Just why Sulphur isn't the capital of Oklahoma takes some explaining.

Back in 1905 a writer for the Kansas City World could find only three "wide awake" towns in Indian Territory... Muskogee, Tulsa, and Sulphur.

The editor of the Sulphur Times-Democrat went on to opine, in the characteristic boosterism style of the frontier, "We have better material for a city than the other two. All we need is to take advantage of this fact..."

It was all quite simple, "Sulphur is growing faster than any town" in the territory, and has "better material"—is, in fact, already "the rival of Hot Springs"—so why shouldn't it become "THE CITY of the Indian Territory"? It would be just a matter of prodding "every man who has a pride in his home town to get into harness."

Many apparently did just that. That same year the famed Artesian Hotel opened its doors. Parts of the old hostelry—the thick French mirror over the mantel in the lobby, for example—came from the immensely successful St. Louis World's Fair.

The appearance of Governor Haskell, the state's first chief executive, helped establish the Artesian as something of a summer capitol. As its popularity grew, so did Sulphur's reputation as the new state's No. 1 spa.

Two railroads began to bring in a steadily increasing number of excursionists. Reservations had to be made weeks in advance as guests lingered to enjoy the baths, to drink the medicinal waters, and to take invigorating constitutionals along the pristine, wooded paths of nearby Platt National Park.

The beautiful stretch of canyon embracing Travertine and Rock Creeks, with their variegated flora and fauna and some 30 springs, had been established by Congress as Sulphur Springs Reservation in 1902. It became a National Park—named for Connecticut's Senator Orville Hitchcock Platt, a distinguished friend of the Indians—in 1906, a year after the Artesian was built.

With fashionability, of course, came a certain upgrading of both facilities and the amenities with which they were enjoyed. While their elders rocked on the veranda and swapped accounts of who'd been cured of what by imbibing from which spring, the young folks waltzed in the ballroom to the hotel's fine orchestra.

Surreys tied up at the hitching rail in front were...
acquiring bigger and better fringe. A major responsibility of the managerial staff, relates one long-time employee, was to have readily available, cleaned and pressed, an ample supply of coats and ties of the current fashion.

"No gentleman," he noted, "was permitted in the dining room unless properly clad in coat and tie."

But the Artesian wasn't all of Sulphur by any means. As vacationers swarmed into the city, more and more hotels and rooming houses sprang up to serve them. And more and more sights and activities were made available to keep them occupied and contented.

The writer(s) of a 1924 Travel Guide found many worthwhile attractions in the area, and glowing words to describe them:

Mystic Cave was six miles to the south... "never fully explored; large subterranean river of clear water. Water falls, boating in the dark recesses of Mother Earth, stalactites, stalagmites and other interesting geological formations..."

Oil Springs was a bit farther south, "a spring flowing oil instead of water." But hidden away as it was from "the nervous jars, jolts and strains of a business life," it was a wonderful place to rest "and to think of Heaven instead of other things too numerous to mention."

Bromide Springs (gushing from Bromide Hill and currently dispensed from Platt's Bromide Pavilion) was modestly described as "the most popular spring in the United States. Nationally known as a sure cure for nervous diseases and stomach troubles."

Travertine Drive (still one of the park's finest attractions) promised "'Lovers Lanes' and 'Shady Nooks' at every crook and turn."

The old Artesian Hotel burned in 1962. It was replaced two years later by the half-million-dollar, 72-unit Artesian motor hotel.

Baths are still available in Sulphur. Good ones, in the new Artesian’s bathhouse. And at prices substantially lower than those prevailing in neighboring Hot Springs, Arkansas. It's just that they seem to have lost their magnetic hold on people's imagination.

Sulphur wasn’t the only spa to see its health resort dreams fade as "taking the waters" lost its magic allure. Of the dozen or more health resorts once popular in Colorado, only Glenwood Springs and Colorado Springs enjoy any measure of patronage. And much of it is due to factors far removed from medicinal waters. The same is true all across the United States.

Once "in," the baths simply went "out." The rich, who once vied for choice trackage space for their private railroad cars at such resorts as Hot Springs, South Dakota, now jet off to such still popular Continental watering places as Baden-Baden.

But the Great Depression took care of most of the private rail cars anyway. As for the great American middle class, the family auto has given it new freedom. And new where-to-go, what-to-see, and what-to-do ideas.

Today's community leaders might well keep this in mind, for the vacation picture these days is constantly changing, as it always has. And if a town is as "wide awake" as it was sixty years ago—it could capitalize fully on these changes.

Baths may have lost favor. But not water. And Platt—with its mineral and clear water springs, its rock-
Waterfalls, nature trails, cool shallows for wading, deep pools for swimming, relics from the Park's Indian heritage, medicinal waters for sipping, a variety of experiences are available to the Platt National Park visitor.

lined streams, and the new 3,127-acre Lake of the Arbuckles—remains Sulphur's No. 1 vacation lure.

Last year the park drew 1,460,500 visitors, up from 1,316,300 in 1964. Its three campgrounds (201 sites) provided 100,695 camper days, to operate at what Supt. Donald M. Spalding describes as "above 100% of capacity."

And still the rush of visitors continues, with Platt striving mightily to keep up with them. New this summer are 300 picnic tables (present total: 759), another 46 camp sites, four comfort stations, improved access roads.

Approved and ready for development in the immediate future are such projects as an ecological wilderness for the park's east end and a nearby nature center in the Little Niagara area. To it will go most of the sparkling new exhibits from the present museum.

The wilderness venture is an ambitious one. The plan is to close the auto road into the Antelope and Buffalo Springs area, and convert it to a nature trail. The nature center will acquaint the visitor with the park's ecology, to inspire him to strike out and discover and experience it for himself. (One nice—and, to us, surprising—feature: the presence of flying squirrels.)

Platt, of course, is remarkable to the naturalist. Nowhere can this be appreciated more easily than from atop Bromide Hill, near the park's southwestern corner.

From Bromide Hill the visitor looks north and east over the canyon below, at trees, shrubs, and animal life characteristic of eastern woodlands habitat. Without moving except to turn around, he sees to the south and west the cactus and sage of a typical, arid western plains landscape. Development plans call for expansion of this notable observation point, known to the Indians as "Council Rock" even before English botanist Thomas Nuttall became the first European to visit the area in 1819.

Already authorized improvements are likely to keep Platt National Park's visitor count increasing steadily in the years to come. But this is nothing compared to the popularity an expanded park may expect if boosters fully realize the plans now being proposed. The Department of Interior outlines three possible plans.

The first visualizes a 9,763-acre preserve to include Platt's present 912 acres and the new Arbuckle Recreation Area. Although the two units are not now contiguous, present development work on camping and picnic areas, boat ramps, and access roads fits into this master plan.

The second expansion plan would add to the above holdings 12,640 acres on Pennington Creek north of Tishomingo. Also non-contiguous, it would include the highly scenic—and now privately developed—Devil's Den Park. Also included: city-owned, 662-acre Veterans Lake southwest of Platt.

The third and most imaginative plan would add 10,400 acres of striking Arbuckle Mountain scenery to the park. Along present US 77, this plot would include the Colbert Creek and Turner Falls areas, plus a five-mile stretch of the geologically unique Arbuckle Uplift.

This, then, is some of the "better material" the Times-Democrat editor was boasting about back in 1906. Sulphur will never be the capital of Oklahoma, politically. It's too late for that now. But an expanded Platt National Park just could someday make it the state's vacation capital.
The rose Oklahoma, featured at our state exhibit at the New York World’s Fair, was hybridized and developed by Herbert C. Swim, who graduated from Oklahoma State University in 1927, with a degree in horticulture.

His Oklahoma rose won the top national honor as an All-America Rose Selection in 1963.

Herbert Swim’s work includes twenty-one years as a rose breeder and director of the rose breeding program at Armstrong’s Nurseries in Ontario, California. In 1955, he became a partner of O. L. Weeks, also of Ontario. Their hybridizing firm has three All-America selections to its credit. Swim alone holds the distinction of having created more All-America rose winners than any other hybridizer — a total of fifteen.

His most recent All-America winners are Camelot, a coral-pink grandiflora, and Mister Lincoln, a velvety deep-red tea rose. When the AARS system observed its 25th birthday in 1965, the two varieties had the added distinction of being Silver Anniversary choices.

In over thirty years of work, Herbert Swim has amassed 105 plant patents, most of them roses. However, the list includes peaches and several other fruits, and ornamental plants.

Explaining the origin of the All-America Rose Selection program Swim says, “there was need for greater public confidence in roses. Each year brought a flood of new rose varieties, including many from abroad. Some of these were new, but many were old varieties under new names. Some were not adapted to certain climatic conditions, and nurserymen often were confused on what stock to carry. The public was also confused on what to buy.”

To help organize the situation, prominent horticulturists and rose breeders established the AARS program. It serves as a pre-testing organization, with standards for judging the garden performance of each rose entry. This is done in twenty-five test gardens across the country, one of which is located in Tulsa. Among standards for judging are such points as vigor, growing habit, fragrance, abundance of flowers, disease resistance, bud form, and flower form.

Aside from his All-America selections, Herbert Swim has been personally honored in almost every way imaginable. In 1956, he received an honorary academic degree of Master of Science from Lewis & Clark College, Portland, Oregon.

So it is with Herbert C. Swim, born near Stillwater, an OSU graduate and former OSU track star who went on to become “the expert” in his chosen field. When it comes to roses, he’s the best there is.
The state's gas industry is celebrating historic milestones this summer. It is the 150th Anniversary of the national gas industry, with 60 years of gas industry growth in Oklahoma. And yet, from what the crystal ball predicts, the future is going to be more worth cheering about than past achievements.

Progress for Oklahoma's gas industry the past six decades has proved amazing. An orphan, at first, of the early day oil booms, its waste flares once illuminated busy fields at night. Today natural gas is a major state industry. Gas production ranks third in the nation. The same spot holds true for Oklahoma's gas reserves — deposits which the earth still holds.

In the Sooner state, natural gas has become everybody's fuel. And even if you aren't an Oklahoman but live hundreds of miles to the north and east, you are apt to heat and cool your home, dry your clothes and light your yard with natural gas piped from Sooner fields. Maybe you are wearing an orlon sweater which, thanks to the magic of petrochemistry, was made from gas from Oklahoma. Or you may be using hundreds of other synthetic products which used gas as a raw material.

Once coal was the dominant fuel. But today, oil and natural gas provide three-quarters of the nation's energy needs. And natural gas and natural gas liquids have now surpassed domestic crude oil as a supplier of energy to the U.S. market.

The first customers in the United States to be served by a gas utility were in Baltimore, Maryland, at the time James Madison was President. Gas was made from coal then, which was a dozen or more years before natural gas was discovered in Fredonia, New York.

Today, gas is the sixth largest industry in the United States, and Oklahoma has become a major producer as well as consumer. But progress is only beginning. Tomorrow promises to swiftly enlarge the gas picture as far as Oklahoma — and the nation — is concerned.

Three exciting new developments are forecast.

First, Oklahoma's gas industry will help open the state to unprecedented industrial growth. Natural gas, until now primarily only a source of heat energy, will find increasing demand as a raw material.

Thousands of synthetics and other products today are emerging from natural gas's petrochemistry wonderworld. Besides being garbed from straw hat to shoe soles in products made from gas from Oklahoma, man packs his wardrobe in suitcases, feeds his lawn with fertilizers, shines his car with silicones, and goes for a lake spin in a boat made from gas.

Petrochemical plants have sprung up in the Gulf states because of advantages of water transportation. With the Arkansas River navigation project due for completion by 1970, future plants are destined to locate in Oklahoma. Here they will find a plentiful supply of gas, cheap barge transportation, plenty of water, and labor top-rated in efficiency by other new industries which have recently come to Oklahoma.

Natural gas serves Oklahoma's industries in startling ways. Many people would be surprised to know it helps put together the Apollo spacecraft at North American's aviation plant in Tulsa; and it is used in the carpet dyeing process at Sequoyah Mills in Anadarko. Gas provides thousands of horsepower to pump petroleum through lines from oil fields to markets, and it creates steam for paper mills at Pryor. It has all but replaced acetylene torches in cutting operations in steel making, and fires all power generating plants in Oklahoma, except hydro-electric installations. It is made into fertilizer at Pryor's Nipak corporation plant. It makes on-site same spot holds true for Oklahoma's gas reserves — "total energy" electric power for Oklahoma State, Oral Roberts and Oklahoma universities.

As one indicator of natural gas's role in serving state industry, 95 percent of the manufacture of Sooner glass plants is sold out of state. Why, then, are glassmakers located in Oklahoma? They find that fuel costs are low and glass sand is readily available.

With the advent of waterways and cheaper transportation costs, large users of fuel for processing operations will be benefited. For example, smelters will find their products' cost per-pound transportation rates greatly continued
NATURAL GAS

reduced, making it feasible for them to ship products out-of-state, thus greatly increasing their market opportunities.

This year, preparing for the future, Oklahoma Natural Gas Co. bought one-third interest in the rich Red Oak gas field in southeastern Oklahoma. The purchase, from Pan-American and Midwest Oil Corporations, represented probably the largest on-shore uncommitted natural gas reserves in the nation. Oklahoma Gas and Electric and the Public Service Co. bought the other two-thirds for power generation, thus assuring that all the gas will remain within the state.

Governor Bellmon praised Red Oak sales agreements, explaining that they "are extremely important to Oklahoma in many ways, including an estimated $1 million of additional state tax revenue each year . . . it will stimulate the state's economy for many, many years to come . . . the new agreements are bound to spur additional development and exploratory drilling in the Arkoma Basin as well as in other areas of our state. Oklahoma has been blessed with an abundant supply of natural resources and people with the initiative to produce and utilize them."

While a growing industrial role for natural gas should prove to be an exciting development, the second trend on the horizon has to do with a device most Americans had never heard of before Gemini Five left the launching pad. But it seems destined to supply an important share of tomorrow's power. The space capsule's electricity came from a fuel cell which also provided power for Gemini Seven's equipment during its 14-day journey through space. Soon it will make it possible for man to explore the moon.

As gas industry research pays off, natural gas fuel cells may take on the earthbound job of supplying electricity for many of tomorrow's homes. A fuel cell, in some respects, is like a battery that produces electricity by chemical reaction. Hydrogen and oxygen are fed into the cell at positive and negative electrodes. They react with one another in the electrolyte, a liquid which acts as a bridge for the movement of charged particles. Electrons move through the electrolyte to one of the electrodes and out into the external circuit.

This is what happens in an ordinary storage battery. But the storage battery procures an electric current only until the chemicals built into it are used up. The fuel cell, on the other hand, continues to operate as long as the hydrogen and oxygen are supplied. For this reason, it has been described as a continuous feed battery.

Because it converts chemical energy to electricity directly, the fuel cell is potentially a far more efficient operation than conventional thermal generation, in which two-thirds of the energy in the fuel is lost. And because...
it has no moving parts, the fuel cell is both silent and potentially durable. This makes it ideal for on-site power generation in homes and many businesses.

But if the fuel cell is to find its way into the home, a type quite different from those used in space must be developed. It will have to be constructed of much less expensive materials. It will not have to operate at zero gravity or produce 100 watts per pound, but it must have a long life and run on more economical fuel than pure hydrogen and oxygen. Natural gas can be the fuel for this job.

Third in the parade of planned achievements for the gas industry, and much nearer at hand, is development of the gas "total energy" concept. Gas fired equipment that can supply all power, heat and cooling needs in a single package. Total energy units are applicable to shopping centers, large buildings, schools and apartment towers.

So these are the three bright stars in the future of the gas industry in Oklahoma — gas as a raw material making hundreds of miracle products, gas in powering the fuel cell, and gas for total energy.

With a growing demand for gas, the question has to be asked, "Won't we soon run out?"

The facts are: Oklahoma's proved reserves of natural gas have been extended every year since 1951, and today stand at 20.4 trillion cubic feet — nearly double what they were in 1951. Each year the gas industry manages to find more gas than it produces. Total national reserves are estimated at over 286 trillion cubic feet — an all-time high.

There are still vast untested areas. In addition to the Red Oak reserves in the southeastern part of the state, the most important activity in the coming years will be in the Anadarko Basin area, which means everything from Chickasha west and north. Drilling depths are going deeper, from 12,500 to 20,000 feet. Natural gas has been found and is now being produced in 72 of Oklahoma's 77 counties.

Oklahoma's natural gas industry includes more than 50 companies. Oklahoma Natural Gas Co. is the largest, serving 196 communities. Others include pipeline transmission firms, privately-owned distributions firms serving individual communities, and still others are municipal gas systems or public trusts. A few major inter-state gas transmission and distribution companies have some service in Oklahoma, notably Arkansas-Louisiana and Lone Star. Seventeen pipeline transmission companies transport 660 billion cubic feet of gas annually to markets in other states.

This year marks the Sesquicentennial of America's natural gas industry, a remarkable source of energy. It has developed Oklahoma industries, keeping our cities free of soot, clean and sparkling. The story of gas has been one of steady and quiet achievement. The future promises the same sure growth, thanks to the ample supply of gas and the vision of men in the industry who are creating exciting new demands for it.

SUPPLY—As this pipeline network map shows, this state is a major source of natural gas supply. Oklahoma natural gas is transported by pipeline to all four corners of the United States. Recent discoveries in southeastern Oklahoma, will add even more lines to the network shown here.

PIPLINES—The first commercial natural gas pipeline was built in Fredonia, New York in 1821. It was less than an inch in diameter. Some long-distance pipelines used today are so big that it is possible for a boy to stand upright inside the pipe. This has made it possible to increase the consumption of natural gas from a trickle to more than 15 trillion cubic feet per year.
Nick Seitz, sports editor of the Oklahoma Journal, was selected as the outstanding Oklahoma sports writer of 1965. He received the award during ceremonies at the National Sports Writers and Sportscasters Association meeting in Salisbury, North Carolina. Here are Nick’s nominations for an...

**ALL-TIME, ALL-OKLAHOMA BASEBALL TEAM**

*BY NICK SEITZ*

Take John Leonard (Pepper) Martin, for example. A more fiercely competitive baseball player never lived. Not a natural athlete, he would, time after time, resourcefully pester the opposition into defeat. Who else slid headlong into first base? Third baseman Martin was the ringleader of the Gas-house Gang, the redoubtable St. Louis Cardinals clubs of the 1930s. He almost single-handedly upset the Philadelphia Athletics in the 1931 World Series. Martin has
to be on an all-time, all-Oklahoma team.

Selecting only men with a solid Oklahoma background (omitting Dizzy Dean, Bill Dickey and others who lived in Oklahoma briefly) names tumble quickly into place.

A pitching staff boasting Carl Hubbell, Allie Reynolds and Warren Spahn is more than any manager ought to wish for with a wishbone. And where would you go to improve on an outfield of Paul and Lloyd Waner and Mickey Mantle?

Our mythical super team is rounded out by Dale Mitchell at first base, Jerry Adair at second, Alvin Dark at shortstop and John Bateman behind the plate.

"That bunch would make a good all-time national team," says a major league executive. "They have everything—speed, power, pitching, defense. Their manager could play for the long ball or play a running game, whichever he preferred."

Batman would be lucky to get to carry the bats.

Here is the team.

FIRST BASE: Dale Mitchell.
The Colony, Oklahoma native batted at a .312 clip during 11 years with Cleveland and Brooklyn, once leading the American League in hits. Basically a clever slap hitter, he always seemed to be on base. He played in three World Series.

SECOND BASE: Jerry Adair.
Oklahoma State University product Adair, still active with Baltimore, last season erected an American League fielding record; for a while it looked as though he never would err. He derives maximum performance from his inherent physical equipment—a trait these all-stars have in common.

SHORTSTOP: Alvin Dark.
Dark, quietly intense, today manages the Kansas City Athletics. Three times the Comanchean led National League shortstops in double plays. He tied the World Series record for most singles in a four-game series (seven). Dark managed the Giants, for whom he formerly excelled, to the 1962 NL pennant.

THIRD BASE: Pepper Martin.
After the '31 Series, Judge Kenesaw Mountain Landis, then commissioner of baseball, told Martin he would like to change places with him. (Martin had stolen five bases, scored five runs, batted in five runs, hit a robust .500 and made a brilliant catch to end the final game against Connie Mack's Athletics.) "I'll swap you if I can have your salary," Pepper replied with a characteristic lack of awe.

Broad-shouldered and barrel-chested, he cut a wide swath through the National League—on and off the field. If he wasn't stealing home in a cloud of dust, he was apt to be dropping a sack of water out of his hotel room window on unsuspecting passers-by.

As a fielder, he was a pretty good dropper of water sacks; he stopped more balls with his chest than with his glove. But he got the job done. The Temple, Oklahoma firebrand thrice led the National League in stolen bases, and matched a World Series mark for most hits in a seven-game set.

OUTFIELDER: Paul Waner.
Paul and his brother Lloyd, raised at Harrah, formed the finest brother act ever to patrol the same outfield. "Big Poison" and "Little Poison" they appropriately were called.

Paul Waner, a wisp of a fellow at 5'8½" and 153 pounds, sported a lifetime major league batting average of .333, leading the National League on three occasions. He hit .380 in 1927, and accumulated more than 3,000 hits in his career. Owner of a busload of records, the ex-pirate great is a member of the Hall of Fame.

OUTFIELDER: Lloyd Waner.
Proof of Lloyd's success is the fact nobody refers to him as "the other Waner." He was outstanding in his own right.

Lloyd led the National League in hits four different seasons, punching out the astonishing total of 198 singles in 1927. That was his rookie year, and he batted .355 to help the Pirates to a pennant. He also stole bases like a kleptomaniac.

OUTFIELDER: Mickey Mantle.
Mantle might have been the greatest all-round ballplayer the national pastime has seen but for a raft of injuries. He doesn't miss by much anyway.

The switch-hitting Commerce Comet, in his 16th year with the New York Yankees, holds more records than you can shake a Louisville Slugger at, and his honors run the gamut from home runs to fielding performances. He was named major league player of the year in 1956 by the Sporting News. He is a cinch to be in the Hall of Fame.

CATCHER: John Bateman.
Bateman is the closest thing to a soft spot on an all-time, all-Oklahoma roster, but that is as much a commentary on the other choices as on him.

Just 23, the Lawton strongboy is destined for big things, according to Grady Hatton, his Houston manager. He has a strong arm and power at the plate.

PITCHER: Allie Reynolds.
The Yankee peashooter became as integral a part of the World Series as razor-blade commercials from 1947-53.

Now an Oklahoma City oil executive, he pitched two no-hit games in a season, one against Bob Feller.

PITCHER: Warren Spahn.
Mention the foremost left-handers and you are obliged to discuss the considerable merits of Hartshorne rancher Spahn, who won 20 or more games 13 times. He, too, hurled a no-hitter.

PITCHER: Carl Hubbell.
Another southpaw, Hubbell holds the distinction—unequalled—of striking out Babe Ruth, Lou Gehrig, Jimmie Foxx, Al Simmons and Joe Cronin in order, in the 1934 All-Star Game.

Hubbell, a member of the Hall of Fame, perfected the screwball, to the consternation of rival batsmen. He hurled a no-hitter for the Giants.

There they are, the all-time Oklahoma all-stars.

Revisions undoubtedly will be necessitated as young Oklahomans take their places in the limelight (for the second straight year, the state leads the land in the output of big leaguers on a per-capita basis). For the present, though, this crew will do.
Millions fly safely today, and the aeronautical-space sciences advance more rapidly because of an Oklahoman

AUTOMATIC PILOT
RADIO DIRECTION FINDER
VARIABLE PITCH PROPELLER
BIOLOGICAL CLOCK
THE JET STREAM
PRESSURIZATION AND STRATOSPHERE FLIGHT

WILE

BY
JAMES H. WINCHESTER

James H. Winchester, of Pleasantville, New York, whose articles appear regularly in the Reader's Digest, Saturday Evening Post, and other national magazines, is one of the top magazine writers in America. Oklahoma Today is proud to be able to publish, for the first time, his summation of the remarkable achievements of Wiley Post.
On the day when Major Virgil Grissom and Lieutenant Commander John Young orbited their Gemini capsule three times around the earth I was flying from California to New York. Periodically, news of America's space twins was relayed from the cockpit over the jet's loudspeaker system. After one of these bulletins, the stranger in the seat next to me turned to remark wistfully, "Too bad Wiley Post isn't here."

"Why is that?" I asked.

"Maybe it's too much to call him the first astronaut, but he was surely the forerunner," was the explanation. "There's a little bit of Wiley in everything that now flies through the skies. You know that, don't you?"

I didn't know it, although the mention of his name stirred vague recollections from the 1930s of a bare-headed man with a patch over his left eye. Wearing a wrinkled double-breasted business suit, he was seemingly always just stepping out of the cockpit of the Winnie Mae, his single-engine monoplane, back in a time when the sky was still a lonely place.

The fellow passenger who evoked these thoughts was Dr. Stanley Mohler, executive of the Federal Aviation Agency's Aeromedical Research program. Tracing Wiley Post's career and accomplishments, he told me, is his hobby. From Dr. Mohler, and from scores of later talks with Wiley's wife, members of his family and others, I now realize that Post was actually the first of the world's true scientific test pilots, a diligent seeker of facts who was frequently heard to say, "I want to discover something every time I go up."

The full significance of Post's contributions to the aerospace age is only now coming into full focus. With unerring judgment he selected the key flight instruments and radio navigation devices of his day, and demonstrated their utility and reliability. He predicted supersonic planes, the possibility of space travel, and pioneered flight. Post first recognized and took advantage of the jet stream, the high-altitude wind currents which flow from west to east, like rivers in the sky. He was years ahead in the human-factors area of aviation. "Everything we are doing today in this field follows the lines that Post envisioned 30 years ago," says Dr. Mohler. "He was always on the right track."

A "loner" impelled by uncompromising inner drives, Post was known well to few persons during his life. He seldom drank, not even tea or coffee, and rarely smoked. Only five feet, five inches tall, he weighed a stocky 175 pounds. Slow to anger, Post's strongest expression was usually a soft spoken "Golly."

He was stubborn and independent, but utterly lacking in flamboyance or the urge to put himself forward. Amelia Earhart once asked him why he didn't write a book about his experiences. Post replied sincerely, "There's nothing to write about. Some people seem to have interesting adventures. I never do."

Much of the unpretentious, introspective man that Post became was patterned in his youth. Born November 22, 1898, Wiley was the fourth of seven children. Wiley never liked school. He dropped out entirely before he was 14 years old. Although books bothered him, Wiley loved mechanics. He taught himself to fix things.

With money earned sharpening knives, repairing sewing machines and patching-up pumps for neighbors, Post left home to study auto mechanics at a trade school. He completed the course just in time to enlist in the Army in 1917, and was assigned to study radio. Radio technology remained the base for much of Post's later advanced thinking.

Post's first impulsive urge to fly came when he was 25 years old. Quitting his oilfield job, he talked a flying circus into letting him substitute for their parachute jumper, who'd been injured. He wasn't paid for his first jump, but he did another the next week for which he received $50. Soon he was a regular member of the aerial troupe.

In August, 1925, with only four hours of haphazard dual instruction, Post soloed as a pilot at Holdenville. He had to put up $200 as security that he wouldn't wreck the old World War I biplane he hired for the flight. "I was scared to death," Post admitted. He stalled the motor in the air, got himself into a dive from which he almost didn't recover, and barely missed a tree with a wing when landing.

Continued
As the novelty went out of flying, the barnstorming business faded. Wiley had to go back to work in the oilfields. Shortly afterward, a nearby workman brought his hammer down hard on the head of an iron bolt. A flying chip embedded itself in Post's left eye. Infection set in. Doctors finally had to take the eye out, replacing it with a glass one.

Recuperating on an uncle's farm, Post practiced depth gauging with his good right eye, looking at a tree and trying to guess how far away it was. Then he would step off the yards. He did the same with more distant hills. At first his judgments were wide of the mark. Within two months, he was a better judge of distance than he'd ever been. Thereafter, in flying, the only restriction Post allowed himself was to request a right-hand circle of an airport to land. Normally, the pattern is to the left. When anyone questioned his handicap he replied, "I have to be twice as good as a man with two eyes." Years later, when Post applied for a pilot's license, the U.S. Department of Commerce granted him a special dispensation. Encouraged, no doubt, by Post's example, there are over 1,000 one-eyed pilots in the United States today.

Early in 1927, with less than 10 hours of solo time, Wiley became a full-time pilot. Part of his $1,500 Workmen's Compensation was used to buy and rebuild a partially-wrecked 12-year-old biplane, with an old OX-5 engine and battered wooden propeller. In it, he flew oilmen around the southwest and barnstormed passengers at $4 a flight on weekends.

Accumulating over 800 hours in the air in less than a year, keeping his rickety plane flying with his own repairs, Post had only one forced landing. Eloping in June, 1927, with 17-year-old Mae Lane from her home in Sweetwater, Texas, his patched-up motor conked out near Graham, Oklahoma. Post bounced down safely into a cornfield, borrowed a car and drove into town, where a local minister married them.

With a wife, Post needed a steady income. For the next two-and-a-half years Wiley was personal pilot for a millionaire oilman, did odd-jobs for Lockheed Aircraft in California, and flew for a Mexican airline. In 1930, W. C. Hall, the Oklahoma oilman for whom Wiley had worked, ordered a new plane, a high-wing, cigar-shaped, plywood Lockheed Vega, with a 420-horsepower, nine cylinder, air-cooled, radial Pratt & Whitney engine. It was named the Winnie Mae after Hall's daughter, and not for Wiley's wife, who spelled her name the same way.

Backed by Hall, who was eager to sponsor spectacular stunts, Post used the Winnie Mae during the next three years to achieve a remarkable string of successes. They started with a darkhorse victory in the 1930 Bendix Trophy Race from Los Angeles to Chicago. The next year, with navigator Harold Gatty, Post set a new around-the-world record of 8-days 15-hours and 51-minutes. It was on this flight that Wiley's glass eye chilled in the cold air through which he flew, causing him great pain. When he landed he threw it away and replaced it with the eyepatch which became his trademark. In 1933, Post...
made man's first solo global flight in 7-days, 18-hours and 49-minutes.

Post was given two New York City ticker-tape parades and received the keys to the city. Presidents Hoover and Roosevelt received him at the White House. He won the Harmon Trophy and the International Aeronautic Federation's coveted Gold Medal. The Wright brothers and Charles Lindbergh were the only Americans to receive it before him. Congress awarded him the Distinguished Flying Cross.

These honors were almost entirely for Wiley's world flights. Post's pivotal role between the hit-or-miss techniques of the open-cockpit barnstormers and the scientific approach to aeronautical research was largely ignored. He never received the full recognition he deserved for such significant developments as these, which stand today as keystones for modern air and space achievements:

**Human Factors.** Post always considered himself and his machine to be a single system. He was among the first to recognize that the pilot was the limiting factor in terms of endurance. He sat for as long as 36 hours in the cockpit of the Winnie Mae forcing himself to stay awake while he documented his own reactions as his energy ebbed and proficiency deteriorated. This "biological clock" problem is now widely recognized in the jet age. Nobody took Post seriously when he discussed it first in 1931.

**Automatic Pilot.** At the time Post planned to circle the globe alone, the automatic pilot had been developed by Elmer and Lawrence Sperry. Most people in aviation, however, regarded the apparatus as unreliable. It had not received an extensive trial until Post recognized its possibilities and adopted it. By using it almost continuously as he circumnavigated the globe alone, it relieved him of many tiring in-flight chores. With this impressive demonstration, the automatic pilot was quickly appropriated by the world's airlines. It is one of the most valuable and common tools in aviation today.

**Automatic Radio Direction Finder.** Post had an uncanny sense of direction. In his first transcontinental Bendix Trophy Race in 1930, the magnetic compass on the Winnie Mae failed a few minutes after he left Los Angeles. Post completed the course, using only his eye and a highway road map.

Some airlines were then navigating by special directional beams. They made a steady sound if the plane was on course, a coded sound if the pilot was to either side of the beam. This means of navigating depended on special ground stations to broadcast the signals, which were subject to static. Pilots with hearing handicaps (not uncommon in early aviation) also frequently made errors in reading the sounds. The U.S. Army Signal Corps had developed an instrument which pointed out the bearing to any radio transmitter to which it was tuned. It was not tested, and there was some doubt that it would be really useful. Many felt that it would be subject to false signals. The Army gave Post a top-secret contract to prove it on his solo world flight. He used it to navigate by dialing in commercial broadcasting stations around the world. He was never more than a few miles off his course at any time. Thus established, the automatic radio
WILEY POST

direction finder is now a standard flight instrument, as widely used as is the automatic pilot.

Variable Pitch Propeller. The variable pitch propeller was generally regarded in the early 1930s as unreliable, subject to throwing blades and other problems. One had been used by Jimmy Doolittle to set a land plane speed record in 1932, and he first showed Post its potentialities. Wiley grasped them immediately. By using the low pitch, which is like the low gear in a car, it would help him climb out of the short fields he would encounter in Russia and Alaska. By turning the propeller blades to a different angle, to get lots of bite from the thinner air at cruising altitudes, Post was able to achieve greater speeds and save fuel. With this propeller, he flew non-stop the 3,900 miles from New York City to Berlin. The varied and often rugged use given the propeller an Past's second around-the-world trip also proved its reliability.

Pressurization and Stratosphere Flight. Post always regarded his work in this area as his most important contribution to aviation. Over Siberia, in 1933, bad weather had forced him to try and get above it at 21,000 feet. Neither he nor the Winnie Mae was equipped to fly at that altitude. Back home he clearly foresaw: "Up there in the thinner part of the earth's atmosphere there's a new world made for airplane travel."

With this perception, Post decided to devote his time to high altitude research. The great obstacles to be overcome were the lack of oxygen and pressurization. Others were working on stratosphere problems, of course. Professor Auguste Piccard had used a sealed gondola to soar to 57,000 feet in a balloon. Military pilots had worn oxygen masks to reach altitudes above 40,000 feet for short durations. Both these methods were impractical for sustained high-level airplane flights. To seal off the cockpit, pumping in oxygen from tanks, involved too much weight for the era's technology.

Oxygen masks gave no protection to the body. Pressure at sea level is 15 pounds to the square inch inside the body and outside. At 40,000 feet, there are three pounds of pressure to the square inch outside the body. Unless adequate body pressurization is maintained, the nervous system won't function properly, and blood vessels often rupture.

Early in 1934, Post drafted his own specifications for a stratosphere flying suit. Working at the direction of Post, B. F. Goodrich Company engineers constructed a model using rubberized fabric, to which pigskin gloves, rubber boots, and a three-and-a-half pound aluminum helmet were joined. Connections through the helmet furnished the air or oxygen at required pressures. Other tubes, wound around the engine before going into the suit, provided heat. In the first ground try, the suit ruptured and was discarded.

A second suit was built. When Post tried it on, he got stuck. Assistants were unable to free him and he ordered the suit cut from his body. Post's third pressure suit was an entirely new design. It had two layers of cloth instead of the previous one ply. Instead of being joined at the waist, as were the other suits, this one was entered through a large neck opening, to which the helmet was then affixed.

Post tested this third suit in a pressure chamber, then wore it aloft in August, 1934. It was the first time any man had flown in an aircraft using a practical pressure suit. "In principle, it was the same design as those now worn by America's astronauts," says Major Charles L. Wilson, Air Force scientist who helped select the first U.S. spacemen.

As Post started his altitude test flights over Bartlesville, new problems arose. He found that due to reduced pressure his engine's ignition system would not function at higher levels. The electricity failed to stay within the insulation of the wires. Resourcefully, Post designed a
system consisting of airtight boxes and flexible tubing around the magnetos and wires. Compressed air was pumped through this system so that the entire unit functioned under sea-level conditions.

Radios also went haywire with low pressures. When the air thinned out, condensers changed their tuning points. Tuned-in stations disappeared and new ones took their place. At high altitudes, too, Wiley discovered that radio reception poured in at a highly increased volume, making selectivity harder. Post, again calling on the basic radio technology he'd absorbed as a World War I Army student, redesigned the system to keep the pressure around the equipment at reliable levels.

In all these high-altitude flights, Post used liquid oxygen, lancing the weight problem caused by previously-used gaseous oxygen, which had to be carried in heavy, bulky containers. A small, light tank gave him sufficient supply for eight or ten hours aloft. "Post definitely proved for the first time that pilots can fly for extended periods on liquid oxygen," says Dr. Mohler. "The supercharger, pressurized radio, and oxygen techniques he pioneered are routine for all airline and military flights today."

To lessen the air resistance on the "Winnie Mae," Post worked out an ingenious system to jettison the landing gear by pressing a lever in the cockpit after getting into the air. Landing was accomplished on a skid attached to the underside of the plane. This is similar to the method used to bring the experimental X-15 rocketplane to a landing today.

In 1934, the airplane altitude record was 47,352 feet, held by Renato Donati, an Italian. In an effort to better it Post reached 40,000 feet over Chicago before mechanical difficulties forced him to descend. The flight was not a failure, for Post made an amazing discovery. At levels between 25,000 and 40,000 feet he found fast moving currents of air. By getting into them he was able to increase the "Winnie Mae's" speed from a normal 170 miles-an-hour to better than 300 miles-an-hour. This was the first real proof of the jet streams that are routinely used now in commercial jet flights. Upon landing, Post predicted: "I'm convinced that airplanes can travel at terrific speeds at more than 30,000 feet by getting in these fast air currents. Shortly we will be able to fly the mail across the country in less than seven hours."

Wiley had less than $2,000 in the bank early in 1935. The "Winnie Mae" was worn-out. He jumped at the chance when his old friend Will Rogers offered him $25,000 to fly him to Alaska on a combined vacation-business trip, then perhaps on across Siberia and around the world. With an advance from Rogers, he bought a second-hand Lockheed Orion. Post never really liked the plane. "I wish I were flying the "Winnie Mae"" he told friends.

On August 15, 1935, Post and Rogers took off from Fairbanks, Alaska, for Point Barrow, where the humorist wanted to interview Charles Brewer, an old trader and whaler who lived there. The weather was foggy and miserable at the top of Alaska that mid-August afternoon. Wiley couldn't find the village, but he did spot the open waters of an ice-free lagoon. Two Eskimos—a man and his wife—were on the shore. Landing, Post asked for directions. Then he took off again, headed for Point Barrow, the northernmost community on the North American continent, which was 16 miles away. It was his last adventure.

Straining for altitude, the motor of the plane misfired, then quit. Without power, the heavily-loaded craft side-slipped and crashed. In the wreckage, 300 miles inside the Artic Circle, Post and Rogers were dead.

In the wake of the headlines following Post's death Congress appropriated $25,000 to buy the "Winnie Mae" from his widow. The plane, along with Wiley's original pressure suit, now rests in Washington's Smithsonian Institution, together with the Wrights' airplane, Lindbergh's Spirit of St. Louis, and the space capsule flown by Colonel John Glenn.

Post's name drifted into oblivion. But millions fly safely today, and the aeronautical-space sciences advance more rapidly, because this taciturn Oklahoman broke down admitted limitations, and marked out so many new and untried paths in the air.
* Forgotten men who foretold

THE TREASURE

Two horsemen — lonely figures against a bright expanse of hills and sky — spurred their mounts up toward the Indian cemetery on Oklahoma's huge 101 Ranch, near Ponca City.

Ernest W. Marland had recently arrived (December, 1908) from Pittsburgh, and George Miller was showing him the ranch. On the hilltop they saw the Indian burials, bundled bodies with weapons and food in animal hides, lying high on wooden scaffolds. The Ponca Indians brought the burial custom with them to Indian Territory from their previous home on the Niobrara River in Nebraska. The Poncas looked on George Miller and his family as friends and benefactors, and leased ranching acreage to the Miller brothers.

Marland paid only passing attention to the Indian

"Forgotten Men—Author David Craighead says, "It is hard to imagine any group having a greater impact on Oklahoma as we know it than geologists and their science, yet the story of their work is all but unknown. One would not guess they existed by reading the formal histories of the state."
Early Oklahoma geologists; the young man at the plane-table is E. L. DeGolyer who became one of the greatest of the petroleum geologists.

OF THE REDBEDS

burials. What fascinated him was the hill itself. He knew that drillers had found natural gas in the vicinity. His great ambition was to drill on the ranch for oil. In the seventy years since the drilling of Edwin L. Drake's historic oil well, many means of finding oil had been tried. Some men looked for oil seeps. Others favored "doodlebuggers," "creekology," or simply played hunches. Petroleum geology was in its infancy. Many oilmen condescendingly spoke of geologists as "rock hounds," and geology students as "pebble pups." But Marland agreed with geologists who insisted that for oil to accumulate it had to be trapped underground, and that the structure most likely to do this was the anticline, an upfold in the rocks.

Marland reasoned, from outcropping rocks that the hill on which he at that moment stood, was above an anticline. But how to drill there without defiling ground sacred to the Indians? He found no immediate solution, and drilled other wells which found gas, but no oil.

BY DAVID CRAIGHEAD
Finally, after much "smoking and palaver," as he put it, he won the right to drill on the height—but down the slope from the cemetery, on the allotment of "Willie-Crys-for-War." The young wildcatter spent many days and nights at the Willie-Cry well.

"Every dollar I had in the world, every bit of credit I could muster, was in that hole in the ground," he said. He well could tremble. Not only had no oil been discovered for many miles in any direction, but the entire countryside, the Redbeds, was considered oil-less. The Redbeds were deposited during Permian geological times. They stretch west from northern and central Oklahoma, and often are a brick-red color. Marland resolved to drill through the Redbeds to the "Pennsylvanian" group of rocks underneath, which had often proved to be oil-bearing.

One June day in 1911 he was helping workmen lay a gas pipeline across a stream some distance from the well. He had taken off his pants and was knee-deep in the river when George Miller and Lew Wentz rushed up to say that the "Willie Cry" had come alive and was spewing oil.

Oil—in the Redbeds!

The old theories crumbled and a new era began, one which has seen dozens of oil fields come to the Redbeds. The Marland interests opened many early fields—Newkirk, Blackwell, Billings, Burbank, Tonkawa, Webb, Thomas, Vernon, and Sarah Whipple. Dr. D. W. Oherne, a director of the Oklahoma Geological Survey, spoke for many an oilman when he said, in 1918, that geologists had come to recast their ideas of what constituted promising territory. So complete had been the metamorphosis that they had come to consider the Redbeds as territory of considerable merit.

By 1915 Marland had added a geological department to his oil company. He employed geology graduates—"pebble pups"—and put them to looking for anticlines. They found so many, and so profitably, that in 1919 it was claimed that "no field has been discovered in this entire region which is not on an anticline." The University of Oklahoma in 1900 could boast a total of only sixty students. By 1924, it had 1,200 in geology alone.

"The manager of an oil company would no more think of drilling a well without geological advice than he would drill on land to which he had no title," Dr. Charles N. Gould of the University Geology Department said in the twenties. "Never in the history of any industry has there been such a complete revision...as has been experienced in the attitude of the oilman toward the scientist in the past two decades."

"The men who read the rocks" have explored Oklahoma minutely. Everett Lee DeGolyer, one of the most honored Oklahoma-trained geologists, asserted in 1948 that "no equal areas of the world have been more carefully mapped and studied than the states of Oklahoma, Kansas, and Texas, and this has been due almost entirely to the work of the petroleum geologists."

Marland, ever the progressive, introduced the core
drill—a subsurface method of locating oil structures—in the Tonkawa field. The Tonkawa field was opened in 1922 about twenty miles west of the Ponca play. Here it was that Lew Wentz, who brought Marland his great news, obtained a fabulously rich oil property, the Sam McKee lease. McKee lived with his family of ten in a four-room cottage before oil began gushing on his land. He soon moved to a fine home in Tonkawa, seven miles north.

The McKee lease produced a marvelous flood of petroleum. That single 160-acre lease produced more wealth than the cost of the entire Louisiana Purchase. Ralph Casey, formerly of Tonkawa, makes the comparison. The Louisiana Purchase, covering thirteen American states, was sold by France to the United States for fifteen million dollars. Casey read in the Ponca City News of September 16, 1955, that lease-holder Wentz extracted 9.5 million barrels of oil from the McKee lease “at $3.50 a barrel, plus a dollar-a-barrel bonus.” Multiplying the figures, he concluded that oil from the McKee lease brought 33.2 million dollars, or more than twice what the U.S. paid for the entire Louisiana Purchase.

Near the McKee farm, where earlier there had been only waving fields of grain, a new oilrush town—Three Sands—sprang up. A small restaurant opened first. Other businesses followed, down a street bisected by the Kay-Noble County line. Half of Three Sands was in Kay County, the other half in Noble County. The closely spaced derricks surrounding Three Sands were at first thought to draw their oil from three different oil sands. Actually they eventually drew oil from many underground levels. But the earlier suspected phenomenon accounted for the name of the town, and for the fact that many of the wells stood in closely grouped trios—three wells together.

Three Sands got a U.S. Post Office on May 4, 1923, but this failed to make the oilrush boomtown permanent. Three Sands wasn’t really a town, a visiting newspaperman insisted. “It’s a crowd,” he said. “You don’t make up your mind to walk in any certain direction, you let the crowd decide the direction and you do your best to keep your feet and go with it.” Those in the “crowd” were mostly oil workers who “ignore sleep and persist in living when the odds are against them.”

The Three Sands post office closed in 1957, the crowd having moved on. It is a ghost town now with nothing remaining except a few building foundations.

Marland became a Representative in Congress, and then Governor of Oklahoma. But he remained an oil man at heart. As he said many years after the excitement of the Willie-Cry discovery well:

“I am sorry for the man who has missed the big thrill that comes to the wildcatter . . . when his well . . . comes in a gusher. I have slept in the derrick of many a discovery well, gone for a week at a time without even taking my boots off, wet to the skin in freezing weather, and loved it for the excitement it gave and the sense of satisfaction that came from tapping a treasure house of nature, filled with liquid gold.”
I
Blue Hawk
He was ready for whatever came, named for the sky-colored the keen-eyed but his eyes were more the winter owl's wary and watching for something warm and quick in the vacant grass. His eyes were candle disks that circled the dark and webbed the wind to hold anything heavier than smoke. His courage was like the hawk's.

II
The Dance of the Medicine Men
They spiraled from their lodges on grass weaving feet and their shell voices, soft rattles, fan feathers, like a quarreling of doves brought rain to the earth and the wind the helpless, the handless that could not make night tender or the plains bear without them.

III
Grandmother
Her fingers did the delicate seeing the earnest arranging on the tiny blade finer than other needles, pricked the french beads and her brain still splintered down its many paths to bring the endless, minor colors of a prism to her plan. Star barbs in her peering hands and lucid hurtful rays of edges and half a cloud of blindness in her eyes and unmeant tears.

VI
Prayer for a Young Bride
She comes to you fair as the summer fires swift as the autumn leaves pure as the melting Platte soft as the dandelion gone to wings

Star arrows of the Morning Star, sky bow of the morning god, light of the criss-crossed dark, take thought of her, take thought of us.
BY KATHARINE PRIVETT

IV
Ceremonial
(Native American
Blue than sapphire deeper,
Deeper than the sea,
Rose of crimson,
Crimson unremembering,
Gold myrrh of mourning
For earth's agony.
Red and blue and gold
Primer world
And sky of quiet marrow,
Fluid bone,
Men in their strips go warm
And shadows turn to pillars
And stones to corner-stones.

V
Death Ceremony
Clinging to this star of earth
as to a cliff
past the war-trees in a row
and the great cradles under clay.
away from the women's voices
like fretful reeds of rain in the wind.
like nettles scratching
on the stones with names

to eat and drink and not to think
the shivering things of thought.
the live drums at the heart.
to eat and speak but of
the stretch of loyalty.
blood tie
and tie of time
and tie no other's like.

VII
Grandfather
Noon is a nest of bones
Never the birds of thorns.
Never the shadow hawks
Come here.
The Cheek Indian Memorial Association was organized in 1926 to protect and preserve the Creek Council House, Okmulgee.

Will Rogers, performing at the Hippodrome in that same year, commented: "They tell me that some of your businessmen want to tear down your Council House. I'd think twice before doing that... this is the only town in the world that has a Creek Nation Council House."

The Council House was officially designated a National Historic Landmark in 1962 by the U.S. Department of Interior.

This spring, the American Association for State and Local History presented the Creek Indian Memorial Association with a rarely presented Certificate of Commendation for their exemplary work in preserving this unique National Historic Landmark.

The presentation was combined with the celebration of Creek Chief Dode McIntosh's 73rd birthday, and the combination made for a most gala occasion.

Chiefs of the Five Civilized Tribes, officials of the

continued on page 30

THE FOUR TEMPERAMENTS

In its archaic sense, the word "temperament" means "climate." Oklahoma has Four Temperaments. To have summer, autumn, winter, and spring is not unusual, you say? One aspect of it is: very few areas of earth have the Four Temperaments in such stimulating balance as Oklahoma. One may think it would be pleasant, and yearn for life in a South Sea Island paradise, which has only one season. Personally, we have tried it. It was downright boring. Variety, as you may have heard, is the spice of life.

SUMMER
(Black Mesa in the background)
COLOR PHOTO BY BOB TAYLOR
Chief McIntosh is congratulated by Virgil N. Harrington, United States Bureau of Indian Affairs.

From left to right:
1. (standing) Creek vocalist Wynona Simms, who charmed the audience with her singing.
2. Congressman Ed Edmondson
3. Chief Dode McIntosh
5. Oklahoma Historical Society executive Elmer Fraker.

Indian Affairs Bureau, the Oklahoma Historical Society, the City of Okmulgee, prominent Indian citizens, and other enthusiastic well-wishers filled the House of Warriors and the House of Kings—the Council House legislative hall—to capacity.

Elmer Fraker, Historical Society executive, presented the Certificate of Commendation to Thomas Moore, President of the Creek Memorial Association. Willard Stone, famed Indian sculptor, presented Chief McIntosh with an original wood carving.

Other birthday gifts to the Chief included a ceremonial mask presented by Congressional Medal of Honor winner Ernest Childers, and a briefcase presented by girls from the Eufaula Indian School.

A cake replica of the Council House was baked for the celebration by Okmulgee Tech School of Culinary Arts Students James Stone of Lexington, Massachusetts, and Bill Donaley of Claymont, Delaware.

The work of restoration continues. The Memorial Association and the Okmulgee Rotary Club recently matched dollars toward landscaping the square in which the Council House is located.

The young women of the Service League have raised more than two-thousand dollars toward restoration of the Council House interior as it was in 1878. At a rummage sale just past, ladies of the Okmulgee Indian Baptist Church prepared and served tasty Indian dishes.

Enthusiasm is high. The work of restoration goes on.

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THE FOUR TEMPERAMENTS

Along our eastern border are woodlands, strikingly similar in temperament and terrain to New England. Crossing the state, all gradually changes. On our western borders, there are areas of similarity to the semi-arid southwestern desert. Virtually every tree that grows anywhere in the United States will grow somewhere in Oklahoma. Virtually every bird that lives anywhere in the United States spends a season in Oklahoma.

And so with climate. Our longest seasons are spring and

EARLY AUTUMN SNOW
(Washita County)

COLOR PHOTO BY BOB TAYLOR
NEW BOOKS

THE GREAT AMERICAN DESERT by W. Eugene Hollon (Oxford Univ. Press, New York, $6.00) On early maps of this continent most of the American West appeared as a great unexplored void labeled simply The Great American Desert. Exploration eventually determined that the huge area so labeled actually included many types of terrain and many types of climate. In Dr. Hollon's interestingly written book he treats of the entire area under its original title, but realistically, and in terms of this present century. His writing is an overview, objective and subjective, of a long scope of time, and an area of earth almost too vast for the mind to comprehend. Your comprehension of it will be greatly augmented by the reading of Dr. Hollon's book.

DISINHERITED by Dale Van Every (William Morrow & Co., New York, $6.00) This book is sub-titled “The Lost Birthright of the American Indian.” In it, former New York and Washington correspondent for the United Press Van Every turns his talented historic pen to the events which preceded and effected the removal of the Five Tribes from the southeastern states to Oklahoma. It brings together a great amount of material from widely separated sources. It is effectively done. Van Every clearly shows that conflict over Indian removal drove the first wedge between the north and the south, a split which widened in the struggle over slavery, and at last culminated in the Civil War. The only saving grace of the whole tragic affair is that Oklahomans are now deeply grateful that the Five Tribes are here, for Oklahoma could never have been the colorful and attractive state it now is except for the melding and blending of these great ethnic cultures.

THE SHADOW OF SEQUOYAH by Jack Frederick Kilpatrick & Anna Gritts Kilpatrick (Univ. of Oklahoma Press, Norman, $4.50) Few Oklahomans realize that more different languages are spoken in Oklahoma than are spoken on the European continent, Cherokee is one of them, and it is as different from the English language as Chinese. The genius Sequoyah created for continued

autumn, but Sooners sample everything. Our favorite description of Oklahoma weather was written by Angie Debo:

"The Oklahoma climate is of spangled sunshine with variations. Spring comes early with a flash of mockingbirds' wings, moving across the land in power like an army with banners. Summer is dry and scorching with cool breezes at night (about six weeks of that). Autumn is golden and perfect; it begins the middle of August or the first of September and lasts till after Christmas. Properly speaking, there is no winter;

WINTER FIRESIDE
(Pawnee Bill's den, in his mansion on Blue Hawk Peak, Pawnee Bill State Park, Pawnee. Open 10 am-5 pm, Mon. thru Sat., Sun. 1pm-5 pm. Admission-Free)
his people a syllabary of the complex Cherokee tongue, and with it made them unique. If you are conversant in a foreign language you are aware of the insight and understanding of a people that can be gained only through the ability to comprehend their native tongue. This is the service The Shadow of Sequoyah performs for you. It is the literal translation, in the Cherokee manner of thought and speech, of letters, memoranda, many types of social documents, written in the Cherokee tongue more than a century ago. It will bring you a new understanding of the Cherokee people—unless you are already able to read and speak Cherokee.

BUCKSKIN JOE (edited by Glenn Shirley) (Univ. of Nebraska Press, Lincoln, Neb. $5.50) This book has to be true. It is too incredible for fiction. Buckskin Joe was a union soldier in the Civil War. He played sixteen musical instruments, was a tightwire performer and acrobat, performed with circuses and wild west shows—one of them being Pawnee Bill's—was a frontier guide on the western plains, a silver miner for H. A. W. Tabor in Colorado, a United States Marshal, took part in the Oklahoma Landrush, and worked a gold mine in the jungles of Honduras, among other things. Glenn Shirley has retained the original style of Buckskin Joe's memoirs in the editing of this remarkable and adventurous manuscript.

FRONTIER TRAILS by Frank Canton (edited by E. E. Dale) (Univ. of Okla. Press, Norman, $4.00) The O. U. Press has performed a real service for western lore enthusiasts by making this collectors' item once more available. Frank Canton, as an officer of the Wyoming Stock Growers Association, was the fighting leader of that faction in the notorious Johnson County war. He was a United States Marshal in Oklahoma, and also in Alaska. He served as Adjutant General of Oklahoma. No officer in the turbulent history of the American West experienced more of its violence than did Frank Canton. His autobiographical account makes fascinating reading.

THE FOUR TEMPERAMENTS

the period is filled with weather left over from the other seasons—spring days alternating with autumn days, an occasional summer day, and once in a great while a howling blizzard. . . . Of course there is a reason for this unpredictable weather. In United States weather maps showing the generalized path of storms, Oklahoma is a little white island surrounded by sweeping black lines—a fortunate isle set in a tempestuous sea.” (from Oklahoma: Foot Loose and Fancy Free by Angie Debo, Univ. of Okla. Press).

SPRING IN HONOR HEIGHTS PARK
(Muskogee)

COLOR PHOTO BY LUCY LAMB
Ranchers called it the Big Pasture, and indeed it was, almost half a million acres of rippling grasslands whose southern boundary curved with the Red River.

The last Indian tract opened to public settlement in Oklahoma, it lay 29 miles deep and 36 miles wide, an undulating ground-swell of blue stem, buffalo, grama and sedge grasses. wooded draws ruffled the prairie sea along the two Cache creeks, causing Captain Randolph B. Marcy, exploring toward the headwaters of the Red, in 1852, to note that the timbered regions were the last of any size until the foothills of the Rockies.

There's the whisper of an ancient mystery here, too, of Coronado and his bearded horsemen passing in their search for Quivera. In 1907 the Temple Tribune carried a story which described the discovery of a diamond-shaped tombstone unearthed near Eschiti townsite: “On the front of the marble slab is an inscription printed in indiscernible Spanish, above the inscription being the name ‘Don Juan Valerez El Padre, Madrid Senor de la Bonito Senorito.’ Beneath the inscription is the date, ‘1542’.”

Another mystery was the disappearance of the stone, which the Tribune reported was taken to Fort Worth “for safe keeping” by the railroad company. Years later, efforts by the newspaper's editor to trace the marker were fruitless.

Set aside by proclamation before the opening of the Kiowa-Comanche-Apache lands August 6, 1901, the Big Pasture covered 488,000 acres of rolling prairie.

Long before 1901, Texas cattlemen had leased the abundant grazing lands lying emerald-like between Red River and the Wichita Mountains. W. T. Waggoner ran a spread on the west side of the Big Pasture, Burke Burnett had the middle, and the Suggs Brothers grazed the east range.

These men were “cattle kings” in the true sense. Waggoner, at times, ran more than 100,000 head of cattle. It wasn't unusual for him and Burnett to move 10,000 head across Red River into the spacious Indian country, with its wonderful mixture of fattening grasses where, as one variety reached its seasonal peak, another was coming on.

Line camps were built. From these little cabins or dugouts cowboys rode the drift fences, pulled mired animals out of water holes, killed wolves, watched for prairie fires and kept a sharp lookout for cattle thieves and Indians hungry for “whoa-haw.” Three or four times a year a wagon from ranch headquarters brought a load of flour, bacon, coffee, sugar, beans, and dried fruit to the camps.

Cattle showed outstanding gains in the Big Pasture. At first only two cents an acre, lease prices climbed until the cowmen were paying more than $100,000 annually in “grass money.” The Indians came periodically to the Anadarko agency to receive the payment.

Little wonder that cowmen and Indians opposed opening the pasture to settlement.

In the autumn of 1892, a delegation of government officials called the Cherokee Commission came to the reservation to talk to Indian leaders about selling their land. Confusion and dissatisfaction resulted. The commissioners wanted the Indians to sell for $1.25 an acre. More worldly tribesmen, including Quanah Parker, asked $2.50 an acre. Many Indians had no wish to sell. At any rate, an agreement was drawn up and signed at $1.25 an acre.

Bitter protests followed at once. There were accusations of incorrect translations of what had been understood and written. For the next eight years prominent Indians and their white friends, among them Captain H. L. Scott of Fort Sill and Senator Matt Quay of...
Pennsylvania, blocked ratification. But Quay died and Scott was in Cuba, and in June, 1900, the agreement passed the Senate.

Then occurred a colorful event which accelerated both the Big Pasture settlement and the Oklahoma statehood movement. President Teddy Roosevelt was coming for a six-day wolf hunt, and none other than “Catch 'Em Alive” Jack Abernathy, who had served under Teddy in the Spanish-American War, was going to perform his eye-bugging feat of snaring wolves with his bare hands.

On the spring afternoon of April 5, 1905, the president's special train arrived in Frederick. Through throngs of cheering, waving frontier folk and to the perky tootling of the town band, Teddy rode to a grandstand erected for the great occasion and made a speech. That touched off another whooping ovation.

Afterward, the president rode horseback 18 miles to the hunting camp site which Abernathy had chosen in the Big Pasture on Deep Red Run. There game was plentiful and the fishing dependable, though the distinguished guest was expected to go in for more exciting activity. At first the cattlemen were said to have favored a hunt south of the Red in Texas. Abernathy, balking, selected the Big Pasture because it was clear of mesquite and therefore less dangerous for fast riding.

Soldiers from Fort Sill patrolled the border of the reserve to keep out the curious. In the official party were Texas cowmen Waggoner, Burke Burnett and Al Blevins (who furnished the horses, camping equipment, a chuck wagon and cowboy cook); Lieut. B. L. Fortesque, formerly of the Rough Riders; Dr. Alexander Lambert, T. R.'s physician; Sloan Simpson, another Rough Rider; and Quanah Parker, Chief of the Comanches.

An orderly air prevailed. Tents were arranged along a sort of company street. Waiters and cooks from the train kept busy. Cowboys looked after the large remuda of fancy-footed racing stock gathered especially for the visitors to ride. Every animal in Teddy's “string” was a blooded racer.

It was now time for the first day's hunt, and like a traveling trouper who had often played his role to perfection, “Catch 'Em Alive” Jack was ready. Cowboy, Rough Rider, frontier piano-player, wolf-catcher and hunter, he had developed a unique catching method which left him an understandable scarcity of competition. During his career he was to take more than 1,000 wolves by hand.

Soon after daybreak the hunters started off. Near the van rode the president astride a hot-blooded horse noted for burning the breeze.

Presently a wolf bounded into view and Abernathy sent his two swift greyhounds leaping in pursuit. A rushing, circling chase and the wolf, hemmed in, wheeled to...
fight. Abernathy slid to the ground, closed fast, and when the wolf leaped for his throat, "Catch 'Em Alive" thrust his right hand into the beast's mouth and caught the lower jaw with his left hand. Then, straddling the wolf with his legs, he quick-tied the muzzle with wire and triumphantly "held the animal up for the president to see.

Teddy Roosevelt was amazed and delighted. On the second day, Abernathy and his team-working dogs caught another wolf for the noted visitor. On the third day, T. R. was right behind when after a ten-mile race over the prairie, Abernathy made another catch.

"This beats anything I've ever seen in my life," the exuberant president shouted, "and I've seen a great deal!"

As the dogs flushed a wolf beginning the fourth morning, Mr. Roosevelt said, "Bully! Let's go get it!"

By now Abernathy, whom the president was soon to appoint as U.S. Marshal of Oklahoma Territory, would have attempted almost any feat for the admiring guest. Thus, when the beast plunged into a creek, Abernathy didn't hesitate. He jumped his horse in and grabbed, performed a sure-handed tie and held the struggling wolf aloft for the president to view. In all, "Catch 'Em Alive" Jack bare-handed 16 wolves for Teddy's entertainment.

Fortunately for posterity two members of the official party took group photographs. A characteristic pose shows T.R. in jaunty western hat, the short brim straight, not rolled; wearing a light coat or jacket; arms on hips, chin slightly outthrust, a bandanna around his neck and knotted in front. He appears to be having a bully time.

At Frederick, when Mr. Roosevelt came to say goodbye, he spoke his thanks from the rear platform of the train and added prophetically: "The next time I come to Oklahoma, I trust I will come to a state, and it will not be my fault if this is not so."

Oklahoma's late Zoe A. Tilghman, in her moving biography of Quanah Parker, reports a conversation between Parker and the president in which the Comanche expressed his opposition to opening the Big Pasture.

But Mr. Roosevelt shook his head. "I'm afraid it will go through Congress. And if it does, I shall have to approve it."

Yet observers saw the president's hand in securing beneficial amendments to the Big Pasture bill, which, in final form, signed into law June 5, 1906, provided 160-acre allotments for all Kiowa, Comanche and Apache children born since June 6, 1900 and set a minimum price of $5 an acre. A presidential proclamation followed September 19.

The Interior Department appointed a commission to survey government townsites at Randlett, named after Colonel J. H. Randlett, for many years the Indian agent at Anadarko; Eschiti, the second chief of the Comanches; Quanah, as a memorial to the head chief of the Comanches; "Isadore," in honor of Father Isidore, of the Anadarko St. Patrick Catholic Mission; and Ahpeatone, after a principal chief of the Kiowas. Lots in the government town sold at public auction.

With the exception of the Kiowa-Comanche-Apache country settlement, conducted by registration and drawing, previous openings of Oklahoma Indian Reservations had featured dramatic dashes of homesteaders selecting claims by making a "run" on horseback, in wagons and buggies, even afoot or on bicycles and pushing carts.

Instead, the Big Pasture lands would be sold by sealed bid. Bidders must be citizens, heads of families or 21 or older and not the owner of 160 acres of land in any state or territory. Opening of bids began at Lawton, December 17, 1906. For weeks newspapers carried names, by towns, of successful bidders.

Soon after the Big Pasture opening came statehood for Oklahoma, which President Roosevelt proclaimed November 16, 1907. Few Oklahomans realize how closely the two events were linked, in effect, as well as in time.

THE END
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