

By K. J. Petrauskas

Yes, everyday is Christmas at the circus if you're young at heart. Although Obert Miller, manager of the Al G. Kelly and Miller Bros. circus, doesn't feel like Santa Claus, in a sense he is, considering the happiness and joy he brings to the masses who watch the circus each year.

The Al G. Kelly and Miller Bros. circus is unique in that it is known as the largest motorized circus in the world. With this fact in mind it becomes much more easy to understand that the circus can be a thriving, pulsating community one day, and tomorrow it may be 20, 50, even 100 miles away, the "big top" up, the cook tent in place, the animal cages, side shows and other paraphernalia looking for all the world like they had been picked up bodily and put down exactly as they had been before. And yet they are playing another town, perhaps yours.

Although Hugo, Oklahoma, is known for winter quartering the circuses, this fact doesn't make it a vacation-land for them. Wintering a circus requires a great deal of work of which caring for the animals and maintenance of equipment is the biggest project. By no means are they completely idle. Parts of the circus fill entertainment dates even during the winter months. Elephants and camels can always be counted upon to participate in the Christmas parades. Occasionally a contract is signed for animals to play in the movies, indoor performances of the circus, and even some Shrine dates.

If you have ever seen a Tarzan movie, or perhaps much more famous, the lion that roars so ferociously at the beginning of an MGM movie, you were witnessing some of the wild animals who make their winter home in Oklahoma.

The program is changed each year, although a town which has been played is not duplicated more often than every three years. The acts get bigger and better each year, but try as you may the headliners are still the wild animals. This fact is easily understood since the Miller Bros. circus is the second largest wild animal circus in the world.

Miller related the story of how the circus got the Al G. Kelly portion of its name. There were two Miller Bros. circuses—and a strong possibility of confusion—when they first organized. Because Al G. was the name of many famous show personalities, including Al G. Fields and Camel and Barnes, Miller decided to use this portion of the famous name in conjunction with his eldest son's first name, Kelly. From this beginning came the Al G. Kelly and Miller Bros. circus.

Miller has been in the circus game for 33 years but it wasn't until 1937 that he organized this particular show with his two sons, Kelly, 40 years old and D. R., 37 years old. Proud also is Miller of his two teen-aged granddaughters who are helping to carry on the circus tradition of the family. Both grandchildren perform with the circus during the summer months. Karen Kay helps in the office but also rides a menage horse while Barbara Jane works the elephants and the rolling globes, a balancing act. His son, Kelly, is the business manager and D. R. is the general superintendent.

Traveling some 10,000 miles a year in all kinds of weather and over some of the worst and best of the nation's highways, it
takes a great deal of “know-how” to get the circus situated in a town. Accidents and weather take their tolls, but yet the “show must go on” in true show business tradition. For instance, on June 9, in Wilmington, Ohio, a “young tornado” flattened all tents, but they were raised and no performance was lost. Aerialists have been known to fall, and occasionally the animals have their bad days.

It takes about 60 people, including cooks, mechanics, laborers, advance men, and publicity men, to get the show on the road. Although the circus employs about 20 or 22 featured acts, they usually move separately from town to town. It is a joyous occasion to children of all ages when the circus comes to town and they are given an opportunity to work for free tickets. Besides being good for the circus, it’s extra good for the kids who see a special magic in the circus.

The circus isn’t all glamour. A great deal of work is created by it, and Hugo gets its share when the circus comes home for the season. Everyone, from the butcher, the baker, to the mechanic, gets his share of business.

The Kelly-Miller management was unimpressed by gloomy predictions of the risk of moving animals about by motor vehicles. It believed the opportunity to reach points previously passed up by the circuses because of poor rail connections justified the risk. Besides, coachwork for animals, just as customized and about as expensive as a specially made limousine, is what the management had in mind.

Adding to the contentment of the wild beasts in their rolling homes are the trucks hauling the meats, grains and fodder which make up especially prepared animal menus. There are also a staff of skilled veterinarians and the means of administering remedies for illnesses and the treatment of injuries.

Showing a regard for the proper transportation of its menagerie has paid dividends, the circus management states. The animals not only live much longer, but they look better and are more easily handled. A similar attitude is maintained in the transportation of performers and workmen. As an aid to morale, riding ease and operating excellence are two characteristics of the circus’ 50-unit truck fleet. Since it’s traditional that the show must go on, Kelly-Miller insists that it go on, both on the lot and on the highway, in the best possible shape.

A total of 254 animals are toured with the circus. A menagerie “Who’s who” lists 23 elephants, 6 chimpanzees and llamas; 2 giraffes, hyenas, ostriches, hippopotamuses, water buffaloes, polar bears, pumas, zebras, emus, baby gorillas, and tigers; 1 wart hog, rhinoceros, gun, blue nose mandrill, tapir, black leopard, and sea lion; 11 black, grizzly and himalyan bears; 107 head of horses, ponies and mules; 8 lions, 18 camels, 4 zebras and spotted leopards; 3 kangaroos, and 35 monkeys of varied species.

A Hugo business man, Vernon Pratt, formerly had a circus, and Miller says knowing him had much to do with the circus establishing winter quarters there. He also said that he likes Hugo, and further proof can be seen just across the road from the winter quarters in the beautiful, spacious home that his son, Kelly, is building.

Bringing the circus to town is a big job for the Millers. It takes nearly fifty men to do the trick. All have their part to perform in each and every stand before the big show arrives. When the average person discovers that the circus doesn’t just “happen” into a city and that a big force of men work for weeks and months in advance of the organization of the show itself, he invariably realizes there’s more to a circus than just laughs and thrills.

As a matter of fact, scores of the people work all the year around. When, as people think, circus folk are supposed to be hibernating all during the winter months, many are in the season of their greatest activities and hardest work. Such are the advance departments. Commanding and directing this entire force of men is Art Miller, general agent, who routes the show into every portion of the United States. Although the name Miller is akin to that of the Miller Bros., he is in no way related to them, except of course in that peculiar way that show folks are bonded together.

In fair weather or foul, the circus trucks must move into their appointed positions on time every day. Pictured is one of the huge fleet of trucks that haul the wild animals.
Hewn from the Forests

On top of Leathers Mountain in Sequoyah county lies the “Flying 13” ranch—800 acres of virgin timber, most of which is hickory. To a lot of people this would be just so many trees, but to Paul Mothershead and Jack Hurst, co-owners, it offered possibilities of a good business.

From the acres and acres of hickory these two resourceful men and their families have literally hewn a business without equal in the southwest.

This unique enterprise had its beginning two years ago when the Mothersheads were living in Yakima, Washington, where Mothershead was employed by the parts department of the General Motors Co., and his wife had a thriving sewing machine agency.

Mothershead had a craving for hickory barbeque, but his longing was hard to satisfy, due to the scarcity of hickory wood. So when Hurst, who was living in Vian, Oklahoma, wrote them about a ranch that had plenty of hickory on it for sale, the Mothersheads started thinking about moving.

Mrs. Mothershead, a native Oklahoman, was particularly enthusiastic about the prospective move. After looking into the situation and thinking about all that hickory, Mothershead resigned his job. Mrs. Mothershead sold her sewing machine agency, and they moved to Vian.

Mothershead and Hurst immediately tried to find some way to process the hickory so that it would retain its flavor. They first sawed it into chunks, but that didn’t work. Next they pulverized the fragments, with no success.

Then one day, Mothershead’s foreman, Aubrey Cogburn, mentioned some 75-year-old hickory logs, still good as new, which supported a wall of his barn. Cogburn explained that they were hewn out of the wilderness with axes.

Mothershead reasoned that if these logs were still preserved after 75 years, then axe slicing must be the answer. So to the axe he went. He hand cut some fresh hickory chips and had them tested. At last they found the answer. As Mothershead explains, saws open the grain, and axes seal it. It was as simple as that.

Next came the problem of discovering a heating process that would dry the surface and still keep the sap intact. After many tries and as many failures, Mothershead and Hurst developed an effective heating formula. After soaking, the chips are toasted on the surface in a 4000-pound capacity kiln. The sap is retained in the core.

After working out details of the process, it was decided that Hurst was to have charge of the ranch and Mothershead was to spearhead the business. Consequently, Mothershead and his wife started out on a 3000 mile survey to find a market for the chips. They found that there was a ready market for a product of this kind, but to make a go of it, they had to have volume.

Their first big order came from the Hasty Bake Manufacturing Co. of Tulsa. In a short while an order came from the Nash Finch Co., a wholesale grocery concern operating in eight states. In addition, two mammoth grocery chains and a nationwide mail order house have made serious inquiries.

Trying to choose a name for their ranch, the two couples realized that they were both married on the 13th of the month, and the deal for the ranch was consummated on the 13th, and their first order for hickory chips was received on the 13th. It was not only logical but natural to call it the “Flying 13.”

When out-of-state industries want something done in a big way they look to Oklahoma. Below is one of 20 refinery pressure vessels shipped by the McNamar Boiler and Tank Co., Tulsa, to the Great Northern Oil Co. refinery at Rosepoint, Minn. The giant vessels weigh 169,000 pounds each and measure 10½ feet in diameter by 115 feet long. Each tank was mounted on three Frisco flat cars for the 8-day shipment. The trains which carried the tanks operated only in daylight and slowed to five miles an hour on curves and bridges and when passing other trains.

Above—Mrs. Paul Mothershead boxes hickory hunks in front of the kiln.

Left—Hickory chips sacked and ready for shipment.
Sequoyah Marina

Covered shelter for 91 boats is available at the Sequoyah Marina on Fort Gibson Reservoir, Cherokee County. The boat docks, in the 3600-acre Sequoyah State Park, are nestled in a protected cove immediately south of State Highway 51, half way between Wagoner and Hulbert.

Completed four months ago, the floating docks include 45 covered stalls. Cruisers up to 40 feet in length are moored in stalls 8 to 12 feet wide, and facilities are provided for fishing boats 14 to 16 feet long. Space for sailboat mooring also is available.

The state constructed black top roads into the area and last May leased the boat dock development to a private concessionaire, Sequoyah Marina, Inc.

The company is in the process of spending $85,000 on the project, which has been approved by the state planning board. The main building, or boatmen’s club house, will be erected by March at a cost of about $30,000. It will include a recreation lounge with a window front overlooking the water. Plans call for a snack bar and grill and a place to buy tackle and souvenirs.

Jack Bullington, Wagoner, will live in a house to be constructed a few hundred yards away from the club building. Bullington is manager and a corporation member. Other partners are J. R. Brown and Jerry Wilkerson, both of Muskogee.

A wide variation of accommodations and services, from simple boat storage to deluxe service on cruisers, is offered at the Sequoyah Marina. In conjunction with gasoline and oil marine service, available at an adjacent floating dock 24 hours a day, live fish bait and fishing accessories are sold. Fishermen can pick up plugs, lines, hooks, and all the apparatus that goes with angling on their way out to the fishing spots.

Owners can contract for as much or as little maintenance service for their boats as they wish. A railroad track has been built to carry vessels from the water to a marine repair service building where a staff of mechanics, painters, carpenters, and cabinet makers is ready to scrape and paint, varnish woodwork, repair propellers and hulls, and overhaul motors.

Rent of the boat stalls is determined by the size. One of the outstanding features of the docks is the convenient manner of access to the outboard shelters through trap doors in the roofs. The roofs are high enough to allow passengers to be seated in the boats as they enter and leave the stalls.

Tourist Attraction Device Leads to Alligator Farm

Some people raise parakeets, some chinchillas, and others deer, but Arch Hensley of Waurika says none of that sissy stuff for him. He raises alligators.

It is a profitable hobby, too, for the alligators are the beginnings of purses, shoes, luggage, and various other articles that bring high prices on today’s market.

Hensley got into the alligator-raising business quite by accident. About five years ago he began looking for a tourist attraction for his service station on Highway 70 in Waurika. While he and his wife were vacationing in Florida they saw a lot of alligator farms. Hensley bought a pair and put them in a tank in front of his station.

Sure enough, the tourists stopped to see these strange creatures. All this time the ’gators were growing, and Hensley had to keep enlarging his tank, until one day the weather turned cold overnight, and the huge lizards died.

At a loss to know what to do with two eight-foot dead alligators, Hensley skinned them and sent their hides off to be tanned and made into luggage. He was so pleased with the resultant baggage that he decided other people would like it, too. He started acquiring more alligators, until now he has a regular alligator farm.

The animals serve a double purpose. While they are growing to maturity, which is about eight years, they are a fine tourist attraction. And, says Hensley, they make fine pets.
New Cotton Picker

The old sayings that necessity is the mother of invention and ingenuity is the tool of the inventor are illustrated by the achievements of two young farmers, Mack Reinhard of Arapaho and Clarence Bock of Custer City.

Reinhard felt for some time that the tractor-pulled cotton stripping machines in current use were slow and knocked too much cotton to the ground. So with Bock, he developed a self-propelled machine that cuts the stripping time in half and increases the yield by one-third.

The machine, fabricated from old auto parts, is designed to strike the cotton first. In commercial machines, Reinhard contends, the tractor beats against the cotton before the stripping machine gets to it.

A forward wheel to guide the machine and support the driver and controls was added. The four forward speeds are geared far below those of trucks. In high gear it runs about 10 miles an hour, regardless of the thickness of the cotton.

The new cotton stripper, completed in November, paid for itself on its first job. The trial run was in Texas, where it was an immediate success. Reinhard and Bock have applied for patents on the machine.

Texoma Lodge
Ground-Breaking

An unexpected crisp north wind failed to chill the enthusiasm of more than 1000 persons who turned out November 20 to see work started on the elaborate $2,200,000 resort lodge and cabin development at Lake Texoma state park, in the Durant, Kingston and Madill area. Governor Johnston Murray, left, and Governor-elect Raymond Gary man the tractor that scooped up the first load of dirt at the ground-breaking ceremonies. The lodge will have 106 guest rooms and expansive lounge and dining facilities. South of the main structure will be 30 deluxe cabins, a 20-room fisherman's lodge and 20 fishing area cabins. Plans call for a swimming pool, to be built north of the main lodge.