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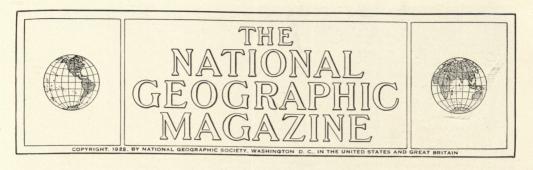
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#### SO BIG TEXAS

#### By Frederick Simpich

Author of "The Great Mississippi Flood of 1927," "Missouri, Mother of the West," "Along Our Side of the Mexican Border," "Singapore, Crossroads of the East," etc., etc., in the National Geographic Magazine

With Illustrations from Photographs by Clifton Adams, Staff Photographer

NCE upon a time Texas was the butt of much crude humor. "If I owned Texas and Hades," General Sheridan was quoted as saying, "I'd rent Texas and move to the other place." Another ancient gibe, thought funny in its day, affirmed that we should chastise Mexico once more and make her take Texas back again.

But modern Texas—big, fat, bluff and breezy—listens with a smile to tales of her turbulent youth. Power and political experience have taught her tolerance. In her easy-going, slightly Mexican manner, she is too busy working out her own social problems and her huge economic destiny to worry over her past, sensational though it may have been.

## A FREE AND INDEPENDENT NATION FOR NINE YEARS

Undeniably, early Texas was turbulent. In a physical sense, also, she was tough. She had to be to conquer, singlehanded, the whole Republic of Mexico when it comprised much of our Southwest and all of California.

Amazing political endurance was also hers. For nine uneasy years she held her own, a free and independent nation. In this period France and England even sent duly accredited representatives to the government of President Sam Houston. Paddling up Buffalo Bayou, wandering overland in oxcarts, these dainty diplomats sought the crude frontier capital. There,

donning their plush pants and silver swords, they waded knee-deep in honest Texas mud to the humble "palace" wherein functioned the brawling government of the Lone Star Republic.

Sam Houston, tradition says, received them, clad likewise in the peacock finery of diplomatic dress, and then excused himself to go outside and stop a quarrel between two of his colleagues.

To-day, in odd contrast, France and England again send agents to Texas. But they are plain-clothes trade emissaries, coming to buy that cotton of which she grows from a fifth to a third of the whole world's supply.

And now, instead of log cabins or adobe huts, there are the sky-piercing "cloud-scratchers" of Dallas (see illustration, page 678), a 1,000-room hotel in Houston, and a market service so perfect that a cablegram about cotton has been sent from Texas to Liverpool and a reply received in three minutes.

As for Buffalo Bayou, now it is a great ship canal, deeply dredged, so that ocean steamers dock at Houston, 50 miles inland, as at another Hamburg (see illustration, page 668).

I repeat, time was when Texas had to to be tough, physically speaking. In prerailroad days it took hardy men to drive 10,000,000 cattle "up the trail" to Kansas and Wyoming, swimming rivers, fighting Indians and blizzards, living for months "on the country." Even now a few of





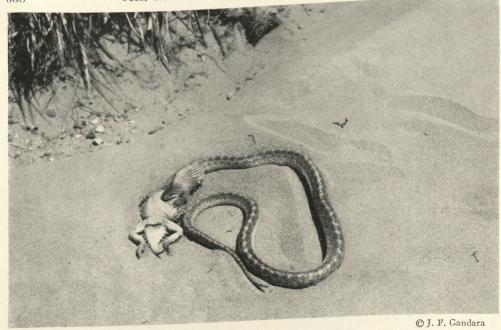
# ividing the TREASURES

Eating chocolates is a social pleasure. Part of the fun is exploring and dividing the chocolate contents of the PLEASURE ISLAND PACKAGE—real treasures from the Spanish Main. In the chest are a tray and two bags of loot reminiscent of the days of Black Beard and Morgan. Dividing the treasure is a social delight when the chest is

Whitman's

PLEASURE ISLAND CHOCOLATES





### A TRAGEDY OF THE REPTILIAN WORLD

Here are all the elements of perfect nightmare. A snake sought to swallow a horned toad. But both died. Mexicans say that when a serpent tries to gulp down a horned toad—or even after he has done so—the toad, by twisting its head and using the spines on its neck as knives, can fatally cut the snake. Both these creatures were dead when discovered by the photographer.



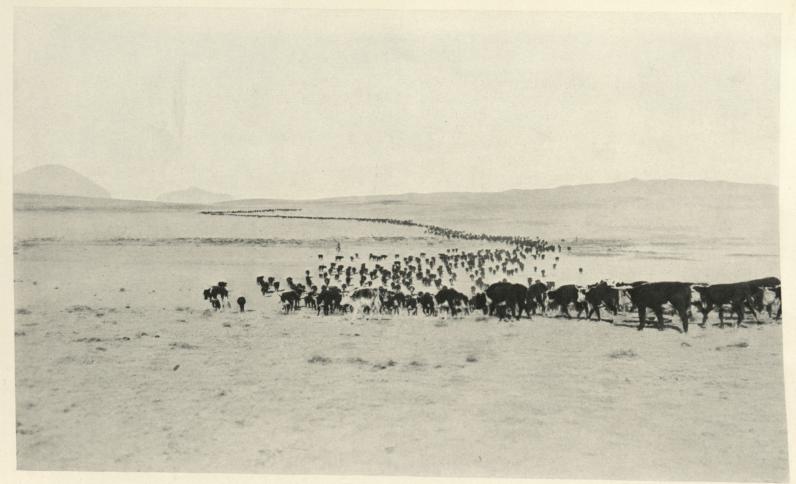
THE FRENCH LEGATION IN AUSTIN WHEN TEXAS WAS A NATION

For nine years Texas was a republic, and received envoys from foreign governments. M. de Saligny, diplomatic representative of France, lived in this modest house, built at Austin in 1840, when he was accredited to the Lone Star Government.



AS FROM THE PAGES OF CERVANTES

A daughter of Cortez may listen to the lilting love song "Muñequita," sung by the *charro*, or gentleman cowboy, in tight trousers and bright serape. A garden scene in old "San Antone," where the atmosphere of Spain is still to be found.



Photograph Courtesy First National Pictures
IN OLD BARBED-WIRELESS DAYS COUNTLESS CATTLE PLODDED UP THE TEXAS TRAIL

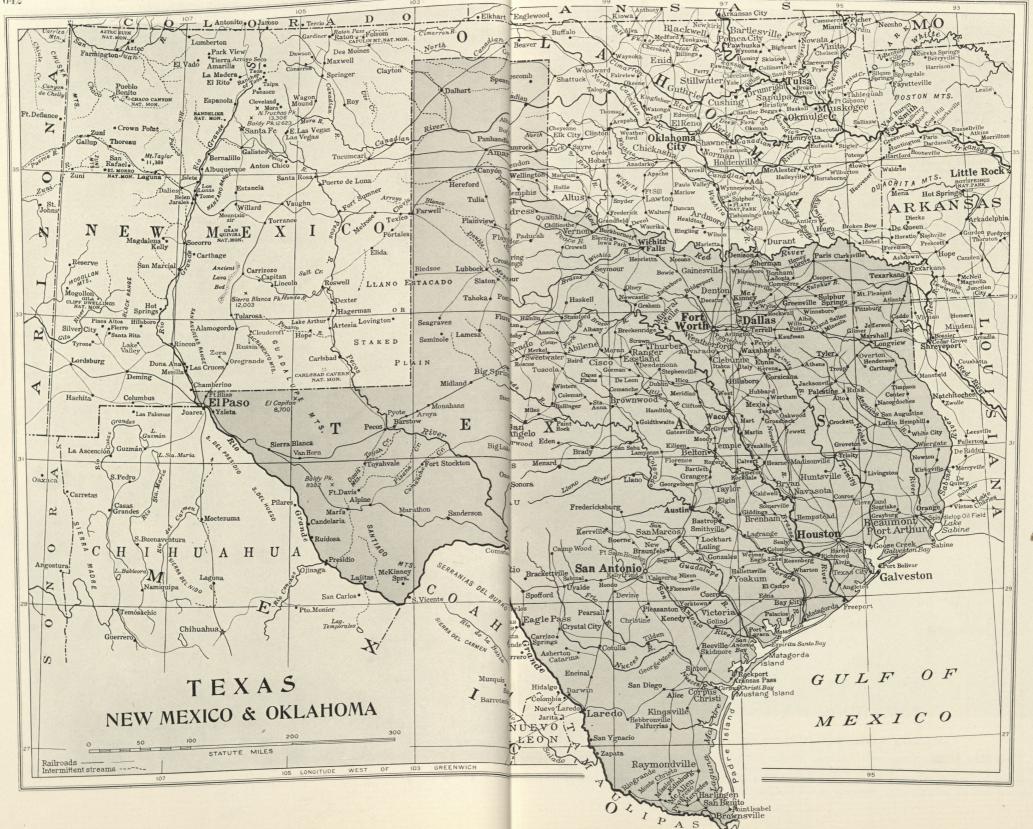
As late as 1905 about 10,000,000 cattle ranged the Texas plains. Now the bawling, snorting, dirt-pawing longhorn that ran with the wild mustangs—a gaunt, high-speed bovine, hard to fatten—has passed away. In his place has come the straight-backed, white-faced Hereford—tamer, easier to fatten, and heavier in meat (see "The Taurine World," by Alvin Howard Sanders, in the National Geographic Magazine for December, 1925).



TEXAS CATTLE ON A MEXICO RANGE

© J. F. Gandara

Nature designed Mexico as the great cow pasture of North America. Infinite misty blue miles of rolling, grassy plains on the great tableland of Mexico are ideal for cattle grazing, but years of revolution have thinned the herds. At times Mexico has actually had to buy cattle from Texas, and lately Texas ranchers have sent many herds to graze on the fine pastures of Chihuahua.





@ J. F. Gandara

# CRUISING THROUGH COTTON ON THE AFTERDECK OF A BURRO

Without her numerous Mexican population, Texas could not pick her cotton, irrigate her fields, build her roads, or work her sheep and cattle. Because Texas-born Mexicans—sometimes known locally as "Tex-Mex"—are officially listed merely as whites, no one knows just how many of that race live here.



Photograph from Frederick Simpich

#### FAT, LAZY MULES DEEP IN PECOS COUNTY ALFALFA

From New Mexico across west Texas to the Rio Grande runs the Pecos River valley, a garden spot of singular beauty. The cross-country motorist, his eyes strained and weary from the bright glare of monotonous desert miles, hails with relief the sight of these restful green fields and rustling cottonwoods. Recently an oil field has been developed here.



TEXAS NYMPHS IN PLASTIC POSES

Because half its area is semi-arid, Texas, a farm State, has many water problems. For all uses, it spends \$45,000,000 a year on water. From this Catarina bathing pool water is used later for irrigation.



SMUGGLING IS A LIVELY TRADE ALONG THE RIO GRANDE

Drugs, liquors, and aliens all reach the United States illicitly across this shallow stream. These two officers of the American Border Patrol are on the lookout at Smugglers' Bend, near Laredo. Shooting affrays between the patrol and smugglers occur frequently along the border.



Photograph by Duncan

GIVE HIM HIS HEAD AND IT'S ASTONISHING WHERE A HORSE CAN GO

"Letting 'em take it easy," United States cavalrymen descend a steep trail in Presidio County, near the Rio Grande. Dust, squeaking leather, and the tonic smell of horses sweating on hot days—these are memories in old troopers' souls.



RECALLING DORÉ'S DRAWINGS FOR DANTE'S INFERNO: TWISTED YUCCAS SPRAWL ON SCORCHING SANDS



LOADING COTTON AT CORPUS CHRISTI, LATEST ADDITION TO THE DEEP-WATER PORTS OF TEXAS

Recent completion of a channel through Corpus Christi Bay makes this port, long popular as a fishing and pleasure resort, easily accessible to large steamers. It also lies on the line of the long Intracoastal Canal, which, when finished, will extend from New Orleans to the mouth of the Rio Grande.



AN OLD-FASHIONED COUNTRY BARBECUE

Beef is being roasted over a pit to regale a picnic party of Texas bankers, near Progreso, on the Rio Grande.

"race horses or fire off pistols indiscriminately around the herds." To-day, playing cards on a Texas train even "for fun" is against the law.

The dust of the plains on the shoes and a big hat are still badges of old-established social position, hinting at kinship with cattle kings. But, except in politics, the tumult and shouting of early days are dead.

#### TEXAS IS TRUE TO HER HEROES

Remembering the Alamo is still a popular patriotic pastime. The Alamo and the bigness of Texas are among the first things taught to Texas children. She is true to her heroes. Austin, Nolan, Travis, Davy Crockett, Houston, Bowie, and all the bizarre, romantic figures, the adventurers and swashbucklers whose daring

deeds gave vivid color to her history and helped make her a great State, are to Texas what William Tell is to the Swiss or Garibaldi to the Italians.

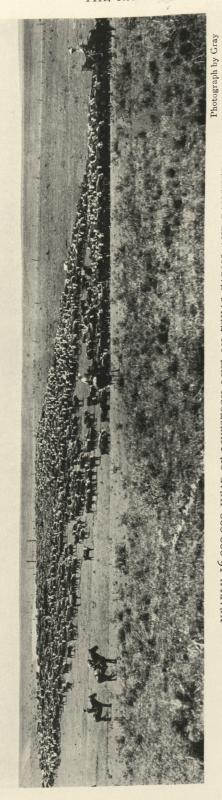
Though Mexicans are no longer "the chief pursuit of Texas," from the Mexican War down to this minute, the State has had her troubles with Mexicans. At present her trouble is to get enough Mexicans to pick her cotton, work her oil fields, mills, and railway shops, shear goats and sheep, and to gather the long trainloads of fresh vegetables and fruits shipped annually from the lower Rio Grande.

By lawful entry through border immigrant offices and by illegal entry over many a lonely bosque trail, tens of thousands of Mexicans march north into Texas every year. Whole areas of the State are

enabled packed

115

north



service to the large amount railway NEARLY 16,000,000 HEAD OF LIVESTOCK LIVE ON TEXAS FARMS AND RANCHES expansion erected by packing houses till Later, and beyond by up to be shipped Trail driving from Texas to annual

tinted a rich Aztec brown. El Paso has more than 100,000 inhabitants, half of whom are Mexicans. Farther down the Rio Grande, "dustiest river in the world," often the percentage of Mexicans is even greater.

As in New Mexico, so here in Texas, Mexicans have entered largely into the economic life of the country and, to some extent, into local politics. From the Texas border, also, they have spread as far north as the beet fields of Colorado, the railroad shops of Chicago and Pittsburgh, and even to the fisheries of Alaska.

Here in Texas very often the Mexican immigrant is the chief source of unskilled labor. And it takes a veritable army to do the work of the State, even the railway and shipping work. A million and a half cars of freight, mostly farm products, originated in Texas last year, and her roads hauled, all told, close to 3,500,000 cars of freight across the State.

Galveston, known still to millions of Americans merely as a town that once suffered a frightful tidal wave, is now one of the leading seaports in the whole United States (see pages 667 and 678). Oil pipe lines run down to it and to Houston from as far away as Wyoming!

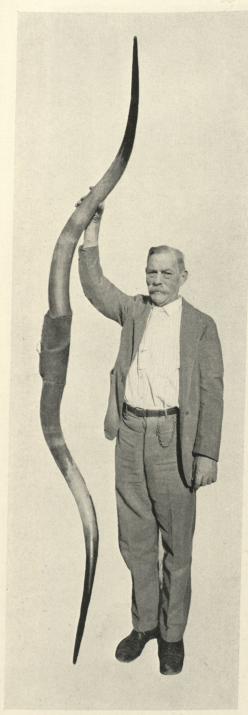
# ENDLESS DELIGHT FOR THE STATISTICIAN

Texas is so big! So big, some one said, that the people of El Paso jeer at those of Galveston as being effete easterners. In terms of people, area, animals, crops, and natural wealth she is so big and her regional interests are so diverse that she has outgrown her very constitution, as a boy outgrows his pants. Laws good for east Texas may be bad for west Texas. State policies agreeable to the natives on the lower Rio Grande may cause



IN THE OLD DAYS, WHEN TEXAS HAD MORE TIME AND LESS GOODS, THESE CARTS WERE USED

Another type of early-day cart had solid wheels made from cross-sections of logs. When heavily loaded and not well greased, these vehicles whine and howl like hyenas. Though they have almost vanished, a few may still be seen along the lower Rio Grande, usually on the Mexican side.



@ Albert Friedrich

SUCH HORNS WENT OUT OF STYLE WHEN CATTLE CAME TO RIDE IN CARS

The Texas Longhorn, wearer of such widespreading decorations, has disappeared from western ranges. grief and pain to those hundreds of miles

away in the vast Panhandle.

Here in this big Texas that peculiar type of sport-loving near-statistician, who revels recklessly in fantastic figures, finds himself in clover. He has so many millions of everything to add up and make tables about!

# MUNCHAUSEN TALES CONFOUND THE NEWCOMER

Merely to confound the newcomer, the native himself takes delight in repeating Munchausen tales of Texas; or in mentioning casually, for example, that it's farther from El Paso to Beaumont than it is from New York to Chicago. Were Texas as densely settled as Massachusetts, she'd have more than 131,000,000 people.

To population experts, the capacity of Texas for supporting many more people is no new theme. But the map alone is misleading. Many high, dry regions of west Texas will probably remain empty or but scantily peopled for a long, long time. Yet, disregarding these unfriendly areas, no other State holds greater potentiality for future increase in population. And, though not widely advertised, there are winter playground regions in Texas as charming and salubrious as any in America.

That Texas will, in our time, become the objective of a great mass movement of people, as California and Florida have been, seems now unlikely. Texans themselves do not expect it. Yet no one dreamed a few years ago that Florida would so soon see such tremendous immigration. Large movements of people from one map spot to another are social phenomena peculiar to America. Unlike Europeans, we seldom spend our lives where we were born.

When I was a boy in the Middle West, tens of thousands of prosperous farmers, apparently contented, sold out; with money that totaled millions they moved to western Canada. Later, many moved back. At another time many mid-western counties actually lost population when farmers swarmed for the Indian Territory. The human tide to Texas, so far, has been steady, but never in any sense a great migration.

When Stephen F. Austin founded his famous colony on the banks of the Brazos,



Photograph by Jacob Gayer

SUBLIME AND ALONE, ABOVE AN EMPTY, SILENT WORLD

Dry and dead, like burnt-out craters on the moon, certain areas in west Texas are absolutely uninhabited and always will be, even until Judgment Day; for there is no water. From atop this bold Guadalupe peak, northeast of El Paso, one may gaze across miles of desert wilderness.



SEEING SNAKES IN A SAFE, SANE WAY

Man may crush the serpent with his heel, but he saves the hide. Tanned snake skin, sold to the trade at 40 or 50 cents a running foot, is used to make belts, hatbands, purses, and shoes. An "animal farm" near Brownsville, Texas, buys many of its "diamond back" rattlers from Mexico, and also markets snake oil, rattles, and venom.



MISS TEXAS TIPS HER HAT

In the popular mind, Texans wear big ten-gallon cowboy hats, "with rims so wide that swallows build mud nests under them, mistaking them for the eaves of a barn." But these light hats, made at Brownsville (see, also, page 661), are much worn along the lower Rio Grande and on the hot coast.



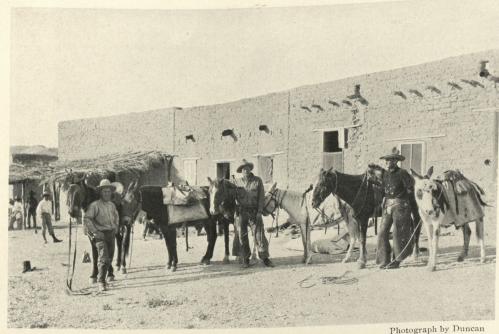
SHE EARNED HER SPURS

Despite her Wild Bill curls and Dick Turpin air, this trick rider of the rodeo ring is more than a professional cowgirl follower of Wild West shows. She got her training in the hard school of range routine, helping her father punch his own cattle.



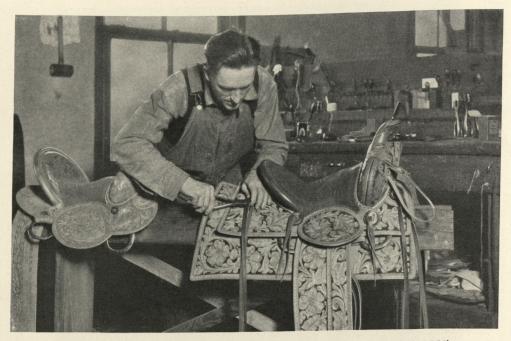
HE COULD RIDE ALMOST BEFORE HE LEARNED TO WALK!

"Hello, horse, where are you going with that boy?" is an old West gibe at juvenile riders. This potential recruit for cowboy movies was photographed at a Texas livestock show. From all over the cow country, men and their wives attend these fairs each spring to bid, to buy, and to sell.



#### AN AUTHENTIC BIT OF THE OLD, UNSPOILED WEST

There's naught of the dude ranch or moving-picture make-up in this businesslike tableau. Here are bona fide cowmen, with saddle horses and pack mules, in the working clothes of their hard calling. The day's ride done, they boil coffee, then roll into blankets wherever night falls.



SINCE MAN FIRST RODE, HE HAS STUDIED AND PERFECTED HIS SADDLE

To the varied and strenuous needs of the cow rancher, whether riding herd, cutting, roping and throwing for branding, or breaking young horses to ride, the stout, heavy Texas saddle is singularly well adapted. With his rope coiled in front, coat and blanket tied behind his saddle, and perhaps a canteen and bit of cold grub, the cowboy is all set for a long ride. At Fort Worth, mecca for cowmen in quest of equipment, such a saddle sells for \$125.



Photograph from Frederick Simpich

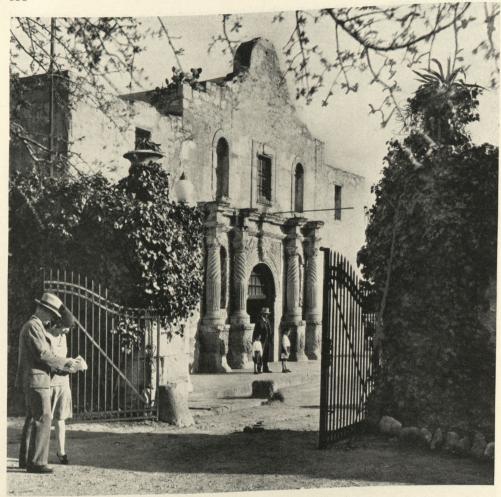
#### HOOFS, HORNS, AND TAILS

Beef first made Texas rich. After the Civil War, millions of cattle were driven "up trail" to better range and to market. Transcontinental railroad builders consumed trainloads. A model of the Old Trail Drivers' monument, by Gutzon Borglum, for San Antonio.



HIGH-HEELED, FANCY-TOPPED BOOTS ARE THE COWBOY'S PRIDE

In his hard, rough life, remote from barbers, bathtubs, and haberdashers, the cowboy tickles his vanity with silver-mounted saddle, bridles, fancy spurs, and handmade boots that cost a month's pay. This Texas-made cowman's boot is world-famous. One Fort Worth family which sells its wares as far away as Australia and Argentina has been manufacturing cowboy footwear for nearly half a century.



TEXAS SHRINE: THE ALAMO!

Franciscan monks built this section in 1744 as the chapel of their mission. It is famous now as the citadel of Texas liberty. Within its stone walls James Bowie, David Crockett, William B. Travis, and about 180 other heroes made their last stand against the Mexican general, Santa Anna, with more than 2,500 men. Afterwards, "Remember the Alamo" became the Americans' battle cry against Mexico. To-day the Alamo is used as a museum, exhibiting many old documents, weapons, and other relics of the eventful history of Texas under six flags.

a little more than 100 years ago, the Texas population, including Mexicans and Indians, was probably not more than 8,000 or 10,000. In the next quarter of a century the State had only 100,000 white inhabitants and 35,000 slaves. Not till railways began to spread, in the seventies, was its growth at all rapid. In the last 20 years it has gained more than 2,000,000.

# RAILROADS AID GROWTH OF TEXAS'S POPULATION

From the Middle Western States, since 1920, more than 100,000 people have come

each year to settle in Texas. Railway traffic records show this. Of these immigrants, 86 per cent have settled in towns and cities. The remaining 14 per cent, going to the country, have put close to 2,000,000 acres of new land into crops. Since the end of the World War, it is estimated that probably 600,000 people have settled on new farms in the vast Panhandle region.

The enormous agricultural potentiality of Texas is shown by the fact that, although less than half of her arable land has been put under cultivation, yet in a



WHITE-FACED CATTLE ON A WEST TEXAS RANCH



THE STORY OF THE ECONOMIC GROWTH OF TEXAS IS TOLD BY COW BRANDS

Spaniards first brought cattle to the Southwest. They also first used the riata, and the early vaquero was forerunner of the cowboy. To identify their wandering animals, Spanish ranchers in Texas introduced branding. Each owner used an individual symbol—a character or group of characters. These "irons" were heated and their imprint burned into the skin of an animal's shoulder, flank, or hip. This practice continues. To immortalize the history of the Texas cow business and its importance as the State's original great industry, 32 famous old brands have been chiseled on the walls of Garrison Hall, of the State University. This venerable cow-puncher, visiting a museum, examines an iron he used 40 years ago.



SEEKING LOW, EASY LEVELS, RAILWAYS THROUGH TEXAS MISS MANY OF ITS MORE SCENIC REGIONS

Far away on a hazy, purple horizon, as one's train rushes through west Texas, may arise the faint skyline of a rugged world. Close to it train-riders never come, but from El Paso or Marfa, by motor and then horse, one may explore the scenic wonders of this isolated region. The approach to the summit of El Capitan, with salt flats 7,000 feet below.

good year she produces a billion-dollar crop (see illustrations, pages 665, 670, 671, 672, and 673).

These facts, and the undeveloped mineral deposits of the State, must be considered in any speculation as to her future growth.

More than a billion dollars' worth of oil has been produced by Texas in five years and the State probably has more lignite, or brown coal, than the whole famous Ruhr region of Germany. Her deposits run into billions of tons. No one knows how much. Her industrial population, though

long of minor consequence, is now increasing fast. Her gross manufactured products for 1927 were valued at more than \$1,150,000,000. With her potential farmlands fully cultivated and relative increase in her trade and industries, she could easily support two or three times her present population. To-day her growth. more urban than rural, reveals various towns of from 2,000 to 5,000 people which did not appear at all on the maps of a few vears ago.

With her abundant oil, gas, lignite, iron ore, and other minerals, the resulting



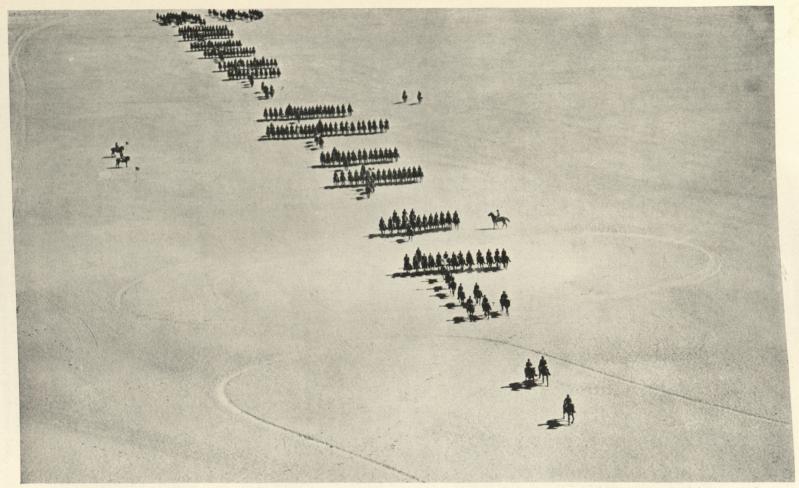
A MEXICAN WORKER MAKING PALM-LEAF SOMBREROS

These hats are of native white palm and are beautiful and cool in summer (see, also, page 654).



COWBOYS IN RODEO REGALIA

"The bawl of a steer to a cowboy's ear is music of the sweetest strain; And the yelping notes of the gray cayotes to him are a glad refrain."



Official Photograph, U. S. Army Air Corps

#### HOW CAVALRY APPEARS TO AN OBSERVER FROM THE AIR

Fort Bliss, near El Paso, is the largest cavalry post in the United States. Its location on a high, level plateau, in a dry, healthful climate, makes it an ideal ground for year-round mounted drills and maneuvers. For many years the majority of Uncle Sam's troopers have been stationed near the Mexican border.



IN FIESTA GARB

A hundred years ago, when San Antonio was almost entirely Spanish and Mexican, señoritas flirted their fans and cast devastating glances at the swains who "played the bear" outside iron-barred windows.



A SO-BIG PECAN TREE

This "old timer," one in a grove of wild trees growing at Barton Springs, near Austin, is ten feet in circumference. The pecan-nut industry in Texas is about 20 years old. The pecan is the Texas State tree.



WEALTH AND LEISURE BRING CULTURE TO ONCE TURBULENT TEXAS

From this vast and long empty wilderness, generations of hard-working pioneers have evolved a magnificent commonwealth, powerful now, and rich in oil, cattle, cotton, fruits, and vegetables. Schools and colleges rise where once swept only the uninhabited plains, and now the pen is above the pistol. A spring day at Rice Institute, in Houston, where 1,200 young people get free tuition in art, literature, science, and architecture under the will of a pioneer who got rich in Texas and endowed the school.

gradual increase of trade and industry is bound to bring substantial growth to certain Texas cities.

#### EAST TEXAS IS A STRATEGIC MAP SPOT

On the maps of the United States used by the General Staff at Washington certain little flags are flying. They indicate the strategic cities of America, such as New York, Chicago, San Francisco, and San Antonio, Texas. Besides its place on the map, among the things which give a city strategic importance are safe and adequate food and fuel, in easy reach, and ample transport. In these respects San Antonio, as well as Houston and Dallas, is well supplied.

Consider Chicago. In the middle of what is probably the largest area of productive land in the world, it is a fine example of a strategic city. "Chicago is destined to be the largest city in the world," the late Daniel H. Burnham, famous city planner, was quoted as saying; yet in 1870 Chicago had less than 300,000 inhabitants.

Likewise, Los Angeles in the eighties was a tiny tamale town, and it took more than climate and fruit really to make Los Angeles a city. It took oil—plus other things.

To a singular degree, then, east Texas, with her oil, lignite, and other minerals, her lumber, her excellent means of transport, and her easy access to vast meat,



THE SIZE OF A MAN'S HOUSE IS NO MEASURE OF HIS GENIUS

This modest dwelling in Austin was, during several years of his literary life, the home of O. Henry (William Sydney Porter), master of the American short story.



IN GOOD YEARS TEXAS GROWS MORE THAN 500 CARLOADS OF PECANS

Most of the big pecan crop comes from wild trees, for the heart of this American nut belt is in the river valleys of Texas. Close to 2,400,000 pecan trees grow in the State. Few of the planted groves are yet in bearing. Science, in late years, has developed a tree yielding large "paper-shell" nuts that sell for as much as a dollar a pound. Last year one Travis County tree produced more than 100 pounds of pecans.



TO PAY FOR ITS CAPITOL, TEXAS GAVE THE BUILDERS 3,000,000 ACRES OF STATE LANDS

Facing the business district of Austin, the Texas Capitol, built of native pink granite, is second in size only to the National Capitol at Washington. Texas, on entering the Union, retained title to her public domain. The present-day estimate of the value of the area paid to the Capitol builders



Photograph by Maurer

GALVESTON, SEASHORE PLAYGROUND OF TEXAS, DRAWS VISITORS FROM ALL OVER THE MIDDLE WEST

Standing on an island, with a deep, sheltered harbor between it and the mainland, Galveston is one of the most conveniently situated seaports in America. The value of the 1927 exports for the Galveston customs district exceeded half a billion dollars (see, also, page 678).



HER STRATEGIC SPOT ON THE MAP BODES FOR HOUSTON A MAGNIFICENT DESTINY

Tied to Mexico, the West, and the Mississippi Valley by 17 railroads; served from the sea by numerous steamship and tanker lines through its new ship canal, and bound by pipe lines to oil fields as far away as Wyoming, Houston is inevitably a Chicago of the Southwest. Here, in 1928, is being held the National Democratic Convention (see, also, text, page 672).



FOR NEARLY 400 SCENIC MILES TEXAS TOUCHES THE GULF OF MEXICO

Through tempestuous years, from the days of the Spanish explorer Cabeza de Vaca and Lafitte the Pirate, down to the stirring annals of the Mexican and Civil Wars, the great Galveston tidal wave and the State's enormous present-day foreign trade in oil, cotton, and grain, Texas has claimed kinship with the sea. Yet, so big is Texas that ranchers on her western steppes are farther from the ocean than are many people residing in Indiana.



#### HARVESTING RICE IN TEXAS

@ Artcraft

As early as 2800 B. C. China observed a ceremony in which the Emperor sowed rice. Indigenous to India and tropical Australia, rice long ago crossed the sea and became the staple food of millions. In the muddy rice fields of the Texas Gulf coast, where tractors would bog down, horses and mules are used.



Photograph by Duncan

AN ORCHARD IN THE WEST TEXAS HILLS

Peaceful, happy homes now rise where once Indians menaced the lives of settlers. At the foot of the mountains in the background still stand the adobe ruins of old Fort Davis, an important United States Army cavalry post in the turbulent days when a gun was part of every man's dress, and nobody's life was safe.



RICH SOIL AND RARE FROSTS MAKE PARTS OF TEXAS A TRUCK FARMER'S PARADISE

Amazing indeed is the rapid growth of commercial gardening in Texas. Early spring gives it the benefit of highest prices. Vegetables are handled by the trainload—in one year, 107,000 tons of cabbage, more than 3,000,000 bushels of Bermuda onions, and astounding avalanches of potatoes, lettuce, spinach, beans, berries, peas, beets, together with 125,000,000 pounds of peanuts! Last year, 133,000 acres were planted in sweet potatoes. Practically this whole huge crop is sold fresh, for Texas has few canneries or preserving plants.

grain and natural gas supplies, is a strategic map spot whereon it is easy to visualize a great southwestern city.

THE LONGHORN LAID FOUNDATIONS FOR FORTUNES AND FARMS

Already Houston is conspicuous. It is the greatest spot-cotton market in the world. On its ship canal it has huge storage for export oil and grain—grain sent from Iowa, Kansas, and Nebraska for Liverpool and Europe. Fed by 17 railways and served by numerous steamship

and tanker lines, it trades with the world. Its destiny is one of large possibilities.

In all the kaleidoscopic industrial transitions that are sweeping so much of our South and West, nothing has changed more completely than the Texas cattle ranches (see pages 640, 641).

To-day the original high-speed Texas longhorn, that streak of hoofs, horns, and yellow hide that used to run with the deer and wild mustangs, is practically extinct. Yet, in his time, he was the basis of vast fortunes.



IN A TEXAS ONION FIELD

Into the "winter garden" region about Laredo are coming settlers from all over the Middle West. Here Bermuda onions are grown by the trainload. These Mexican girls are hoeing onions near Catarina, a bustling Texas town only three years old.



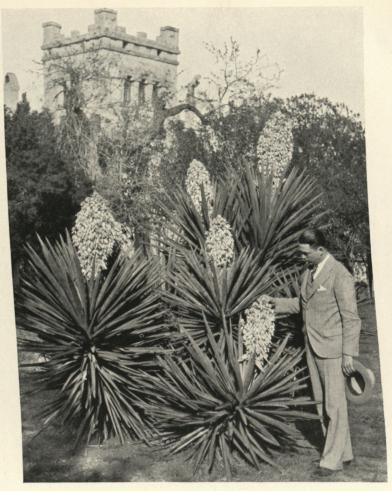
THIS ANGORA GOAT "CLIP" WON THE PRIZE AT A TEXAS FAIR

Back in 1849 the first Angora goats were brought to the United States from Turkey. They were a gift from the Sultan and were taken first to South Carolina. To-day in Texas the raising of Angora goats for their mohair clip, of which each animal yields from three to eight pounds, has become a very profitable industry, with a production in 1927 of more than eleven million pounds.



SAN ANTONIO GIVES BATS FREE LODGINGS

Bats eat mosquitoes; so San Antonio provides these bathouses, from whose slat-shaded windows thousands of bats flutter at dusk, on mosquito hunts. At dawn they fly back, to sleep by day in their dark retreat. Bat guano is also collected from these houses.



WILD DESERT PLANTS ADORN MANY FORMAL GARDENS IN TEXAS

A "Spanish Dagger" of the Yucca family (see, also, illustration, page 648), in bloom on the grounds of the Elizabet Ney Studio at Austin. This studio, once the home of a famous sculptress, is a mecca for art lovers in Texas.



Photograph by Aultman and Dorman

THE GREEDY GOAT THRIVES AND MULTIPLIES ON SCANT FEED WHERE CATTLE WOULD STARVE

The daring digestive feats of this capricious creature—ranging from tin cans to old shirts and waste paper—have long been a favorite theme of low comedy. To-day the drier, rougher parts of Texas support thousands of bleating flocks, often tended by Mexican boys.



ROBINSON CRUSOE COULD ONLY DREAM OF A GROUP LIKE THIS

Though minus her classic pipes and garbed in unromantic knickers, a modern Texas nymph of Pan cares for her pedigreed Swiss Toggenburg kids on a model goat farm near Fort Worth. That philandering sycophant, the fickle, ubiquitous goat, thrives on the rough forage of Texas. Goat's milk for use in nurseries and hospitals is in great demand and retails for 40 cents a quart.

When Texas, in the seventies, began shipping meat to London and underselling European producers, even Parliament took notice of the Texas steer and sent official missions to run after him and study him. Then titled plutocrats came, bought ranches, and herded longhorns. Writing about this longhorn, J. Frank Dobie says:

"Financially, the longhorns saved Texas during the dark days that followed the Civil War. They restored the credit of a bankrupt land and they laid the foundations for fortunes and farms, the value of which to-day is hardly to be estimated.

"The Texas longhorn not only saved Texas from financial ruin, but went far

toward redeeming from the wilderness vast territories of the Northwest. Somebody has said that civilization follows the plow. West of the Missouri the plow followed the cowboy, and the cowboy followed a longhorn from Texas. Those were the days when Texas men called themselves and were called 'longhorns.' They were proud of the name, and they spoke with contempt of that class of men called 'shorthorns.'"

With the banished longhorn there also passed from this wild-cattle arena most of those rollicking, hard-riding, quick-shooting heroes whose names still live in the

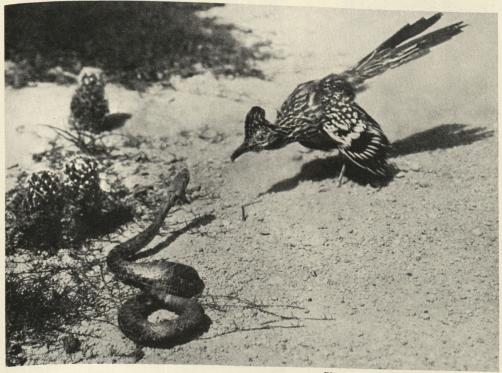
old cowboy ballads.



Photograph by Trost

## A WHALE OF A STORY FROM THE BALMY GULF COAST

This 50-ton leviathan grounded near the great oil-shipping city of Port Arthur. With ropes, men in a launch tried to tow it up a canal; but it broke loose and started to sea, only



Photograph by Underwood & Underwood

### A ROAD RUNNER TEASING A RATTLESNAKE

Every man who knows the Southwest is familiar with the shy, long-tailed chaparral cock, or "road runner," and his swift but odd, loping wabble. If while running he wants to stop quickly, he sticks his long tail straight up and brakes with it against the wind. His diet includes lizards, beetles, and small snakes. The belief is common that he kills rattlers, but investigators say, "Not proven."



AS A GREAT DISTRIBUTING CENTER FOR THE SOUTHWEST, DALLAS RELIEVES THE TRAFFIC STRAIN ON ST. LOUIS AND KANSAS CITY

Here literally scores of nationally known business enterprises have built warehouses. On busy days, over 200 package cars of goods leave Dallas
for 11,000,000 consumers who live within a radius of 300 miles. This recently completed viaduct is more than a mile long.



BEAUTY AND FASHION PARADE IN SAFETY BEHIND GALVESTON'S SEA WALL

From that black September of 1900, when hurricane and tidal wave spread destruction, Spartan-hearted Galveston, phœnixlike, rose anew from death and wreckage. To prevent similar calamities, the level of the city was raised an average of 7 feet and a concrete wall 17 feet high and 5 feet



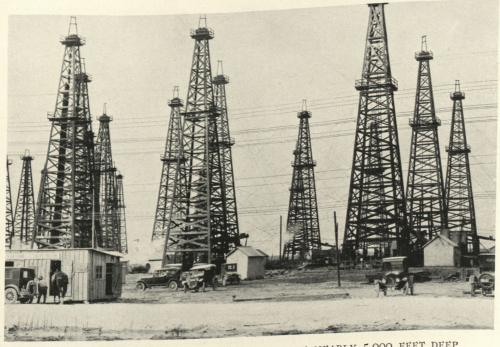
MOTHER EARTH SNORTS SMOKE AND FIRE: A BURNING OIL WELL

Last year Texas produced nearly 214,000 000 barrels of oil, more than one-sixth of the estimated production for the entire world. The value of this production has not been estimated, but the State's smaller oil flow in 1926 was worth \$308,700 000.



A MEXICAN WEAVER OF SERAPES AT HIS LOOM IN EL PASO

Forgotten Aztec artists designed these patterns when Mexico was a center of pagan culture in the Western World. Now, in weaving, in painting, ceramics, and design, modern Mexicans seek to revive ancient Indian arts.



SOME OF THESE OIL WELLS AT SPINDLETOP ARE NEARLY 5,000 FEET DEEP

With a new Texas field found almost every year, the State's oil production tends to over-take the cotton crop in value. In 1927 Texas produced more oil than the entire United States produced in any year prior to 1912.



Photographs courtesy U. S. Bureau of Mines

TWELVE TANK CARS OF TEXAS HELIUM GAS FILL THE DIRIGIBLE "LOS ANGELES"

When chemistry, experimenting in laboratories, first made helium gas by breaking down uranium ores, it cost \$1,500 to \$2,200 a cubic foot. Now, at a Fort Worth extracting plant, helium is taken from natural gas for about three cents! The helium in these cylinders is under a pressure of 2,000 pounds per square inch.



THE BLUEBONNET IS QUEEN OF THE TEXAS FLORAL EMPIRE

Chosen by the Legislature as the State flower, the bluebonnet rules a range more limited than do most State flowers. The Texas plant blooms in spring over a large part of the State and transforms many a sandy waste into an oasis of color.



Photograph by Captain R. W. Mackie

## OCEAN LINERS USE THE NEW SHIP CANAL UP TO HOUSTON

In her magic transit from village to city, Houston outgrew the bayou that formed her path to salt water; so she dug her way to sea. Up through this man-made channel and into her big turning basin come now the ships that shuttle the world's trade. The canal is 25 miles long and has a depth of 30 feet.



"TAPESTRY IN STONE"

An exquisitely carved window flowers from the ruins of the Mission San José de Aguayo, four miles south of San Antonio. Like the mission's statues and other ornamentation, it was the work of a Spanish sculptor who was sent over by the King of Spain and who spent the best years of his life in beautifying this loveliest of the string of missions extending down the San Antonio River. The window was removed for exhibition in 1904, at the World's Fair in St. Louis, and later restored to its original place.

When barbed wire was invented, romance and adventure died—on the Texas plains. Freedom was no more.

THE LARGEST NATURAL COW PASTURE IN THE UNITED STATES

Yet, even if the open range is gone, no carnivorous American keen on T-bone and prime ribs au jus need contemplate the necessity of eating reindeer, musk ox, or other meat of the Arctic. For 25 years we've worried about a possible shortage of beef cattle; but somehow they still keep arriving at the stockyards in undiminished millions.

As to Texas, the climatic, geographic, floral fact remains that she is still the biggest natural cow pasture in the United States. At this very minute millions of bulky bovines are quietly feeding and fattening inside the wire fences of Texas (see illustrations, pages 640, 641, 650, and

659)

Bigger and better meat-bearing animals—that is the modern Texas cowman's slogan. Gradually building up the herds—no yearly models but constantly improved. To get a husky, fever-resisting beast for the low coast lands, the canny Texans have crossed their native cattle with the great humpbacked Brahmans of India.\* And all through the cow country one sees literally hundreds of thousands of bovine giants, dominated by white-faced Herefords, straight of back and heavy with meat.

In good years the Fort Worth market alone will receive more than 1,000,000 cattle, as well as, perhaps, 1,250,000 calves,

sheep, and hogs.

"Since 1920," said the Industrial Commissioner of Fort Worth, "as near as we can ascertain, from 500,000 to 600,000 new settlers have entered west Texas. This doubtless has been the most significant agricultural movement in the country in the past decade. But it is our belief that even if many big cow ranches are being cut up into farms, this will not result in any shrinkage of the cattle business. West Texas will hardly become a one-crop country. Taking their cue from the older settlers, the newcomers are accumulating bunches of livestock."

\* See, also, "The Taurine World," by Alvin Howard Sanders, in the NATIONAL GEOGRAPHIC MAGAZINE for December, 1925.

Also, despite the spread of farms, vast areas of Texas are still held in the form of big cow ranches, and probably always will be. Much land is better for this than anything else. "The right side of the soil is on top now," you hear southwest Texans say—meaning that the natural grass is worth more than any farm crop these lands could ever grow if plowed up.

# GRIZZLED VETERANS OF CHAPS AND SADDLES ARE PASSING

Barbed wire, after all, was a necessary evil. But it was hard at first to make the old-time, open-plains cowman believe this. To him the snorting, fighting longhorn was a far better sporting proposition than the sleek, slow steer of to-day, that has to be salted and cuddled, sheltered and doctored.

These pioneer cowmen are fast passing. Here and there in the big cow country, the surviving grizzled vets of the chaps and saddles who punched cattle in the eighties hold their noisy reunions, reviving memories of days long ago. They spin yarns of Indian fights and buffalo hunts, of drives up the trail when there wasn't a farmer or a wire fence between the Red River and the Wyoming line, when professional hunters with one-shot Springfields slew buffalo only for their hides and to save grass for cattle.

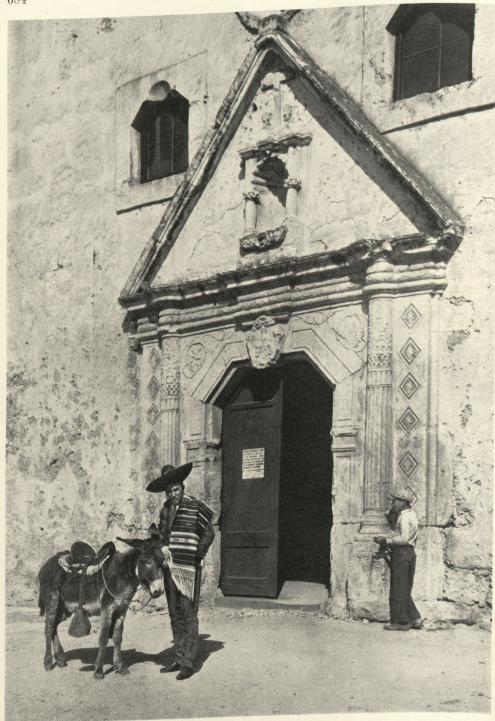
For these pioneers, some unknown cowboy bard has spun this plaintive ditty:

"Backward, turn backward, oh time on your wheels,

Airplanes, wagons, and automobiles; Dress me once more in a sombrero that flaps, Spurs, a flannel shirt, slicker and chaps; Give me a six-shooter or two in my hand, And show me a steer to rope and to brand, Out where the sagebrush is dusty and gray, Make me a cowboy again just for a day.

"Thunder of hoofs over range as we ride, Hissing of iron and smoking of hide; Bellow of cattle and snorting cayuse, Longhorns from Texas as wild as the deuce, Midnight stampedes and milling of herds, Yells from the cowmen, too angry for words; Right in the midst of it all I would stay, Make me a cowboy again just for a day."

So, while the nature of the Texas cattle industry has changed, its output in net pounds of meat is still prodigious. In fact, it will probably increase. Following the price slump in 1920 came years of drought. Herds diminished. Now, with



SO MUCH LIKE SPAIN, OR THE DOORWAY OF SOME ANCIENT CHURCH IN MEXICO—YET THIS IS TEXAS

Texas was long a part of Mexico. To this day Mexican influence on its habits of life is plainly visible, especially in the border counties. To its already numerous Mexican population, Texas adds thousands every year, as its growth draws new armies of workers from below the Rio Grande. This is old Concepción Mission, near San Antonio.



SAN ANTONIO ARCHITECTURE, OLD AND NEW, AFFORDS A STRIKING CONTRAST BETWEEN EARLY SPANISH CHURCHES AND MODERN SKYSCRAPERS

At the left of the new office building stands the San Fernando Cathedral, old when Texas was a republic. It served as headquarters for General Santa Anna, before his advance on the Alamo, in March, 1836.

better prices and seasons of ample rain, grass is good and cowmen face a period of reviving prosperity.

Measured in dollars and cents, Texas cotton is above cattle. Cotton, in Texas, is above everything. But nothing is above cattle in the sentiments and memories of Texans. To keep alive and spread the fame of Texas cow kingdoms, 32 historic cattle brands have been carved on the walls of Garrison Hall, newest building on the campus of the State University at Austin.

#### COTTON IS KING IN TEXAS

When Cabeza de Vaca crossed Texas in 1535 the Indians gave him garments of cotton. From the few plants of those early days there has developed a produc-

tion of astounding magnitude. At times Texas's crop has amounted to more than 40 per cent of all cotton grown in the United States. In the record year, 1926, it reached the amazing total of 5,630,831 five-hundred-pound bales.

Weevils have lowered the quality, and bad farming has cut the production per acre; yet, by planting more and more land, the crop has gradually increased. Since 1921 about five and a half million additional acres have been planted to cotton.

In this quest for new land, the State found that cotton would grow on her upper levels, in the higher country of west Texas. Here a most promising area has been found, one that so far is free of weevils, and that also grows the staple



MOST OF THE SULPHUR AMERICA USES COMES FROM TEXAS

By hot water and steam, forced down holes as deep as 1,500 feet, sulphur is melted; then pumped into huge wooden vats at the mines, where it solidifies. For shipment, the sides of the vats are removed, and the sulphur is sometimes blasted to load into railway cars. Ships are loaded by steam shovels from the bins on the docks at Galveston, the chief sulphur port of the United States, which is near the Matagorda and Brazoria County deposits, two of the greatest Sulphur-producing fields in the world. Last year America's production of sulphur exceeded 2,000,000 tons, of which Texas supplied practically all. Sulphur now is used in the manufacture of sulphuric acid, matches, gunpowder, and fertilizer.

cotton for which European and other mills are so often asking.

The brain of all Texas throbs day and night on this cotton question. Decades of cotton study have given her a world-wide cotton vision. She is not blinded to the fact that world cotton crops may shift; that some day, so far as her exports to Europe are concerned, her leadership may be challenged. She knows how hard England is seeking to grow cotton somewhere in her colonies for her home spindles, to be less dependent on us; so even a mere rumor that, somewhere in Africa, England's cotton land quest is about to be successful is enough to worry Texas.

"It seems Texas must gradually grow an ever-increasing share of all cotton produced in the United States," said one experienced planter. "And, while weevilfree lands on the upper levels of Texas are a great desideratum, any sudden large expansion would be risky. "So long as cotton brings \$100 a bale or more, the world will keep on planting more and more acres and hunting harder for new cotton areas. So far, Nature somehow has seemed to limit production by local bad seasons and pests. But if we all continue to increase acreage, Nature may some day play a joke on us and yield a world crop so big as to reduce the price to \$50 a bale. Then all cotton land values, net revenues, in Texas and everywhere else, would have to be revised."

### A TEXTILE INDUSTRY IS BEING DEVELOPED

Taking a leaf from the book of North Carolina, Texas is beginning to build up her most obvious industry, the cotton mill. She enjoys three of the most vital factors for their profitable operation: adequate labor, cotton "at the gate of the cotton patch," and fuel for power.

Like North Carolina, also, Texas is setting about methodically to make the most



Photograph by Paul Verkin

WITH HUGE STORAGE WAREHOUSES AND QUICK LOADING FACILITIES, GALVESTON HAS BECOME AMERICA'S LARGEST COTTON PORT

of all her natural gifts. The newly formed Society for the Scientific Development of Texas Natural Resources is just what its name implies.

TEXAS POTASH DEPOSITS MAY FREE UNITED STATES OF FOREIGN MONOPOLY

Vast as many resources of Texas are known to be, further surveys must yet be made to determine the best local industrial use of the many mineral deposits which exist. Already the annual mineral production, exclusive of oil, is valued at \$70,000,000.

Take potash. A thorough survey of the Texas deposits may reveal enough of these salts to make the United States forever independent of the present French-German potash monopoly. Often, in drilling for oil and water, high-grade potash is found; but the extent of these deposits remains to be learned.

Texas produces \$50,000,000 of net surplus wealth each year. It is the aim of the Scientific Society, by publishing freely the results of its surveys, to aid this home capital in the development of mining and industry.

This development of Texas is not so much a question of outside capital, as it is of assembling data and educating native Texans to put their savings into new local industries.

The bulk of Texas wealth is already owned within the State. Most of her big foreign corporations either operate under Texas charters or else under special State laws designed to protect Texas people. Foreign insurance companies, for example, are required to invest in Texas a large share of their reserves. In many such foreign corporations, especially the public utility companies, Texans already have large holdings.

A SPAWNING GROUND FOR FARM POLITICS

Texas, never a territory, entered the Union on her own terms. Shrewdly, she kept title to her own public lands. Half this vast domain she gave to her schools. Her university received more than two million acres. Oil found on these lands has made the University of Texas very rich.

Texas, like Iowa, is the spawning ground of farm politics. Here was born



THE SNAP OF A BOWSTRING WAS NO WELCOME SOUND TO TEXANS OF AN OLDER GENERATION

In an archery class at the State University fair co-eds find sport with bow and arrow—a deadly weapon in the days when Texans themselves were its target.

the historic Farmers' Alliance, progenitor of the People's Party. After years of experimenting and disappointment with one or another political panacea, coöperative marketing developed. To-day, especially in the sale of cotton, wool, alfalfa, poultry, and to some extent in livestock, it is increasing fast.

More than two-thirds of all Texas people live in the country. They support nearly 900 papers and magazines. Here the local paper, like the country preacher and the village lawyer, wields a very strong social influence. It is closely read, particularly for farm, livestock, and local political information. You can understand this dependence on the local paper when you stop to think how far many Texas towns are from a city daily. Scores of Texas counties boast no towns of more than 2,500 people.

# COUNTY NAMES IDENTIFIED WITH PIONEERS AND BATTLEFIELDS

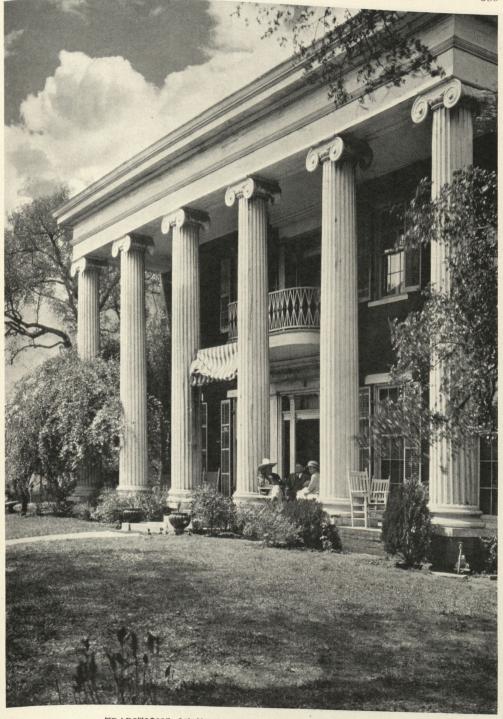
Born Texans are pure American folks (such as you still find in east Tennessee and elsewhere in the South). They use

many old Anglo-Saxon words and oldstyle pronunciations. Foreign infiltration, except for Mexicans and a few German colonists, has been small.

Many counties are named after pioneer Americans. There's a Jeff Davis and a Tom Green county, a Jim Wells and a Jim Hogg county, and one named Deaf Smith, in honor of one of Houston's officers in the fight against Santa Anna.

The advent of easterners and middle western hosts has not made much of a change in the original Texan's nature. He's still the bold, self-assertive, independent soul that he was in the days when his ancestors died in the Alamo or helped Houston defeat the Mexicans at San Jacinto.

Loyalty to friends is almost a religion. "My father went broke in the cow business—lost a million," a Texas girl told me. "When we were rolling in wealth, I finished in Europe, skated at St. Moritz, got presented at court, and all that. But Texas is home, sweet home, to me. You can lose your money here without losing your friends."



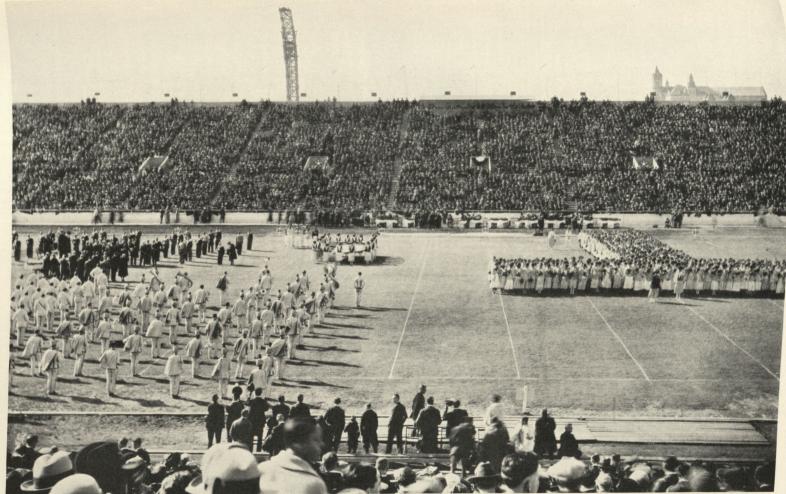
TRADITIONS OF THE STATELY SOUTH LINGER HERE

In the suburbs of Austin stands-this fine old mansion, built in 1843, which was once occupied by Elisha M. Pease, twice Governor of Texas. It is one of the best-preserved examples of Southern architecture in the State and furnishes a key to the residential character of the capital, which has always remained a city of homes, churches, and schools, rather than one of shops and factories.



IN ITS EVENTFUL HISTORY, SIX FLAGS HAVE WAVED OVER TEXAS AND ITS CAPITAL HAS BEEN MOVED SEVEN TIMES

When Mexico put off the yoke of Spain, over a century ago, American migration to Texas increased. Following the plan of Moses Austin, his son Stephen, under a permit from Mexico, settled several hundred families on the banks of the Brazos. Austin, the State capital, was named for him. Looking down Congress Avenue, Austin, through an archway in the capital building (see, also, page 666).



Photograph by University Studio

#### THE UNIVERSITY OF TEXAS DEDICATES ITS MEMORIAL STADIUM

Approximately \$500,000 has been spent to date on this immense structure on the new campus. The part already completed seats 42,000. The university's greatest trouble since it opened, in 1883, has been growing pains, with the student body outstripping the equipment. However, since it "struck oil," the once land-poor institution is looking forward to an income of millions, much of which will be dedicated to a building and expansion program (see text, page 687).



ITS FLEECE WAS BLACK AS COAL!

Because its wool is so fine and curly, the fleece of the young karakul lamb is much used in place of fur. A flock of karakul sheep is being bred in the Rio Grande Valley near El Paso, original rams and ewes having been imported from Bokhara (see "The Land of the Lambskins," by Robert K. Nabours, in the NATIONAL GEOGRAPHIC MAGAZINE for July, 1919).

Hosts of Americans have seen Texas from the windows of transcontinental trains. To such train riders it seems largely a flat, dry, almost treeless country. That's the fault of men who located the railroads. It's the same in Arizona. Railways don't haul you over high, scenic drives, like sight-seeing busses — not if they can help it. They seek the easiest way. In the Southwest this is often over level deserts, over minimum grades, dodging the mountains, with their pine trees and trout streams, whenever they can.

Parts of Texas, like the great barrancas

of the Panhandle, or the Santa Helena gorge in Brewster County, are wild and picturesque. Crosscountry train trippers killing time at bridge between Kansas City and Los Angeles, see nothing of these rougher, wilder re-Likewise, by gions. hundreds of miles. they miss the verdant. fruitful, subtropic Gulf coast, with its palms and beaches, its pleasure resorts, and its busy, growing tour-From all ist traffic. over the Middle West increasing numbers of visitors go now each winter to Galveston, Corpus Christi, and other Gulf towns.

#### A GREAT CITRUS-GROW-ING REGION

Farther south and along the Rio Grande, there is to be had some of the best hunting in the United States.

Here, too, between Laredo and Brownsville, has developed rapidly a vegetableand citrus-growing region of wealth and importance. Some of the finest grape-fruit grown in the United

States come from this particular spot, and the big, sweet Bermuda onions from the Rio Grande Valley have achieved prime place in our markets. Because of climate, soil, ample water, and improved transport, this and other choice parts of Texas will attract more and more settlers as the years pass.

Much of the land of Texas is still priced comparatively low—low enough, in truth, to yield a higher net return than the profits usually earned on similar lands elsewhere; and these land values rise, of course, as inhabitants multiply.



HORSES WERE UNKNOWN IN AMERICA WHEN THE SPANIARDS CAME

Fossilized remains of ancestral horses have been found in the United States, but our equine race of to-day, together with sheep and cattle, came with the Conquistadores. Of late years the Mexican army has bought many mounts in Texas. This herd is drinking near San Angelo.

Superlative Texas! Her governor rules more territory than any king or premier of Europe has in the continental limits of his country, Russia alone excepted. Here native Americans, starting only with hard hands, strong wills, and great energy, have built up a vast, rich, and powerful commonwealth.

Since General Sheridan spoke his mind a wilderness has yielded to civilization. There is no joke, now, about Texas. Editor's Note: It is impossible to present between the covers of a magazine the entire story of a great State. A complete description of the multifold industries, interests, and beauty spots of Texas and of each of her hundreds of progressive cities and towns would require volumes. Therefore, the author has in the preceding pages brought into close focus only a representative group of outstanding facts about this commonwealth.

Notice of change of address of your National Geographic Magazine should be received in the office of the National Geographic Society by the first of the month to affect the following month's issue. For instance, if you desire the address changed for your August number, the Society should be notified of your new address not later than July first.